1. February 3, 2026 Regular Planning Commission Meeting Agenda

   Documents:

   AGENDA- FEBRUARY 3, 2026 REGULAR MEETING.PDF

2. DRAFT Minutes - January 6, 2026 Regular Planning Commission Meeting

   Documents:

   JANUARY 6, 2026 REGULAR MEETING MINUTES.PDF

3. Item #1: CUP 2025-12/SEPA 2025-25

   This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

   This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

   Documents:

   ITEM 1 - CUP 2025-12, SEPA 2025-25.PDF

4. Item #2: CUP 2025-13

   The request is to allow for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped.

   Documents:

   ITEM 2 - CUP 2025-13.PDF

5. Item #3: CUP 2025-10/SEPA 2025-18

   The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

   The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

Documents:

ITEM 3 - CUP 2025-10, SEPA 2025-18.PDF

FRANKLIN COUNTY
PLANNING COMMISSION
REGULAR MEETING AGENDA

REGULAR MEETING: **February 3, 2026 – 6:00 P.M.**

COMISSIONER'S MEETING ROOM
Franklin County Courthouse
Entrance at Main Door – 1016 North 4th Avenue, Pasco, WA

Commenting:

1. **Submit written comments by email prior to the meeting:**
   planninginquiry@franklincountywa.gov
   Please Note: Comments need to be received by 12:00PM on the day of the meeting.

2. **Submit written comments during meeting:** People who are watching the meeting on YouTube live and want to comment or need clarification on an item presented, can send an email at planninginquiry@franklincountywa.gov during public comment period on said item. Email needs to be sent before end of public comment period on the item, for it to be addressed in the meeting.

3. **Submit written comments by mail prior to meeting:**
   Franklin County Planning Commission
   Attn: Planning Department, 502 W. Boeing St., Pasco, WA 99301.
   Please Note: Comments sent within a few days of meeting may not be received by meeting start time.

Watching/Listening:

1. **Via YouTube Live:** Go to the Planning Commission YouTube Live page using link below:
   https://www.youtube.com/channel/UCUc4CBy71j5xCo8sc4ssRkQ

Current Planning Commission Members/Districts/Terms:

Member	District	Term Expires
Mike Vincent	Columbia River West Area	August 1, 2029
Manny Gutierrez	Riverview/Pasco UGAB	August 27, 2026
Remie DeRuwe	Connell/Kahlotus Area (Combined)	December 9, 2027
Stacy Kniveton	Snake River Area	May 1, 2027
Mark DeRuyter	Riverview/Pasco UGAB	March 26, 2027
Mike Corrales	Basin City Area	May 1, 2026
VACANT	Eltopia Area	

OPEN PLANNING COMMISSION REGULAR MEETING – 6:00 P.M.

CALL TO ORDER

ROLL CALL

DECLARATION OF QUORUM

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA
Approval of Agenda for February 3, 2026

APPROVAL OF MINUTES
Approval of Minutes for January 6, 2026 meeting

PUBLIC HEARING – ITEM #1 – CUP 2025-12/SEPA 2025-25 Richview Water System

This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

APPLICANT: Peter Harpster - Harpster Land Development

PROPERTY OWNER: Richview Water Company

1. Open Public Hearing
    a. Staff Report
    b. Public Comments
    c. Clarification of Public Statements/Questions
2. Close Public Comment
3. Planning Commission Discussion
4. Recommendation/Motion/Finding of Fact
5. Close Hearing

PUBLIC HEARING – ITEM #2 – CUP 2025-13 St. Paul the Apostle Catholic Church Columbarium

The request is to allow for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped.

APPLICANT & PROPERTY OWNER: St. Paul the Apostle Catholic Church

1. Open Public Hearing
    a. Staff Report

b. Public Comments
c. Clarification of Public Statements/Questions

2. Close Public Comment
3. Planning Commission Discussion
4. Recommendation/Motion/Finding of Fact
5. Close Hearing

PUBLIC HEARING – ITEM #3 – CUP 2025-10/SEPA 2025-18 White Bluff Dairy Expansion

The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

APPLICANT: Francisca VanderMuelen – White Bluffs Dairy

PROPERTY OWNER: GME Land LLC

1. Open Public Hearing
   a. Staff Report
   b. Public Comments
   c. Clarification of Public Statements/Questions
2. Close Public Comment
3. Planning Commission Discussion
4. Recommendation/Motion/Finding of Fact
5. Close Hearing

OTHER BUSINESS:

- None

ADMINISTRATIVE ITEMS

- Staff Updates

PUBLIC COMMENT:

- Opportunity for the public to comment on items not listed on the agenda.

ADJOURN PLANNING COMMISSION REGULAR MEETING

FRANKLIN COUNTY

PLANNING AND ECONOMIC DEVELOPMENT

Planning Commission Public Hearing Procedures, Protocols and Etiquette

The Planning Commission Process:

The Planning Commission is a seven (7) member volunteer board that is appointed by the Board of County Commissioners.

This public hearing is the **'only'** open record hearing for a land use application and is the public's opportunity to speak in favor or against an application. The Planning Commission is not a "final" decision making committee but rather makes "recommendations" to the elected officials for the different applications they review. The purpose of the 'open record public hearing' is for the Commission to gather factual information to assist them in formulating their recommendations. The hearing is not a debate or a question and answer session with the audience.

Copies of the agenda and staff reports are available in the hearing room. Please ask staff if you have any questions.

The Public Hearing:

The Chair will introduce the item on the agenda. The public hearing will be "opened" and Staff will be requested to give a summary of the Staff report.

1. **The Chair will request input.** Please step forward to the podium and state your name and address for the record before stating your testimony.

2. **The Chair will ask the public for any clarification of statements or questions**. Also the Planning Commission members may ask questions of proponents and opponents. Please step forward to the podium and state your name and address for the record before stating your testimony.

3. **The Chair will "close" the public comment**.

4. **The Chair will allow for Planning Commission Member discussion only**. Once deliberation has ended The Chair will ask for a motion for recommendation with findings of fact and/or conditions.

5. **The Chair will close the public hearing.**

Hearing Tips, Protocols and Etiquette:

Please speak clearly. State your name and address for the record;

Speak only when recognized by the Chair;

Focus your testimony on the matter at hand, state only the relevant facts and opinions;

Avoid repetitive testimony. If another witness has made similar points please make note of it in the record and state that you concur with the previous speaker;

Please be prepared to limit your comments to five (5) minutes per speaker per item. When large groups are present, the Chair may reduce the time per speaker (usually to three minutes each);

Speaking time may not be deferred to another person;

Do not speak to the Commission unless you step forward to the podium;

Exhibits (photographs, letters, maps) become part of the permanent record and cannot be returned;

The Commission's hearings are conducted in a courtroom-like environment and audience conduct shall be in accordance with courtroom etiquette. Clapping, cheering, speaking out of order or disorderly conduct are not appropriate and are grounds for removal from the hearing room by order of the Chair. All phones and/or tablets should be turned off, placed on vibrate, or silent as to not disturb the hearing.

Please contact the Planning and Economic Development Department at 509-545-3521 if you have questions.

FRANKLIN COUNTY
PLANNING COMMISSION

REGULAR MEETING
January 6, 2026
Hybrid Meeting-YouTube Live /In-Person

STAFF PRESENT:
Wes McCart, Planning Director
Gem Belamour, Planner II
Sam Albee, Planner I

CALL TO ORDER:
Commissioner Corrales called a meeting to order at approximately 6:00PM.

ROLL CALL:
Commissioner Corrales asked Commissioner Kniveton to confirm he has received all documents and PowerPoint via email. Commissioner Kniveton confirmed he had received all documents and PowerPoint via email and has reviewed them.

MEMBER	IN-PERSON	PHONE	ABSENT
Mike Corrales	X		
Mike Vincent	X		
Remie DeRuwe			X
Mark DeRuyter	X		
Manny Gutierrez			X
Stacy Kniveton		X	
VACANT			

PLEDGE OF ALLEGIANCE
Commissioner Corrales led the pledge the pledge of allegiance.

APPROVAL OF AGENDA:
- Commissioner Corrales made note to include Voting of Planning Commission Officers (2026-2027) under Other Business and Staff Report under Administrative Items.
- Commissioner Corrales entertained a motion to approve the January 6, 2026, agenda.
- Commissioner DeRuyter made a motion to approve the agenda.
- Commissioner Vincent seconded.

Motion carried and passed.

APPROVAL OF MINUTES:
- Commissioner Corrales entertained a motion to approve the minutes of the November 18, 2025 meeting.
- Commissioner DeRuyter made a motion to approve the minutes.
- Commissioner Vincent seconded.

Motion carried and passed

INTRODUCTION OF PLANNING STAFF IN ATTENDENCE

GOING OVER MEETING RULES:

Commissioner Corrales went over the meeting rules.

- No questions were asked regarding the meeting rules.
- No member of the audience had any objections to any member of the Planning Commission hearing any of the items on tonight's agenda.
- No procedural questions were asked before the start of the public hearing.

PUBLIC HEARING – ITEM #1 – CUP 2025-11 Bleazard DADU

The request is to allow for the construction of a detached accessory dwelling unit (DADU) to provide sufficient housing for the applicant to care for their aging parents. The DADU is approximately 1,200 sq. ft. in living space.

APPLICANT & PROPERTY OWNER: Mark Bleazard

OPEN PUBLIC HEARING:
Commissioner Corrales declared the public hearing to be open at 6:06PM.

STAFF REPORT:

- Mr. Sam Albee gave the staff report.

COMMISSIONER QUESTIONS FOR STAFF:

- No questions were asked to staff.

APPLICANT/REPRESENTATIVE PRESENTATION:

- The applicant was present during the meeting but did not make a presentation.

PUBLIC COMMENTS:

- No public comments.
- No email testimonies or comments.

STAFF FINAL COMMENTS:

- No final comments.

CLARIFICATION OF PUBLIC STATEMENTS:

- No clarification of public statements was needed by the audience.

CLOSING PUBLIC TESTIMONY SECTION:

- Commissioner Co entertained a motion.
- Commissioner DeRuyter moved to close the public comment.
- Commissioner Vincent seconded.

The motion was carried and passed.
Commissioner Corrales closed the public hearing portion of this item at 6:15PM.

PLANNING COMMISSION DISCUSSION:

- Commissioner Corrales entertained a motion.
- Commissioner DeRuyter made a motion
    - I move to forward CUP 2025-11 to the Board of County Commissioners with a POSITIVE recommendation based on the six (6) suggested findings of fact and fourteen (14) conditions of approval.
- Commissioner Vincent seconded the motion.

ROLL CALL VOTE:

MEMBER	YES	NO	ABSENT
Mike Corrales	X		
Mike Vincent	X		
Remie DeRuwe			X
Mark DeRuyter	X		
Manny Gutierrez			X
Stacy Kniveton	X		
VACANT			

The motion for CUP 2025-11 was carried and passed at 6:16 PM.

- Commissioner Corrales entertained a motion.
- Commissioner Vincent motioned to close discussion on Item #1.
- Commissioner DeRuyter seconded.

The motion was carried and passed at 6:16PM.

OTHER BUSINESS:

- Voting for Planning Commission Officers (2026-2027)
    - Commissioner Corrales was elected Chairman of the Planning Commission.
    - Commissioner Vincent was elected Vice Chairman of the Planning Commission.

ADDITIONAL PUBLIC COMMENT

- No public comment regarding items not on the agenda.

ADMINISTRATIVE ITEMS

- Mr. Wes McCart gave a quick report
    - We hired a new Long Range/Natural Resource Planner and started last week.
    - We are finishing our first task of outreach for Climate Element.
    - Staff working to get SmartGov outfacing to submit permits online.
- Ms. Gem Belamour added that we sent out an advertisement to Franklin County Graphic for the Eltopia vacancy for the Planning Commission.

PLANNING COMMISSION MEETING ADJOURNED AT 6:25 PM

CUP 2025-12/
SEPA 2025-25

Applicant: Harpster Land Development
ATTN: Peter Harpster
5804 Road 90, Suite C
Pasco, WA 99301

Owner: Richview Water Company
PO Box 3596
Pasco, WA 99301

CUP 2025-12/
SEPA 2025-25

PC Staff Report

FACT SHEET/STAFF REVIEW

For a Proposed Conditional Use Permit
Franklin County Planning Commission
February 3, 2026

NOTE TO PLANNING COMMISSIONERS:
THIS IS A QUASI-JUDICIAL PUBLIC HEARING
PLEASE AVOID, AND DISCLOSE, ANY EX-PARTE COMMUNICATIONS (CH 42.36 RCW)

Case File: CUP 2025-12/SEPA 2025-25

Hearing Date: February 3, 2026

Applicant: Harpster Land Development
ATTN: Peter Harpster
5804 Road 90, Suite C
Pasco, WA 99301
peter@harpsterld.com

Property Owner: Richview Water Company
ATTN: Randy Mullen
PO Box 3596
Pasco, WA 99301

Location: 2460 Fraser Rd., Pasco, WA 99301

Parcel Number(s): Parcel #124-300-373

Legal Descriptions: LOT 2 OF SHORT PLAT 96-07, AS RECORDED IN VOLUME 1 OF SHORT PLATS, PAGE 390, UNDER AUDITORS FILE NO 529330 AND THAT PORTION OF FARM UNIT 47, IRRIGATION BLOCK 1, COLUMBIA BASIN PROJECT, FRANKLIN COUNTY, WASHINGTON, ACCORDING TO THE FARM UNIT PLAT THEREOF, RECORDS OF FRANKLIN COUNTY WASHINGTON, EXCEPT ANY PORTION LYING IN SECTION 25, TOWNSHIP 10 NORTH, RANGE 28 EAST, WM.

Note: There is currently a preliminarily approved Innovative Agricultural Short Plat application (SP 2025-16) which short plats 3.00 acres (gross) of land from the parent farm parcel meant for the Richview Water System operations.

Comp. Plan Use: The Comprehensive Plan designation for the Richview Water System location is Agricultural. The Comprehensive Plan designation for the services areas is Rural Shoreline Development and Agricultural.

Zoning: The parcel where the water system is located is zoned Agricultural Production 20-acres (AP-20). The parcels in which the service areas are located are zoned RC-1, RC-5, AP-20, PUD depending on the location.

SEPA Determination: The applicant provided a SEPA checklist. Staff verified the information in the checklist. The County has issued a Determination of Non-Significance (DNS) under WAC 197-11-340. A SEPA threshold determination of non-significance (DNS) was issued on January 8, 2025, by the Franklin County responsible official.

Project Description: This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

Suggested Recommendation: **POSITIVE** recommendation with **six (6) suggested findings of fact and fifteen (15) conditions of approval**

Suggested Motion: **"**I move to forward CUP 2025-12 / SEPA 2025-25 to the Board of County Commissioners with a **POSITIVE** recommendation based on the six (6) suggested findings of fact and fifteen (15) conditions of approval."

Vicinity Map – SUBJECT PROPERTY:

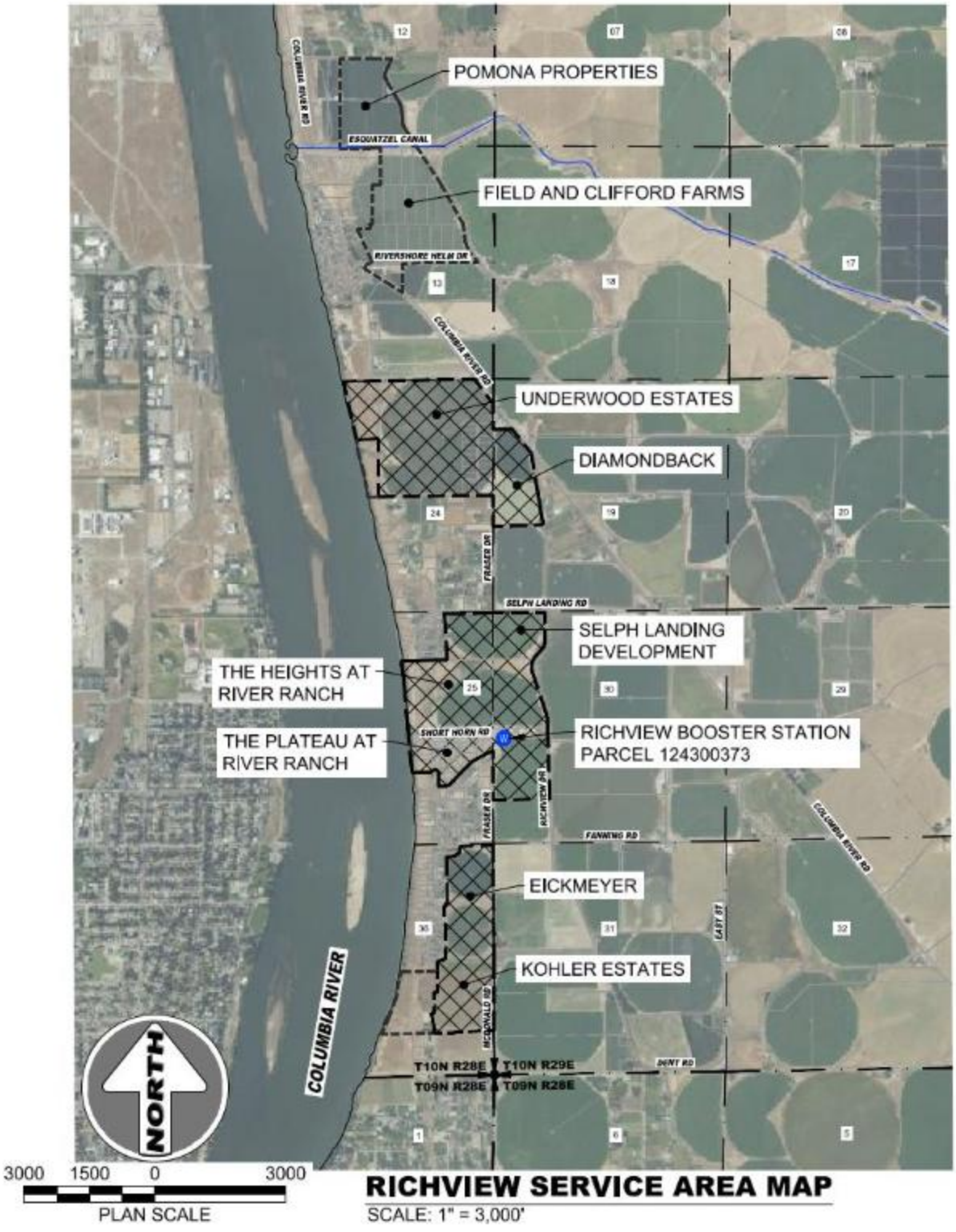

Image 1: Richview Water System (RWS) Service Area and Expansion Map

CUP 2025-12/SEPA 2025-25 *Staff Report*
Franklin County Planning Commission

PUBLIC NOTICE:

- The Planning staff emailed review requests to agencies on **December 24, 2025.**
- The Planning staff mailed notices to Property Owners within a one-mile (1 mi) radius on **December 24, 2025.**
- The Public Notice was published in the *Franklin County Graphic* on **December 24, 2025.**

APPLICABLE STANDARDS/CODES:

1) Title 14 – Development Code Administration

2) Title 17 – Zoning:
    a. Chapter 17.10 – Agricultural Production 20-acres, AP-20
    b. Chapter 17.18 – Rural Community 1 acre, RC-1
    c. Chapter 17.20 – Rural Community 5 acres, RC-5
    d. Chapter 17.58 – Planned Unit Development
    e. Chapter 17.82 – Special Use Permits

3) Title 18 – Environment:
    a. Chapter 18.04 – State Environmental Policy Act Guidelines

4) 2018-2038 Franklin County Comprehensive Plan

STAFF ANALYSIS:
The Planning & Economic Development Department received a Conditional Use Permit (CUP) application from Harpster Land Development on behalf of the Richview Water Company for the renewal of their previous CUP (2023-03/SEPA 2023-09) for an existing Group A Public Water System Facility.

Existing Group A Public Water System Facility
The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

The previous CUP was given a condition of approval that states that the CUP will expire in 1 year. On September 18, 2024, the applicant reached out to the Planning Department to request an extension per FCC 14.10.100. The previous Planning Director granted the extension via email to extend it for 12 months with a new expiration date of October 25, 2025.

From: Derrick Braaten
Sent: Wednesday, September 18, 2024 2:26 PM
To: Cailyn Taylor
Cc: Peter Harpster; Rebeca Gilley; Aaron Gunderson; Ryan Nelson; Mike Troidl
Subject: RE: [EXTERNAL] Richview Water System CUP - Extension

Ms. Taylor,

As per your request below, CUP 2023-03 is hereby extended for 12-months, based on the following:

1. Your request was made before the current expiration date of October 25, 2024, as required in FCC 14.10.100(D).
2. The inability to proceed with the application was due to circumstances beyond the applicant's control, namely, the approval process by outside agencies for a private Class A water system taking more than 12-months to complete.
3. The property is in compliance with all applicable codes, at this time.

Therefore, the permit expiration date for CUP 2023-03 has been extended for 12-months, and now expires on October 25, 2025. Only one extension may be granted. If this extended timeline is not sufficient, then the currently approved CUP will expire, and a new conditional use permit application will need to be submitted, processed, and approved.

Derrick Braaten
Planning and Building Director
Planning and Building Dept. | Franklin County, WA
Office tel. (509) 545-3521| www.franklincountywa.gov/planning/

Image 2: Previous Planning Director Email RE: CUP Extension

Due to the nature of the water system, the Planning Department is not setting an expiration date for this CUP renewal. This CUP is being conditioned upon the approval and future approvals of the water system plan by the Washington State Department of Health and Department of Ecology.

Service Area Expansion
This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

New service areas include:

- Pomona Properties
- Field & Clifford Farms
- Mullen
- Underwood Estates
- Kohler Estates

Pomona Properties has already undergone a land use permit under PUD 2025-01/SEPA 2025-02 with the name "Cherrywood Estates." On September 17, 2025, the Board of County Commissioners preliminarily

approved the Cherrywood Estates PUD under Ordinance 09-2025. The development and final approval of this plat is contingent upon approval of the Richview Water System.

The Field and Clifford Farms area is a group of 5-acre parcels that are zoned Rural Community 5-acres (RC-5).

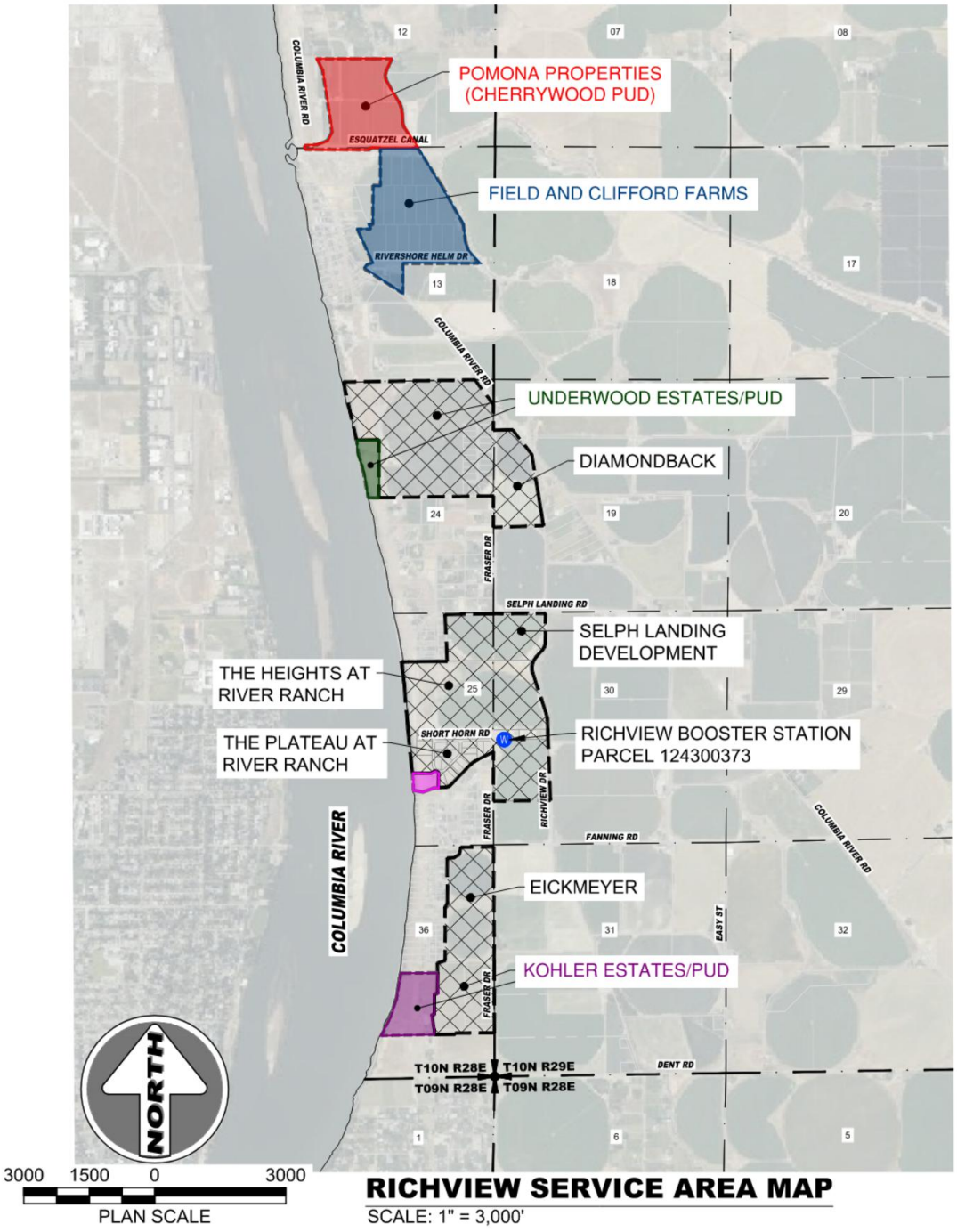

Image 3: RWS Expansion Areas

State Water System Plan Approvals

On May 22, 2024, the Department of Ecology – Eastern Region Office approved the Group A Community S01 Source Approval pertaining to the Richview Water System. Per Ecology's letter, no issues of concern were identified during the review of the Water System Plan (WSP) and/or supplemental documentation that was submitted by the applicant.

On May 16, 2025, the Department of Health – Eastern Drinking Water Regional Operations approved the WSP for the Richview Water System. The WSP approval will expire on May 16, 2035.

SEPA ENVIRONMENTAL REVIEW

On December 18, 2025, a SEPA Determination of Non-Significance was issued by the Lead Agency. Comments were due on January 8, 2026. The Washington State Department of Ecology filed the Notice of DNS under **SEPA #202505282** on the SEPA Register.

PUBLIC COMMENTS:

The Planning & Economic Development Department received **one comment** from surrounding property owners and residents within the county.

1) **Cynthia Muse:** *Comment received on January 9, 2026.*

    a. We concerned citizens of Block One are aware of efforts to extend the Richview water system service to a north boundary near Sagemoore namely the Pomona properties where easy small acreage hobby farms exist now. They seldom conflict with general farming units in this area. To provide water for and allow PUDs this far north into ag lands is wrong. It also leads to checkerboard development. Extensive ground water studies are currently being conducted in south County for who has priorities on use. Much development on or near the river will take up most of what ground water provides here and may even draw down existing wells both individually and in developments. To add water from this supply source for northerly future developments (twenty year plan) is wrong and short-sighted and may even defy current water use studies for residential, commercial, and industrial use in this southern corridor. Let common sense and not greedy developers steer your recommendations in the right direction…it is not always about tax revenue and new growth. Thank you.

AGENCY COMMENTS/CRITERIA FOR FINDINGS OF FACT:

1) **Washington Department of Ecology**: *Comment received on January 7, 2026*

    a. Water Resources Program

    The water purveyor is responsible for ensuring that the proposed use(s) are within the limitations of its water rights. If the proposal's actions are different than the existing water right (source, purpose, the place of use, or period of use), then it is subject to approval from the Department of Ecology pursuant to Sections 90.03.380 RCW and 90.44.100 RCW.

b. Water Quality Program

Routine inspections and maintenance of all erosion and sediment control Best Management Practices (BMPs) is required during construction.

2) **Washington Dept. of Transportation – South Central Region**:

a. No comments received.

3) **Washington State Dept. of Archaeology and Historic Preservation (DAHP):**

a. No comments received.

4) **Washington State Dept. of Fish and Wildlife (WDFW)**:

a. No comments received.

5) **Washington State Dept. of Natural Resources**

a. No comments received.

6) **Confederated Tribes and Bands of the Yakama Nation**

a. No comments received.

7) **Confederated Tribes of the Umatilla Indian Reservation**

a. No comments received.

8) **Confederated Tribes of the Colville Reservation**

a. No comments received.

9) **Confederated Tribes of the Warm Springs**

a. No comments received.

10) **Nez Perce Tribe**

a. No comments received.

11) **Benton-Franklin Health District**

a. No comments received.

12) **Big Bend Electric**

a. No comments received.

13) **South Columbia Basin Irrigation District**:

a. No comments received.

14) **Franklin County Public Works Department**:

a. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

b. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

c. A current franchise agreement or a franchise agreement application shall be required for all utilities within county right-of-way.

15) **Franklin County Assessor**

a. No comments received.

16) **Franklin County GIS/E-911 Addressing**

a. No comments received.

17) **Franklin County Fire District #3**:

a. No comments received.

18) **Franklin County Planning and Economic Development Department**:

a. Best Management Practices (BMP) to minimize dust during construction shall be used, such as watering the site in accordance with Franklin County's Clean Air and Dust control ordinances. The applicant shall meet and comply with all necessary Air and Water Quality standards required by the Department of Ecology. Compliance with these standards shall occur at all times. Stormwater shall be retained on site during and after construction.

b. Development shall avoid disturbance of Ferruginous Hawk breeding habitat sites where feasible. Should disturbance of active breeding habitats and nesting sites be unavoidable, consultation with the Washington Department of Fish and Wildlife shall occur prior to ground disturbance.

c. The project shall implement a Stormwater Pollution Prevention Plan (SWPP) in accordance with the Washington State Department of Ecology stormwater management guidelines.

d. An Inadvertent Discover Plan shall be prepared and implemented for the project through all phases.

e. Any future service expansion of the Richview Water System shall be considered a minor change and shall only be subject to administrative approval by the Planning Director given that it stays within the boundaries of the Rural Shoreline Development LAMIRD.

f. The applicant is required to submit copies of any future approval letters from the Washington State Department of Health and Department of Ecology as it pertains to the Richview Water System Plan, supplemental documents, and any amendments to any plans of the water system.

g. This Conditional Use Permit shall not expire and continue to be in place contingent upon the approval of the water system plan from the Washington State Department of Health.

h. Before construction of any structures, a Franklin County Building Permit Application shall be submitted to the Franklin County Planning and Economic Development Department. Any movement of soil of more than 50 cubic yards outside of the County Road shall require a Franklin County Grading Permit Application.

i. All structures shall comply with the standards of the current state and 2021 International Building Code.

j. Any deviations from the submitted plans shall be submitted to the Franklin County Planning and Economic Development Department for review.

RECOMMENDATION:

According to the Franklin County Code Chapter 17.82 Special Permits, the Planning Commission shall:

1) Make and enter findings of fact from the record and conclusions thereof;

2) Shall render a recommendation to the Board of County Commissioners as to whether the proposal shall be denied, approved, or approved with modification and/or conditions.

Findings of Fact Criteria by Planning Commission: The Planning Commission shall make and enter findings from the record and conclusions thereof as to whether or not:

1) The proposal is in accordance with the goals, policies, objective, maps, and or narrative text of the comprehensive plan;

2) The proposal will adversely affect public infrastructure;

3) The proposal will be constructed, maintained and operated to be in harmony with the existing or intended character of the general vicinity;

4) The location and height of the proposed structures and the site design will discourage the development of permitted uses on the property in the general vicinity or impair the value thereof;

5) The operation in connection with the proposal will be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district;.

6) The proposal will endanger the public health or safety if located and developed where proposed, or in any way will become a nuisance to uses permitted in the district.

Planning and Economic Development Department Staff Assistance: Planning Staff will assist the Planning Commission with the determination of finding and conditions of SUP 2025-01 / SEPA 2025-17.

Recommendation: The Franklin County Planning Department recommends that the Planning Commission forward a **POSITIVE** recommendation to the Franklin County Board of County Commissioners for Application CUP 2025-12/SEPA 2025-25, with the following suggested findings of fact:

Suggested Findings of Fact:

1) The proposal **IS** in accordance with the goals, policies, objective, maps, and or narrative text of the comprehensive plan;

    a. The Franklin County Comprehensive Land Use Designation for the Richview Water System location is Agricultural. The Comprehensive Plan designation for the services areas is Rural Shoreline Development and Agricultural.

    b. The County Zoning Code where the water system is located is Agricultural Production 20-acres (AP-20). The parcels in which the service areas are located are zoned RC-1, RC-5, AP-20, PUD depending on the location.

    c. The construction of the proposed Group "A" public water system would be considered a "utility facility" under FCC 17.82.020 - Unclassified Use, subsection M.

    d. The location of the Richview Water System Facility is in a parcel that is not considered ALLTCS land.

2) The proposal **WILL NOT** adversely affect public infrastructure;

    a. Access to the proposed site will be from Fraser Road.

    b. The Franklin County Public Works Department has determined that the proposed use will not have a significant impact on the County Road System.

3) The proposal **WILL BE** constructed, maintained and operated to be in harmony with the existing or intended character of the general vicinity;

    a. The existing character of the immediate area consists of farms, farm staging area, single-family homes, and an underground irrigation canal.

    b. The existing and intended character of the project area is Agricultural as designated by the Franklin County Comprehensive Plan.

c. The site is within the Agricultural area as designated by the Franklin County Comprehensive Plan.

d. The construction of the Group "A" water system will not impair the ability for residential activities to continue, nor will it have negative impact on the intended character of the general vicinity.

4) The location and height of the proposed structures and the site design **WILL NOT** discourage the development of permitted uses on the property in the general vicinity or impair the value thereof;

a. All structures will be at or below the maximum building height for the AP-20 zoning district, which is thirty-five (35) feet.

5) The operation in connection with the proposal **WILL NOT** be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district;

a. The traffic of employees to the site will be intermittent and typically only for repairs, emergency maintenance, or monitoring purposes.

6) The proposal **WILL NOT** endanger the public health or safety if located and developed where proposed, or in any way will become a nuisance to uses permitted in the district.

a. The project is subject to the County's Right to Farm ordinance.

b. The Group "A" water system will not have a negative effect on public health, safety, and general welfare.

c. The project is required to comply with the rules and regulations set forth by the WA State Department of Health and the Office of Drinking Water for a Group "A" water system.

Suggested Conditions of Approval:

1) Comply with the Requirements of the **Washington Department of Ecology**:

a. The water purveyor is responsible for ensuring that the proposed use(s) are within the limitations of its water rights. If the proposal's actions are different than the existing water right (source, purpose, the place of use, or period of use), then it is subject to approval from the Department of Ecology pursuant to Sections 90.03.380 RCW and 90.44.100 RCW.

b. Routine inspections and maintenance of all erosion and sediment control Best Management Practices (BMPs) is required during construction.

2) Comply with the requirements of the **Franklin County Public Works Department:**

a. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits,

approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

b. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

c. A current franchise agreement or a franchise agreement application shall be required for all utilities within county right-of-way.

3) Comply with the requirements of **Franklin County Planning and Economic Development Department:**

a. Best Management Practices (BMP) to minimize dust during construction shall be used, such as watering the site in accordance with Franklin County's Clean Air and Dust control ordinances. The applicant shall meet and comply with all necessary Air and Water Quality standards required by the Department of Ecology. Compliance with these standards shall occur at all times. Stormwater shall be retained on site during and after construction.

b. Development shall avoid disturbance of Ferruginous Hawk breeding habitat sites where feasible. Should disturbance of active breeding habitats and nesting sites be unavoidable, consultation with the Washington Department of Fish and Wildlife shall occur prior to ground disturbance.

c. The project shall implement a Stormwater Pollution Prevention Plan (SWPP) in accordance with the Washington State Department of Ecology stormwater management guidelines.

d. An Inadvertent Discover Plan shall be prepared and implemented for the project through all phases.

e. Any future service expansion of the Richview Water System shall be considered a minor change and shall only be subject to administrative approval by the Planning Director given that it stays within the boundaries of the Rural Shoreline Development LAMIRD.

f. The applicant is required to submit copies of any future approval letters from the Washington State Department of Health and Department of Ecology as it pertains to the Richview Water System Plan, supplemental documents, and any amendments to any plans of the water system.

g. This Conditional Use Permit shall not expire and continue to be in place contingent upon the approval of the water system plan from the Washington State Department of Health.

h. Before construction of any structures, a Franklin County Building Permit Application shall be submitted to the Franklin County Planning and Economic Development Department. Any movement of soil of more than 50 cubic yards outside of the County Road shall require a Franklin County Grading Permit Application.

i. All structures shall comply with the standards of the current state and 2021 International Building Code.

Any deviations from the submitted plans shall be submitted to the Franklin County Planning and Economic Development Department for review.

4) **Outdoor lighting** at the Group A Public Water System Facility shall be shielded down. This will assist in ensuring that outdoor lighting will not become a nuisance to neighboring properties and will limit light pollution in the rural area.

5) Any **discontinuance or abandonment** of the approved use for a period of one (1) year shall make this Conditional Use Permit approval null and void.
6) Any use of the proposed development for purposes other than the approved use shall deem this Conditional Use Permit approval null and void.

7) The site shall be maintained at all times as to not let the land become a fire hazard or accumulate with debris and weeds.

8) Shall comply with the **Franklin County Fire Code** as expressed in FCC Chapter 8.40.

9) **RIGHT TO FARM:** Applicant shall be aware that this facility is located in an area where farming and farm operations exist. Further, to assist in preserving the right of farmers to operate utilizing accepted and appropriate practices, the County has adopted a Franklin County Right to Farm Ordinance, as amended. At no time shall a farm operation or accessory farm related enterprise, such as crop-dusting operation or airstrip use, be deemed to be a public or private nuisance as it relates to the activities associated with this land use approval.

10) Should archaeological materials (e.g., bones, shell, beads, ceramics, old bottles, hearths, etc.) or human remains be observed during project activities, all work in the immediate vicinity shall stop. The State Department of Archaeology and Historic Preservation (360-586-3065), the Franklin County Planning and Building Department, the affected Tribe(s) and the County Coroner (if applicable) shall be contacted immediately in order to assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources (RCW 27.53, 27.44 and WAC 25-48) is required.

11) Future expansions and improvements at the site shall comply with the submitted and approved plans. To allow for future flexibility, changes to the plans which are determined to be minor, or incidental may be made administratively by the Planning Department. Major changes, which do not meet with the intent of, or seriously re-align, the approved plans, shall be reviewed by the Planning Commission through a new Conditional Use Permit prior to that change occurring.

12) Nothing in this Conditional Use Permit approval shall be construed as excusing the applicant from compliance with any federal, state, or local statutes, ordinances, or regulations applicable to this project.

13) In accordance with the County's Zoning Code, any special permit may be revoked by the Board of County Commissioners if, after a public hearing, it is found that the conditions upon which the special permit was authorized have not been fulfilled or if the use authorized has changed in size,

scope, nature, or intensity so as to become a detriment to the surrounding area. The decision of the Board is final.

14) This permit applies to the lands described and shall be for the above-mentioned individual and/or his heirs and/or assigns. Any transfer of this permit will require that notice be granted to the Franklin County Planning and Economic Development Department, or the permit will be cancelled. Once granted, the permit cannot be transferred to another site.

15) By accepting the issuance of this permit, the Permit Holder(s) agree(s) to accept full responsibility for any and all operations conducted or negligence occurring at this location and any incidents that occur on surrounding properties caused by operations or negligence at this location; Permit Holder(s) further agree(s) to indemnify and hold the County harmless and agree that the County is in no way negligent in relation to granting this permit, or operations or negligence on this property; Permit Holder(s) further agree(s) to accept full responsibility for any future cleanup needed due to activities conducted that this location that impact the surrounding properties, and obtaining and retaining appropriate insurance coverage.

CUP 2025-12/
SEPA 2025-25

Public and Agency Notice
& Comments

Outlook

[EXTERNAL] CUP (SEPA item 202505282)

From cynthia muse <musefarms@icloud.com>
Date Fri 1/9/2026 10:30 AM
To planninginquiry <planninginquiry@franklincountywa.gov>

[Some people who received this message don't often get email from musefarms@icloud.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

We concerned citizens of Block One are aware of efforts to extend the Richview water system service to a north boundary near Sagemoore namely the Pomona properties where easy small acreage hobby farms exist now. They seldom conflict with general farming units in this area. To provide water for and allow PUDs this far north into ag lands is wrong. It also leads to checkerboard development.
Extensive ground water studies are currently being conducted in south County for who has priorities on use. Much development on or near the river will take up most of what ground water provides here and may even draw down existing wells both individually and in developments. To add water from this supply source for northerly future developments (twenty year plan) is wrong and short-sighted and may even defy current water use studies for residential, commercial, and industrial use in this southern corridor.
Let common sense and not greedy developers steer your recommendations in the right direction...it is not always about tax revenue and new growth. Thank you.
Doug and Cynthia Muse
260 Ridgeview
Pasco, WA.
Sent from my iPhone

Memo

Public Works Department

To: Wesley McCart, Planning & Building Director

From: John Christensen

cc: Craig Erdman, PE, Director / County Engineer

Date: January 5, 2026

Re: CUP 2025-12 Richview Water System Expansion

Wesley,

We have reviewed the application for a Conditional Use Permit for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

Public Works has concluded that the proposed use will not have a significant impact on the County Road System. Public Works has the following general comments:

1. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

2. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

3. A current franchise agreement or a franchise agreement application shall be required for all utilities within county right-of-way.

Please let me know if you have any questions.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

January 7, 2026

Wes McCart
Franklin County Planning and Building Department
502 W Boeing Street
Pasco, WA 99301

Re: Richview Water System Expansion
File# CUP 2025-12, SEPA 2025-25, Ecology SEPA# 202505282

Dear Wes McCart:

Thank you for the opportunity to provide comments on the State Environmental Policy Act (SEPA) Determination of Non-Significance for the **Richview Water System Expansion** proposal. Based on review of the checklist associated with this project, the Department of Ecology (Ecology) has the following comments:

Water Resources Program
Herm Spangle, (509) 329-3610, herm.spangle@ecy.wa.gov

The water purveyor is responsible for ensuring that the proposed use(s) are within the limitations of its water rights. If the proposal's actions are different than the existing water right (source, purpose, the place of use, or period of use), then it is subject to approval from the Department of Ecology pursuant to Sections 90.03.380 RCW and 90.44.100 RCW.

Water Quality Program
Chad Sauve, (509) 934-6202, chad.sauve@ecy.wa.gov

Routine inspections and maintenance of all erosion and sediment control Best Management Practices (BMPs) is required during construction.

If you have any questions or would like to respond to these comments, please contact the appropriate program staff listed above. If you have questions about SEPA, please reach out to **sepahelp@ecy.wa.gov.**

Sincerely,

Amanda Hiebert
SEPA Coordinator
Eastern Region Office

AFFIDAVIT OF PUBLICATION

STATE OF WASHINGTON

SS:

COUNTY OF FRANKLIN

Katherine Trowbridge being first duly sworn on oath deposes and says that she is the manager of the FRANKLIN COUNTY GRAPHIC, a weekly newspaper. That said newspaper is a legal newspaper approved by the Superior Court of the State of Washington, in and for Franklin County, under order made and entered on the 11th day of January, 1955, and it is now and has been for more than six months prior to the date of the publication hereinafter referred to, published in the English language continually as a weekly newspaper, in Connell, Franklin County, Washington, and that the annexed is a true copy of

FRANKLIN COUNTY PLANNING

$CUP 2025-12 SEPA 2025-25

RICHVIEW WATER CO

as it was published in regular issue (and not in supplemental form) of said newspaper, once each week for a period of **one** week to-wit, commencing on the **25th** day of **Dec, 2025**, and that such newspaper was regularly distributed to its subscribers during all of said period, that the full amount of **$67.43** has not been paid in full at the legal rate.

Katherine Trowbridge

Manager

Subscribed and sworn to before me this **25th** day of

December, 2025

EMMA MAUSETH
NOTARY PUBLIC
STATE OF WASHINGTON
COMM # 25013
APPOINTMENT EXPIRES March 21, 2029

Emma Mauseth

Notary Public in and for the
State of Washington, residing in Connell.

NOTICE OF OPEN RECORD PUBLIC HEARING BEFORE THE PLANNING COMMISSION ON THE RICHVIEW WATER SYSTEM CONDITIONAL USE PERMIT
RENEWAL & SERVICE AREA EXPANSION
CUP 2025-12/SEPA 2025-25

NOTICE IS HEREBY GIVEN that there has been proposed to the Franklin County Planning Commission an application by **Richview Water Company** of 2460 Fraser Rd., Pasco, WA 99301, is seeking approval of a Conditional Use Permit (CUP), file **#CUP 2025-12/SEPA 2025-25.**

Proposal: This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

Public Comment Period: Written project comments must be submitted by **5:00 PM** on **January 15, 2026**, to be included in the Planning Commission Packet. If there are any questions on the proposal, contact the Franklin County Planning Department via email at planninginquiry@franklincountywa.gov.

Public Meeting: An open record public meeting will be held to discuss the project, solicit input from interested citizens, and respond to project questions at the **Planning Commission Meeting**, scheduled for **6:00PM, February 3, 2026**, in the Commissioner's Room at the Franklin County Courthouse at 1016 N. 4th Ave., Pasco, WA 99301.

Environmental Documents and/or Studies Applicable to this Application: Environmental Determination No. **SEPA 2025-25** has been assigned to this proposal. Comments regarding the State Environmental Policy Act related decisions will also be heard during the Planning Commission meeting

DATED AT PASCO, WASHINGTON ON THIS 25th DAY OF DECEMBER 2025.

(Published December 25, 2025 in the Franklin County Graphic).

NOTICE OF OPEN RECORD PUBLIC HEARING
BEFORE THE PLANNING COMMISSION ON THE
RICHVIEW WATER SYSTEM CONDITIONAL USE PERMIT
RENEWAL & SERVICE AREA EXPANSION
CUP 2025-12/SEPA 2025-25

NOTICE IS HEREBY GIVEN that there has been proposed to the Franklin County Planning Commission an application by **Richview Water Company** of 2460 Fraser Rd., Pasco, WA 99301, is seeking approval of a Conditional Use Permit (CUP), file #**CUP 2025-12/SEPA 2025-25.**

Proposal: This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

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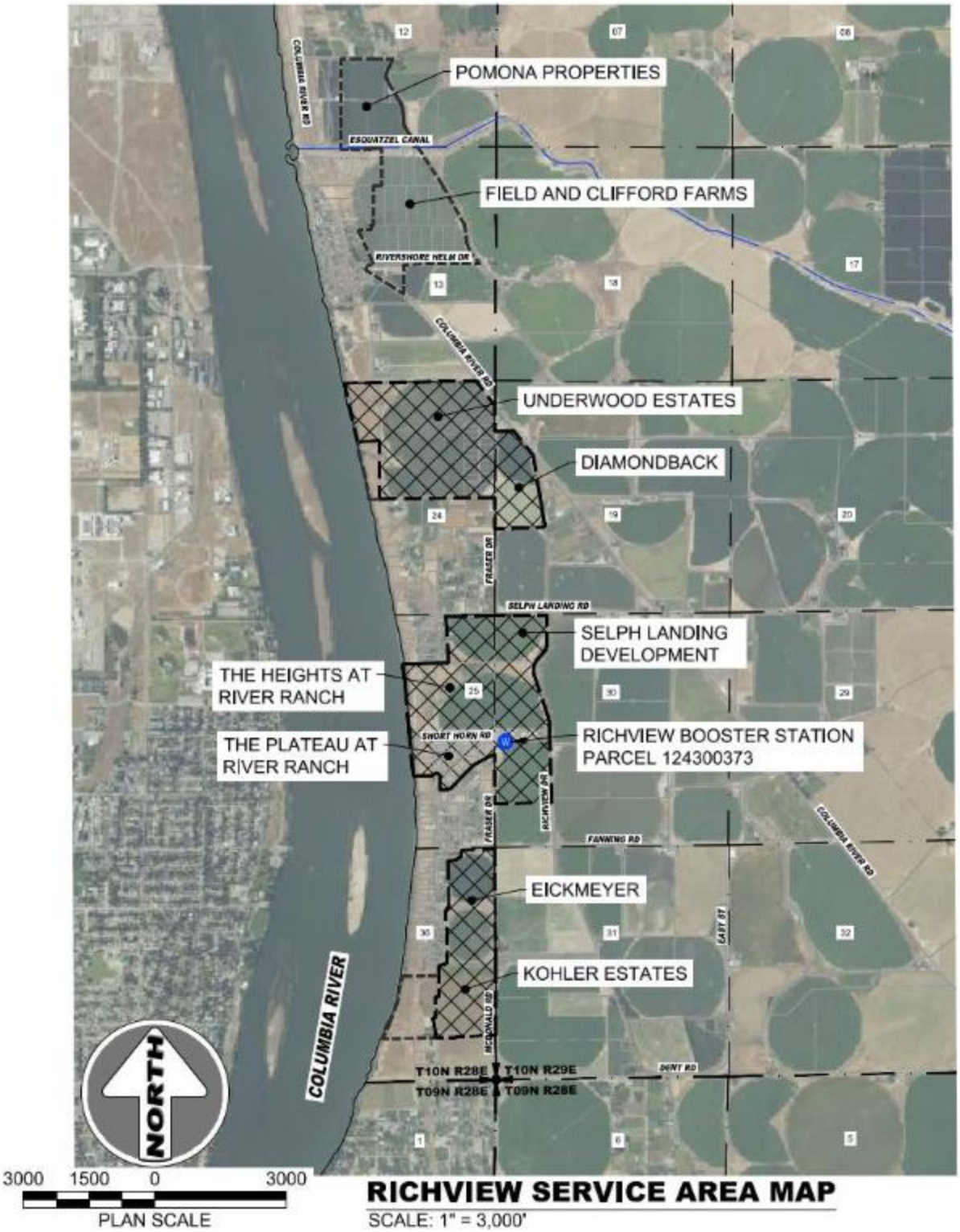
Environmental Documents and/or Studies Applicable to this Application: Environmental Determination No. **SEPA 2025-25** has been assigned to this proposal. Comments regarding the State Environmental Policy Act related decisions will also be heard during the Planning Commission meeting.

PROJECT LOCATION:



RICHVIEW SERVICE AREA MAP

SCALE: 1" = 3,000'

FRANKLIN COUNTY

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

AGENCY REVIEW NOTICE
(CUP/SEPA: Richview Water System Renewal
and Service Area Expansion)

DATE: December 24, 2025

RE: CUP 2025-12/SEPA 2025-25

TO:

County Engineer	Irrigation District:	SCBID _X_	FCID ___
County Assessor/GIS	Electric Utility:	BBEC _X_	FPUD ___
County E-911	Benton-Franklin Health District		
Fire District # _3_	US Bureau of Reclamation		

Franklin County Conservation District
Washington State Dept. of Ecology – SEPA Register
Washington State Dept. of Transportation – South Central Region
Washington State Dept. of Archaeology and Historic Preservation (DAHP)
Washington State Dept. of Fish and Wildlife (WDFW)
Washington State Dept. of Natural Resources
Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of the Colville Reservation
Confederated Tribes of the Warm Springs
Nez Perce Tribe

FROM: Gem Belamour, Planner II

CC: Franklin County Planning Department

_____
Agency Representative:

This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

We would appreciate your review and comments by **January 8, 2026 at 5:00PM**.

See attachments in link for additional information.

REPLY:

Signed: _____ **Title:** _____ **Date:** _____

CUP 2025-12/
SEPA 2025-25

SEPA DNS, Findings of Fact, Checklist

STATE ENVIRONMENTAL POLICY ACT (SEPA)
DETERMINATION OF NONSIGNIFICANCE (DNS)

Name of Proposal: Richview Water System Expansion

Description: This proposal is a renewal Conditional Use Permit (CUP) for an existing Group A Public Water System Facility which was previously approved under CUP 2023-03/SEPA 2023-09. The previous CUP covered the construction of a driveway and parking area, one (1) booster station, two (2) reservoir tanks, six (6) foot fencing, two (2) separate wells, backup generator, water pipes, and underground irrigation canal.

This proposal also includes the expansion of the service area of the system and the installation and construction of piping to serve these areas under this renewal Conditional Use Permit. The number of approved connections is not increasing.

Proponent: Harpster Land Development
ATTN: Peter Harpster
5804 Road 90, Suite C
Pasco, WA 99301
peter@harpsterld.com

Related Ecology SEPA numbers: SEPA Number: 202303412; SEPA Number 202303412

File Number: CUP 2025-12 / SEPA 2025-25

Location: 2460 Fraser Rd., Pasco, WA 99301; Parcel #124-300-373

Legal Description: LOT 2 OF SHORT PLAT 96-07, AS RECORDED IN VOLUME 1 OF SHORT PLATS, PAGE 390, UNDER AUDITORS FILE NO 529330 AND THAT PORTION OF FARM UNIT 47, IRRIGATION BLOCK 1, COLUMBIA BASIN PROJECT, FRANKLIN COUNTY, WASHINGTON, ACCORDING TO THE FARM UNIT PLAT THEREOF, RECORDS OF FRANKLIN COUNTY WASHINGTON, EXCEPT ANY PORTION LYING IN SECTION 25, TOWNSHIP 10 NORTH, RANGE 28 EAST, WM.

Note: There is currently a preliminarily approved Innovative Agricultural Short Plat application (SP 2025-16) which short plats 3.00 acres (gross) of land from the parent farm parcel meant for the Richview Water System operations.

Lead Agency: Franklin County

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030 (2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This DNS is issued in accordance with WAC 197-11-340 (2).

The comment period for this DNS is until Thursday, January 8, 2025 at 5:00PM.

Responsible official: ***Wesley McCart***

Position/Phone: ***Franklin Planning and Economic Development Director – (509) 545-3521***

Address: ***502 W Boeing St, Pasco, Washington 99301***

Date/Signature: ***12/18/2025*** **-**

SEPA 2025-25
FINDINGS:

1. Earth:
a. The site has relatively flat slopes. The steepest slope on site is 5%. Soils are generally made of loamy coarse sand.
b. There are no surface indications of unstable soils.
c. Grading is expected to take place on the road rights-of-way (ROW) for the installation of pipes to get to service areas. Any grading outside of road ROW will require a grading permit.
d. Approximately 20% of the site will be covered with impervious surfaces.
e. Adherence to best management practices (BMP) for dust control will be used throughout the project.

2. Air:
a. Temporary increase in emissions will occur during construction.
b. No off-site sources of emission or odor expected during the development.

3. Water:
a. No surface water body on or in the immediate vicinity of the site or any service areas.
b. No wetlands or floodplains on-site or any service areas.
c. The site is located within flood zone C which does not lie within the 100-year floodplain.

4. Plants:
a. The existence of noxious weeds and invasive species on the site and service areas are unknown.

5. Animals:
a. Ferruginous Hawk breeding habitat is present on service areas per the WA Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) program.
b. Construction shall avoid disturbance of Ferruginous Hawk habitats if feasible.

6. Energy and Natural Resources:
a. Electricity will be utilized for the booster station.
b. Booster station pumps will utilize variable frequency drive (VFD) for efficiency.

7. Environmental Health:
a. Household chemicals are expected on site. Fuels for construction and backup generators will be present on site.
b. Typical residential emergency services will be required.
c. Pumping equipment noises during operation of the system is expected.

8. Land and Shoreline Use:

a. The parcel where the water system is located is zoned Agricultural Production 20-acres (AP-20). The parcels in which the service areas are located are zoned RC-1, AP-20, PUD depending on the location.
b. The Comprehensive Plan designation for the Richview Water System location is Agricultural. The Comprehensive Plan designation for the services areas is Rural Shoreline Development.
c. This project was originally approved under a Conditional Use Permit (CUP 2023-03/SEPA 2023-09).
d. The Richview Water System is not located on ALLTCS land. Some service areas such as the Selph Landing Development and Diamondback are located on ALLTCS land but are currently undeveloped.

9. Housing:

a. No housing plans for this phase of the project.

10. Aesthetics:

a. The maximum height of the Richview Water system will be 35 ft., which is in accordance with the maximum height for AP-20 zone.

11. Light and Glare:

a. Exterior lights will be shielded to prevent glare off-site.

12. Recreation:

a. No effects on recreation.

13. Historic and Cultural Preservation:

a. DAHP's WISAARD Map shows no National Registry properties on or adjacent to the proposal area and very high risk for predictive model.
b. An Inadvertent Discovery Protocol shall be in place prior to any ground disturbing activities.

14. Transportation:

a. Access to the Richview Water System is through Fraser Rd.
b. Less than 1 trip per day is expected to be generated by the water system.

15. Public Services:

a. The construction would not result in an increased need for public services.

16. Utilities:

a. Electricity for lighting and water services are needed for the project.

SEPA[1] Environmental Checklist

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A.Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   Richview Water System

   Name of applicant:

   Richview Water Company

2. **Address and phone number of applicant and contact person:**

   Applicant: PO Box 3596, Pasco, WA 99301 / 509-531-7383

   Contact Person: Peter Harpster, Harpster Land Development

   5804 Rd 90 Suite C, Pasco, WA 99301 / (509) 212-9596

3. **Date checklist prepared:**

   11/20/2025

4. **Agency requesting checklist:**

   Franklin County

5. **Proposed timing of schedule (including phasing, if applicable):**

   Fall 2025

6. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No.

7. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   Well site inspection.

8. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   No.

9. **List any government approvals or permits that will be needed for your proposal, if known.**

   ~~No new approvals/permits needed.~~

   - Franklin County Conditional Use Permit for water system expansion.
   - Grading permit for any movement of dirt outside the road ROW.
   - Building permit for inspections of pipe connections.
   - FCP&ED

10. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information**

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

on project description.)

Service Area expansion of Richview Water System. The number of connections is not increasing.

11. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

    Parcel 124300373 located at 2460 Fraser Rd. Pasco, WA 99301.

B.Environmental Elements

1. Earth

Find help answering earth questions[3]

a. **General description of the site:**

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

b. **What is the steepest slope on the site (approximate percent slope)?**

    5%

c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

    Loamy coarse sand (Winchester and Chedehap).

d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

    No.

e. **Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

Grading is expected to take place on the road rights-of-way for the installation of pipes to get to service areas. - FCP&ED

~~No additional grading other than what has already occurred will take place.~~

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

No.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 20% of the site is covered with impervious surfaces.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

Adherence to BMPs for dust mitigation.

2. Air

Find help answering air questions[4]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Dust and exhaust from construction activities during development will occur.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No off-site sources of emissions or odor are expected to affect this proposal.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None.

3. Water

Find help answering water questions[5]

a. Surface:

Find help answering surface water questions[6]

1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water

[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water

yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No.

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   No.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   None.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   No.

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   The site is located within Flood Hazard Zone C, which does not lie within a 100-year floodplain.

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   No.

b. Ground:

Find help answering ground water questions[7]

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

Yes, two new wells will be constructed for domestic water usage. At full buildout (approximately 20 year from now) the daily average withdrawal will be 120,000 gallons. Water will be discharged to groundwater through residential septic systems.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   No waste materials will be discharge to ground by the project.

c. Water Runoff (including stormwater):

- **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

  Stormwater from non-polluting roof runoff will be disposed of onsite.

1. **Could waste materials enter ground or surface waters? If so, generally describe.**

   No.

2. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   No.

4. **Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

   None.

4. Plants

Find help answering plants questions

a. Check the types of vegetation found on the site:

☐ **deciduous tree: alder, maple, aspen, other**

☐ **evergreen tree: fir, cedar, pine, other**

☐ **shrubs**

☒ **grass**

☐ **pasture**

☐ **crop or grain**

☐ **orchards, vineyards, or other permanent crops.**

☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☐ **water plants: water lily, eelgrass, milfoil, other**

☐ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

None.

- **List threatened and endangered species known to be on or near the site.**

None known.

c. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

None.

d. List all noxious weeds and invasive species known to be on or near the site.

None known.

5. Animals

Find help answering animal questions[8]

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.

Examples include:

- **Birds: hawk, heron, eagle, songbirds, other:**
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

b. List any threatened and endangered species known to be on or near the site.

~~None.~~ Ferruginous Hawk

c. Is the site part of a migration route? If so, explain.

Yes. The Columbia Basin is part of the Pacific Flyway migration route.

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals

d. Proposed measures to preserve or enhance wildlife, if any.

None.

e. List any invasive animal species known to be on or near the site.

None known.

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electrical utilities will be utilized to meet the booster station's energy needs.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

Booster station pumps will utilize VFDs (Variable Frequency Drive) to run the system efficiently based on demand.

7. Environmental health

Health Find help with answering environmental health questions[10]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.

Risk of exposure to household chemicals, and fire, will exist.

1. Describe any known or possible contamination at the site from present or past uses.

There are no known contamination areas at the site.

2. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou
[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

There are no known underground hazardous chemicals or gas pipelines within the project.

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   Fuels for construction and backup generator will be present on site. Minor household chemicals will be stored on site for operation/maintenance.

4. **Describe special emergency services that might be required.**

   Typical residential emergency services could be required.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   None.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   None.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   Pumping equipment noises during operation of system, mainly limited to morning and evening.

3. **Proposed measures to reduce or control noise impacts, if any:**

   All equipment is housed inside a CMU building except for the generator which will only operate in power outage emergencies.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

   The site is used for staging farm equipment, adjacent properties are used for residential purposes or active farming. The proposal will help facilitate the development of some agricultural and into residential land, dependent on the land use.

b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have**

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The portion of the site where the project has taken place has not been used as working farmlands. No ALLTCS land will be converted. Some service areas such as the Selph Landing Development & Diamondback are located on ALLTCS land but are currently undeveloped.

- **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

  No.

c. Describe any structures on the site.

No existing structures on the site.

d. Will any structures be demolished? If so, what?

Not applicable.

e. What is the current zoning classification of the site?

AP-20. The parcels in which the service areas are located are zoned RC-1, AP-20, PUD depending on the location.

f. What is the current comprehensive plan designation of the site?

Agricultural. The Comprehensive Plan designation for the services areas is Rural Shoreline Development.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any.

None proposed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

A local government consistency form will be submitted for the project to Franklin County.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

None proposed.

9. Housing

Find help answering housing questions[12]

- **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

  None.

  a. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

  None.

  b. **Proposed measures to reduce or control housing impacts, if any:**

  None.

10. Aesthetics

Find help answering aesthetics questions[13]

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

35 feet.

b. **What views in the immediate vicinity would be altered or obstructed?**

None.

c. **Proposed measures to reduce or control aesthetic impacts, if any:**

None.

11. Light and glare

Find help answering light and glare questions[14]

- **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

  Exterior building lighting at night.

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing
[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics
[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

a. **Could light or glare from the finished project be a safety hazard or interfere with views?**

No.

b. **What existing off-site sources of light or glare may affect your proposal?**

None.

c. **Proposed measures to reduce or control light and glare impacts, if any:**

Exterior lights will be shielded to prevent glare off site.

12. Recreation

Find help answering recreation questions

a. **What designated and informal recreational opportunities are in the immediate vicinity?**

None.

b. **Would the proposed project displace any existing recreational uses? If so, describe.**

No.

c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

None.

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

a. **Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.**

No.

b. **Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

No.

c. **Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

No.

- **Proposed measures to avoid, minimize, or compensate for loss, changes to, and**

[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

disturbance to resources. Please include plans for the above and any permits that may be required.

Contractor shall have Inadvertent Discovery Protocol in place prior to any ground disturbing activities and notification to interested parties will be made if historic or cultural resources are encountered.

14. Transportation

Find help with answering transportation questions[16]

- **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

  The property will be served by Fraser Rd.

  a. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

  No. The nearest transit stop is located 5 miles away on Sandifur Parkway.

  b. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

  No, however, Fraser Road will be extended and improved with additional development.

- **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

  No.

  c. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

  Less than 1 trip per day.

  d. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

  No.

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation

e. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public services

Find help answering public service questions[17]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Yes, fire, police, and other emergency services may be needed during the duration of the project for any emergencies that occur.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

Find help answering utilities questions[18]

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The water system will be a domestic water purveyor and will require electricity and communication utilities.

[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services
[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

C.Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Type name of signee: Peter Harpster

Position and agency/organization: Principal Owner - Harpster Land Development

Date submitted: **11/21/2025**

D.Supplemental sheet for nonproject actions

Find help for the nonproject actions worksheet[20]

Do not use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

    - **Proposed measures to avoid or reduce such increases are:**

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

    - **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

3. **How would the proposal be likely to deplete energy or natural resources?**

    - **Proposed measures to protect or conserve energy and natural resources are:**

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature
[20] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-d-non-project-actions

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

    - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

    - **Proposed measures to avoid or reduce shoreline and land use impacts are:**

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

    - **Proposed measures to reduce or respond to such demand(s) are:**

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

CUP 2025-12/
SEPA 2025-25

Application & Attachments

Docusign Envelope ID: 18A7B24C-8F65-434B-8D34-9A866D81D796

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

CONDITIONAL USE PERMIT (CUP) APPLICATION PACKET

FREQUENTLY ASKED QUESTIONS:

What is a Conditional Use Permit?
A Conditional Use Permit (also known as a special use permit) is a zoning exception, which allows the property owner use of his or her land in a way not otherwise approved within the particular zoning district.

The Conditional Use Permit process is designed to allow flexibility within the zoning laws. A zoning ordinance cannot account for every situation, and exceptions such as the conditional use permit gives the County discretion to allow uses otherwise prohibited in the specific district for the benefit of the neighborhood or area.

Who can apply for a Conditional Use Permit?
Anyone can apply for a Conditional Use Permit. However, a property owner should only apply for a Conditional Use Permit regarding to uses such as large-scale accessory buildings, accessory buildings in front yard areas, churches, schools, daycare centers, cell towers, large animal operations, and other non-permitted primary or accessory uses.

It is highly recommended that you call the Planning and Building Department at 509-545-3521, visit our office at 502 W. Boeing Street, Pasco, WA 99301 or view Title 17 (Zoning) of the Franklin County Code on our website (https://library.municode.com/wa/franklin_county/codes/code) to determine if what you are proposing requires a CUP.

How do I apply for a Conditional Use Permit?
A pre-application meeting with the Planning and Building Department staff is encouraged for all Conditional Use Permit applications. Applications are submitted to the Planning and Building Department. The following minimum requirements shall be submitted:

1) Completed Conditional Use Permit Application Form;
2) Completed General Land Use Development Application;
3) Completed & Signed SEPA Checklist;
4) Site Plan;
5) Detailed Narrative, including the following:
    a. Written description explaining the present use of the land/structures,
    b. Detailed description of the proposed conditional use,
    c. Description of any zoning violations, including home occupation violations, and
    d. Other pertinent information as deemed necessary by Staff.
6) Any recorded Covenants, Conditions, or Restriction (CC&R) or latecomers agreements attached to the property;

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7) If directed by Staff, the following will need to be submitted:
    a. Written approval letter from the Benton-Franklin Health District.
    b. Building plans detailing the proposed structure(s).

What happens after I apply?
During the time prior to the public hearing, the Planning and Building Department staff will notify in writing (copy of public hearing notice) all the property owners of record within 500 feet of your property (if within an Urban Growth Boundary) or 1 mile of your property (if located outside an Urban Growth Boundary).

Additionally, the staff will conduct a review of your request and will do the following:

1) Establish a hearing date for the request;
2) Send notification of the hearing to local newspapers;
3) Send notification of the request to applicable local, state, and/or federal agencies, including affected Tribes for comments;
4) Send notification of the request to neighboring property owners for comments; and
5) Compile public and agency comments to help develop a Staff report for the hearing.

What happens at the public hearing?
The applicant or representative is strongly encouraged to be present to discuss and answer any questions the Planning Commission or public may have. Anyone who wants to testify for, against, or is neutral about the request will be allowed to do so.

When do I find out if my permit was approved or denied?
At conclusion of this public hearing, the Planning Commission will make a recommendation to the Board of County Commissioners to approve, approve with conditions, or deny the CUP request.

This recommendation can be appealed within ten (10) calendar days prior to the closed-record hearing before the Board of County Commissioners for a final decision.

For additional information regarding the timely filing of an appeal, closed record hearings, and Commissioner review and decision, please refer to Chapter 17.82 of the Franklin County Code or contact the Planning and Building Department for details and specifications.

- Keep this section for your records –
- Return the following completed pages with your application -

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FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

CONDITIONAL USE PERMIT (CUP) APPLICATION REQUIREMENTS

Submittal Checklist:

☑	**Completed Conditional Use Permit Application Information Form**
☑	**Completed General Land Use Development Application**
☑	**Completed & Signed SEPA Checklist** Provided by the Planning Department or visit https://www.franklincountywa.gov/263/Application-Forms to download. *Part D does not need to be completed for this application.*
☑	**Detailed Narrative of Proposed Conditional Use** Please provide the following on a separate sheet(s) of paper: • Written description explaining the present use of the land/structures. • Detailed description of the proposed use or request. • Description of any zoning violations, including violations of home occupations. • Other pertinent information as deemed necessary by Planning Staff.

☑	**Site Plan**
	Shall be drawn neatly and to scale, that includes:
	• North arrow
	• Tax parcel number
	• Scale
	• Exterior property lines
	• Distance from existing and/or proposed use to the following:
	  ○ Exterior property lines
	  ○ Existing structures
	  ○ Proposed structures
	  ○ Existing or proposed septic system
	• Any adjacent public street or alley rights-of-way
	• Existing easements, including utility and/or access
	• Existing and/or proposed buildings and other structures
	• Existing and/or proposed retaining walls or fences, please indicate:
	  ○ Location of fence or retaining wall
	  ○ Type of material
	  ○ The height of the fence, including any barbed wire
	  ○ If the fencing provides visual screening
	• Existing and/or proposed points of ingress and egress, driveways, and circulation pattern.
	• The location of existing and/or proposed parking areas with each parking space shown and surface type indicated and lighting noted.
	• Existing and/or proposed open spaces and landscape areas.
	• Location of well or any public water systems within 100 feet of the subject property or within a 100-foot well protection zone.

Docusign Envelope ID: 18A7B24C-8F65-434B-8D34-9A866D81D796

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

- The distance from any existing and/or proposed structures within the well protection zone and sewerage facilities.
- Location of any existing and/or proposed drain field area, reserve area, and septic tank area and distances to structures and property lines
- Existing or proposed storm water drainage system
- Existing or proposed sidewalks and streetlights
- Existing or proposed fire protection devices, with sufficient water storage and flows.
- Facilities or improvements to address compatibility with adjacent dissimilar land uses.
- Location of structures on the adjoining lots, which may cause compatibility issues.
- All major man-made and natural physical features on or adjacent to the site, such as:
  - Streets
  - Railroads
  - Irrigation canals and/or ponds
  - Buried irrigation lines
  - Streams, creeks, drainage ditches
  - Hills, depressions, steep slopes
  - Lakes, floodplains, floodways, the 100-year base flood elevations
  - Shoreline area
- Any proposed grading, and the new contours as they affect lot layout, streets, and drainage ways

☐ **Attach Property Information** *(i.e. recorded deed)*
If any *recorded* Covenants, Conditions and Restrictions (CC&R), latecomers agreements, or deed restrictions pertaining to or affecting the property.

☐ *If Directed by Staff*
Obtain a written approval letter from the Benton-Franklin Health District
Located at 7102 W. Okanogan Place, Kennewick, WA – (509) 460-4200

☐ *If Directed by Staff*
One (1) set of building plans
The construction/building plans can be a preliminary set and do not have to be official.
- Minor changes can be made to the plans after approval of the Conditional Use Permit.
- Major changes may require a new/amended Conditional Use Permit.

Application Fee:	$ 400.00
SEPA Checklist Fee:	$ 150.00
Variance Report Fee:	$ 80.00
Total Fees:	$ 630.00

All fees do not include a 3% processing fee if paying by debit or credit card.
Payment shall be made to the Franklin County Planning & Building Dept.

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PLANNING AND BUILDING DEPARTMENT

Conditional Use Permit Application Information

(all items in **bold** shall be completed)

Parent Parcel Number: 124300373 (Ex: 000-000-000 or 000000000)	**Parent Parcel Size:** 45 acres (Ex: 24.92 acres)	**Current Zoning:** AP-20 (Ex: RS-20, AP-20)

What are you purposing: (ex. Accessory Dwelling Unit, Bed and Breakfast, Commercial Agriculture, Church, Diary, Wireless Communications Facility, Accessory Building deviating from standards, etc.)
Service area expansion of Richview Water System.

Size of the area to be used for the proposed use or building: 0.5 acre

Irrigation Source: ☐ SCBID ☐ FCID ☑ Private ☐ None

Domestic Water Supply: ☐ On-Site Well ☐ City Water ☐ Farm Exempt Well (provide documentation)
☑ Community Well (Well ID # and location): (#BPS-82) 2460 Fraser Rd Pasco, WA 99301

Sewage Disposal: ☐ On-Site Septic ☐ City Sewer ☑ Other (specify): Project will not generate sewage

List Existing of Proposed Utility Providers:

Electric Provider:	Big Bend	Cable/Broadband:	Spectrum/Ziply
Natural Gas:	N/A	Landline Phone (if applicable):	N/A
Sanitary Waste Disposal:	N/A	Other (if not listed):	None

Describe any existing zoning ordinance violation(s):
N/A

Present use of the land and structures, if any:
The majority of the parcel is used for agricultural farming. The specific half-acre project site of the parcel has been used as a laydown yard and for equipment storage.

Detailed description of the proposed use/development proposal: (attach additional sheets if needed)
Service Area expansion of the Richview Water System, previously approved under CUP 2023-03. The number of approved connections (600) is not increasing. The expanded service area has been reviewed and approved by the Department of Health and Ecology.

Proposed Structures and Use: (size, height, etc.)
Booster station: 300 sf, 15ft tall
Water storage tanks: 30' diameter, 35' height

How will the proposed development be compatible with the uses permitted in the surrounding zone(s)?
The booster station will provide domestic water for planned and future residential developments within the Rural Shoreline Development area and Service Area Map.

Describe how the subject property is physically suitable for the type, density and/or intensity of the use being proposed?
The site is centrally located near all of the properties contained within the Service Area Map that will be served by the Richview Water System on a lot that is separate from residential uses. No impacts to the immediately adjacent properties are anticipated except for the adjustment of an irrigation pivot to the south which is owned by the purveyor. The site has been previously used for storage.

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PLANNING AND BUILDING DEPARTMENT

Will the project be conducted entirely within a structure? ☐ Yes ☑ No

1) If no, describe the outdoor activities (i.e. outdoor eating, playground, park)

   All equipment and activities will be contained within a building or structure except for the backup power generator.

2) What is the approximate square footage, or seating capacity of your outdoor use area(s)?

   N/A

3) What type of noises will the outdoor use generate? (i.e. music, machinery, vehicles)

   Noise from the booster station will be minimal. In the event of a power outage/emergency the generator will produce noise.

Proposed hours of operation/days of the week: (indicate months, if seasonal)
The booster station will be in continuous operation to supply water for domestic use.

Proposed measures to ensure compatibility with permitted uses in the surrounding zone?
(Ex. fences, landscape buffers, berms, etc.)
All structures and equipment on the site will be screened with a 6-foot fence and rock landscaping will be installed.

I, the undersigned, hereby authorize the filing of this application and certify under penalty of perjury that the information contained in this application is complete and correct to the best of my knowledge. Further, I hereby grant Franklin County staff or representatives to enter my property during the course of this review to inspect my property as needed.

☑ **This authorizes the designated Applicant's representative (if applicable) to act on behalf of the applicant for the processing of this request.**

Signed by:
Randy Mullen
0B79DB0842404F6...
Property Owner (Signature)

Applicant/Representative (Signature)

Randy Mullen
Property Owner (Print Name)

Peter Harpster
Applicant/Representative (Print Name)

11/18/25
Date signed

11/18/25
Date signed

Docusign Envelope ID: 18A7B24C-8F65-434B-8D34-9A866D81D796

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

GENERAL LAND USE DEVELOPMENT APPLICATION

FOR STAFF USE ONLY

FILE #: STAMP HERE:

Total Fees: Date deemed complete:

Receipt #: Pre-App Meeting Date:

Reviewed By: Hearing Date:

CHECK ALL THAT APPLY AND ATTACH SUPPLEMNETAL FORM(S):

- ☐ Appeal (File # of item appealed: _____)
- ☐ Binding Site Plan (BSP)
- ☐ Boundary Line Adjustment (BLA)
- ☐ Comprehensive Plan Amendment (CPA)
- ☑ Conditional Use Permit (CUP)
- ☐ Determination – Administrative
- ☐ Determination – Critical Areas
- ☐ Determination – Non-Conforming Use
- ☐ Determination – Reasonable Use
- ☐ Determination – Zoning Interpretation
- ☐ Home Occupation
- ☐ H2A Farm Worker Housing (Zoning Review)
- ☐ Planned Unit Development (PUD)
- ☐ Other:
- ☑ SEPA – Environmental Checklist
- ☐ Shoreline (SH) – Conditional Use Permit
- ☐ Shoreline (SH) – Exemption
- ☐ Shoreline (SH) – Non-Conforming
- ☐ Shoreline (SH) – Substantial Development
- ☐ Shoreline (SH) – Variance
- ☐ Short Plat (SP)
- ☐ Subdivision/Preliminary Long Plat (SUB)
- ☐ Tax Parcel Separation (TPS)
- ☐ Temporary Use Permit
- ☐ Vacation of Easement (VOE) / Alteration
- ☐ Variance
- ☐ Zone Change/Rezone (ZC)

CONTACT INFORMATION (Please provide all necessary information and checkmark the primary contact)

☐ **Property Owner**

Name: Randy Mullen

Phone Number: 509-531-7383

E-mail Address: rrmx3@aol.com

Mailing Address:

PO Box 3596

Pasco, WA 99301

☑ **Applicant/Agent/Contractor** (if different)

Business Name: Harpster Land Development

Contact Name: Peter Harpster

E-mail Address: peter@harpsterld.com

Phone Number: (509) 212-9596

Mailing Address: 5804 Road 90, Suite C

Pasco, WA 99301

☐ **Surveyor / Engineer**

Business Name: Harms Engineering

Contact Name: Braden Anderson, PE

E-mail Address: braden@harmsengineering.com

Phone Number: 509-547-2679

Mailing Address: 1632 W. Sylvester St.

Pasco, WA 99301

Docusign Envelope ID: 18A7B24C-8F65-434B-8D34-9A866D81D796

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

PROPERTY INFORMATION

Parcel Number(s) (9-digit tax number): 124300373
Legal Description of Property: Portions of Lot 2 of Short Plat 96-07 and Farm Unit Irr. Block 1.
Site Address: (describe location if no address is assigned) 2460 Fraser Rd. Pasco, WA 99301

BRIEF DESCRIPTION OF PROJECT OR REQUEST

Service area expansion of Richview Water System.

- All appropriate fees must accompany this application. Fees are non-refundable and subject to change. Please contact the Planning Department for current pricing of fees.
- This application, including attachments, must be completed in its entirety for all items applicable to your project.
- Supplemental information is generally required for land use approvals. Please ensure that all required information is submitted along with this application form.
- If the property is owned by a trust, corporation, or LLC, please attach documentation showing that the person signing as the "owner" has the authority to sign on behalf of the trust, corporation, or LLC. If there are multiple owners, provide an attachment in the same format and with the same declarations.

I, the undersigned, hereby authorize the filing of this application and certify under penalty of perjury that the information contained in this application is complete and correct to the best of my knowledge. Further, I hereby grant Franklin County staff or representatives to enter my property during the course of this review to inspect my property as needed.

I understand that any information submitted to the Franklin County Planning and Building Department is subject to public records disclosure laws for the State of Washington (RCW Chapter 42.17) and all other applicable laws that may require the release of the documents to the public.

☑ **This authorizes the designated Applicant's representative (if applicable) to act on behalf of the applicant for the processing of this request.**

Signed by: Randy Mullen 0B78DB0842404F6...	11/18/25	PH	11/18/25
Property Owner (Signature)	Date	Applicant/Representative (Signature)	Date
Randy Mullen	11/18/25	Peter Harpster	11/18/25
Property Owner (Print Name)	Date	Applicant/Representative (Print Name)	Date

CUP 2025-12/
SEPA 2025-25

State Approval Letters
(Department of Health &
Department of Ecology)

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
EASTERN DRINKING WATER REGIONAL OPERATIONS
316 W. Boone Ave., Suite 170, Spokane, WA 99201-2346
(509) 329-2100 • 711 Washington Relay Service

May 16, 2025

Randy Mullen, Owner
Richview Water Company
PO Box 3596
Pasco, WA 99302

Subject: Richview Water System; PWS ID # AE302; Franklin County
Water System Plan; Submittal #24-0506; **DOH Approval**

Dear Mr. Mullen:

The draft Water System Plan (WSP) for the Richview Water System received in this office on May 3, 2024, with revisions received on January 20, 2025, has been reviewed and, in accordance with the provisions of WAC 246-290-100, is hereby **APPROVED.**

This WSP approval will expire on May 16, 2035. The Department of Health (DOH) may request an update or plan amendment pursuant to WAC 246-290-100(9). Approval of this WSP is valid as it relates to current standards outlined in Washington Administrative Code (WAC) 246-290, revised January 2017, and is subject to the qualifications herein. Future revisions in the rules and statutes may be more stringent and require facility modification or corrective action.

Standard Construction Specifications for distribution main extensions and Design and Construction Standards for distribution-related projects have not been approved as a part of this water system plan. Project reports and construction documents for any new installation, extension or improvement to the system must be submitted to this office for review and written approval in accordance with WAC 246-290-110 and -120.

Disclaimer: The department's review of your planning document does not confer nor guarantee any right to a specific quantity of water. The approved number of service connections is based on your representation of available water quantity. If the Washington State Department of Ecology, a local planning agency, or other authority responsible for determining water rights and water system adequacy determines that you have use of less water than you represent, the number of approved connections may be reduced commensurate with the actual amount of water and your

legal right to use it. The Department of Ecology issued comment letters regarding this plan on May 22, 2024, and April 22, 2025.

The WSP includes capacity information that demonstrates the physical and legal ability of this water system to provide water during the 10-year period for which the approval of the WSP is valid.

DOH bases the number of approved connections on Worksheet 4-1 and the Water Facilities Inventory (WFI) form information, both included in the WSP, assuming all new connections are single family connections:

From Worksheet 4-1	
Water System Capacity:	600 ERUs (no limiting component)
Total Existing ERUs:	- 0 ERUs (based on 0 existing connections and DSL)
Available ERUs:	600 ERUs

From WFI Information	
Existing number of active service connections:	0
Available connections (= Available ERUs):	600
Approved number of connections:	600 connections

Accordingly, the approved number of connections that will be reflected on the WFI form and in DOH records is **600**.

Richview Water System is responsible for permitting new service connections in a manner consistent with the plan so that the physical capacity and water right limitations are not exceeded. As new water services are requested, the water system must evaluate each connection for the expected water demands and adjust the remaining connection allowance. The water system should keep an updated list that compares the overall ERUs expended against the overall number of connections placed into service. This will allow a better estimate of the system's adequacy.

Pursuant to RCW 90.03.386(2), the "Water Right Place of Use" identified on *Service Area Map* (Sheet Number 1, 5/2/2025) in the WSP now represents "place of use" for this system's water rights. Future changes in service area must be made through a WSP update.

Richview Water System has a duty to provide new water service within its retail service area. This WSP includes service policies to describe how the system plans to provide new service within its retail service area.

Submittal of the WSP included local government consistency determination from Franklin County Planning Department. This plan meets local government consistency requirements for WSP approval pursuant to RCW 43.20 for these entities.

The water system is located within the Esquatzel Coulee WRIA #36. Ecology has not determined whether the WSP was not inconsistent with an approved watershed plan. DOH encourages the water system to contact Ecology regarding this matter.

Thank you for your cooperation. DOH recognizes the significant effort and resource commitment involved in the preparation of this Water System Plan. If you have any comments or questions concerning our review, please contact Nathan Ikehara, PE, at (509) 329-2124 or by email at nathan.ikehara@doh.wa.gov or Jamie Clark at (509) 329-2137 or by email at jamie.clark@doh.wa.gov.

Sincerely,

Jamie Clark
Office of Drinking Water, Regional Planner

Nathan Ikehara, PE
Office of Drinking Water, Regional Engineer

Attachments: Department of Ecology correspondence
Distribution Main Construction Completion Form

cc: Benton-Franklin Health District
Franklin County Planning Department
Braden Anderson, PE, Harms Engineering, Inc.
SJ Environmental SMA
Elizabeth Bousquet, The Conners Group
Mike Young, WA Utilities and Transportation Commission
Lupe Gonzalez, DOH Regional Engineer
Katrina McLaughlin, DOH Compliance Program Manager
Kelsey Russell, DOH Regional Water System Data Manager
Scott Mallery, PE, DOH Assistant Regional Manager

From: Davis, Eric (ECY)
To: DOH EPH DW ERO ADMIN
Cc: Tolleson, Daniel F. (ECY); Clark, Jamie C (DOH); Ikehara, Nathan W (DOH); Gonzalez, Lupe (DOH)
Subject: RE: Richview_AE302_24-0506_2nd Draft WSP ECY LTR_2025-01-21
Date: Tuesday, April 22, 2025 2:37:26 PM
Attachments: image001.png
image002.png
image003.png
image004.png

Thank you for the opportunity to review the *2nd* draft for Richview_AE302_24-0506_2nd Draft WSP ECY LTR_2025-01-21. Ecology has no further comments regarding this Water System Plan review, see previous letter dated 5/22/2024.

Eric Davis
Permit Writer/Manager
Water Resources Program

Washington State Department of Ecology
Eastern Region Office
4601 N Monroe
Spokane, WA 99205
Phone 509-329-3616

https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights

---

From: DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Sent: Friday, April 18, 2025 1:31 PM
To: Davis, Eric (ECY) <edav461@ECY.WA.GOV>; Adams, Shannon (ECY) <SPET461@ECY.WA.GOV>
Cc: Tolleson, Daniel F. (ECY) <DTOL461@ECY.WA.GOV>; Clark, Jamie C (DOH) <Jamie.Clark@doh.wa.gov>; Ikehara, Nathan W (DOH) <nathan.ikehara@doh.wa.gov>; DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Subject: FW: Richview_AE302_24-0506_2nd Draft WSP ECY LTR_2025-01-21

Eric or Shannon—we are hoping one of you might be able to help in Dan's absence. See Jamie's email below inquiring about water rights for Richview (PWS# AE302; Franklin County; Project #14-0506) 2nd draft WSP, which was sent to Ecology on January 21, 2025. Eric you

st

reviewed the 1 draft (although Dan signed the letter on your behalf), so we are hoping that you are reviewing the 2nd draft as well and can provide an update.

Thanks for your help.

Esther McCord
Program Assistant
Office of Drinking Water
Environmental Public Health
Washington State Department of Health
esther.mccord@doh.wa.gov
509-329-2106 | www.doh.wa.gov

From: DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Sent: Friday, April 18, 2025 12:44 PM
To: Clark, Jamie C (DOH) <Jamie.Clark@doh.wa.gov>; Tolleson, Daniel F. (ECY) <DTOL461@ECY.WA.GOV>
Cc: Ikehara, Nathan W (DOH) <nathan.ikehara@doh.wa.gov>; DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Subject: RE: Richview_AE302_24-0506_2nd Draft WSP ECY LTR_2025-01-21

Just to clarify, the project number is 24-0506

Esther McCord
Program Assistant
Office of Drinking Water
Environmental Public Health
Washington State Department of Health
esther.mccord@doh.wa.gov
509-329-2106 | www.doh.wa.gov

From: Clark, Jamie C (DOH) <Jamie.Clark@doh.wa.gov>
Sent: Friday, April 18, 2025 12:41 PM
To: Tolleson, Daniel F. (ECY) <DTOL461@ECY.WA.GOV>

Cc: Ikehara, Nathan W (DOH) <nathan.ikehara@doh.wa.gov>; DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Subject: RE: Richview_AE302_24-0506_2nd Draft WSP ECY LTR_2025-01-21

Hi Dan,

I'm checking in on the water rights review for Richview (PWS# AE302; Franklin County; Project #14-0506) 2nd draft WSP. We sent out the Ecology notice back in January and we are coming up on the 90-day DOH review deadline next week. Let me know if there are any remaining Ecology comments that would keep the WSP from approval.

Thanks!

Jamie Clark
Gender Pronouns: She/Her
Regional Planner | Eastern Regional Office
Office of Drinking Water
Environmental Public Health
Washington State Department of Health
jamie.clark@doh.wa.gov
509.329.2137 | www.doh.wa.gov

From: DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Sent: Tuesday, January 21, 2025 9:45 AM
To: Tolleson, Daniel F. (ECY) <DTOL461@ECY.WA.GOV>
Cc: Hockaday, Erin (DOHi) <erint@bfhd.wa.gov>; JoDee Peyton <jodeer@bfhd.wa.gov>; dbraaten <dbraaten@franklincountywa.gov>; rrmx3@aol.com; Braden Anderson <Braden@harmsengineering.com>; Clark, Jamie C (DOH) <Jamie.Clark@doh.wa.gov>; Ikehara, Nathan W (DOH) <nathan.ikehara@doh.wa.gov>; DOH EPH DW ERO ADMIN <EROADMIN@DOH.WA.GOV>
Subject: Richview_AE302_24-0506_2nd Draft WSP ECY LTR_2025-01-21

STATE OF WASHINGTON
DEPARTMENT OF HEALTH

EASTERN DRINKING WATER REGIONAL OPERATIONS
316 W. Boone Ave., Suite 170, Spokane, WA 99201-2346
(509) 329-2100 • 711 Washington Relay Service

January 21, 2025

Daniel Tolleson
Department of Ecology, Eastern Regional Office
4601 N Monroe St
Spokane, WA 99205

Subject: Richview Water System; ID #AE302; Franklin County
Second Draft Water System Plan; DOH Project # **24-0506**.

Dear Mr. Tolleson:

We are asking for your review of the second draft Water System Plan for the Richview water system located in Franklin County. Please review the plan as required in the 2007 *Memorandum of Understanding*. Please provide written comment on the following within 60 days of the date of this letter:

- Under RCW 90.030386(2) and 90.03.570, determine a municipal water supplier's compliance with its approved water system plan regarding water rights.
- Determine whether this planning document is "not inconsistent" with any watershed plan approved under chapter 90.82 RCW or adopted under chapter 90.54 RCW for purposes of modifying a municipal water supplier's water rights place of use to the service area under RCW 90.03.386(2).

If no response is received by the comment deadline, the Department of Health may determine compliance based on information provided by the water system.

Please send your comments to everyone included on this e-mail within 60 days of the date of this letter. If your comments indicate there is a discrepancy in the water rights information, we will request the water system respond to your concerns. Any changes to the plan regarding water rights will be forwarded to your office for review.

We have placed a copy of the planning document in the Ecology folder on Box.com. Please download and use for your review. Please note you have thirty (30) days to download this file before it automatically deletes.

If you have any questions, please contact Regional Planner Jamie Clark at (509) 329-2137 or by email at jamie.clark@doh.wa.gov. **Again, please submit all correspondence by e-mail to eroadmin@doh.wa.gov.**

cc: Randy Mullen rrmx3@aol.com
Braden Anderson, PE braden@harmsengineering.com
Benton-Franklin Health District
Franklin County Planning Department

Eastern Regional Operations Admin
Office of Drinking Water
Environmental Public Health
Washington State Department of Health
eroadmin@doh.wa.gov
509.329.2100 | www.doh.wa.gov
509.329.2104 (fax)

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

May 22, 2024

Randy Mullen
Richview Water Company
PO Box 3596
Pasco, WA 99302

Re: Richview Water System; ID #AE302; Franklin County; Group A Community S01 Source Approval; DOH Project #24-0507

Thank you for the opportunity to review the above referenced Group A Community SO1; DOH Project #24-0507 received on May 10, 2024. Consistent with the Memorandum of Understanding between the Department of Health (DOH) and Department of Ecology (Ecology), regarding joint review and approval of WSPs, this letter is being sent to your office with Ecology's comments. Specific elements of the WSP review included the Water Rights Self-Assessment as well as additional water rights documentation, including Ecology's water right files and previous WSPs and project reports, as applicable.

Ecology did not identify any issues of concern during review of the documentation.

Future Demand

- Expected future demand will meet projected build out.

Service Area

Service area is outlined within the referenced documentation in Richview Water System; ID #AE302; Franklin County; Group A Community S01 Source Approval; DOH Project #24-0507.

If you have any questions, please contact me at edav461@ecy.wa.gov or (509) 342-6867.

Sincerely,

Dan Taller
For

Eric Davis
Permit Writer/Manger
Water Resources Program
Eastern Regional Office

ecc: DOH EPH DW ROE ADMIN, eroadmin@doh.wa.gov
Randy Mullen, Owner, rrmx3@aol.com

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

May 22, 2024

Randy Mullen
Richview Water Company
PO Box 3596
Pasco, WA 99302

Re: Richview Water System; ID #AE302; Franklin County; Water System Plan; DOH Project #24-0506

Thank you for the opportunity to review the above referenced Water System Plan (WSP), received on May 10, 2024. Consistent with the Memorandum of Understanding between the Department of Health (DOH) and Department of Ecology (Ecology), regarding joint review and approval of WSPs, this letter is being sent to your office with Ecology's comments. Specific elements of the WSP review included the Water Rights Self-Assessment as well as additional water rights documentation, including Ecology's water right files and previous WSPs and project reports, as applicable.

Ecology did not identify issues of concern during review of the WSP plan and/or supplemental documentation. Water Right Self- Assessment, with the sum Water Right G3-20242(H), Qi 220 GPM and Qa 135 AFY.

Service Area
If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, the place of use of this water right is the service area described in that document. If the criteria in RCW 90.03.386(2) are not met and no Water System Plan/Small Water System Management Program has been approved after September 9, 2003, the place of use reverts to the last place of use described by the Department of Ecology in a water right authorization.

The water right service area appears to be correct.

The water right portfolio appears to have adequate water right quantities to support its current operation and future years of growth per the WSP and Water Right Self- Assessment table.

If you have any questions, please contact me at edav461@ecy.wa.gov or (509) 342-6867.

Sincerely,

Dan Talk

For

Eric Davis
Permit Manger
Water Resources Program
Eastern Regional Office

ecc: DOH EPH DW ROE ADMIN, eroadmin@doh.wa.gov
Randy Mullen, Owner, rrmx3@aol.com

CUP 2025-12/
SEPA 2025-25

Water System Plan

Water System Plan

Richview Water System

Franklin County, Washington

Prepared for:

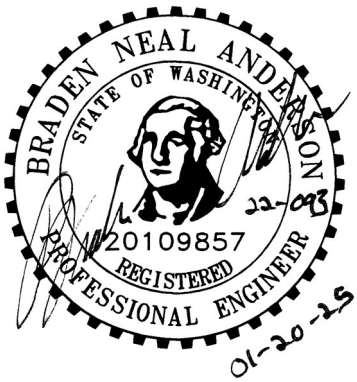
Richview Water Company
Randy Mullen
PO Box 3596
Pasco, WA 99302

Project Location:

1603 Richview Dr
Pasco, WA 99301

Prepared By:

Braden Anderson, PE
Harms Engineering, Inc.



Project #22-093.1

January 2025

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Appendices

Appendix A: Water System Exhibits

Appendix B: Related Plans

Appendix C: Water Right and Groundwater Source Documents

Appendix D: Water System Design Calculations

Appendix E: Water System Supplementary Documents

Chapter 1: Water System Description

1.1 Ownership and Management

The Richview Water System is a proposed Group A water system that will be owned and operated by the Richview Water Company, a private corporation, charge of Randy Mullen. The Richview Water Company will be responsible for constructing the water system and will continue to own and operate the System after completion. Richview has contracted with SJ Environmental, a registered Satellite Management Agency (SMA), to be the Certified Operator and Cross Connection Specialist for the system. The system will likely serve more than 100 connections within the current planning approval period, at which point it would need to be regulated under the Washington UTC.

Name of Utility:	Richview Water System
Ownership Entity:	Richview Water Company
Contact Person:	Peter Harpster
Mailing Address:	PO Box 3596, Pasco, WA 99302-3596
Phone:	509-212-9596
Type of Ownership:	Private
Certified Water Operator:	SJ Environmental, Jay Favor
Cross Connection Specialist:	SJ Environmental, Samuel Sneed
Satellite Management Agency (SMA):	SJ Environmental
Consulting Engineer:	Braden Anderson, PE Harms Engineering, Inc. 1632 W Sylvester St, Pasco, WA 99301

1.2 System History and Background

The proposed Richview Water System will provide domestic water to multiple properties being developed for residential use north of Pasco. These developments are in various stages of planning and construction, and an exhibit showing the locations, parcel numbers, sizes, estimated ERU's (equivalent residential units), and approximate elevations of each development is shown on the Service Area Map in Appendix A. All consist of farmland being developed for residential use and are zoned either RC-1 (Rural Community 1 acre) or AP-20 (Ag. Production 20 acre).

The well, reservoir, and booster station for the system will be located on Parcel 124300373. The developments within the service area are not contiguous, so the System has applied for a franchise agreement with Franklin County to install water transmission lines within County right of way where available. Water utility easements will be developed where right of way is not available. The topography of the area is generally flat, except along the western edges where the ground slopes down to the Columbia River. The system will provide domestic water and fire flow to the residential developments, with irrigation water to be provided separately.

Most of the properties within the service area are either served by an existing M&I irrigation contract with SCBID or are still part of platted Farm Units receiving project water from SCBID. All properties seeking to be connected to the Richview System will need to demonstrate coverage by an M&I irrigation contract prior to approval. A list of properties and corresponding irrigation coverage (Farm Unit or M&I Contract) and copies of the M&I contracts are included in Appendix B.

The nearest water systems are the Pasco Heights Domestic Water Association (PWS 663508) to the east, whose service area borders the eastern boundaries of the Mullen, Diamondback, and Underwood

developments, River Ridge Estates (PWS 38792V) to the northwest, and the Pasco Water Dept (PWS 66400) to the south, whose Urban Growth Boundary (UGA) has recently expanded to border Kohler Estates.

1.3 Related Plans

Franklin County Comprehensive Plan: All properties within the service area of the water system are within Franklin County, and each proposed development is in various stages of planning and coordination with the County to comply with the land use and zoning regulations of the county comprehensive plan. The water system itself will need to comply with County regulations regarding permitting, water service, fire flow, and any other aspects of the design within their jurisdiction. Refer to the Franklin County Zoning Map in Appendix B.

City of Pasco Comprehensive Plan: No properties within the service area are located within the Pasco UGA. Kohler Estates Phase 2 to the south does border the recent expansion of the UGA. Refer to the updated Pasco Map in Appendix B.

River Ridge Estates (30 connections) and Pasco Heights Domestic Water Association (45 connections) are two existing water systems located to the northwest and east of Richview, respectively. Their service areas are shown on the Source Water Assessment Program (SWAP) Map of the area, included in Appendix B along with water system info and well logs for each system.

1.4 Service Area and Land Uses

The Service Area Map of Richview water system is included in Appendix A. Multiple developments in the area are interested in connecting to the System in the future and have requested to be included within the service area. These are listed by name and constituent parcel numbers on the service area map, and summarized below.

> Retail Service Area: Includes The Plateau, The Heights, Selph Landing, Underwood Estates, Kohler Estates, Diamondback, and Eickmeyer.
>
> Water Rights Place of Use: Corresponds to the current Retail Service Area.
>
> Future Service Area: Pomona Properties, Field and Clifford Farms, and a couple parcels adjacent to Underwood Estates and Kohler Estates.

A WSP amendment or update will be required to modify the approved service area.

Land use within the service area is primarily existing agricultural land being converted to residential developments. Most of the service area is included in the Rural Shoreline development, LAMIRD Type 1 land use designation by Franklin County, or is in the process of changing designation/zoning to be compatible with residential development. Only residential uses are included in the Water System Plan, and any existing agricultural uses must be provided with water from other sources. Refer to Appendix B for related plan maps.

1.5 System Policies

Once the administration and management of the system is established, the system will adopt policies that are consistent with federal, state, and local regulations, DOH guidelines, and the Municipal Water Law. Below is an outline of some basic policy areas that will be considered by the System:

Design and Performance Standards: The System will set minimum standards for water quantity, quality, and level of service to all users. Standards will include protections for the source of supply, minimum requirements for flow and pressure throughout the system, adequate storage for standby and fire flow as required, minimum specifications for system components, and any other standards necessary for proper operation and maintenance of the system.

Developer Extension Requirements: The System will develop a procedure for reviewing water service requests from applicants and establish applicant and System responsibilities for expanding the system to meet requests in accordance with the Duty to Serve statement. In general, developers seeking connection to the system will be responsible for the design and construction costs of the expanded infrastructure, and the System will require improvements to be designed and reviewed by a professional engineer.

Facility and Connection Charges: Water fees will be set by the System to ensure the system is operated and maintained properly, and able to fund capital replacement projects in the future. The System will also set connection fees and procedures for new developments connecting to the system to ensure all new connections meet the design standards and are incorporated into the asset management system.

Water Meter Specifications and Material Charges: The System will develop water meter specifications for new connections and determine whether to supply water meters and what the material costs will be.

Cross-connection control devices: The System will develop backflow prevention device specifications in accordance with the cross-connection control plan, including inspection and testing requirements.

Emergency Response: The System has developed administrative procedures for responding to emergencies through an Emergency Response Plan, included in the appendices.

It will be the responsibility of the System administration to develop a procedure for reviewing and adopting new policies as they become necessary. Some system policies will be based on information contained within this Water System Plan (WSP).

1.6 Duty to Serve Statement

A Duty to Serve Statement for the water system is included in Appendix E.

1.7 Local Government Consistency Determination Forms

Franklin County has approved a conditional use permit (CUP) for Richview and has signed a local government consistency determination for the System. Both are included in Appendix B. The System will ensure that all infrastructure improvements pertaining to the water system will be consistent with the comprehensive plan and development regulations.

Chapter 2: Basic Planning Data

2.1 Existing and Proposed Population

The service area is composed of existing farmland to be developed for residential use. Currently there are two residences within the service area, but no usage data is available. The proposed improvements for Richview do not incorporate any existing infrastructure within the service area.

The proposed population served by the system is long-term residential; there are currently no plans for non-residential connections. Each proposed single family residential lot corresponds to one ERU. The proposed number of lots for each development is based on proposed plats or planned-unit developments where available, or estimated from gross area and lot-density estimates. A summary of the estimated number of proposed lots for each development to be served by the water system is given in the table below:

Development	Gross Area (acres)	Lot Sizes	Lot Count (ERU Estimate)
Plateau, Heights, and Selph Landing	209	1 acre	115
Underwood Estates	191	½ - 1 acre	135
Diamondback	42	½ - 1 acre	45
Eickmeyer	63	½ - 1 acre	45
Kohler Estates	50	½ - 1 acre	60
Total	555		400

As planning for each development is ongoing and subject to change, these estimates are intended to be conservative (more ERU's). To accommodate these developments, the proposed number of connections for the water system is 600. Based on data from the Office of Financial Management for population and housing unit counts within unincorporated parts of Franklin County, the average household size is estimated to be 3.3 persons, and therefore the total population served by this water system at full build-out would be approximately 1,980.

- Proposed Number of Connections: 600
- Proposed Population Served: 1,980

2.2 Proposed Production and Usage

As there is no existing data available for a new system, an alternative method of determining future water demand and production will be used. The Water System Design Manual (WSDM), Appendix D uses a study of water systems throughout the state to estimate typical residential water demands. Based on these guidelines, domestic-only residential water demand for single-family residences can be estimated as follows:

- Average Daily Demand (ADD): 200 gpd/eru
- Max Daily Demand (MDD): 400 gpd/eru.

A new well was constructed and tested for the System in March 2024, and a Source Approval for the new well submitted to DOH in May 2024. Based on test results, the new well has enough capacity to supply water to the system as a sole source during the early stages of the System's development. As the number of connections increases, a second well would provide additional capacity and redundancy for the System, and it is recommended that the second well be constructed once the System reaches

300 eru's, or after the first 10-year planning period, whichever occurs first. The water right and well log for the new well is included in Appendix C. See the Water System Design Calculations in Appendix D for a full analysis of the System production and usage requirements.

- Proposed Annual Usage: (600 eru) x (200 gpd/eru) x (365 day/yr) = 135 ac-ft/yr
- Proposed Instantaneous Rate (Full Build-out): 220 gpm

A water right transfer to Richview Water Company for the System was completed in February 2024, with the new water right designation G3-20242(H). The water right annual quantity is 135 ac-ft/yr, equivalent to the proposed annual usage of the System at 600 connections. As the System ages, water losses may consume a portion of the water right and reduce the number of new connections available, up to 5 percent or 30 eru after 20 years. As the number of connections approaches the proposed maximum, the System will assess and reduce losses or acquire additional water rights to meet demands exceeding the water right. At this time, the proposed number of eru's for the System is less than the 600 maximum, and more rights are potentially available from the parent water right G3-20242(D) if needed.

2.3 Water Supply Characteristics

The water system will be supplied with groundwater by wells located on site. The first well to be constructed for the system (S01) is 270 ft deep and draws from the Pasco Gravels aquifer. The well has been tested according to the WSDM specifications, and an analysis of the tests indicate the well can sustainably supply the design flow rate of 170 gpm. Refer to the Well Drilling and Testing Report in Appendix C for the analysis of the well capacity.

Well S01 Design Pumping Rate: 170 gpm

2.4 Water Supply Reliability Evaluation

The new well has been designed and constructed using best practices to provide a reliable source for the System, as will any future groundwater sources. The Pasco Gravels aquifer is a highly-transmissible sand and gravel aquifer, with local trends showing water levels remaining stable in this area due to the proximity of the Columbia River. The water-bearing formation was observed to be buffered from surface waters by stratified silt and clay deposits during drilling, and the well is screened and sealed from the surface to ensure water quality remains consistent without influence from surface waters. The System does not have any long-term concerns regarding changes to water quantity or quality at this time, but will monitor water levels and potential contaminants in the future as the System continues to develop.

The System plans to construct a second well to increase water supply reliability in case of emergencies or when one source needs maintenance. Other measures to increase system reliability will include constructing storage tanks with equalizing and standby storage, and the addition of backup power facilities to maintain the ability to pump and distribute water during power outages.

2.5 Interties

There are no proposed interties for the water system. The System will supply all of its own water according to the approved water right. The nearest water systems are the smaller River Ridge Estates and Pasco Heights systems, to the northwest and east, respectively. Pasco Heights's service area borders the Richview retail service area (see SWAP Map in Appendix B). The Pasco municipal water system is approximately 2 miles to the south of the well site at the nearest connection point, and may eventually extend to the border of the Richview Service Area based on the City's UGA boundary.

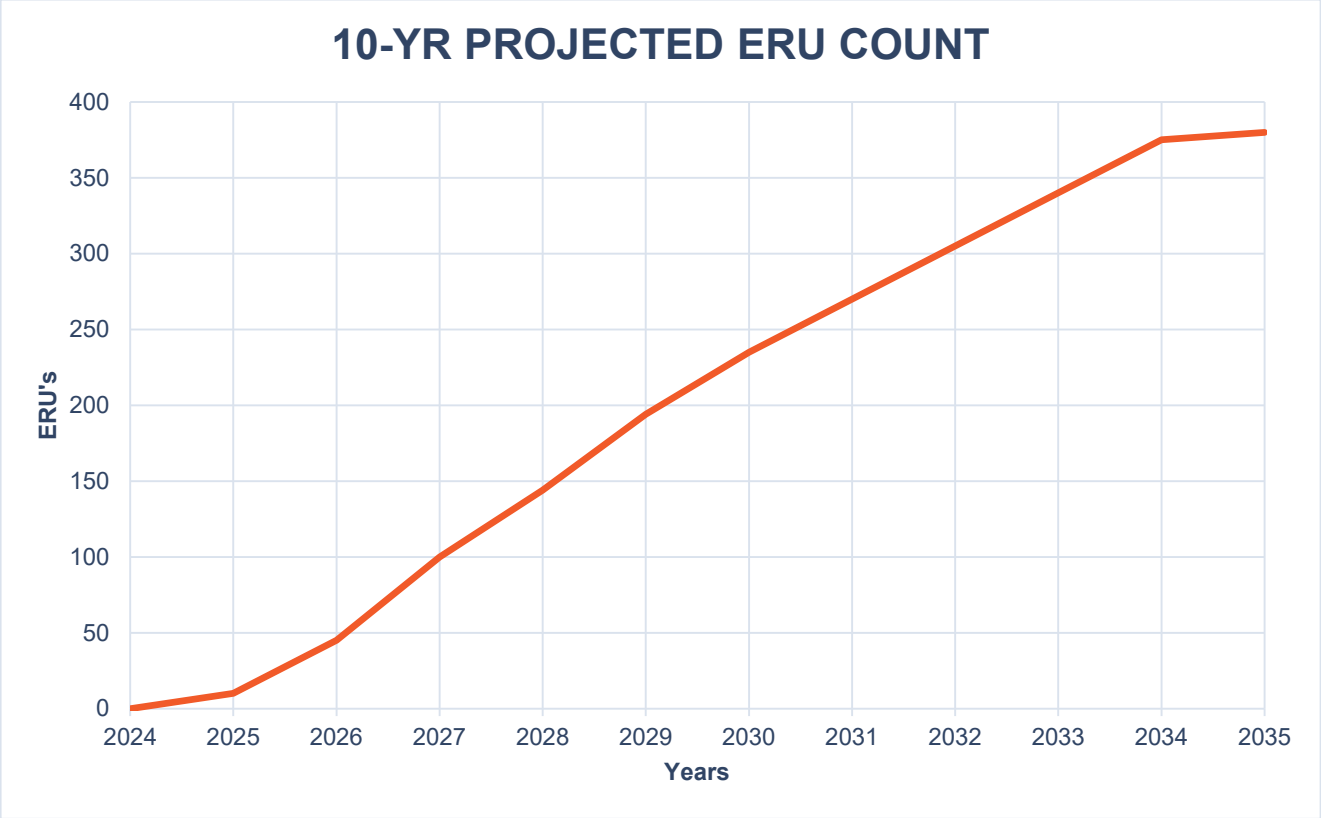
2.6 Plan Approval Period and 20-year Projections

Projections for the water system are based on the proposed developments it will serve. It is anticipated some developments will begin construction shortly after approval of the water system, while others will be developed in the future or be phased over time. To ensure the system can provide enough water to

meet demand as each development grows, infrastructure will be designed to serve the full-buildout of the system within the plan approval period of 10 years.

For other planning purposes, a year-by-year projection is given in the table and graph below, where it is assumed that the first developments to connect (The Plateau, Kohler Estates, and Underwood Estates) will do so within the first 3-5 years of operation of the system, with subsequent growth at a rate of approximately 5%-10% per year. According to these assumed growth estimates, the system will reach 40% of full buildout within 5 years, and 60% percent full buildout within the plan approval period of 10 years.

		Projected Number of Lots per Development within Retail Service Area								
Planning Period	Year	The Plateau Lot Count	The Heights Lot Count	Selph Landing Lot Count	Underwood Est's. Lot Count	Diamondback Lot Count	Eickmeyer Lot Count	Kohler Estates Lot Count	Total Lots/ ERU's	Population Estimate
	2024	0	0	0	0	0	0	0	0	0
Approval Year	2025	5	0	0	5	0	0	0	10	33
	2026	15	0	0	15	0	0	15	45	149
	2027	25	5	0	30	0	0	40	100	330
	2028	29	20	0	45	0	0	50	144	475
	2029	29	35	5	60	5	0	60	194	640
5-yr Projection	2030	29	46	10	75	10	5	60	235	776
	2031	29	46	20	90	15	10	60	270	891
	2032	29	46	30	105	20	15	60	305	1007
	2033	29	46	40	120	25	20	60	340	1122
	2034	29	46	40	135	35	30	60	375	1238
10-yr Approval Period	2035	29	46	40	135	35	35	60	380	1254
15-yr Projection	2040	29	46	40	135	40	40	60	390	1287
20-yr Projection	2045	29	46	40	135	45	45	60	400	1320



Because the system infrastructure will still be designed for full buildout within the plan approval period, the growth of the system will not be inhibited by the capacity of the water system itself. However, these projections are used for financial planning purposes in Chapter 9, and the system may have to make financial adjustments in the future to compensate for lower-than-expected revenues if growth of the system is slower than projected.

2.7 Projections and Land Use Discussion

The developments served by the water system are in various stages of planning with Franklin County, with some already zoned for residential and others zoned for agricultural purposes that are in the process of being converted to residential use. The projected number of lots and population for these proposed developments are conservatively high estimates based on the rural zoning classifications allowed in Franklin County. As planning for each development continues, these projections may be subject to change, but will not be allowed to exceed maximum number of connections approved for the water system.

2.8 Future Water Demand

Below is a table of future water demand (ADD and MDD) based on the projected number of total ERU's for the system, without accounting for the water use savings from the Water Use Efficiency (WUE) program.

Planning Period	Year	Total Lots/ ERU's	Projected ADD (gpd)	Projected MDD (gpd)
	2024	0	-	-
Approval Year	2025	10	2,000	4,000
	2026	45	9,000	18,000
	2027	100	20,000	40,000
	2028	144	28,800	57,600
	2029	194	38,800	77,600
5-yr Projection	2030	235	47,000	94,000
	2031	270	54,000	108,000
	2032	305	61,000	122,000
	2033	340	68,000	136,000
	2034	375	75,000	150,000
10-yr Approval Period	2035	380	76,000	152,000
15-yr Projection	2040	390	78,000	156,000
20-yr Projection	2045	400	80,000	160,000

2.9 Water Rights Self-Assessment (WRSA)

A copy of the water right and the water right self-assessment form are included in Appendix C.

Chapter 3: System Analysis

3.1 Asset Management Inventory

Currently, the new water system's only asset is Well S01. The System plans to manage assets using a spreadsheet based on the RCAC template for water systems. This tool will aid the System in tracking system inventories, assessing asset conditions and criticalities, and prioritizing maintenance and asset replacement as the system ages. Below is a list of major components to be included in the asset management system. A printout of the asset management spreadsheet with proposed assets and timelines is included in Appendix E.

Sources: One 8" diameter well, 270 ft deep, with a submersible pump. A second well of identical construction will also be constructed in the future. The first well will be designed to supply 170 gpm, and after construction of the second well, both will operate as a well field with a maximum production rate of 220 gpm. Each well will have a source meter and level sensor to monitor the production and static water levels of the source aquifer over time. Two wells increase the reliability of the source in case one well is taken offline.

Iron/Manganese Treatment System: An iron/manganese filter system using greensand or similar filter media to remove manganese from the source water prior to storage in the tanks. The system will consist of 4-5 greensand filter tanks operating in parallel. Greensand filter media requires backwashing to remove residuals, which will be dewatered and disposed of using on-site drying beds/lagoons or a batch-settling tank.

Storage: Two new above ground tanks, 30 ft diameter by 30 ft tall, 158,600-gallon capacity each, concrete construction, with level transducers and backup float assemblies for controls and alarms. Storage tanks will receive water from wells and provide operational, equalizing, standby, and fire flow storage for the system. Two storage tanks increase reliability of the system in case one is taken offline.

Booster Station: A CMU booster station building containing booster pumps, electrical and control systems. Booster pumps will be a skid-mounted packaged booster system with two or three primary booster pumps, one additional pump for redundancy, and a dedicated fire pump. Controls system will include a full SCADA system to improve management of the system. Booster station will be large enough to accommodate treatment systems if required based on the water quality analysis of the source. A standby generator will be installed to provide backup power for the system pumps.

Distribution System: 8-inch to 10-inch C900 water lines extending to all residential developments within the service area, approximately 70,000 lf at full buildout. Major transmission lines extending north and south from the water system site will run parallel to Fraser Dr. All connections will be individually metered for accurate water usage monitoring and leakage detection. Fire hydrants will be installed to provide fire flows according to Franklin County requirements.

3.2 Asset Condition Assessment and Criticality

All assets constructed by the system will be in new condition. Below is an assessment of the criticality of the major assets to be constructed.

Wells: Most Critical, but eventually having two wells would prevent complete shutdown during an outage.

Iron/Manganese Treatment System: Most Critical, but system will be designed with at least one redundant filter tank in case of outages.

Storage Tanks: Most Critical, but having two storage tanks would prevent complete shutdown during an outage.

Booster Station: Most Critical. Booster skid would include a redundant pump to prevent complete shutdown during a pump outage. A backup generator would prevent complete shutdown during a power outage.

Distribution System: Transmission lines along Fraser Dr would be most critical, as failure would result in a complete shutdown for communities at the ends of the line. Most other distribution networks will be looped for redundancy and are less critical.

3.3 Water Quality Analysis

The first well (S01) was tested according to the DOH standards for groundwater wells, with the full results of the tests submitted with the Source Approval for S01. No primary contaminant MCL's were exceeded, but one secondary contaminant MCL was exceeded: manganese. The groundwater well does not have issues with microbiological contamination and primary disinfection is not required.

Manganese is generally an aesthetic concern, but at levels exceeding the MCL of 0.05 mg/L must be addressed by treatment. The System proposes to install a greensand filtration system that will remove iron and manganese from the water to levels below 0.02 mg/L per DOH guidelines.

A water quality monitoring plan for the distribution system has been prepared by SJ Environmental (see Appendix E), and will be put in place to verify the System is meeting the standards of the Safe Drinking Water Act. Provisions will be made for the introduction of a future secondary disinfection if necessary.

3.4 System Design Standards

Construction of the new water system and all future improvements will meet the followings standards based on the requirements of DOH:

Water Quality Parameters:	Safe Drinking Water Act water quality parameters as modified by DOH.
Average Daily Demand:	200 gpd/eru
Maximum Daily Demand:	400 gpd/eru
Standby Storage:	MDD x ERU = 240,000 gallons
Fire Flow Requirements:	1,000 gpm for 1 hour, per 2021 IFC and Franklin County Fire District
Minimum System Pressure:	60 psi (exceeds DOH minimum pressure of 30 psi)
Maximum System Pressure:	80 psi (some connections and distribution network zones may require pressure reducing valves)
Minimum Pipe Size:	8 inch
Telemetry System:	SCADA system for well, reservoir, and booster control, connected to internet
Backup power requirements:	Standby generator for well and booster station
Valves:	Max spacing 750 ft, except 1,500 ft along transmission lines with no intermediate connections, and all intersections: two legs of tees, three legs of crosses.
Hydrants:	Max spacing 500 ft, or per County requirements
Sample Stations	Minimum (3) per development, may be phased.

Pipe Velocities:	PHD max velocity: 5 fps. Fire Flow max velocity: 10 fps.
Separation:	All water lines are to have minimum 10 ft horizontal, 18” vertical separation from non-potable septic or irrigation lines.

3.5 Capacity Analysis

The water system will be designed to provide water for the full buildout of all developments within the proposed service area. Analysis of the required capacity of the proposed water system is included in Water System Design Calculations in Appendix D, along with WSDM worksheet 4-1.

Water Rights have been transferred to the water system for domestic use. Refer to Section 2.9 and the WRSA form in Appendix C.

3.6 Hydraulic Analysis

Water System Design Calculations and a Water System Schematic for the water system are included in the Appendices. A summary of the design of the system and various components is given below:

Water Usage:	
Total Design Connections (N)	600
Total ADD	120,000 gpd
Total MDD	240,000 gpd
Total PHD	347 gpm
Well Pump:	
Design Pump Rate	170 gpm
Max Pump Rate (2 Wells, Future)	220 gpm
Design TDH	263 ft
Reservoir (Two Tanks):	
Operational Storage	5,300 gal
Equalizing Storage	21,100 gal
Standby Storage	243,200 gal
Fire Suppression Storage (nested with Standby Storage)	60,000 gal
Total Storage	317,200 gal
Tank Size	30 ft dia x 30 ft tall
Booster Pumps:	
PHD Design Pump Rate	347 gpm
PHD Design TDH	139 ft
MDD+FF Design Pump Rate	1,168 gpm
MDD+FF Design TDH	143 ft

The final well pump rates have been determined from the well pump test. Storage tanks are sized with nested standby and fire storage. A level transducer would be used to control the well pump and booster pump on/off settings, with floats included for backup.

The booster pump station consists of three main pumps, with one extra provided for redundancy, a jockey pump for low-flow conditions, and a separate fire pump dedicated for fire flow.

Due to the layout of the system, a transmission line running north and south from the water system site parallel to Fraser Dr would be needed to serve the outer areas. This transmission line will be upsized to accommodate the high-flow scenarios of the system.

Within each residential development, the distribution systems would primarily consist of 8” C900 pipe networks with as much looping as possible. The design for both the PHD and MDD + FF scenarios assume that the peak flow is delivered to the farthest point within each development. As layouts are finalized for each development, the hydraulic model will be updated to analyze the system and address additional design considerations of the WSDM.

3.7 Summary of System Deficiencies

The new water system does not have any known deficiencies at this time.

Chapter 4: Water Use Efficiency (WUE)

4.1 Metering Program

All sources and service connections will be metered to ensure the system is able to monitor and report production and consumption according to state requirements. Each source will have a source meter to measure and record the water production of the system, and a totalizing meter will be installed at the booster station to monitor the total water delivered to the distribution system. Additional leak detection devices along the transmission lines and within pressure zones may also be installed to monitor distribution system leakage across the system.

Metering standards will be developed for the system to ensure all service connections are metered separately, and that meters are easily read, maintained, and replaced by the system. Standards will seek to maximize the water efficiency, monitoring ability, and longevity of the water system in keeping with water use efficiency goals.

4.2 Distribution System Leakage

As a new system, it is anticipated distribution system leakage will be at a minimum as all the equipment will be new and pressure tested prior to being put into service. Some minor leakage will occur, but will not be significant compared to the total usage of the system initially. Distribution system leakage will increase over time, but with the metering and WUE programs in place, will be monitored and kept as minimal as possible.

4.3 Water Use Efficiency (WUE) Program

Water use projections for the new system is based on WSDM Appendix D guidelines for domestic-only systems. These projections will be used as a baseline for determining water use efficiency goals for the system as the first connections are put into service and data can be collected on the actual water consumption of the system's users. Following is an outline of the WUE program that will be implemented by the water system.

4.3.1 Establish WUE Goals

After a full year of data collection (source and service meter readings) from the new system, Richview will select at least one water use efficiency goal. The System will review water usage and distribution system leakage information and develop at least one goal to present at the public goal setting forum.

As required by the Municipal Water Law, the system will notify the public (not just the membership) of the goal setting forum at least two weeks prior to the meeting. The notification may be on a public website, newspaper advertisement, or sign visible to the public.

4.3.2 Select WUE efficiency measure to be implemented to achieve goals (4 additional methods if between 500 and 1000 connections)

In addition to the mandatory metering and leakage control measures to be implemented by the system, at least four additional measures are required for a water system of this size (at full buildout). The following measures will be implemented at the beginning of operation of the water system:

1. Establish rates to encourage conservation: The system will establish an inclining block rate structure to encourage customers to conserve water, but still fund the WUE program and maintain the operational budget of the system.
2. Provide users with summaries of water use history: Historical water use summaries will be provided to consumers, either with monthly billing or as a year-end summary, to provide consumer awareness of the amount of water being used.

3. Provide education on efficient water use to consumers at least twice per year: Educational materials focusing on efficient water use and water-saving hardware will be distributed to consumers multiple times per year. The system may also consider posting signs and local advertising as part of this measure.
4. Provide leak detection education: The system will provide education on indoor leak detection and repair to encourage consumers to fix leaks causing unnecessary water usage.

After the system has been in operation and collected data on water usage, alternative or additional measures will be evaluated as necessary.

4.3.3 Describe process to evaluate WUE measures not implemented

The system has no existing usage data or active WUE measures to compare with at this time. After establishing a year's worth of usage data and implementing the proposed measures, the system will be able to set WUE goals, assess the effectiveness of the measures selected, and evaluate whether alternative WUE measures are needed to further improve efficiency and water use savings.

4.3.4 Describe or provide an example of yearly consumer education (cannot count as a measure)

The system will include water use efficiency brochures and/or links to educational materials with normal billing multiples times a year. Example materials are included in Appendix E. Additional materials and links to digital resources are also available on the DOH website.

4.3.5 Estimate projected water savings from WUE measures

At this time, a reasonable estimate of the water savings from these WUE measures is 5% after the first 5 years. Once baseline water usage levels are established and WUE goals are set, a more accurate estimate of water use savings can be determined.

4.3.6 Describe process that will be used to determine effectiveness of the WUE program

The system will evaluate the water use efficiency program each year and complete the annual water use efficiency performance reports as required by DOH. The performance report will be submitted to the DOH by July 1 each year. In addition, a copy of the report will be sent to the membership and provided to the public. If water use saving goals are not being met, the system will adopt additional measures not yet implemented.

4.3.7 Plan approval period and 20-year water demand projection with WUE savings

Planning Period	Year	Projected ADD (gpd)		Projected MDD (gpd)	
		W/O WUE	W/ WUE	W/O WUE	W/ WUE
	2024	-	-	-	-
Approval Year	2025	2,000	1,980	4,000	3,960
	2026	9,000	8,820	18,000	17,640
	2027	20,000	19,400	40,000	38,800
	2028	28,800	27,648	57,600	55,296
	2029	38,800	36,860	77,600	73,720
5-yr Projection	2030	47,000	44,650	94,000	89,300
	2031	54,000	51,300	108,000	102,600
	2032	61,000	57,950	122,000	115,900
	2033	68,000	64,600	136,000	129,200
	2034	75,000	71,250	150,000	142,500
10-yr Approval Period	2035	76,000	72,200	152,000	144,400
15-yr Projection	2040	78,000	74,100	156,000	148,200
20-yr Projection	2045	80,000	76,000	160,000	152,000

If successful, the WUE Program could save the system 3,800 gal/day of ADD after 10 years, equivalent to the use of 19 ERU's.

Chapter 5: Source Water Protection

5.1 Sanitary Control Area

Land for the new source well is owned and controlled by the water system, allowing the establishment of a 100 ft sanitary control area (SCA) to adequately protect the well from contamination. The declaration of covenant for the first well has been recorded and a copy is provided in Appendix C.

5.2 Wellhead Protection Program (WHPP)

A WHPP is established for the new source well. Aspect Consulting prepared the Wellhead Susceptibility Assessment, Inventory of Potential Contaminants, and Time of Travel Map as part of the Richview Well Drilling and Testing Report, included in Appendix C. The wellhead protection area delineation is calculated using the CFR method.

Sources of potential contaminants within the well time of travel zones include agricultural lands and residences commonly having septic tanks. Some of the agricultural land to the west and north of the well site will be developed for residential use within the plan approval period. Assuming the hydrologic gradient declines toward the Columbia River, most of the residential septic systems will be downgradient of the well. The source is also buffered from the effects of the surface water by the surface seal of the well and stratified silt and clay deposits observed lying above the water bearing formation during drilling.

If one or both sources become contaminated, the System will evaluate the best course of action based on the reason for failure (deficient well construction, major spill, or compromised aquifer), alternatives for remediation (well re-construction, spill cleanup, or water treatment system), and the costs for each alternative. If only one well is experiencing contamination, the other well may continue to operate as normal. If both wells are contaminated, the System will implement a plan to curtail water usage and supply bottled water and/or water trucks for customer use until the issue is resolved. These measures are addressed in the Emergency Response Plan in Chapter 6 and Appendix E.

The System has notified local residents and businesses, emergency responders, and state and local agencies of the final contaminant source inventory findings, wellhead protection boundaries, and contingency plans in order to reduce the risk of contamination and coordinate responsibilities if a spill occurs. Copies of the letters to be sent out are included in Appendix C. The System is required to re-send notification letters every two years.

Chapter 6: Operation and Maintenance Program

6.1 Water System Management and Personnel

The water system will be constructed and operated by Richview Water Company, who will be in responsible charge of the water system. Day-to-day operation and management of the water system will be handled by SJ Environmental, a qualified SMA and certified operator. A list of the responsibilities held by each entity is listed below.

Owner

- Capital improvement project management, including internal planning and engineering design review, asset management, and construction management;
- Major repair or maintenance project management;
- Budgeting;
- Complaint response;
- Disseminating public information; and
- Meter reading and billing.

Satellite Management Agency/Water Operator

- Day-to-day operation, monitoring, and record keeping of the pumping, storage, and distribution systems;
- Water quality monitoring, including source sampling; water treatment sampling, data verification, and reporting to DOH; and distribution system sampling, data verification, and reporting to DOH;
- Sanitary survey preparation, participation, and response;
- Preventative maintenance;
- Emergency response service;
- Cross-connection control; and
- Ensuring operational staff get needed training and continuing education.

6.2 Operations and Preventative Maintenance

6.2.1 Major System Components and Operation

As the system is new, all major components and systems are proposed. Refer to the Site Layout and Utility plans in Appendix A for locations of all components. An outline of proposed system operations is presented below.

Source:

The sources will be groundwater wells. A submersible pump will be installed to pump water to an atmospheric storage reservoir. The well will have a source meter to monitor well production and a water level sensor to monitor static and pumping water levels of the source aquifer.

Provisions have been made for primary disinfection (hypochlorination) of source water prior to entering the reservoir, if necessary. The storage tank will be designed to promote mixing and turnover rates within the reservoir.

Iron/Manganese Treatment System:

The iron/manganese greensand filter system will remove iron and manganese from the source water using multiple filter tanks operating in parallel. The greensand or similar filter media will be backwashed regenerated regularly to continue filtering properly. Backwash residuals will be stored and dewatered on site prior to disposal. Effluent from the treatment system will be monitored to ensure the levels of the target contaminant manganese remain below 0.02 mg/L prior to delivery to the storage tanks.

Reservoir:

The reservoir will consist of up to two above-ground concrete tanks, with sufficient capacity for operational (OS), equalizing (ES), and standby (SS) storage for the system. Standby storage will also be sufficient to supply fire flows for the system. The reservoir will be operated using a level sensor, with float systems installed for high/low water alarms. The storage tank will be filled by the well pump to a pre-set level, after which the well pump will turn off. The tank will outlet to the booster station supplying the distribution system, which will be controlled independently from the source pumps.

Booster Station:

The booster station will intake water from the storage tank and supply pressurized water to the distribution system. The booster station will include multiple booster pumps controlled by variable frequency drives (VFD's) to supply a constant set pressure to the distribution system. Depending on the configuration of the booster pumps, a separate pump may be installed to supply fire flow to the system when the main booster pumps are not able to maintain the system pressure.

Distribution System:

The distribution system will be a network of 8 inch or larger pipes connecting the booster station to each development. Pipe networks will be looped as much as possible to promote the movement of water and avoid stagnation issues. Elevations throughout the service area of the system are fairly level, and all service connections will be within a single pressure zone. Some riverfront properties may be at lower elevations and experience higher static pressures, but could be accommodated by installing pressure reducing valves for each connection.

6.2.2 Preventative Maintenance Program

In order to detect problems early and keep track of the water usage of the system, the following data will be collected and logged by SJ Environmental as part of the preventative maintenance program.

Maintenance and Operational Activity	Responsible Party	Frequency
Measure and record production from each source and any interties	SJ Environmental	Daily (autologging)
Recalibrate source meters	SJ Environmental	Per Manufacturer Recommendations
Read service meters	Richview	Monthly
Replace service meters	SJ Environmental	Per Manufacturer Recommendations
Measure water level in each well (static and pumping level)	SJ Environmental	Daily (autologging)
Measure chlorine residual in distribution system, if required.	SJ Environmental	Weekly/Daily
Flush dead ends	SJ Environmental	Annually
Exercise main line valves	SJ Environmental	Annually
Record use of treatment chemicals (corrosion control, disinfection, iron or manganese removal)	SJ Environmental	Weekly
Maintain chemical feed pumping equipment	SJ Environmental	Continuously
Conduct leak detection in the distribution system	SJ Environmental	Annually, or as necessary
Recalibrate water quality monitoring instruments	SJ Environmental	Annually
Inspect reservoir hatches, vents, and overflow outlets for tight seals and intact screens	SJ Environmental	Annually
Inspect and clean reservoir interior	SJ Environmental	Per Manufacturer Recommendations
Inventory spare parts, chemical supplies, and equipment.	SJ Environmental	Continuously
Test cross-connection control devices (by a backflow assembly tester)	SJ Environmental	Must be completed once a year
Conduct safety training needed to comply with OSHA and WISHA standards	SJ Environmental	Biannually
Conduct routine and repeat coliform monitoring	SJ Environmental	Monthly
Review coliform monitoring plan to ensure it reflects current customer base and service area	SJ Environmental	Annually
Review water system security features and processes (fencing, locks)	SJ Environmental	Annually
Conduct source chemical monitoring as described in your water quality monitoring report	SJ Environmental	Annually
Test all alarm functions	SJ Environmental	Annually
Complete and distribute consumer confidence report	SJ Environmental	Must be completed once a year
Inspect and test standby generator	SJ Environmental	Annually

Below are some additional operations management templates that may be useful for the system.

Control Position for Valves, Switches, Relays, and Timers

Type of switch, valve, or control	Normal and seasonal settings

Suppliers List

Type of supply, spare part, or specialty service	Name of supplier or contractor	Phone number(s)

6.3 Comprehensive Water Quality Monitoring

The new well (S01) has been constructed and the Source Approval submitted to DOH. A susceptibility determination will be made and DOH will issue an annual Water Quality Monitoring Report summarizing the required tests, test methods, and schedule. The Water Quality Monitoring Report, once issued, will be added to the WSP. The following is the typical monitoring required by the DOH:

Test	Frequency
Coli	Refer to Coliform Monitoring Plan
IOC	once every three years
VOC	once every three years
Nitrate	once per year
SOC	once every three years (or waived)
Test	Frequency
RAD	twice every three years
LCR	five times every three years

A sample tap will be provided downstream of the reservoir to use for testing finished water. Routine and repeat coliform testing locations, when determined, will be included in the Coliform Monitoring Plan in Appendix E.

6.4 Emergency Response Program

A draft Emergency Response Plan is included in Appendix E, which will be updated with additional contact information and responsibility assignments as the ownership/management team is organized.

6.5 Cross Connection Control (CCC) Program

A draft Cross Connection Control Program for the water system is included in Appendix E. There is potential for a cross-connection to occur with the irrigation systems serving each development. The System will determine whether backflow prevention devices are needed to prevent cross contamination, and SJ Environmental will also serve as the cross-connection control specialist (CCS) to implement the final CCC program.

6.6 Recordkeeping, Reporting, and Customer Complaint Program

Customer complaints will be recorded in a complaint log, to be kept in a separate folder. A copy of the Customer Complaint Log template is in Appendix E. The customer making the complaint will be notified within 7 days of the action (if appropriate) taken by the system to address the complaint. A summary of complaints and the action taken by the system will be made available to the water users upon request.

The system will keep the complaint log, notify the applicable responsible person of the complaint, and notify the customer of actions taken.

6.7 Water Treatment Operations

Before being placed into service (either new or after a repair) the water main shall be chlorinated and a satisfactory bacteriological report obtained. The initial chlorine content shall be 50 mg/L with a residual of not less than 25 mg/L after standing for 24 hours.

In addition, all water mains, and extensions of water mains shall be hydrostatically tested prior to being placed into service. Hydrostatic testing shall be at a pressure at least 150 psi greater than the expected service pressure (at least 250 psi).

Follow the procedures for disinfection and testing in Section 7-09.3 of the Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction, 2022.

While the system will not be supplied with surface water, groundwater systems can also be susceptible to surface contamination. Provisions have been made to include a primary and/or secondary disinfection system (hypochlorination) should treatment become necessary in the future. If the groundwater source is determined to be vulnerable to microbiological contamination, a primary disinfection system will be implemented. If microbiological control and residual monitoring in the distribution system become necessary, the System will implement a secondary disinfection system.

The System will operate an iron/manganese greensand filtration system to remove manganese from the source water, as outlined in section 3.1 and 6.2 of the WSP. The Operator will be responsible for operating and maintaining the system, monitoring the manganese levels of the system effluent, and managing the storage and disposal of treatment residuals from the filter system.

6.8 Summary of O&M Deficiencies

The new water system does not have any known deficiencies at this time.

Chapter 7: Construction Standards (Not Used)

Chapter 8: Capital Improvement Program (CIP)

8.1 CIP Summary and Schedule

8.1.1 Prioritization

Because Richview is a new water system with new facilities, there are no existing asset deficiencies or operation and maintenance actions for the system. The system will have constructed new facilities (wells, reservoir, booster station, and a portion of the transmission/distribution lines) which are not anticipated to require significant maintenance within the planning period of 10 years. Some non-capital items to meet the requirements of DOH will be prioritized and implemented within the first year of operation. Capital improvements within the planning period will mainly involve expanding the distribution system within the proposed service area to keep up with growth, which will be an ongoing planning priority. Growth-related capital improvements will be the responsibility of each development seeking connection to the system.

8.1.2 Project Assessment

Project	Project Type	Year	Cost Estimate	Financing Source
Establish Richview Water Company policies and operating procedures	Planning	2025	$3,000	Richview
Construct distribution system expansions for additional connections within service area	Distribution	2025-2035 (Ongoing)	Variable	Developers for new connections.
Develop WUE Program, establish conservation goals, and evaluate conservation measures	Planning/ Operation	2026	$5,000	Richview
Construct Booster Station, Storage Tank #1, Electrical Generator, Treatment System	Source/Storage/ Treatment	2025	$1,500,000	Richview
Construct Well #2	Source	2030	$230,000	Richview
Construct Storage Tank #2	Storage	2030	$520,000	Richview
Update Water System Plan	Planning	2035	$10,000	Richview

8.2 Twenty-year CIP for Projects Beyond the Plan Approval Period

There are no major capital improvement projects planned beyond the plan approval period at this time, other than ongoing expansions of the distribution system to meet growth within the service area.

Small Asset Management: The following assets are anticipated to require replacement within the 20-year CIP:

Asset Replacement	Project Type	Year	Cost Estimate	Financing Source
Booster Pump (Jockey/Domestic)	Pumping	2035	$50,000	Richview
Well Pump	Source	2035	$30,000	Richview
Chlorine Chemical Pump	Treatment	2030	$2,000	Richview
Manganese Filter Tank Repair/Replacement	Treatment	2035	$15,000	Richview
Well Source Meter	Pumping	2035	$5,000	Richview

Chapter 9: Financial Program

9.1 Financial Viability

There is no past income or expenses for the water system. The system will be constructed with private funds for the benefit of the residential developments within the service area. Once in operation, Richview Water Company will be responsible for the costs of ongoing operation and maintenance, infrastructure repair and replacement, capital expenditures, reserve funding, and general administration. Water rates will be evaluated to ensure the system has a balanced operational budget and is able to build and maintain sufficient reserve funds to continue operating the system on a continuing basis in full compliance with federal, state, and local requirements.

9.2 Balanced Operational and Capital Budget Projections

An Operational Budget for the 10-year plan approval period is included at the end of the chapter. Capital Improvement reserve funds are based on the anticipated construction costs of the system, summarized in the Engineering and Construction Cost Estimate, also at the end of the chapter. As the system becomes operational, these budgets will be adjusted to match the real costs of operating the system.

9.3 Operational, Capital, and Emergency Reserve Goals

Reserve Fund	Recommendation or Basis of Goal	Reserve Goal per Operating Budget	Goal Timeframe
Operational Reserve	90-day O&M expenses per AWWA recommendation	$12,000	1 year
Emergency Reserve	Cost of most vulnerable components (well pump, booster electrical equipment)	$50,000	3 years
Capital Improvement Reserve	Future value of water system construction costs after design life of 20 years	$3,800,000	20 years

9.4 Water Rate Evaluation

The system intends to implement an inclining block rate structure based on water usage to meet their water conservation goals. There will be a flat base fee for service and three blocks based on monthly water usage in hundreds of gallons. Conservative estimates were made for the Operational Budget due to the lack of past water usage and income data, and to ensure the O&M expenses and capital improvement goals can be met. The initial proposed block rates for the System are summarized in the table below.

Base Fee (2025):		$50.00
Usage Fees (2025):		
Block	Range (gal/month)	Rate per 100 gal
1	1 – 6,000	$0.33
2	6,001 – 10,000	$0.50
3	10,001 +	$0.70

Blocks are based on monthly usage corresponding to the anticipated average daily and max daily usage of one eru connection, with rates inclining by approximately 35% for each block to incentivize water conservation. Rate adjustments for inflation are anticipated every 2-3 years.

Per the Office of Financial Management, the projected 2023 Median Household Income (MHI) for Franklin County is approximately $80,000. Regarding community affordability, the proposed rates for average monthly use are well within the recommended upper threshold for water service per household of 2.5%, or $167 per month. Considering the location, lot sizes, and typical home values for single-family residences to be served by the System, most consumer households are anticipated to have incomes greater than the County MHI, further assuring that the proposed rates will be affordable for the community served.

However, individual consumer affordability issues are still possible, whether caused by economic or personal hardships. Richview intends to provide customer assistance primarily by offering repayment plans for customers experiencing hardship. If consumer affordability becomes a significant issue, the System will investigate additional customer assistance programs as appropriate.

9.5 Water System Regulated by Utilities and Transportation Commission (UTC)

The UTC regulates water systems with more than 100 connections. The system will eventually fall under their jurisdiction, but the UTC is likely to wait until the connection threshold is reached before becoming involved.

TEN-YEAR OPERATIONAL BUDGET

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Revenue												
Active Connections	0	10	45	100	144	194	235	270	305	340	375	380
Monthly Billing Rate	$ 70	$ 70	$ 70	$ 80	$ 80	$ 80	$ 80	$ 90	$ 90	$ 90	$ 90	$ 90
Total Operating Revenue	**$ -**	**$ 8,400**	**$ 37,800**	**$ 96,000**	**$ 138,240**	**$ 186,240**	**$ 225,600**	**$ 291,600**	**$ 329,400**	**$ 367,200**	**$ 405,000**	**$ 410,400**
Expenses												
Operations and Maintenance												
Certified Operator/SMA	$ 3,600	$ 14,400	$ 14,760	$ 15,129	$ 15,507	$ 15,895	$ 16,292	$ 16,700	$ 17,117	$ 17,545	$ 17,984	$ 18,433
Laboratory Fees	$ 2,000	$ 3,000	$ 3,075	$ 3,152	$ 3,231	$ 3,311	$ 3,394	$ 3,479	$ 3,566	$ 3,655	$ 3,747	$ 3,840
Power Costs	$ -	$ 3,420	$ 3,900	$ 4,660	$ 5,270	$ 5,960	$ 6,530	$ 7,020	$ 7,500	$ 7,990	$ 8,470	$ 8,540
Preventative Maintenance and Repairs	$ -	$ 3,000	$ 6,000	$ 6,500	$ 6,500	$ 7,000	$ 7,000	$ 7,500	$ 7,500	$ 8,000	$ 8,000	$ 8,000
Total O&M	$ 5,600	$ 23,820	$ 27,735	$ 29,441	$ 30,508	$ 32,166	$ 33,217	$ 34,699	$ 35,683	$ 37,190	$ 38,200	$ 38,813
General and Administrative												
Stipends and Office Expense	$ 2,000	$ 12,000	$ 12,300	$ 12,608	$ 12,923	$ 13,246	$ 13,577	$ 13,916	$ 14,264	$ 14,621	$ 14,986	$ 15,361
Misc Permits and Fees	$ 1,200	$ 1,200	$ 1,230	$ 1,261	$ 1,292	$ 1,325	$ 1,358	$ 1,392	$ 1,426	$ 1,462	$ 1,499	$ 1,536
Engineering and Professional Services	$ 3,000	$ 2,000	$ 2,050	$ 2,101	$ 2,154	$ 2,208	$ 2,263	$ 2,319	$ 2,377	$ 2,437	$ 2,498	$ 2,560
Total G&A	$ 6,200	$ 15,200	$ 15,580	$ 15,970	$ 16,369	$ 16,778	$ 17,197	$ 17,627	$ 18,068	$ 18,520	$ 18,983	$ 19,457
Reserve Funds												
Operating Cash Reserves												
Annual Installment	$ -	$ 12,000	$ 3,000	$ 3,075	$ 3,152	$ 3,231	$ 3,311	$ 3,394	$ 3,479	$ 3,566	$ 3,655	$ 3,747
Running Balance	$ -	$ 12,000	$ 15,000	$ 18,075	$ 21,227	$ 24,458	$ 27,769	$ 31,163	$ 34,642	$ 38,208	$ 41,864	$ 45,610
Emergency Reserves												
Annual Installment	$ -	$ 3,000	$ 10,000	$ 30,000	$ 3,000	$ 3,075	$ 3,152	$ 3,231	$ 3,311	$ 3,394	$ 3,479	$ 3,566
Running Balance	$ -	$ 3,000	$ 13,000	$ 43,000	$ 46,000	$ 49,075	$ 52,227	$ 55,458	$ 58,769	$ 62,163	$ 65,642	$ 69,208
Capital Improvement Reserves												
Annual Installment	$ -	$ 1,000	$ 2,000	$ 18,000	$ 85,000	$ 130,000	$ 151,200	$ 154,980	$ 158,855	$ 162,826	$ 166,897	$ 171,069
Running Balance	$ -	$ 1,000	$ 3,000	$ 21,000	$ 106,000	$ 236,000	$ 387,200	$ 542,180	$ 701,035	$ 863,860	$ 1,030,757	$ 1,201,826
Budget Surplus/(Deficit)	$ (11,800)	$ (46,620)	$ (20,515)	$ (485)	$ 211	$ 990	$ 17,523	$ 77,669	$ 110,004	$ 141,704	$ 173,786	$ 173,748

Notes:

1. Revenues and Expenses are based on the new system being constructed Spring 2025 and put into operation beginning in Summer 2025.
2. Capital Improvement Reserve based on present value of water system construction costs expressed as an annuity, assuming a 20-year design life and a real interest rate of 2.5% per the 2024 update of OMB Circular A-94 Appendix C.

PRELIMINARY WATER RATE EVALUATION

Operation and Maintenance Costs	Monthly Cost	Annual Cost
Certified Operator	$ 1,200.00	$ 14,400.00
Laboratory Fees	$ 250.00	$ 3,000.00
Stipends and Office Expenses	$ 1,000.00	$ 12,000.00
Misc Permits and Fees	$ 100.00	$ 1,200.00
Power Costs (assume 230 ERU's)	$ 530.00	$ 6,360.00
Preventative Maintenance	$ 500.00	$ 6,000.00
Total O&M Costs	$ 3,580.00	$ 42,960.00

Capital Improvement Fund		
Estimated Capital Replacement Fund (20-yr design life, 2.5% real interest rate)	$ 12,600.00	$ 151,200.00

Estimated Billing Rates		
Average Number of Connections during Planning Period	230	
Estimated O&M Cost per Connection	$ 15.57	
Estimated Capital Cost per Connection	$ 54.78	
Estimated Water Rate per Connection	**$ 70.35**	**$ 844.17**

Inclining Block Rate Structure		
Base Fee	$ 50.00	base fee
Block 1 (1 - 6,000 gal/month)	$ 0.33	per 100 gal
Block 2 (6,001 - 10,000 gal/month)	$ 0.50	per 100 gal
Block 3 (>10,001 gal/month)	$ 0.70	per 100 gal

Example Monthly Bills		
Average Daily Demand (200 gpd = 6,000 gal/month)	$ 69.80	per month
Max Daily Demand (400 gpd = 12,000 gal/month)	$ 103.80	per month

ENGINEERING & CONSTRUCTION COST ESTIMATE

Richview Water System Summary of Construction Costs

Design Engineering, Source Approval, & Well Test		$106,000
Design Engineering - (well, controls/electrical, distribution system)	$70,000	
Contract Administration - (specification packages & bids)	$15,000	
Geotech for well test & report (including water testing)	$15,000	
Source Approval Application	$6,000	
Water System Construction Total (Refer to Breakdown of Construction Costs)		$2,365,000
Contingency (25% of Construction)		$591,300
Sales or Use Taxes (9% of Construction Costs)		$212,900
Construction Inspection (5% of Construction Costs)		$118,300
Water System Construction & Engineering Total =		**$3,393,500**
Distribution System Total =		$7,400,000
Full Build-Out Construction Total =		**$10,793,500**

Breakdown of Construction Costs

Phase 1	**Cost Estimate**
Well 1 (300 ft deep)	$ 200,000
Booster Station (24' x 34')	$630,000
Iron/Manganese Treatment System	$75,000
Storage Tank 1 (158,600 gal)	$450,000
Diesel Generator (200 kW)	$110,000
Site Improvements	$150,000
Subtotal =	$ 1,615,000
Phase 2	
Well 2 (300 ft deep)	$230,000
Storage Tank 2 (158,600 gal)	$520,000
Subtotal =	$ 750,000
Water System Infrastructure Total =	**$ 2,365,000**
Domestic Distribution lines (by others)	$7,400,000

Chapter 10: Miscellaneous Documents

10.1 Water Facilities Inventory (WFI)

10.1.1 Richview WFI

10.2 Adjacent Utilities Notice

Date	Utility	Correspondence
08/28/2024	Big Bend Electric Co-op	Sent Utility Notification Email
08/28/2024	South Columbia Basin Irrigation Dist. (SCBID)	Sent Utility Notification Email
12/19/2024	Pasco Water Dept	Sent Utility Notification Email
12/19/2024	Pasco Heights Assn	Sent Utility Notification Letter

10.3 Correspondences

Date	Entity	Correspondence
05/22/2024	WA Ecology	Ecology Source Approval Review Letter
05/22/2024	WA Ecology	Ecology WSP Review Letter
08/28/2024	Franklin Fire Dist. #3	Sent WSP Notification Letter
12/02/2024	WA Dept of Health ERO	DOH WSP Review Letter

10.4 Agreements

10.4.1 SJ Environmental SMA Contract

WATER FACILITIES INVENTORY (WFI) FORM

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

ONE FORM PER SYSTEM

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
	Richview Water System	Franklin	A	COMM

6. PRIMARY CONTACT NAME & MAILING ADDRESS	7. OWNER NAME & MAILING ADDRESS
Randy Mullen PO Box 3596 Pasco, WA 99302	Same as Primary Contact
STREET ADDRESS IF DIFFERENT FROM ABOVE	**STREET ADDRESS IF DIFFERENT FROM ABOVE**
ATTN	ATTN
ADDRESS	ADDRESS
CITY STATE ZIP	CITY STATE ZIP

9. 24 HOUR PRIMARY CONTACT INFORMATION		10. OWNER CONTACT INFORMATION	
Primary Contact Daytime Phone: 509-374-4200		Owner Daytime Phone:	
Primary Contact Mobile/Cell Phone:		Owner Mobile/Cell Phone:	
Primary Contact Evening Phone:		Owner Evening Phone:	
Fax:	E-mail: rrmx3@aol.com	Fax:	E-mail:

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- ☐ Not applicable (Skip to #12)
- ☐ Owned and Managed
- ☒ Managed Only
- ☐ Owned Only

SMA NAME: Columbia Water Services SMA Number: 157

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- ☐ Agricultural
- ☐ Commercial / Business
- ☐ Day Care
- ☐ Food Service/Food Permit
- ☐ 1,000 or more person event for 2 or more days per year
- ☐ Hospital/Clinic
- ☐ Industrial
- ☐ Licensed Residential Facility
- ☐ Lodging
- ☐ Recreational / RV Park
- ☒ Residential
- ☐ School
- ☐ Temporary Farm Worker
- ☐ Other (church, fire station, etc.):

13. WATER SYSTEM OWNERSHIP (mark only one)

- ☐ Association
- ☐ City / Town
- ☐ County
- ☐ Federal
- ☐ Investor
- ☒ Private
- ☐ Special District
- ☐ State

14. STORAGE CAPACITY (gallons): 0

15	16	17	18 SOURCE CATEGORY										19 USE			20	21 TREATMENT						22	23	24 SOURCE LOCATION			
Source Number	LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	Well #1 BPS821		X										X				X						270	170	NWSW	30	10N	29E

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
	Richview Water System	Franklin	A	COMM

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)			
A. Full Time Single Family Residences (Occupied 180 days or more per year)	0		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms			
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year			
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year			
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	0		
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.			
28. TOTAL SERVICE CONNECTIONS	0 (New System)		

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 0

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?												
B. How many days per month is water accessible to the public?												

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT already included in the residential population?												
B. How many days per month are they present?												

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☒ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

Braden Anderson

From: Braden Anderson
Sent: Wednesday, August 28, 2024 8:21 AM
To: admin@bbec.org
Cc: Mitch Myers (MMyers@BBEC.org)
Subject: Richview Draft Water System Plan Available for Review

Dear Utility Provider:

Harms Engineering has prepared a draft Water System Plan (WSP) for Richview Water System, a proposed water system located at 1603 Richview Dr, Pasco, WA. The new water system will provide domestic water and fire flow for up to 600 residential connections. The WSP was submitted to Washington Dept. of Health (DOH) on May 10, 2024, but is still under review.

In order to ensure consistency between the WSP and local planning and development efforts per the requirements of WAC 246-290-100, we are providing the draft WSP for your review. It is available for download from the link below:

https://www.dropbox.com/scl/fi/6smydda2sxxrmc6thp9qw/Richview-Water-System-Plan-20240502.pdf?rlkey=ajnud4mgmmvojskb7ems8mjim&st=5ckjskx1&dl=0

Please return written comments regarding the WSP by email within 30 days. If you need any further information, have trouble accessing the documents, or wish to discuss the project, please contact me via email or by phone at (509) 547-2679.

Sincerely,

Braden Anderson, PE
Civil Engineer

HARMS ENGINEERING, INC. | WE KEEP IT CIVIL

1632 W Sylvester Street, Pasco WA 99301 | (o) 509.547.2679 | HarmsEngineering.com

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Braden Anderson

From: Braden Anderson
Sent: Wednesday, August 28, 2024 8:27 AM
To: INFO@SCBID.ORG
Cc: Eric Dixon (edixon@scbid.org)
Subject: Richview Draft Water System Plan Available for Review

Dear Utility Provider:

Harms Engineering has prepared a draft Water System Plan (WSP) for Richview Water System, a proposed water system located at 1603 Richview Dr, Pasco, WA. The new water system will provide domestic water and fire flow for up to 600 residential connections. The system will not provide water for irrigation purposes. The WSP was submitted to Washington Dept. of Health (DOH) on May 10, 2024, but is still under review.

In order to ensure consistency between the WSP and local planning and development efforts per the requirements of WAC 246-290-100, we are providing the draft WSP for your review. It is available for download from the link below:

https://www.dropbox.com/scl/fi/6smydda2sxxrmc6thp9qw/Richview-Water-System-Plan-20240502.pdf?rlkey=ajnud4mgmmvojskb7ems8mjim&st=5ckjskx1&dl=0

Please return written comments regarding the WSP by email within 30 days. If you need any further information, have trouble accessing the documents, or wish to discuss the project, please contact me via email or by phone at (509) 547-2679.

Sincerely,

Braden Anderson, PE
Civil Engineer

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Dear Water Utility Provider:

Harms Engineering has prepared a draft Water System Plan (WSP) for Richview Water System, a proposed water system located at 1603 Richview Dr, Pasco, WA. The new water system will provide domestic water and fire flow for up to 600 residential connections. The system will not provide water for irrigation purposes. The first draft of the WSP was submitted to Washington Dept. of Health (DOH) on May 10, 2024.

In order to ensure consistency between the WSP and local planning and development efforts per the requirements of WAC 246-290-100, we are providing the draft WSP for your review. It is available for download from the link below. A QR Code is also provided for convenience.

https://www.dropbox.com/scl/fi/6smydda2sxxrmc6thp9qw/Richview-Water-System-Plan-20240502.pdf?rlkey=ajnud4mgmmvojskb7ems8mjim&st=5ckjskx1&dl=0

The Richview Water System is developing a wellhead protection plan for our water system as required by the Washington State Department of Health. Wellhead protection involves protecting the land area surrounding our wells in order to prevent contamination of the drinking water supply. Part of the plan requires notification to all potential sources of contamination of the well locations. Refer to the attached map for the well location and wellhead protection areas.

The enclosed map shows the 6-month and 1-, 5- and 10-year time-of-travel boundaries for our wellhead protection area. Any groundwater contamination that occurs within this wellhead protection area has a high potential to reach our well.

Because everyone plays a role in the protection plan, local residents are also being contacted with similar information. We are fortunate to have a good supply of high-quality water. Please help us keep it that way for our proposed good use, and for the ones that come after us. Thank you for your attention to this matter.

Please return written comments regarding the WSP by email within 30 days. If you need any further information, have trouble accessing the documents, or wish to discuss the project, please contact me via email at braden@harmsengineering.com or by phone at (509) 547-2679.

Sincerely,

Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

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From: Braden Anderson, PE

Harms Engineering, Inc.

1632 W Sylvester St.

Pasco, WA 99301

To: Pasco Heights Domestic Water System

Attn: Michael Hanson

PO Box 2161

Pasco, WA 99301

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Transaction #: 534
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PIN: Not Required

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or scan this code with your mobile device,

or call 1-800-410-7420.

Braden Anderson

From: Braden Anderson
Sent: Thursday, December 19, 2024 10:14 AM
To: raymondc@pasco-wa.gov; Maria Serra
Cc: patrickc@pasco-wa.gov; holstk@pasco-wa.gov
Subject: Richview Water System Plan Available for Review

Dear Water Utility Provider:

Harms Engineering has prepared a draft Water System Plan (WSP) for Richview Water System, a proposed water system located at 1603 Richview Dr, Pasco, WA. The new water system will provide domestic water and fire flow for up to 600 residential connections. The system will not provide water for irrigation purposes. The first draft of the WSP was submitted to Washington Dept. of Health (DOH) on May 10, 2024.

In order to ensure consistency between the WSP and local planning and development efforts per the requirements of WAC 246-290-100, we are providing the draft WSP for your review. It is available for download from the link below:

https://www.dropbox.com/scl/fi/6smydda2sxxrmc6thp9qw/Richview-Water-System-Plan-20240502.pdf?rlkey=ajnud4mgmmvojskb7ems8mjim&st=5ckjskx1&dl=0

Please forward this link to any other appropriate contacts within your organization and return written comments regarding the WSP by email within 30 days. If you need any further information, have trouble accessing the documents, or wish to discuss the project, please contact me via email or by phone at (509) 547-2679.

Sincerely,

Braden Anderson, PE
Civil Engineer

HARMS ENGINEERING, INC. | WE KEEP IT CIVIL

1632 W Sylvester Street, Pasco WA 99301 | (o) 509.547.2679 | HarmsEngineering.com

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

May 22, 2024

Randy Mullen
Richview Water Company
PO Box 3596
Pasco, WA 99302

Re: Richview Water System; ID #AE302; Franklin County; Group A Community S01 Source Approval; DOH Project #24-0507

Thank you for the opportunity to review the above referenced Group A Community SO1; DOH Project #24-0507 received on May 10, 2024. Consistent with the Memorandum of Understanding between the Department of Health (DOH) and Department of Ecology (Ecology), regarding joint review and approval of WSPs, this letter is being sent to your office with Ecology's comments. Specific elements of the WSP review included the Water Rights Self-Assessment as well as additional water rights documentation, including Ecology's water right files and previous WSPs and project reports, as applicable.

Ecology did not identify any issues of concern during review of the documentation.

Future Demand

- Expected future demand will meet projected build out.

Service Area

Service area is outlined within the referenced documentation in Richview Water System; ID #AE302; Franklin County; Group A Community S01 Source Approval; DOH Project #24-0507.

If you have any questions, please contact me at edav461@ecy.wa.gov or (509) 342-6867.

Sincerely,

Dan Taller
For

Eric Davis
Permit Writer/Manger
Water Resources Program
Eastern Regional Office

ecc: DOH EPH DW ROE ADMIN, eroadmin@doh.wa.gov
Randy Mullen, Owner, rrmx3@aol.com

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

May 22, 2024

Randy Mullen
Richview Water Company
PO Box 3596
Pasco, WA 99302

Re: Richview Water System; ID #AE302; Franklin County; Water System Plan; DOH Project #24-0506

Thank you for the opportunity to review the above referenced Water System Plan (WSP), received on May 10, 2024. Consistent with the Memorandum of Understanding between the Department of Health (DOH) and Department of Ecology (Ecology), regarding joint review and approval of WSPs, this letter is being sent to your office with Ecology's comments. Specific elements of the WSP review included the Water Rights Self-Assessment as well as additional water rights documentation, including Ecology's water right files and previous WSPs and project reports, as applicable.

Ecology did not identify issues of concern during review of the WSP plan and/or supplemental documentation. Water Right Self- Assessment, with the sum Water Right G3-20242(H), Qi 220 GPM and Qa 135 AFY.

Service Area
If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, the place of use of this water right is the service area described in that document. If the criteria in RCW 90.03.386(2) are not met and no Water System Plan/Small Water System Management Program has been approved after September 9, 2003, the place of use reverts to the last place of use described by the Department of Ecology in a water right authorization.

The water right service area appears to be correct.

The water right portfolio appears to have adequate water right quantities to support its current operation and future years of growth per the WSP and Water Right Self- Assessment table.

If you have any questions, please contact me at edav461@ecy.wa.gov or (509) 342-6867.

Sincerely,

Dan Talk

For

Eric Davis
Permit Manger
Water Resources Program
Eastern Regional Office

ecc: DOH EPH DW ROE ADMIN, eroadmin@doh.wa.gov
Randy Mullen, Owner, rrmx3@aol.com

Braden Anderson

From: Braden Anderson
Sent: Wednesday, August 28, 2024 8:40 AM
To: fcfd3@fcfd3.org
Subject: Richview Water System Plan Available for Review

Dear Emergency Responder:

Harms Engineering has prepared a draft Water System Plan (WSP) for Richview Water System, a proposed water system located at 1603 Richview Dr, Pasco, WA. The new water system will provide domestic water and fire flow for up to 600 residential connections. The WSP was submitted to Washington Dept. of Health (DOH) on May 10, 2024, but is still under review.

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Please return written comments regarding the WSP by email within 30 days. If you need any further information, have trouble accessing the documents, or wish to discuss the project, please contact me via email or by phone at (509) 547-2679.

Sincerely,

Braden Anderson, PE
Civil Engineer

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AGREEMENT FOR CERTIFIED WATER OPERATOR SERVICES

THIS Agreement made this 13th day of January 2025 by and between Richview Water System hereinafter referred to as the OWNER, and SJ Environmental hereinafter referred to as the CERTIFIED OPERATOR.

CONTENTS

SECTION A - GENERAL PROVISIONS

1. General
2. Responsibilities of the CERTIFIED OPERATOR
3. Responsibilities of the OWNER
4. Changes
5. Termination of Contract
6. Payment
7. Audit and Access to Records
8. Subcontracts
9. Insurance
10. Remedies
11. Term

SECTION B - CERTIFIED OPERATOR SERVICES

Attachment I - Compensation for CERTIFIED OPERATOR Services During the SPECIFIED TERM

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SECTION A - GENERAL PROVISIONS

1. General

This Agreement represents the entire and integrated Agreement between the OWNER and the CERTIFIED OPERATOR for the specified term and supersedes all prior negotiations, representations, or agreements, either written or oral. In the event any provisions of this Agreement or any subsequent addendum shall be held to be invalid and unenforceable, the remaining provisions shall be valid and binding upon the parties. One or more waivers by either party of any provision, term, condition, or covenant shall not be construed by the other party as a waiver of a subsequent breach of the same by the other party. The General provisions of this Agreement supersede any conflicting SPECIAL PROVISIONS.

2. Responsibilities of the CERTIFIED OPERATOR

(a) The CERTIFIED OPERATOR shall be responsible for the professional quality, technical accuracy, reports, and other services furnished by the CERTIFIED OPERATOR under this Agreement. If this Agreement involves data generation, the CERTIFIED OPERATOR shall comply with Washington Department of Ecology quality assurance requirements. The CERTIFIED OPERATOR shall keep the OWNER informed of the performance of the CERTIFIED OPERATOR'S duties under this Agreement.

(b) The CERTIFIED OPERATOR shall perform the professional services necessary to accomplish the work specified in this Agreement, in accordance with this Agreement and requirements in effect on the date of execution of any assistance agreement for the Specified Term.

(c) The CERTIFIED OPERATOR shall be and shall remain liable, in accordance with applicable law, for all damages to the OWNER caused by the CERTIFIED OPERATOR's negligent performance of any of the services furnished under this Agreement, except for errors, omissions or other deficiencies to the extent attributable to the OWNER or OWNER-furnished data. The CERTIFIED OPERATOR shall not be responsible for any circumstances beyond the CERTIFIED OPERATOR'S control.

(d) The CERTIFIED OPERATOR's obligations under this clause are in addition to the CERTIFIED OPERATOR's other express or implied assurances under this Agreement or State law and in no way diminish any other rights that the OWNER may have against the CERTIFIED OPERATOR for faulty materials, equipment, or work.

(e) The CERTIFIED OPERATOR shall inform the OWNER immediately upon learning of any change of circumstance that effects the ability of the CERTIFIED OPERATOR to perform the services detailed in this contract, including, but not limited to, loss of driver's license, loss of operator certification or personal health constraints.

3. Responsibilities of the OWNER

(a) The OWNER shall designate in writing a person authorized to act as the OWNER's representative. The OWNER or its representative shall receive and examine documents submitted by the CERTIFIED OPERATOR, interpret and define the OWNER's policies and render decisions and authorizations promptly in writing.

(b) The OWNER shall provide the CERTIFIED OPERATOR full and free access to enter upon all property required for the performance of the CERTIFIED OPERATOR's services under this Agreement.

(c) The OWNER may make and retain copies of Documents for information and reference in connection by OWNER. Any such reuse or modification without written verification or adaptation by CERTIFIED

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OPERATOR will be at OWNER's sole risk and without liability or legal exposure to CERTIFIED OPERATOR. Any verification or adaptation as stated above will entitle CERTIFIED OPERATOR to further compensation at rates to be agreed upon by OWNER and CERTIFIED OPERATOR.

(d) The OWNER has to pay for all capital, chemical, operational, maintenance and repairs costs of the water facilities. CERTIFIED OPERATOR must get approval from OWNER for all maintenance and repair costs over $250.00.

4. Changes

(a) The OWNER may, at any time, by written order make changes within the general scope of this Agreement in the services or work to be performed. If such changes cause an increase or decrease in the CERTIFIED OPERATOR's cost or time required to perform any services under this Agreement, whether or not changed by any order, the OWNER shall make an equitable adjustment and modify this Agreement in writing. The CERTIFIED OPERATOR must assert any claim for adjustment under this clause in writing within thirty (30) days from the date it receives the OWNER's notification of change unless the OWNER grants additional time before the date of final payment.

(b) No services for which the CERTIFIED OPERATOR will charge additional compensation shall be furnished without the written authorization of the OWNER.

5. Termination of Contract

(a) This Agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party, provided that no such termination may be effected unless the other party is given not less than Forty Five (45) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and an opportunity for consultation with the terminating party before termination.

(b) This Agreement may be terminated in whole or in part in writing by either party for its convenience, provided that there is given not less than Sixty (120) calendar days written notice (delivered by certified, return receipt requested) of intent to terminate, and an opportunity for consultation prior to termination. If the OWNER terminates for convenience at any time during the term, OWNER must compensate CERTIFIED OPERATOR for labor and other expenses for the remainder of term. OPERATOR must provide documentation for reimbursement of labor and expenses.

(c) If termination for default is effected by the OWNER, an equitable adjustment in the price provided for in this agreement shall be made, but no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the CERTIFIED OPERATOR at the time of termination may be adjusted to cover any additional costs to the OWNER because of the CERTIFIED OPERATOR's default. If termination for default is affected by the CERTIFIED OPERATOR, or if termination for convenience is effected by the OWNER, the CERTIFIED OPERATOR shall be compensated for work performed through the effective date of termination.

(d) Upon receipt of a termination action under paragraphs (a) or (b) above, the CERTIFIED OPERATOR shall promptly discontinue all affected work (unless the notice directs otherwise) and deliver or otherwise make available to the OWNER all data, reports, estimates, summaries and such other information and materials as may have been accumulated by the CERTIFIED OPERATOR in performing this Agreement, whether completed or in process.

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(e) Upon termination under paragraphs (a) or (b) above, the OWNER may take over the work and may award another party an Agreement to complete the work under this Agreement.

(f) If, after termination for failure of the CERTIFIED OPERATOR to fulfill contractual obligations, it is determined that the CERTIFIED OPERATOR had not failed to fulfill contractual obligations, the termination shall be deemed to have been for the convenience of the OWNER.

6. Payment

(a) The CERTIFIED OPERATOR will submit to the OWNER for services rendered an itemized bill showing charges for such services accompanied by any additional documentation requested by the OWNER. The CERTIFIED OPERATOR will be compensated for services performed at the rates set forth in Attachment 1 to this Agreement.

(b) No payment request made under this clause shall exceed the estimated amount and value of the work and services performed by the CERTIFIED OPERATOR under this Agreement. The CERTIFIED OPERATOR shall prepare the estimates of work performed and shall supplement them with such supporting data as the OWNER may require.

(c) Upon satisfactory completion of the work performed under this Agreement, as a condition before final payment under this Agreement or as a termination settlement under this Agreement the CERTIFIED OPERATOR shall execute and deliver to the OWNER a release of all claims against the OWNER arising under, or by virtue of, this Agreement, except claims which are specifically exempted by the CERTIFIED OPERATOR to be set forth therein. Unless otherwise provided in this Agreement, by State law or otherwise expressly agreed to by the parties to this Agreement, final payment under this Agreement or settlement upon termination of this Agreement shall not constitute a waiver of the OWNER's claims against the CERTIFIED OPERATOR or its sureties under this Agreement or applicable performance and payment bonds.

(d) Final Payment under this Agreement or settlement upon termination of this Agreement shall not constitute a waiver of the OWNER's claims against the CERTIFIED OPERATOR under this Agreement.

(e) If OWNER fails to make any payment due CERTIFIED OPERATOR within thirty days after OWNER's acceptance of CERTIFIED OPERATOR's invoice, the amount due CERTIFIED OPERATOR shall be increased at the rate of 1.5% per month from said thirtieth day. In addition, after ten (10) days prior written notice, the CERTIFIED OPERATOR may suspend services under this Agreement until CERTIFIED OPERATOR is paid in full.

7. Audit and Access to Records

(a) The CERTIFIED OPERATOR shall maintain logs, records, documents, and other evidence directly pertinent to performance of work under this Agreement in accordance with generally accepted principles and practices consistently applied, in effect on the date of execution of this Agreement.

(b) The CERTIFIED OPERATOR agrees to disclose all information and reports resulting from access to records under paragraphs (a) of this clause.

8. Subcontracts

Any subcontractors and outside associates or consultants required by the CERTIFIED OPERATOR in connection with services under this Agreement will be limited to such individuals or firms as the OWNER

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specifically authorizes during the performance of this Agreement. The OWNER must give prior approval for any substitutions, additions or deletions to such subcontractors, associates, or consultants.

9. Insurance

The CERTIFIED OPERATOR agrees to obtain and maintain, at the CERTIFIED OPERATOR's expense, such insurance as will protect the CERTIFIED OPERATOR from claims under the Workman's Compensation Act and such comprehensive general liability insurance as will protect the OWNER and the CERTIFIED OPERATOR from all claims for bodily injury, death, or property damage which may arise from the performance by the CERTIFIED OPERATOR or by the CERTIFIED OPERATOR's employees of the CERTIFIED OPERATOR's functions and services required under this Agreement. Such insurance shall be in an amount not less than $2,000,000 for injury to any one person and $2,000,000 on account of any one accident and in the amount of not less than $50,000 for property damage. The CERTIFIED OPERATOR further agrees to procure and maintain professional liability (errors and omissions) insurance in an amount not less than $4,000,000 per claim and in the aggregate. Prior to commencement of any work, the CERTIFIED OPERATOR shall furnish to the OWNER a certificate that complies with this paragraph. The certificate shall provide that the policy shall not be changed or canceled until at least ten (10) days prior written notice shall have been given to the OWNER.

10. Remedies

Unless otherwise provided in this Agreement, all claims, counterclaims, disputes, and other matters in question between the OWNER and the CERTIFIED OPERATOR arising out of or relating to this Agreement or the breach of it will be decided by non-binding mediation or arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the OWNER is located.

11. Term

This Contract shall extend for a term of 1-year from Agreement execution date, unless terminated pursuant to paragraph 5 of this Contract. Upon expiration of the term, so long as the CERTIFIED OPERATOR is not in default, this Agreement may be renewed or extended to a 5-year contract agreement at the request of OWNER. Upon renewal, compensation terms will be negotiated to reflect any change in services.

SECTION B - CERTIFIED OPERATOR SERVICES

The CERTIFIED OPERATOR shall furnish SERVICES as follows in accordance with the GENERAL PROVISIONS of the Agreement and as authorized by the appropriate Attachment to this Agreement:

1. The CERTIFIED OPERATOR shall perform, but not be limited to:

- Provide 24/7 operational coverage of the Richview water System.
- Provide the required water certification required by the WA Department of Health (WA DOH).
- Complete monthly Water Report. Submit the report to Richview Water System and WA DOH via mail or electronically.
- Assist the Richview Water System in obtaining necessary permits and approvals from appropriate Federal, State, and local regulatory agencies.

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- Accompany state or federal inspectors during a sanitary survey or other water system inspections and provide inspectors information as requested.
- Collect water samples in accordance to state and federal regulations and deliver samples to an accredited laboratory for analysis.
- Create asset and equipment inventory list within 45 days from completion of construction. List to be provided to the Richview Water System.
- Respond to customer service requests. Findings to be relayed to Richview Water System.
- Coordinate water distribution repairs with Richview contractor. A repair report to be provided to Richview Water System.
- Create preventive maintenance schedule, to include:
    1. Lubrication schedules for pumps, drive units, motors, compressors.
    2. Chemical make-up, feed, and monitoring equipment calibration.

3. Storage tanks to include inspection, cleaning, painting, and disinfecting.

☐ Other:_____

_____

☐ Other:_____

_____

☐ Other:_____

_____

ATTACHMENT I - Compensation for CERTIFIED OPERATOR Services

1. Compensation for SMA shall be a flat monthly rate of **$600.00 per month**, not including approved reimbursables and gross receipt tax.

2. CERTFIED OPERATOR SERVICS, as described in Section B, shall be billed at rate $75 per hour.

Signatures

IN WITNESS THEREOF, the parties hereto have executed, or caused to be executed, by their duly authorized officials, this Agreement in duplicate on the respective dates indicated below.

Docusign Envelope ID: 1BD53CE2-16D4-4910-8F32-A12C087B7335

ATTEST: Chanel Snead
TypeName Chanel Snead
Title witness
Date 1/9/25

ATTEST: Sam Snead
OPERATOR: Sam Snead
Type Name JJE
Title Co Founder
Date 1.9.2025

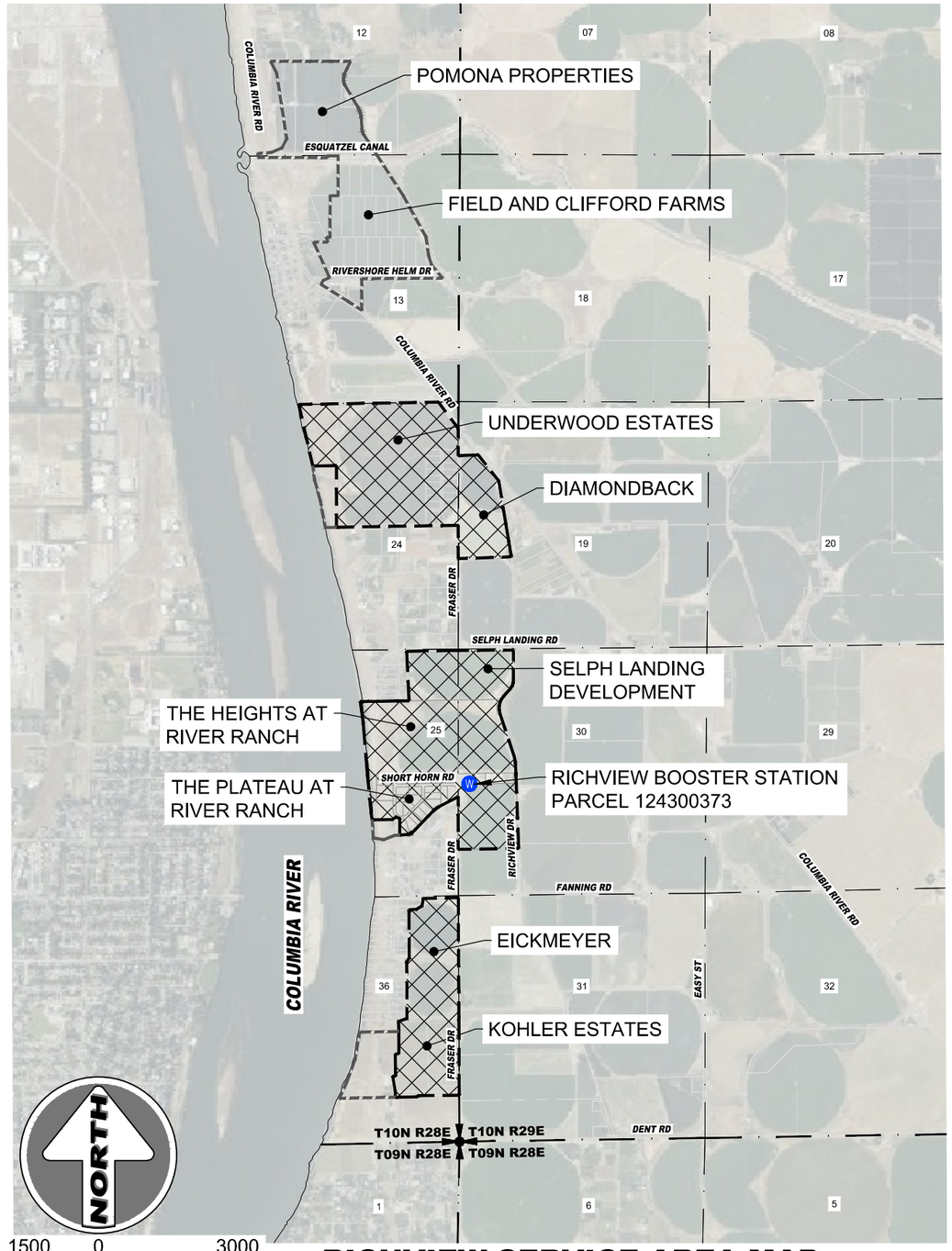
OWNER: Signed by: Randy Mullen 0B78DB0842404F8...
By Randy Mullen
Type Name
Title Owner
Date 1/13/2025

CERTIFIED

By
Type Name
Title

Appendix A: Water System Exhibits

- Richview Service Area Map
- Richview Site and Utility Plans



RICHVIEW SERVICE AREA MAP

SCALE: 1" = 3,000'

Retail Service Area					
Development		Gross Area (acres)	Retail Service Area Parcels	Lot Count (ERU Estimate)	Elevation Range (ft)
Mullen	Well Site	45	124300373	0	500
	The Plateau at River Ranch	46	124300375, -6, -9	29	485-500
	The Heights at River Ranch	73	124300117, -8 124300123, -4, -7, -8 124300130, -1	46	485-500
	Selph Landing Development	90	124300115 124300478, -9	40	485-495
Underwood Estates		191	126210022, -028, 121-142	135	495
Diamondback		42	124190232	45	490-505
Eickmeyer		63	126230066	45	460-490
Kohler Estates		50	126150016, 126230062	60	455-475
Retail Service Area Total =		**555**		**400**	

Future Service Area				
Pomona Properties	61	126190336, 126190342, 126190345, 126200011	TBD	480-505
Field & Clifford Farms	115	126201164, -5 126202019, -28, -37, -46, -55, -64, -91, 126203018, -027, -036, -045, -054, -063, -072, -081, -090, -107, -116	TBD	475-500
Mullen	5	124300112	TBD	485
Underwood Estates	11	126210055	TBD	490
Kohler Estates	29	126230071	TBD	450
Total Service Area =	**731**		**600**	

LEGEND

RETAIL SERVICE AREA & WATER RIGHT PLACE OF USE

FUTURE SERVICE AREA

HARMS ENGINEERING, INC.
1632 W Sylvester Street, Pasco WA 99301 | 509.547.2679 | HarmsEngineering.com

Designed By: B ANDERSON
Drawn By: D POOK
File Name: 22-093 Richview Water System Plan 04
Plotted: January 20, 2025, 2:53:56 PM
File Path: P:\2022\22-093.1 Mullen Richview Water System\Dwgs

Rev	Description	By	Date

RICHVIEW WATER SYSTEM PLAN
SERVICE AREA MAP
PARCEL 124300373; NORTH END OF FRASER RD, FRANKLIN COUNTY, WA

Client/Project Information
RICHVIEW WATER SYSTEM
RANDY MULLEN - 509-531-7383
PO BOX 3596 PASCO, WA 99302

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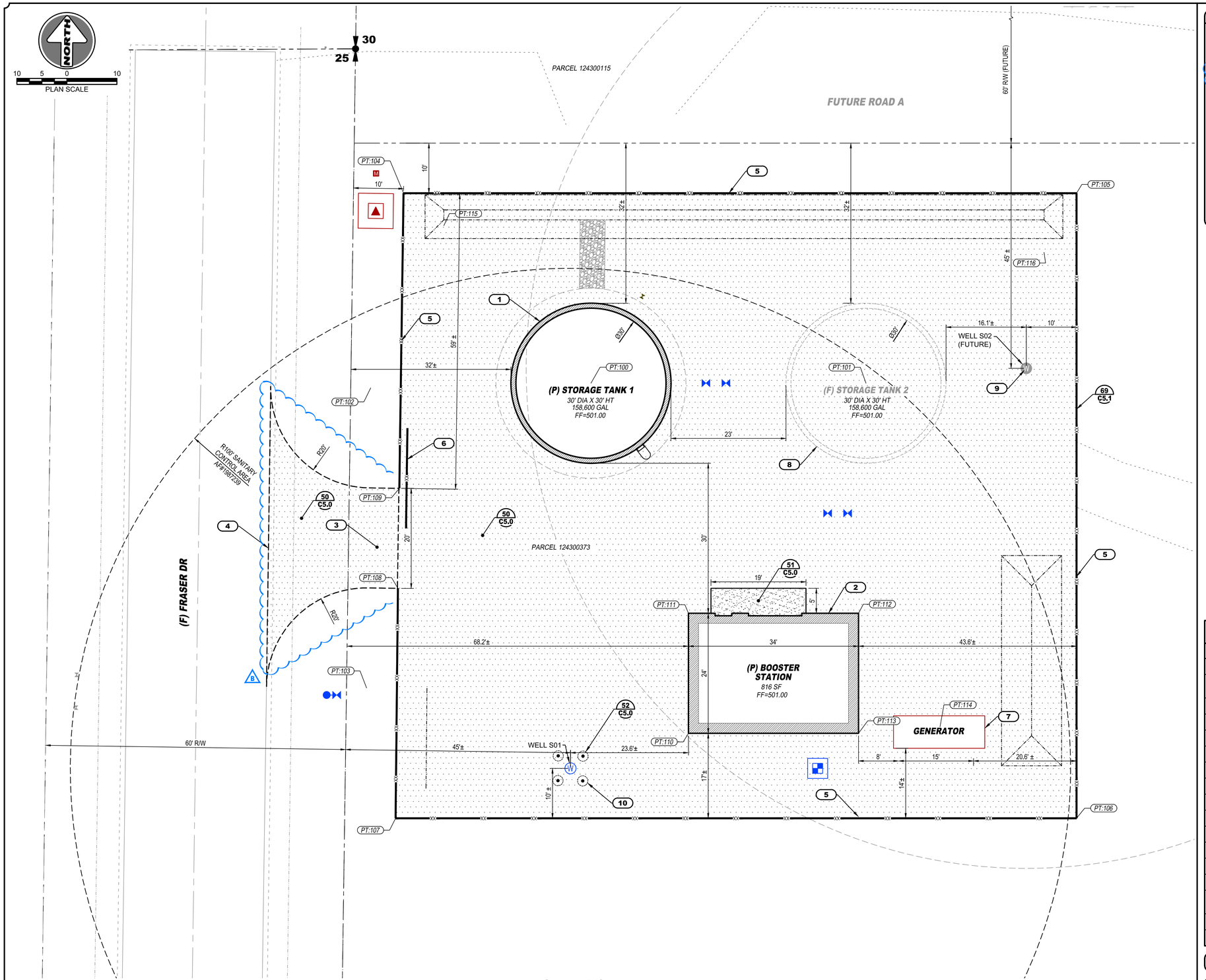
Drawing Name

Date: 01-20-2025
Project Number: 22-093.1
Sheet Number: 1



KEY NOTES

1. CONSTRUCT CONCRETE STORAGE TANK PER SHEETS C4.0-C4.1.
2. CONSTRUCT PROPOSED BOOSTER STATION PER SHEETS S1.0-S3.0.
3. CONSTRUCT 20' WIDE GRAVEL APPROACH WITH GEOMETRY PER FRANKLIN COUNTY STD PLAN 2-4. APPROACH WILL REMAIN GRAVEL UNTIL PAVEMENT OF FRASER DR BY OTHERS. (B)
4. SAWCUT CLEAN EDGE IF NECESSARY. COORDINATE WATER SYSTEM INFRASTRUCTURE WORK WITH CONSTRUCTION OF FRASER DR INFRASTRUCTURE. REFER TO "PLATEAU" PLANS BY AHBL.
5. CONSTRUCT 8 FT TALL BLACK CHAIN LINK FENCE WITH BARBED WIRE AROUND SITE PER DETAIL 69/C5.1, APPROXIMATELY 496 LF TOTAL.
6. 20 FT WIDE CANTILEVERED SLIDE GATE WITH LOCK, TO MATCH FENCING.
7. GENERATOR AND CONCRETE PAD PER ELECTRICAL SPECIFICATIONS.
8. SECOND STORAGE TANK TO BE CONSTRUCTED IN FUTURE. LOCATION SHOWN FOR REFERENCE.
9. SECOND WELL TO BE CONSTRUCTED IN FUTURE. LOCATION SHOWN FOR REFERENCE.
10. INSTALL (4) BOLLARDS SPACED 42" FROM CENTER OF WELL S01.

PROJECT POINTS

PT #	DESCRIPTION	NORTHING	EASTING
100	TANK CENTER	363,003.93	1,958,488.64
101	FUTURE TANK CENTER	363,004.53	1,958,543.63
102	20' RP	363,002.51	1,958,444.64
103	20' RP	362,942.51	1,958,444.45
104	FENCE COR	363,041.51	1,958,450.76
105	FENCE COR	363,043.00	1,958,585.31
106	FENCE COR	362,918.03	1,958,586.70
107	FENCE COR	362,916.51	1,958,450.56
108	FENCE END	362,962.50	1,958,450.51
109	FENCE END	362,982.50	1,958,450.58
110	BLDG CORNER	362,934.15	1,958,508.91
111	BLDG CORNER	362,958.15	1,958,508.65
112	BLDG CORNER	362,958.52	1,958,542.65
113	BLDG CORNER	362,934.52	1,958,542.91
114	GENERATOR CENTER	362,934.96	1,958,559.03
115	SWALE CORNER	363,035.10	1,958,458.89
116	SWALE CORNER	363,031.10	1,958,578.94

EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE INCOMPLETE. CONTRACTOR TO VERIFY LOCATIONS WITH UTILITY COMPANIES AND/OR PRIVATE UTILITY LOCATOR PRIOR TO TRENCHING

CALL 2 BUSINESS DAYS BEFORE YOU DIG: 811

SITE LAYOUT PLAN
SCALE: 1"=10'

HARMS ENGINEERING, INC.
1632 W Sylvester Street, Pasco WA 99301 | 509.547.2679 | HarmsEngineering.com

Designed By: B ANDERSON
Drawn By: B KETTERLING
File Name: 22-093 Richview Water Site Plan 06
Plotted: December 17, 2024 - 1:56:36 PM
File Path: P:\2022\22-093.1 Malden Richview Water System\Dwgs

Rev	Description	By	Date
B	ADDENDUM 2	BA	12-17-24
A	BID SET	BA	11-06-24

NW 1/4 SW 1/4 SEC 30 T 10N R 29E WM

RICHVIEW BOOSTER STATION
SITE LAYOUT PLAN
PARCEL 124300373, NORTH END OF FRASER DR, FRANKLIN COUNTY, WA

Client/Project Information:
RICHVIEW WATER SYSTEM
RANDY MULLEN - 509-531-7383
PO BOX 3596, PASCO, WA 99302

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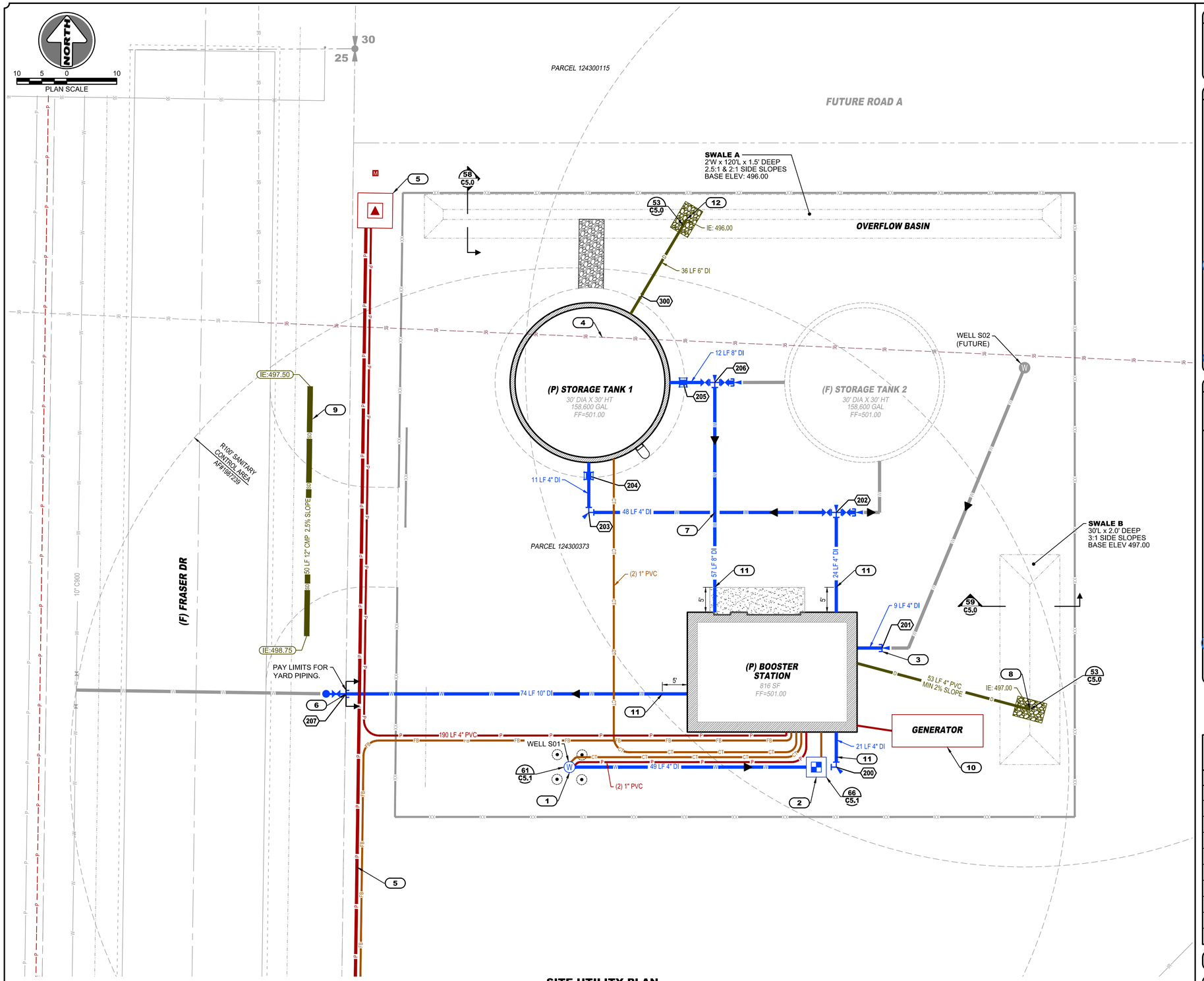
Drawing Name

BRADEN NEAL ANDERSON — STATE OF WASHINGTON — 109857 — REGISTERED PROFESSIONAL ENGINEER — 12-17-24

Date: 12-17-2024
Project Number: 22-093.1
Sheet Number: C2.0
ANSI D



SITE UTILITY PLAN
SCALE: 1"=10'

NOTES

1. CONTRACTOR TO PROVIDE ALL TRENCHING AND BACKFILL AS NEEDED FOR INSTALLATION OF CONDUITS, NEW STRUCTURES, AND CONNECTION TO EXISTING STRUCTURES, UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO PROVIDE AND INSTALL ALL CONDUITS AND STRUCTURES, UNLESS OTHERWISE NOTED. COORDINATE WITH UTILITIES.

KEY NOTES

1. INSTALL PITLESS UNIT AND PUMP PER SPECIFICATIONS AND CONNECT TO BOOSTER STATION.
2. INSTALL 4" SOURCE METER FOR WELL S01 IN VAULT.
3. FUTURE WELL S02 SUPPLY LINE TO BOOSTER STATION, CAPPED AND MARKED WITH BLUE 2x4 POST CUT OFF AT FINISHED GRADE.
4. EXISTING IRRIGATION LINE TO BE RELOCATED BY OTHERS (REFER TO "PLATEAU" PLANS BY AHBL). REMOVE EXISTING IRRIGATION LINES FROM SITE AND RE-COMPACT SOIL PER GEOTECHNICAL RECOMMENDATIONS.
5. COORDINATE WITH BBEC ON INSTALLATION OF NEW TRANSFORMER AND SERVICE TO BUILDING PER BBEC WORK ORDER.
6. EXTEND YARD PIPING TO PROPERTY LINE AND INSTALL TEMPORARY BLOW-OFF ASSEMBLY FOR TESTING. COORDINATE CONNECTION TO WATER SYSTEM DISTRIBUTION LINE WITH FRASER DR INFRASTRUCTURE WORK. REFER TO "PLATEAU" PLANS BY AHBL.
7. 8" WATER MAIN (TANK OUTLET) TO CROSS OVER 4" WATER MAIN (TANK SUPPLY). LOWER 4" WATER MAIN AS NECESSARY TO MAINTAIN MIN 12" VERTICAL CLEARANCE BETWEEN PIPES.
8. EXTEND FLOOR DRAIN OUTFALL TO DAYLIGHT WITH BEVELED END SECTION AND RODENT SCREEN. TRANSITION TO DI PIPE FOR FINAL 10 LF. (B)
9. INSTALL 12" CMP CULVERT UNDER DRIVEWAY PER FRANKLIN COUNTY STD PLAN 2-4. INSTALL WITH MIN 1 FT COVER AT DRIVEWAY AND MIN 10 FT HORIZONTAL SEPARATION FROM WATER MAIN.
10. STANDBY GENERATOR FOR EMERGENCY PURPOSES. REFER TO ELECTRICAL PLANS AND SPECIFICATIONS. GENERATOR CONNECTION AND STARTUP MAY BE DEFERRED DUE TO ANTICIPATED LONG LEAD TIMES.
11. PAY LIMITS FOR YARD PIPING EXTEND TO 5 FT FROM BOOSTER STATION FOUNDATION. INTERNAL PIPING PART OF PAY LIMITS FOR BOOSTER STATION. REFER TO SPECIFICATIONS.
12. EXTEND TANK DRAIN OUTFALL TO DAYLIGHT WITH CHECK VALVE PER SPECIFICATIONS. (B)

WATER FITTINGS

NOTES:
1. NEW WATER MAIN TO BE INSTALLED WITH A MINIMUM COVER OF 42 INCHES.
2. INSTALL VALVE BOXES PER DETAIL 68/C5.1
3. INSTALL PIPE BEDDING PER DETAIL 64/C5.1

200 1 - 4" 90° BEND, WITH JOINT RESTRAINTS PER DETAIL 63/C5.1
1 - THRUST BLOCK PER DETAIL 62/C5.1

201 1 - 4" CAP, WITH JOINT RESTRAINTS PER DETAIL 63/C5.1
1 - THRUST BLOCK PER DETAIL 62/C5.1

202 1 - 4"x4"x4" TEE
2 - 4" GATE VALVES
1 - 4" CAP
2 - THRUST BLOCKS PER DETAIL 62/C5.1
JOINT RESTRAINTS PER DETAIL 63/C5.1

203 1 - 4" 90° BEND, WITH JOINT RESTRAINTS PER DETAIL 63/C5.1
1 - THRUST BLOCK PER DETAIL 62/C5.1

204 1 - 4" FLEX-TEND FLEXIBLE EXPANSION JOINT, FLxMJ, CENTERED AT TANK FOUNDATION EDGE, WITH JOINT RESTRAINTS PER DETAIL 63/C5.1

205 1 - 8" FLEX-TEND FLEXIBLE EXPANSION JOINT, FLxMJ, CENTERED AT TANK FOUNDATION EDGE, WITH JOINT RESTRAINTS PER DETAIL 63/C5.1

206 1 - 8"x8"x8" TEE
2 - 8" GATE VALVES
1 - 8" CAP
2 - THRUST BLOCKS PER DETAIL 62/C5.1
JOINT RESTRAINTS PER DETAIL 63/C5.1

207 1 - 10" CAP WITH TEMPORARY 4" BLOW-OFF ASSEMBLY PER DETAIL 60/C5.0, WITH JOINT RESTRAINTS PER DETAIL 63/C5.1
1 - THRUST BLOCK PER DETAIL 62/C5.1

300 1 - 6" GATE VALVE, LABELLED "DRAIN", WITH JOINT RESTRAINTS PER DETAIL 63/C5.1 (B)

WATER FITTING LOCATIONS

PT / FITTING #	NORTHING	EASTING
200	362,927.46	1,958,538.82
201	362,951.41	1,958,547.73
202	362,978.48	1,958,538.26
203	362,977.93	1,958,488.71
204	362,985.26	1,958,488.59
205	363,004.15	1,958,507.31
206	363,004.23	1,958,513.64
207	362,941.03	1,958,440.50
300	363,021.39	1,958,498.72

EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE INCOMPLETE. CONTRACTOR TO VERIFY LOCATIONS WITH UTILITY COMPANIES AND/OR PRIVATE UTILITY LOCATOR PRIOR TO TRENCHING.

CALL 2 BUSINESS DAYS BEFORE YOU DIG: 811

HARMS ENGINEERING, INC.
1632 W Sylvester Street, Pasco WA 99301 | 509.547.2679 | HarmsEngineering.com

Designed By: B ANDERSON
Drawn By: B KETTERLING
File Name: 23-093 Richview Water Site Plan 06
File Path: P:\2022\23-093.1 Mullen Richview Water System\Dwgs
Plotted: December 17, 2024 - 1:58:37 PM

Rev	Description	By	Date
B	ADDENDUM 2	BA	12-17-24
A	BID SET	BA	11-06-24

Drawing Name

RICHVIEW BOOSTER STATION
SITE UTILITY PLAN
PARCEL 124300373, NORTH END OF FRASER DR, FRANKLIN COUNTY, WA
Client/Project Information

NW 1/4 SW 1/4 SEC 30 T10N R29E WM

RICHVIEW WATER SYSTEM
RANDY MULLEN - 509-531-7383
PO BOX 3596, PASCO, WA 99302

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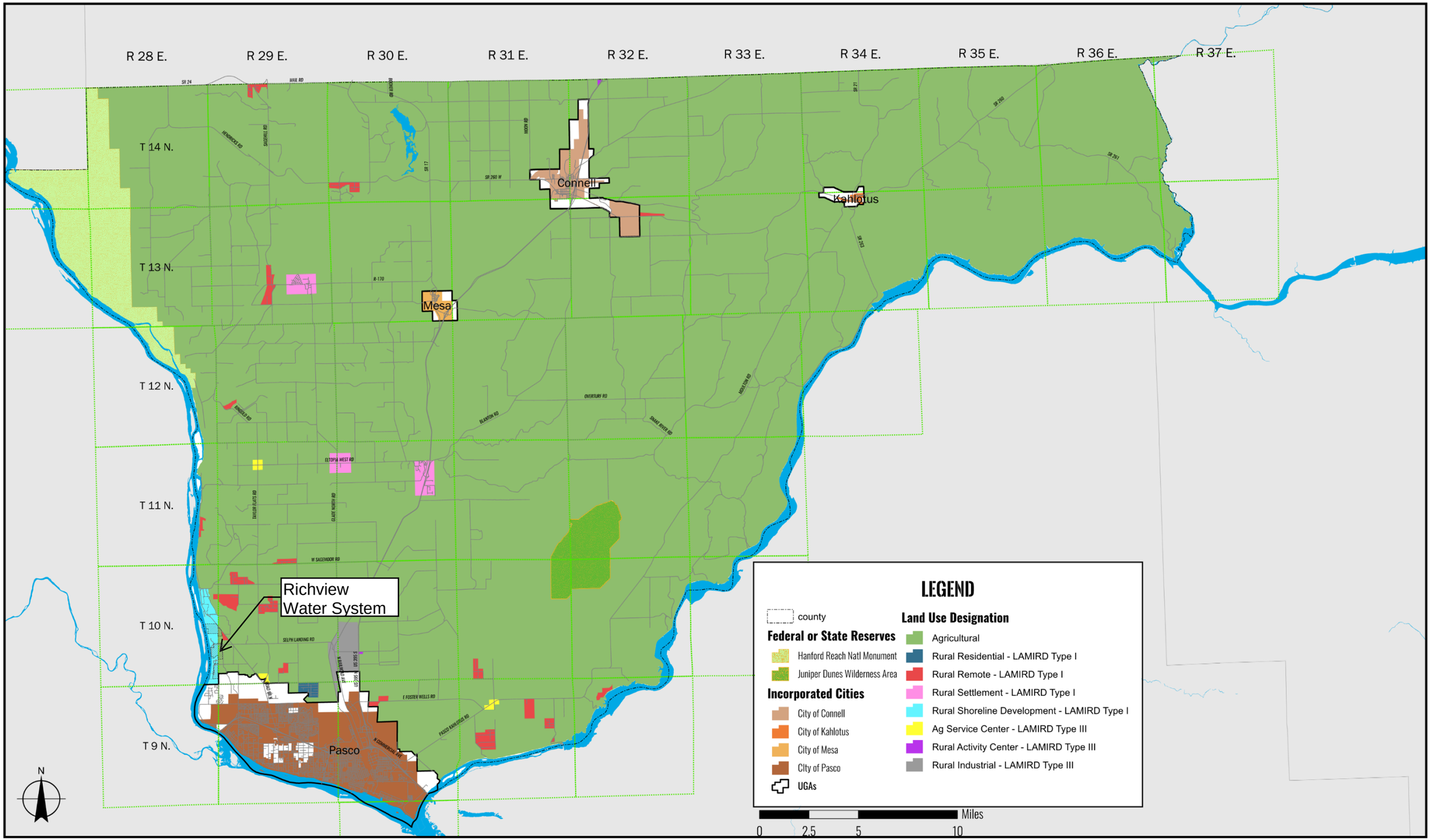
BRADEN NEAL ANDERSON — STATE OF WASHINGTON — 22109857 — REGISTERED PROFESSIONAL ENGINEER — 12-17-24

Date: 12-17-2024
ANSI D
Project Number: 22-093.1
Sheet Number: C2.1

Appendix B: Related Plans

- Franklin County Comprehensive Plan Land Use Map
- Franklin County Zoning Map in Project Vicinity
- City of Pasco Comprehensive Plan Land Use Map
- Source Water Assessment Program (SWAP) Map and Service Areas
- SCBID Irrigated Parcels and M&I Contracts
- Pasco Heights and River Ridge Water System Info
- Richview Conditional Use Permit, Franklin County
- Franklin County Local Government Consistency Determination Form

Map 5: Land Use Map



Franklin County Planning County Planning page Rezoning Code

Find address or place

Richview Service Area

Richview Well Site

W SAGEMOOR RD

SELPH LANDING RD

OAK CREST RD

DENT RD

CLARK RD

BURNS RD

TAYLOR FLATS RD

GLADE NORTH RD

BROADMOOR BLVD

COLUMBIA RIVER RD

Pasco

PASCO UGB

10-28

9-28

10-29

11-29

124270014

1246800-46

Geophex Surveys Ltd., E

1mi

Legend

Roads

Roads

LOCAL_CLASS

- Interstate, urban US highway
- Rural US or state highway
- Arterial
- Major road
- Local road
- Private road

Parcels

Parcels

Zoning

Zoning in Franklin County

- Ag. Production 20 acre
- Ag. Production 40 acre
- Retail Business
- Rural Service Commercial
- General Business
- Regional Commercial
- General Industrial
- Heavy Industrial
- Office
- Residential (medium)
- Residential Transition
- Rural Community 1 acre
- Rural Community 5 acre
- Rural Residential 1 acre
- Rural Residential 5 acre
- Suburban 0.5 acre
- Suburban 1 acre

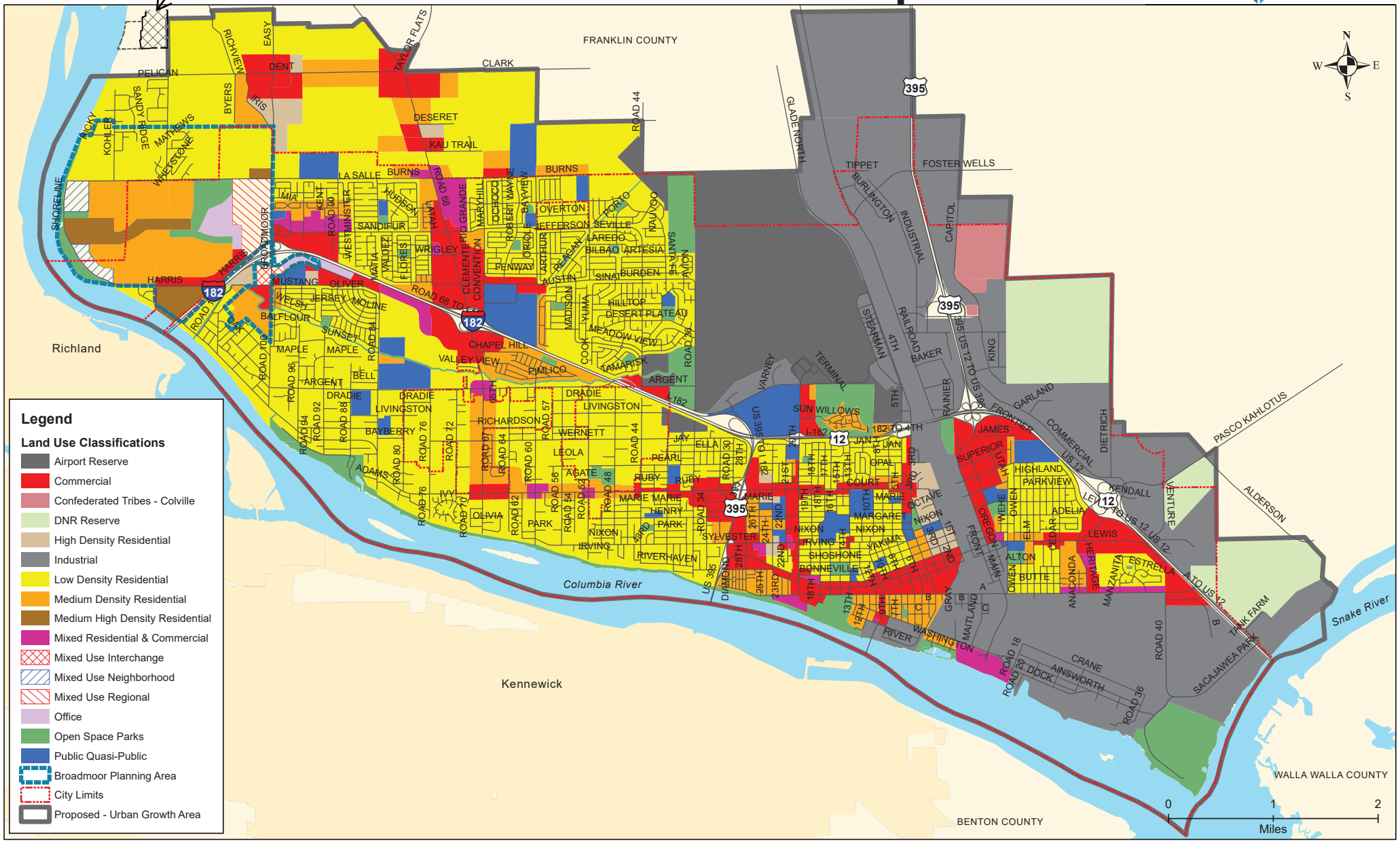
Grid

Township-Range

LU-1

Future Land Use Map

City of Pasco



Washington State Department of HEALTH

Source Water Assessment Program (SWAP) Mapping

This is a mapping tool as part of a grant from EPA to ensure clean and safe water for all Washington communities

Office of Drinking Water

Help

River Ridge Estates (PWS 38792V)

Richview Water System Service Area (PWS AE302)

Richview Well Site

Pasco Heights Domestic Water Association (PWS 663508)

Pasco Water Dept (PWS 66400) to south

State Route 240

Richland Airport

240

1,000 m

2,000 ft

Selected features: 0

Geophex Surveys Ltd., Maxar | DOH | Washington State Department of Health, Office of Drinking Water | WSU Facilities Services GIS, WA State Parks GI… Powered by Esri

SCBID Irrigation Contracts and Farm Units for Richview Service Area

Development	Parcel #	Irrigation Contract/ Farm Unit
The Plateau	124300375	M&I Contract 880-032
	124300376	M&I Contract 880-032
	124300379	M&I Contract 880-032
The Heights	124300117	Blk 1 Unit 46
	124300118	Blk 1 Unit 46
	124300123	Blk 1 Unit 46
	124300124	Blk 1 Unit 46
	124300127	Blk 1 Unit 46
	124300128	Blk 1 Unit 46
	124300130	Blk 1 Unit 46
	124300131	Blk 1 Unit 46
Selph Landing	124300115	Blk 1 Unit 46
	124300478	Blk 1 Unit 34
	124300479	Blk 1 Unit 34
Underwood Estates	126210022	Blk 1 Unit 17/18
	126210028	None
	126210055	None
	126210121-142	M&I Contract 880-051
Diamondback	124190232	Blk 1 Unit 19
Eickmeyer	126230066	Blk 1 Unit 11
Pomona Properties	126190336	None
	126190342	Blk 1 Unit 87
	126190345	Blk 1 Unit 87
	126200011	None
Field & Clifford Farms	126201164	Blk 1 Unit 8
	126201165	Blk 1 Unit 8
	126202019	Blk 1 Unit 101
	126202028	Blk 1 Unit 101
	126202037	Blk 1 Unit 101
	126202046	Blk 1 Unit 101
	126202055	Blk 1 Unit 101
	126202064	Blk 1 Unit 101
	126202073	Blk 1 Unit 101
	126202091	Blk 1 Unit 101
	126203018	Blk 1 Unit 101
	126203027	Blk 1 Unit 101
	126203036	Blk 1 Unit 101
	126203045	Blk 1 Unit 101
	126203054	Blk 1 Unit 101
	126203063	Blk 1 Unit 101
	126203072	Blk 1 Unit 101
	126203081	Blk 1 Unit 101
	126203090	Blk 1 Unit 101
	126203107	Blk 1 Unit 101
	126203116	Blk 1 Unit 101

River Ranch
880-032

Amendment No. 2
Contract No. 14XX160050

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
COLUMBIA BASIN PROJECT, WASHINGTON

AMENDATORY MUNICIPAL AND INDUSTRIAL
WATER SERVICE CONTRACT
BETWEEN THE UNITED STATES
AND
RIVER RANCH WATER COMPANY

THIS AMENDATORY CONTRACT, made this 22nd day of February 2023 pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, and particularly Section 9 (c) (2) of the Reclamation Project Act of 1939 (53 Stat. 1187), collectively known as the Federal Reclamation laws, between the UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented by the officer executing this contract, hereinafter referred to the Contracting Officer, and RIVER RANCH WATER COMPANY, hereinafter referred to as the Contractor;

WITNESSETH THAT;

EXPLANATORY RECITALS

2. WHEREAS, the United States and the Contractor have entered into Contract No. 14XX160050, dated February 10, 2014, and Amendment No. 1 dated July 7, 2016, hereinafter called the Contract, providing for the use of up to 100 acre-feet of Columbia Basin Project water from the Mullen Land Pumping Station located in Irrigation Block 1, Farm Unit 47; and

3. WHEREAS, the Contractor desires to increase the annual quantity of water used by 92 acre-feet for a total of 192 acre-feet; and

4. WHEREAS, the Contractor has paid for 100 acre-feet for the 2023 irrigation season and Reclamation will bill for the additional 92 acre-feet in the amount of $4,416.00 for use in the

(c.) (1) The Contractor shall pay the United States the sum of $9,216.00, beginning with the 2024 irrigation season, and a like payment annually thereafter on or before March 1 of each succeeding year during the term hereof, which shall entitle the Contractor to receive up to 192 acre-feet of water. No part of the payment will be refunded regardless of the actual quantity of water used."

(2) Contracted water quantities may be reduced at the Contracting Officer's discretion based on the Contractor's peak water use for any given 5-year period.

(3) The annual payment set forth in Article 9(c.)(1) of this contract is based on an initial rate of $48.00 per acre-foot. From time to time, but not less often than once every 5 years, the rate per acre-foot and the annual payment due the United States under Article 9(c.)(1) of this contract shall be reviewed by the Contracting Officer and revised if necessary by the United States. Such review shall be in accordance with Federal Reclamation laws and the then current municipal, industrial and miscellaneous purposes rate policy applicable to the Columbia Basin Project.

8. Except as amended herein the provisions of Contract No. 14XX160050, dated February 10, 2014, as amended, shall remain in full force and effect.

STATE OF WASHINGTON)
) ss
County of FRANKLIN)

On this day personally appeared before me, the undersigned Notary, RANDY MULLEN, to me known to be the CONTRACTOR described in and who executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the Contractor, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument.

WITNESS my hand and official seal on this 17TH day of FEBRUARY, 2023.

(SEAL) PETER HARPSTER NOTARY PUBLIC STATE OF WASHINGTON MY COMM. EXP. 05-01-26 COMM. NO. 22016663

PETER HARPSTER
Notary Public
State of WASHINGTON
Residing at: PASCO, WA
My Commission expires: 05/01/26

STATE OF WASHINGTON)
) ss
COUNTY OF GRANT)

Clyde Camy AR

On this day personally appeared before me, the undersigned Notary, ~~Marc Maynard,~~ to me known to be the official of the UNITED STATES OF AMERICA, that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the United States, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument.

WITNESS my hand and official seal on this 22nd day of February, 2023.

(SEAL) AARON W IRELAND NOTARY PUBLIC STATE OF WASHINGTON My Comm. Expires February 02, 2027 No. 23003797

Aaron Ireland
Notary Public
State of Washington
Residing at: Grant Co.
My Commission expires: 2/2/27

This document is not a legal description of property, and is for general reference only. Neither the authors nor Reclamation warrant or represent that the data is in every respect complete and accurate, and are not held responsible for errors or omissions.

River Ranch Water Co.
M&I Contract No. 14XX160050
Exhibit B (Amendment No. 2)

N
W E
S

0 500 1,000 2,000 Feet

Contract Area
Point of Diversion

United States Department of the Interior

BUREAU OF RECLAMATION
Ephrata Field Office
32 C Street NW
Ephrata, WA 98823-0815

IN REPLY REFER TO:

EPH-2011
2.2.4.23

RECEIVED
SOUTH COLUMBIA BASIN
IRRIGATION DISTRICT

FEB 08 2024

MGR OPS SLIP
SEC/TREA ASST MGR
ENG FILE

Mr. Richard Underwood
P.O. Box 3140
Pasco, Washington 99301

Subject: Municipal and Industrial (M&I) Water Service Contract No. 24XX160112, South Columbia Basin Irrigation District (District), Columbia Basin Project, Washington

Dear Mr. Underwood:

Enclosed for your records is Contract No. 24XX160112 that provides for the use of up to 80 acre-feet of water delivered from the PP3.0 lateral for lawn and landscape maintenance to serve the Underwood Phase 1 Subdivision.

Your water service contract consists of two annual payment components: payment to the Bureau of Reclamation for construction charges and payment to the District for water delivery. Reclamation will send a bill for collections, so you can start using water in the 2024 irrigation season. Questions regarding the Districts bill should be addressed to Kristal Ornelas at 509-547-1735 or kornelas@scbid.org. As a reminder, advance payment of both these charges is a condition precedent to receiving water.

For additional information or assistance, please contact Mrs. Amy Rodman, Irrigation District Liaison, at (509) 754-0238 or arodman@usbr.gov. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Sincerely,

CLYDE LAY Digitally signed by CLYDE LAY
Date: 2024.02.06 08:50:34 -08'00'

Clyde Lay
Deputy Field Office Manager

Enclosure

cc: South Columbia Basin Irrigation District
P.O. Box 1006
Pasco, Washington 99301

Contract No. 24XX160112

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Columbia Basin Project, Washington
MUNICIPAL AND INDUSTRIAL WATER SERVICE CONTRACT

Contents

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10	Availability of Water	3-4
11	Payments for Water	4-5
12	Contract Administration Fees	5
13	Measurement and Responsibility for Distribution	5-8
14	Title to Project Works	8
15	Termination of Contract	8-9
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMBIA BASIN PROJECT, WASHINGTON

MUNICIPAL AND INDUSTRIAL WATER SERVICE CONTRACT

BETWEEN THE UNITED STATES
AND
RICHARD UNDERWOOD

THIS CONTRACT, made this 2nd day of February, 2024, pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, and particularly Section 9(c)(1)(B) of the Reclamation Project Act of 1939 (53 Stat. 1187) as amended, collectively known as the Federal Reclamation laws, between THE UNITED STATES OF AMERICA, referred to as the United States, represented by the officer executing this contract, referred to as the Contracting Officer, and RICHARD UNDERWOOD, referred to as the Contractor;

WITNESSETH THAT;

EXPLANATORY RECITALS

2. WHEREAS, the United States, acting through the Bureau of Reclamation, constructed the Columbia Basin Project, Washington (the "Project"), and has water rights thereon, including those for municipal, industrial, and miscellaneous purposes ("M&I water"); and

3. WHEREAS, the South Columbia Basin Irrigation District, ("the District"), has entered into a repayment contract with the United States (Contract No. 14-06-100-6420) dated December 18, 1968), relating to the construction of the Project and the assumption of care, operation, and maintenance of certain Project works by the District, which includes the PP3.0 lateral; and

4. WHEREAS, the Contractor desires to enter into a contract with the United States for use of M&I water to be conveyed and delivered from the PP3.0 lateral for lawn and landscape maintenance to serve the Underwood Phase 1 Subdivision; and

5. WHEREAS, the United States has determined that it is in the best interest of the Project that M&I water be made available for the proposed use on an interruptible basis for the period covered by this contract; and

6. WHEREAS, use of the M&I water by the Contractor, in the manner and upon the terms and conditions provided in this contract, is in the public interest and will not impair the efficiency of the Project for irrigation and other authorized purposes or the rights of the District; and

7. WHEREAS, Categorical Exclusion Checklist CPN-EFO-CE-2023-109, was issued on September 19, 2023; and

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein stated, it is agreed as follows:

DEFINITIONS

8. The following terms, as used in this contract, shall have the following respective meanings:

"Irrigation" shall mean the use of contract water to irrigate land primarily for the production of commercial agricultural crops or livestock, and domestic and other uses that are incidental thereto.

"Municipal and Industrial" or "M&I" shall mean the use of contract water for municipal, industrial, and miscellaneous other purposes not falling under the definition of "irrigation" use above or within another category of water use under an applicable Federal authority.

TERM OF CONTRACT

9. (a) This contract shall become effective as of the date first above written and will have a term of not to exceed 10 years; Provided: that this contract will automatically renew for a period of not to exceed 10 years at the end of 10, 20, and 30 years from the date first above written unless sooner terminated in accordance with Article 15, Provided however: that this contract does not qualify as a long-term contract under the Act of June 21, 1963 (77 Stat. 68) and in no event shall this contract be in effect beyond 40 years through automatic renewals. This contract will not automatically renew if notice of non-renewal was provided in accordance with Article 15(c).

(b) It is understood and agreed that the furnishing of water herein provided shall not be considered as binding the Contracting Officer or the District to furnish water to said Contractor after the end of said contract period, neither shall this contract under any circumstances become the basis of a beneficial interest in the water delivered nor a legal right to it. The Contractor and the District, for themselves, their successors, and assigns, and all persons claiming under or through them, hereby expressly consent that at the expiration of this contract, the use of water provided herein shall terminate and revert to the United States as fully as if this contract had never been made, and no water had ever been furnished.

AVAILABILITY OF WATER

10. (a) Subject to the conditions, exceptions, and reservations set forth herein and the availability of M&I water in quantities sufficient to fulfill the requirements of this contract without impairing the efficiency of the Project for irrigation, and without creating a temperature impairment for the delivery of Project water for irrigation, or for any other authorized purposes, the United States hereby authorizes the Contractor to use up to 80 acre-feet of M&I water to be conveyed and delivered from the PP3.0 lateral within Section 24, Township 10 North, Range 28

East during the irrigation season, as provided in this contract for lawn and landscape maintenance. The point of diversion and contract area is shown in Exhibit B. Any request to the District by the Contractor for the furnishing of water from the aforementioned facility shall be made in writing and received at least 30 days in advance of the requested date of delivery by the District, to allow for consideration by the District.

(b) Contracted water quantities may be reduced at the Contracting Officer's discretion based on the Contractor's peak water use prior to any irrigation season, but in no event after payment has been accepted by the District or the United States pursuant to Section 11 below.

PAYMENTS FOR WATER

11. (a) Payment to the United States and the District in advance of any delivery of water is a condition precedent to delivery of the water.

(b) The Contractor shall pay the District in advance of delivery of water under this contract each year a conveyance and delivery charge to be determined by the District. No part of the payment will be refunded in the event the Contractor does not utilize its allocated quantity of water due to no fault of Contracting Officer or the District.

(c) (1) The Contractor shall pay the United States the sum of $3,840.00, upon execution of this contract, and a like payment annually afterwards on or before March 1 of each succeeding year during the term of this contract, which shall entitle the Contractor to receive up to 80 acre-feet of M&I water. No part of the payment will be refunded in the event Contractor does not utilize its allocated quantity of water due to no fault of Contracting Officer or the District.

(2) If Contracted water quantities are reduced pursuant to Article 10(b) the payment required in Article11 (c)(1) will be reduced in proportion to the reduction in water

quantity.

(3) The annual payment set forth in Article 11(c)(1) of this contract is based on an initial rate of $48.00 per acre-foot. From time to time, the rate per acre-foot and the annual payment due the United States under Article 11(c)(1) of this contract shall be reviewed by the Contracting Officer and revised if necessary by the United States. Such review shall be in accordance with Federal Reclamation laws and the then current municipal, industrial, and miscellaneous purposes rate policy applicable to the Columbia Basin Project.

CONTRACT ADMINISTRATION FEES

12. In all future contract actions, if any, including new contracts, contract amendments, or supplements, the Contractor shall be subject to administrative fees assessed by the United States.

MEASUREMENT AND RESPONSIBILITY FOR DISTRIBUTION

13. (a) The water furnished to the Contractors shall be diverted and measured by the Contractor at a location approved by the Contracting Officer and District. The Contractor shall, at its own cost and expense, furnish and maintain any pumps, pipelines, or other facilities necessary to divert, convey, and cool the water made available under this contract or otherwise, and shall, at its expense, provide the necessary power.

The Contractor shall obtain from the District, upon approval by the United States, a permit for any installation, facilities, and equipment on Project rights-of-way, based on plans approved in advance by the District and the United States and subject to the District's and the United States' inspection and approval, and shall pay the United States and the District its reasonable charge for engineering and inspection work in connection therewith. Permits will not be issued for facilities which will provide for water diversions at excessive flow rates. Title to the headgate and other permanent water diversion facilities constructed in PP3.0 lateral right-of-

way shall vest in the United States as part of the transferred works of the District.

The Contractor agrees, at its expense, to furnish, install, and maintain a meter or such other measuring device or procedure as may be approved by the Contracting Officer and the District. The Contractor shall prepare and furnish certified monthly water use reports and related data as may be required by the Contracting Officer and the District. The Contracting Officer and the District, or their authorized representatives, shall at all times have access to the measuring equipment or procedures for inspection purposes. Any deficiencies found therein by the Contracting Officer or the District shall be corrected promptly by and at the expense of the Contractor. If for any reason the device or procedure fails, in the opinion of the Contracting Officer or the District, to operate satisfactorily, the Contracting Officer and the District shall, from the best information available, estimate the quantity of water diverted under this contract, which estimate shall be accepted by the Contractor as the quantity of water for which payment shall be made.

If the facilities constructed and installed by the Contractor interfere with subsequent construction, reconstruction, modification, and operation and maintenance of Project facilities, any additional cost caused by such interference shall be borne by the Contractor. The Contractor hereby agrees that in any settlement in connection with acquisition or utilization of rights-of-way needed for later construction, reconstruction, modification, and operation and maintenance of Project facilities across land covered by this contract, no enhancement in land value will be allowed as a result of this contract, including the value of improvements made thereon.

(b) The United States and the District shall not be responsible for the carriage, handling, distribution, use, disposal, or control of water taken by the Contractor under this contract, including any waste, contamination, or pollution or violation of a Total Maximum

Daily Load under the Clean Water Act resulting from the Contractor's use of such water, and the Contractor shall hold the United States and the District harmless on account of damage or claim of damage of any nature whatsoever, including property damage, personal injury, or death arising out of or connected with the carriage, handling, distribution, use, disposal, or control of water taken by the Contractor under this contract, including any waste, contamination, or pollution resulting from the Contractor's use of such water or any liabilities from water the Contractor has failed to suitably treat before use. The Contractor also releases the United States and the District, their officers and employees from all damage which may result from the construction, reconstruction, modification, use, operation, and maintenance of the Project in connection with the Contractor's activities under this contract, including damage to improvements which may occur as the result of seepage, flood, or erosion from irrigation works constructed by the United States or the District.

(c) The Contractor agrees to use all practicable methods to ensure the economical and beneficial use of water. Water made available under this contract shall not be permitted to collect or run upon land not owned by the Contractor without proper authorization from the appropriate federal and state agencies and any affected landowners. The Contractor shall take appropriate action to avoid conditions hazardous to public health and safety, and to protect adjacent land from undesirable side effects.

(d) Water provided under this contract may not be available to the Contractor during peak periods of use for irrigation of Project lands. The District will make the determination of availability of water with respect to the physical constraints of the delivery system and will control delivery.

(e) The United States does not abandon or relinquish any waste, seepage or return flow water resulting from activities under this contract, and all such water is reserved to

the United States as set forth in its repayment contract with the District.

(f) Diversion and use of water under this contract shall be without expense to or obligation of the United States or the District, regardless of fluctuation, for whatever reason.

(g) The Contractor's use of water under this contract is interruptible and subordinate to the use of Project water for the irrigation of Project lands.

TITLE TO PROJECT WORKS

14. Title to all of the Columbia Basin Project, lands, and associated works shall be and remain in the United States until otherwise provided for by the Congress.

TERMINATION OF CONTRACT

15. (a) This contract shall be terminated at the option of the United States at any time (1) if the Contractor is delinquent in payments required under this contract for a period of ninety (90) days, or (2) upon failure of the Contractor to comply with other provisions herein or to abide by any lawful notice, statute, order, rule, regulation, or applicable law of the State of Washington or the United States, now or hereafter established affecting water service under this contract.

(b) Water service under this contract may cease, in whole or in part, if the contract water source becomes unavailable as required by, or due to the application of, federal law, including but not limited to, the Endangered Species Act.

(c) Two (2) years or more before the expiration of this contract at the end of 10 years, 20 years, 30 years, or 40 years from the date of this contract, the United States may send a notice of non-renewal to the Contractor in writing. If the United States send any such notice of non-renewal, then this contract will not automatically renew as provided for in Article 9 (a) of this contract.

(d) The Contractor shall have the right to terminate this contract in the event it

has no further need of the water service provided herein. Notice of the intent by the Contractor to terminate this contract shall be in writing to the Contracting Officer and the District prior to November 1, of the year preceding the year in which the termination is to occur.

(e) Termination of this contract for any cause shall not relieve the Contractor of any obligation incurred by way of this contract prior to termination.

(f) Upon termination of this contract for any cause, the Contractor shall, within thirty (30) days, remove its facilities from Project right-of-way except facilities to which title has vested in the United States, and restore the premises to a safe and sightly condition satisfactory to the Contracting Officer and the District. In event of the Contractor's failure to implement such removal, the Contracting Officer or the District may remove the facilities and complete the restoration at the expense of the Contractor. The Contractor will promptly pay to the United States or the District, whichever restored the premises, any expenses incurred from such removal and restoration.

ENVIRONMENTAL RESOURCES AND CONTRACT COMPLIANCE REVIEWS

16. (a) In the interest of conservation and protection of environmental resources, from time to time, this contract shall be reviewed by the Contracting Officer, in cooperation with the District. The terms and conditions of this contract may be modified, if deemed necessary by the Contracting Officer, to avoid or minimize impacts to candidate, listed, or proposed threatened and endangered species, or other valuable natural resources. Any modification by the Contracting Officer shall be announced by written notice to the Contractor.

(b) The Contractor acknowledges the Bureau of Reclamation's authority to conduct periodic contract compliance reviews in accordance with Reclamation Manual Policy, *Water-Related Contract and Charges – General Principles and Requirements* (PEC P05), and Reclamation Manual Directive and Standards, *Contract Compliance Reviews (PEC 05-08)*.

STANDARD PROVISIONS

17. The Standard Provisions applicable to this contract are listed below. The full text of these articles is attached as Exhibit A and is hereby made a part of this contract.

a. NOTICES

b. CHARGES FOR DELINQUENT PAYMENTS

c. CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS

d. OFFICIALS NOT TO BENEFIT

e. CHANGES IN CONTRACTOR'S ORGANIZATION

f. ASSIGNMENT LIMITED--SUCCESSORS AND ASSIGNS OBLIGATED

g. BOOKS, RECORDS AND REPORTS

h. RULES, REGULATIONS, AND DETERMINATIONS

i. PROTECTION OF WATER AND AIR QUALITY

j. COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

k. MEDIUM FOR TRANSMITTING PAYMENTS

l. CONTRACT DRAFTING CONSIDERATIONS

m. CONSTRAINTS ON THE AVAILABILITY OF WATER

IN WITNESS WHEREOF, the parties hereto have signed their names and the day and year first above written.

RICHARD UNDERWOOD

By: _____

Title: owner

P.O. Box 3140
Pasco, WA 99302

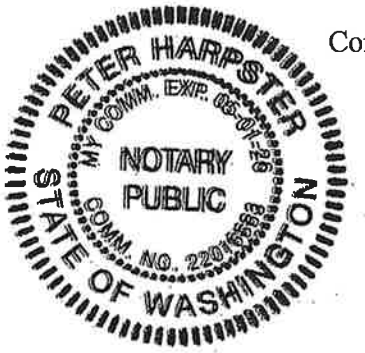
UNITED STATES OF AMERICA

By: _____

Marc Maynard
Ephrata Field Office Manager
Bureau of Reclamation
32 C St. NW
Ephrata, WA 98823

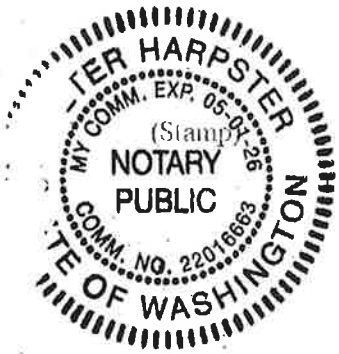
Contract No. 24XX160112

STATE OF WASHINGTON)
)
County of FRANKLIN)



This record was acknowledged before me on this 24th day of JANUARY, 2024

by RICHARD UNDERWOOD as the designated and authorized official of the CONTRACTOR.



Notary Public

My commission expires: 05/01/2026

STATE OF Washington)
)
County of Grant)

This record was acknowledged before me on this 2nd day of February, 2024

by Marc Maynard as the designated and authorized official of the UNITED STATES OF AMERICA.

Notary Public

My commission expires: 2-2-27

Exhibit A
Contract No. 24XX160112

STANDARD PROVISIONS – COLUMBIA BASIN PROJECT

The Contractor, as referred to in the following Standard Provisions, shall be Richard Underwood;

NOTICES

(a) Any notice, demand, or request authorized or required by this contract shall be deemed to have been given, on behalf of the Contractor, when mailed, postage prepaid, or delivered to the Ephrata Field Office Manager, Columbia Basin Project, 32 C Street N.W., Ephrata, Washington 98823, and on behalf of the United States, when mailed, postage prepaid, or delivered to Richard Underwood, P.O. Box 3140, Pasco, WA 99301. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

CHARGES FOR DELINQUENT PAYMENTS

(b) (1) The Contractor shall be subject to interest, administrative, and penalty charges on delinquent payments. If a payment is not received by the due date, the Contractor shall pay an interest charge on the delinquent payment for each day the payment is delinquent beyond the due date. If a payment becomes 60 days delinquent, the Contractor shall pay, in addition to the interest charge, an administrative charge to cover additional costs of billing and processing the delinquent payment. If a payment is delinquent 90 days or more, the Contractor shall pay, in addition to the interest and administrative charges, a penalty charge for each day the payment is delinquent beyond the due date, based on the remaining balance of the payment due at the rate of 6 percent per year. The Contractor shall also pay any fees incurred for debt collection services associated with a delinquent payment.

(2) The interest rate charged shall be the greater of either the rate prescribed quarterly in the Federal Register by the Department of the Treasury for application to overdue payments, or the interest rate of 0.5 percent per month. The interest rate charged will be determined as of the due date and remain fixed for the duration of the delinquent period.

(3) When a partial payment on a delinquent account is received, the amount received shall be applied first to the penalty charges, second to the administrative charges, third to the accrued interest, and finally to the overdue payment.

CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS

(c) The expenditure or advance of any money or the performance of any obligation of the United States under this contract shall be contingent upon appropriation or allotment of funds. Absence of appropriation or allotment of funds shall not relieve the Contractor from any obligations under this contract. No liability shall accrue to the United States in case funds are not appropriated or allotted.

OFFICIALS NOT TO BENEFIT

(d) No Member of or Delegate to the Congress, Resident Commissioner, or official of the Contractor shall benefit from this contract other than as a water user or landowner in the same manner as other water users or landowners.

CHANGES IN CONTRACTOR'S ORGANIZATION

(e) While this contract is in effect, no change may be made in the Contractor's organization which may affect the respective rights, obligations, privileges, and duties of either the United States or the Contractor under this contract including, but not limited to, dissolution, consolidation, or merger, except upon the Contracting Officer's written consent.

ASSIGNMENT LIMITED—SUCCESSORS AND ASSIGNS OBLIGATED

(f) The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any right or interest therein by either party shall be valid until approved in writing by the other party.

BOOKS, RECORDS, AND REPORTS

(g) The Contractor shall establish and maintain accounts and other books and records pertaining to administration of the terms and conditions of this contract, including the Contractor's financial transactions; water supply data; project operation, maintenance, and replacement logs; project land and rights-of-way use agreements; the water users' land-use (crop census), land-ownership, land-leasing, and water-use data; and other matters that the Contracting Officer may require. Reports shall be furnished to the Contracting Officer in such form and on such date or dates as the Contracting Officer may require. Subject to applicable Federal laws and regulations, each party to this contract shall have the right during office hours to examine and make copies of the other party's books and records relating to matters covered by this contract.

RULES, REGULATIONS, AND DETERMINATIONS

(h) (1) The parties agree that the delivery of water or the use of Federal facilities pursuant to this contract is subject to Federal reclamation law, as amended and supplemented, and the rules and regulations promulgated by the Secretary of the Interior under Federal reclamation law.

(2) The Contracting Officer shall have the right to make determinations necessary to administer this contract that are consistent with its provisions, the laws of the United States and the State of Washington, and the rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Contractor.

PROTECTION OF WATER AND AIR QUALITY

(i) (1) Project facilities used to make available and deliver water to the Contractor shall be operated and maintained in the most practical manner to maintain the quality of the water at the highest level possible as determined by the Contracting Officer: Provided, That the United

States and the District do not warrant or guarantee the quality of the water delivered to the Contractor and are under no obligation to furnish or construct water treatment facilities to maintain or improve the quality of water delivered to the Contractor. The Contractor assumes any and all risks associated with use of the M&I water for lawn and landscape maintenance and shall hold the United States and the District harmless against any and all claim of damage of any nature whatsoever related to the quality of water provided hereunder.

(2) The Contractor shall comply with all applicable water and air pollution laws and regulations of the United States and the State of Washington; and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities necessary for the delivery of water by the Contractor; and shall be responsible for compliance with all Federal, State, and local water quality standards applicable to surface and subsurface drainage and/or discharges generated through the use of Federal or Contractor facilities or project water provided by the Contractor within the Contractor's Project Water Service Area.

(3) This article shall not affect or alter any legal obligations of the Secretary to provide drainage or other discharge services.

COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

(j) (1) The Contractor shall comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352; 42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (Pub. L. 93-112, Title V, as amended; 29 U.S.C. § 791, et seq.), the Age Discrimination Act of 1975 (Pub. L. 94-135, Title III; 42 U.S.C. § 6101, et seq.), Title II of the Americans with Disabilities Act of 1990 (Pub. L. 101-336; 42 U.S.C. § 12131, et seq.), Title III of the Americans with Disabilities Act of 1990 (Pub. L. 101-336; 42 U.S.C. § 12181, et seq.), and any other applicable civil rights laws, and with the applicable implementing regulations and any guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

(2) These statutes prohibit any person in the United States from being excluded from participation in, being denied the benefits of, or being otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this contract, the Contractor agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

(3) The Contractor makes this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this article and that the United States reserves the right to seek judicial enforcement thereof.

(4) Complaints of discrimination against the Contractor shall be investigated by the Contracting Officer's Office of Civil Rights.

MEDIUM FOR TRANSMITTING PAYMENTS

(k) (1) All payments from the Contractor to the United States under this contract shall be by the medium requested by the United States on or before the date payment is due. The required method of payment may include checks, wire transfers, or other types of payment specified by the United States.

(2) Upon execution of the contract, the Contractor shall furnish the Contracting Officer with the Contractor's taxpayer's identification number (TIN). The purpose for requiring the Contractor's TIN is for collecting and reporting any delinquent amounts arising out of the Contractor's relationship with the United States.

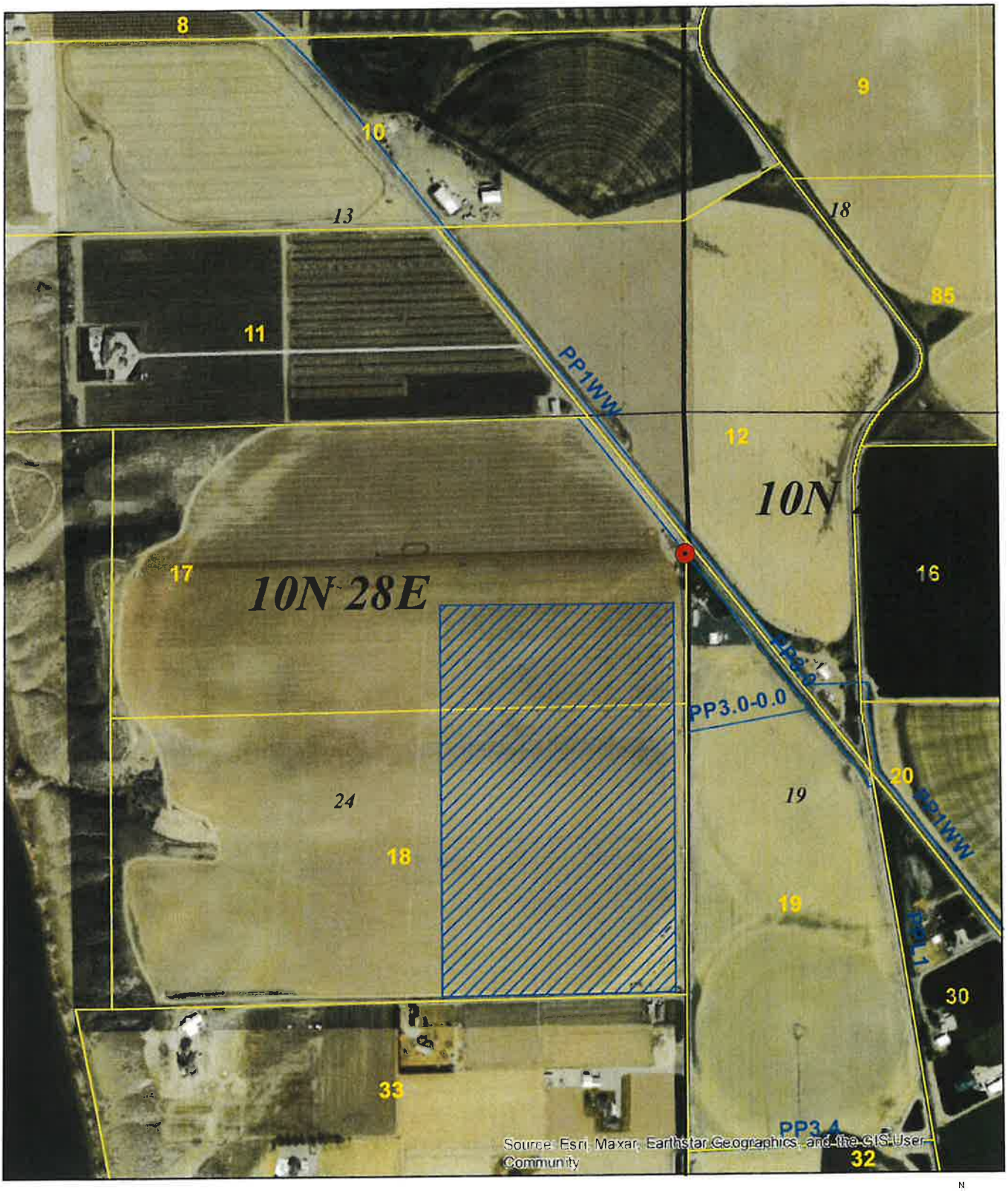
CONTRACT DRAFTING CONSIDERATIONS

(l) This Contract has been, negotiated and reviewed by the parties hereto, each of whom is sophisticated in the matters to which this Contract pertains. Articles 1 through 16 of this Contract have been drafted, negotiated, and reviewed by the parties, and no one party shall be considered to have drafted the stated articles.

CONSTRAINTS ON THE AVAILABILITY OF WATER

(m) (a) In its operation of the Project, the Contracting Officer and District will use all reasonable means to guard against a condition of shortage in the quantity of water to be made available to the Contractor pursuant to this Contract. In the event the Contracting Officer or District determines that a condition of shortage appears probable, the Contracting Officer or District will notify the Contractor of said determination as soon as practicable.

(b) If there is a condition of shortage because of errors in physical operations of the Project, drought, other physical causes beyond the control of the Contracting Officer or District, or actions taken by the Contracting Officer or District to meet current and future legal obligations, then no liability shall accrue against the United States or District or any of their officers, agents, or employees for any damage, direct or indirect, arising therefrom.



This document is not a legal description of property, and is for general reference only. Neither the authors nor Reclamation warrant or represent that the data is in every respect complete and accurate, and are not held responsible for errors or omissions.

Richard Underwood
Cont. No. 24XX160112
Exhibit B

0 250 500 1,000 Feet

N W E S

Contract Area

Point of Diversion

Washington State Department of Health

Division of Environmental Health
Office of Drinking Water

Help

Individual System View - PASCO HEIGHTS DOMESTIC WATER ASSN - Water System Id - 663508

Operating Permits | Operators | Reports | Water Use Efficiency

General Information | Source Information | Samples | Exceedances | Water Quality Monitoring Schedule

Group	A	**Status**	Active	**Ownership Type**	Private
Type	Community	**Residential Population**	135	**Jurisdiction**	WA DOH ODW
County	FRANKLIN	**NonResidential Population**	0	**System Effective Date**	1/1/1970
Owner Name	PASCO HEIGHTS DOMESTIC WATER ASSN	**Total Calculated Connections**	44	**System Inactive Date**	
Primary Contact	Michael Hanson	**Total Approved Connections**	45	**SMA Name**	
Primary Contact Phone		**Distribution Capacity (gallons)**	40,000	**SMA Number**	
Water System Mailing Address		**Next Survey Due**	2027		

Links to external resources are provided as a public service and do not imply endorsement
by the Washington State Department of Health

Department of Health, Office of Drinking Water

Street Address:
243 Israel Road S.E. 2nd floor
Tumwater, WA 98501

Mail:
PO BOX 47822
Olympia, WA 98504-7822

Comments or questions regarding this Web site? Send email to Environmental Health Application Testing and Support

Washington State Department of Health

Division of Environmental Health
Office of Drinking Water

Help

Individual System View - PASCO HEIGHTS DOMESTIC WATER ASSN - Water System Id - 663508

Operating Permits | Operators | Reports | Water Use Efficiency

General Information | Source Information | Samples | Exceedances | Water Quality Monitoring Schedule

Source 01 - Well #1 - AFQ262

Source Status	Inactive	**Usage**	Permanent	**WRIA**	Esquatzel Coulee	**Intertie Supplying System**	NA
Type	Groundwater Well	**Capacity (gpm)**	10	**Township**	10	**Intertie Supplying Number**	NA
Effective Date	1/1/1970	**Treated**	Yes	**Range**	29E		
Inactive Date	12/1/1994	**Metered**	Undefined	**Section**	19		
DOE Well Tag Number	AFQ262	**Well Depth (ft)**	230	**Qtr/Qtr Section**	SWSE		

Source 03 - New Well #1

Source Status	Active	**Usage**	Permanent	**WRIA**	Esquatzel Coulee	**Intertie Supplying System**	NA
Type	Groundwater Well	**Capacity (gpm)**	100	**Township**	10	**Intertie Supplying Number**	NA
Effective Date	12/1/1994	**Treated**	Yes	**Range**	29E		
Inactive Date		**Metered**	Yes	**Section**	30		
DOE Well Tag Number		**Well Depth (ft)**	570	**Qtr/Qtr Section**	NENE		

Source 02 - Well #2 - AFQ261

Source Status	Active	**Usage**	Emergency	**WRIA**	Esquatzel Coulee	**Intertie Supplying System**	NA
Type	Groundwater Well	**Capacity (gpm)**	20	**Township**	10	**Intertie Supplying Number**	NA
Effective Date	1/1/1970	**Treated**	Yes	**Range**	29E		
Inactive Date		**Metered**	Undefined	**Section**	30		
DOE Well Tag Number	AFQ261	**Well Depth (ft)**	258	**Qtr/Qtr Section**	NENE		

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. W 18935

UNIQUE WELL I.D. # _____

Water Right Permit No. _____

(1) OWNER: Name Pasco Heights Water Assoc Address P.O. Box 2161 Pasco Wa 99302-2161

(2) LOCATION OF WELL: County Franklin NE 1/4 NE 1/4 Sec 30 T. 10 N., R. 29E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) _____

(3) PROPOSED USE: [X] Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ] DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned [ ] New well [X] Method: Dug [ ] Bored [ ] Deepened [ ] Cable [ ] Driven [ ] Reconditioned [ ] Rotary [X] Jetted [ ]

(5) DIMENSIONS: Diameter of well 8 x 6 inches. Drilled 585 feet. Depth of completed well 585 ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 8" Diam. from +1.8' ft. to 288 ft.
Welded [X] 6" Diam. from +1.8' ft. to 577 ft.
Liner installed [X]
Threaded [ ] _____ Diam. from _____ ft. to _____ ft.

Perforations: Yes [X] No [ ]
Type of perforator used Torch
SIZE of perforations 5/16 in. by 6" in.
_____ perforations from _____ ft. to _____ ft.
76 perforations from 405 ft. to 424 ft.
112 perforations from 548 ft. to 577 ft.

Screens: Yes [ ] No [X]
Manufacturer's Name _____
Type _____ Model No. _____
Diam. ____ Slot size _____ from _____ ft. to _____ ft.
Diam. ____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes [X] No [ ] To what depth? 25+ ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 121 ft. below top of well Date 10-14-94
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [X] No [ ] If yes, by whom? L.W. Smith
Yield: 120 gal./min. with 172 ft. drawdown after 10 hrs.
" " " "
" " " "
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test ____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 804 gal./min. with stem set at 570 ft. for 4 hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 72 Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Sand Tan	0	4
Sand Black Trace of Gravel	4	134
Gravel + Sand Black	134	151
Gravel, Sand Tan Water @ 151'	151	182
Clay Tan	182	198
Clay Blue	198	206
Gravel, Sand Tan Silty Water	206	213
Gravel Sand Blue	213	243
Clay Blue	243	251
Clay Brown	251	259
Gravel + Sand Brown Water	259	263
Clay Gray	263	277
Basalt Black Weathered	277	280
Basalt Black Hard	277	300
Basalt Black Jointed Water	300	302
Basalt Black	302	342
Basalt Black Vesicular with	342	
Blue clay stone Water		378
Blue Clay	378	403
Basalt Black Vesicular Water	403	424
Basalt Black	424	548
Basalt Black Vesicular Water	548	551
Clay Blue	551	563
Basalt Vesicular Black Water	563	577
Basalt Jointed Black	577	585
Casing Pressure grouted into Basalt @ 288 Feet		
Formation Perforations placed @ 380 and 402 Feet		
NOV - 7 1994		

Work Started 9-28 19. Completed 10-14 1994

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME NELSON Well Drilling INC (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 8200 W Argent Pasco

(Signed) Jim Nelson (WELL DRILLER) License No. 361

Contractor's Registration No. NELSOWD198CQ Date 10-17 1994

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-6600. The TDD number is (206) 407-6006.

ECY 050-1-20 (8/93)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

DEPARTMENT OF
ECOLOGY

30525

UNIQUE WELL ID NUMBER	AFQ262 XYZ123

WELL TAGGING FORM

S07

Date of Field Visit: 2/2/02 By: Cliff Bates

RECORD VERIFICATION

☐ Well Report available (please attach)
☒ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP

Name: PASCO HEIGHTS DOMESTIC WATER ASSN

Street Address: PO Box 2161

City: Pasco State: WA

LOCATION OF WELL

Well Address: 8181 Selph Landing Rd.
City: Pasco County: Franklin

T._____N. R._____W.M. Sec._____ 1/4_____ 1/4_____

GPS Location: Latitude: 46° 19' 44.33"

Longitude: -119° 13' 27.84"

Elevation at land surface feet/meters *(circle one)*

☐ Digital Altimeter
☐ Topographic Map
☐ Other _____

If unable to verify location with GPS equipment:

Location marked on topographic map *(please attach if available)*

Location marked on air photo *(please attach if available)*

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

WELL CHARACTERISTICS

Well ID Number: AFQ262

Physical Description of Well (size of casing, type of well, housing, etc.):

Eight-inch casing off SE corner of office; pitless adaptor

Location of Well Identification Tag:

Well head

Was Supplemental Tag needed for ease of identifying well?

☒ NO ☐ YES

If yes, where was tag placed?

Scale 1:24,000 (1"=2,000')

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Indicate the location of the well within the Section by drawing a dot at that point.

SECTION _____

COMMENTS:

FOR ECOLOGY WATER RESOURCES PROGRAM USE ONLY

Water Right # _____ Date Issued _____

Circle one. Application Permit Certificate Claim Exempt

Washington State Department of HEALTH

Division of Environmental Health
Office of Drinking Water

Help

Individual System View - RIVER RIDGE ESTATES - Water System Id - 38792V

Compliance Actions | Operating Permits | Operators | Reports | Water Use Efficiency

General Information | Source Information | Samples | Exceedances | Water Quality Monitoring Schedule

Group	A	**Status**	Active	**Ownership Type**	Association
Type	Community	**Residential Population**	77	**Jurisdiction**	WA DOH ODW
County	FRANKLIN	**NonResidential Population**	0	**System Effective Date**	8/31/2000
Owner Name	RIVER RIDGE ESTATES	**Total Calculated Connections**	28	**System Inactive Date**	
Primary Contact	Douglas Worthington	**Total Approved Connections**	30	**SMA Name**	
Primary Contact Phone	(509) 545-3006	**Distribution Capacity (gallons)**	50,000	**SMA Number**	
Water System Mailing Address	163 Ridgeview Dr Pasco, WA 99301	**Next Survey Due**	2029		

Washington State Department of HEALTH

Division of Environmental Health
Office of Drinking Water

Help

Individual System View - RIVER RIDGE ESTATES - Water System Id - 38792V

Compliance Actions | Operating Permits | Operators | Reports | Water Use Efficiency

General Information | Source Information | Samples | Exceedances | Water Quality Monitoring Schedule

Source 01 - Well A

Source Status	Active	**Usage**	Permanent	**WRIA**	Esquatzel Coulee	**Intertie Supplying System**	NA
Type	Groundwater Well	**Capacity (gpm)**	58	**Township**	28	**Intertie Supplying Number**	NA
Effective Date	1/1/1970	**Treated**	Yes	**Range**	10E		
Inactive Date		**Metered**	Undefined	**Section**	13		
DOE Well Tag Number	AFQ263	**Well Depth (ft)**	200	**Qtr/Qtr Section**	SENW		

Records 1 - 1 of 1

☐ **Display as table with source treatment information**

Links to external resources are provided as a public service and do not imply endorsement
by the Washington State Department of Health

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. G3-27506
Permit No. G3-27506

(1) OWNER: Name River Ridge Estates Address

(2) LOCATION OF WELL: County Franklin SE ¼ NW ¼ Sec. 13 T. 10 N., R. 28E W.M.
Bearing and distance from section or subdivision corner 100'N - 700 W from Center of Sec 13

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [ ] Driven [ ]
Reconditioned [ ] Rotary [X] Jetted [ ]

(5) DIMENSIONS: Diameter of well 10 inches.
Drilled 200 ft. Depth of completed well 200 ft.

(6) CONSTRUCTION DETAILS: Atlas shoe
Casing installed: 10 " Diam. from +2 ft. to 198 ft.
Threaded [ ] " Diam. from ft. to ft.
Welded [X] " Diam. from ft. to ft.

Perforations: Yes [ ] No [X]
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes [ ] No [X]
Manufacturer's Name
Type Model No
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes [ ] No [X] Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes [X] No [ ] To what depth? 28 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 122'6" ft. below top of well Date 3-28-85
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [X] No [ ] If yes, by whom? L.W. Smith
Yield: 58 gal./min. with 24'6" ft. drawdown after 4 hrs.
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
5min	144	45min	122	140	122 6
10min	142	1HR	124-6		
min	129	1:30	122-9		

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes [ ] No [ ]

(10) WELL LOG:
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Sand Tan	0	12
Gravel 6" minus sand Black	12	22
Sand Black Gravel 6" minus	22	68
Gravel 6" minus Sand Black	68	78
Silt Tan Sand Black	78	81
Gravel 6" minus sand Black	81	122
Gravel 6" minus sand tan Water Bearing 122'6"	122	166
Gravel sand Tan cemented	166	189
Gravel Sand Blue cemented	189	198'6"
Gravel Cemented water Bearing Air lifted 90 GPM from 195'	198'6"	199'6"
Gravel Cemented	199'6"	200'

Work started 3-14, 1985 Completed 3-22, 1985

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Nelson Well Drilling Inc (Person, firm, or corporation) (Type or print)
Address 10036 W. Argent Pasco
[Signed] James Nelson (Well Driller)
License No. 361 Date 3-26, 1985

6/7/85

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

WELL CHARACTERISTICS

Well ID Number: AFQ263

Physical Description of Well (size of casing, type of well, housing, etc.):

Ten- or Twelve-inch casing; pitless adaptor

Location of Well Identification Tag:

Well head

Was Supplemental Tag needed for ease of identifying well?

☒ NO ☐ YES

If yes, where was tag placed?

Scale 1:24,000 (1"=2,000')

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

SECTION _____

Indicate the location of the well within the Section by drawing a dot at that point.

COMMENTS:

FOR ECOLOGY WATER RESOURCES PROGRAM USE ONLY

Water Right # _____ Date Issued _____

Circle one. Application Permit Certificate Claim Exempt

Agenda Summary Report (ASR)

Franklin County Board of Commissioners

DATE SUBMITTED: October 11, 2023	**PREPARED BY:** Aaron Gunderson
Meeting Date Requested: October 25, 2023	**PRESENTED BY:** Derrick Braaten
ITEM: (Select One) ☐ Consent Agenda	☑ Brought Before the Board Time needed: 10 minutes

SUBJECT: Closed Record Public Hearing (Quasi-Judicial Item) - A Conditional Use Permit (CUP) to allow for the construction of a Group "A" public water system facility. *(File # CUP 2023-03 and SEPA 2023-09)*

FISCAL IMPACT: NA, this is a land-use item; the applicant is responsible for any fiscal impact.

BACKGROUND: Allow for the construction of a booster station, water storage tanks, and a back-up generator for a new Group "A" water system facility. The proposed facility will serve multiple properties slated for future residential development along the North/South Fraser Road alignment. The facility will be constructed upon approximately a half (.50) acre of the northwest corner of Parcel #124-300-373.

RECOMMENDATION: The County Building and Planning Department staff provided the Planning Commission with a written recommendation of approval for the application. Subsequently, at their meeting on September 5, 2023, the Planning Commission held a duly advertised open-record public hearing and unanimously passed a motion (5-0) to forward a recommendation of approval, based on six findings of fact and with fourteen suggested conditions of approval. There were no appeals. Per FCC 17.82.110, the board can pass a resolution to take action without further review (a draft proposed resolution is attached) or the board can schedule a future closed record appeal hearing.

Suggested Motion: Pass Resolution #_____, granting approval of CUP 2023-03, based on the six findings of fact and subject to fourteen conditions of approval.

COORDINATION: The Conditional Use Permit application was advertised to the public via procedures outlined in the Optional DNS process (WAC 197-11-355), and agencies were contacted for review and comment; a SEPA DNS was issued after the Planning Commission meeting. The County Planning Commission, after an open record public hearing and consideration on CUP 2023-03 recommended approval of the CUP, with six findings of fact and subject to fourteen conditions of approval.

ATTACHMENTS: **(Documents you are submitting to the Board)**

(1) Draft Resolution (2) Staff Report to the Planning Commission including attachments (3) Draft Planning Commission Minutes

HANDLING / ROUTING: **(Once document is fully executed it will be imported into Document Manager. Please list name(s) of parties that will need a pdf)**

To the Clerk of the Board: 1 Original Resolution

To Planning: 1 Copy Resolution

I certify the above information is accurate and complete.

Derrick Braaten

FRANKLIN COUNTY RESOLUTION 2023-289

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF FRANKLIN COUNTY, WASHINGTON

Conditional Use Permit (CUP) 2023-03 to allow for construction of a Group "A" water system facility.

WHEREAS, on October 25, 2023, the Board of Franklin County Commissioners, via public meeting, considered the positive recommendation of the Franklin County Planning Commission to grant a conditional use permit for the proposed use under file CUP 2023-03; and

WHEREAS, at the public meeting the Board has found that the County Planning Commission, after an open record public hearing and consideration on **CUP 2023-03** did recommend approval of the Conditional Use Permit with six findings of fact and fourteen conditions of approval; and

WHEREAS, there were no appeals filed; and

WHEREAS, it appears to be in the public use and interest to approve the conditional use permit.

NOW, THEREFORE, BE IT RESOLVED that CUP 2023-03 is hereby approved in accordance with the provisions of the Franklin County Development Regulations and as recommended by the Planning Commission.

APPROVED THIS 25th DAY OF OCTOBER, 2023.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

Chair

ABSTAINED

ABSTAIN

Chair Pro-Tem

Member

Attest: TERESA HUNTER
Clerk of the Board

FRANKLIN COUNTY BOARD OF COMMISSIONERS

CONDITIONAL USE PERMIT # 2023-03

RESOLUTION NUMBER 2023-289

The following Conditional Use Permit is granted, in accordance with the provisions of the Development Regulations of Franklin County, and according to the motion passed by the Franklin County Board of Commissions on October 25, 2023.

APPLICANT: Randy Mullen, PO Box 3596, Pasco, WA 99302

LEGAL DESCRIPTION: THAT PORTION OF THE FOLLOWING DESCRIBED PROPERTY LYING IN SECTION 30-10-29 LOT 2 OF SHORT PLAT 96-07 AS RECORDED IN VOLUME 1 OF SHORT PLATS AT PAGE 390 UNDER AUDITORS FILE NUMBER 529330 AND THAT PORTION OF FARM UNTI 47 IRRIGATION BLOCK 1, COLUMBIA BASIN PROJECT, FRANKLIN COUNTY, WASHINGTON ACCORDING TO THE FARM UNIT PLAT THEREOF, RECORDS OF FRANKLIN COUNTY WASHINGTON EXCEPT THAT PORTION DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 25, SAID POINT BEARS NORTH 01 05'20" EAST 5336.08 FEET OF THE SOUTHEAST CORNER OF SAID SECTION 25; THENCE SOUTH 01 05'20" WEST ALONG THE EAST LINE OF SAID SECTION 25 A DISTANCE OF 2668.04 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 25; THENCE SOUTH 89 53'45" WEST ALONG THE NORTHERLY LINE OF LOT 2 OF SAID SHORT PLAT 96-07 A DISTNACE OF 1752.0 FEET; THENCE SOUTH 01 28'12" WEST ALONG THE WESTERLY LINE OF SAID LOT 2 A DISTANCE OF 989.40 FEET TO THE TRUE POINT OF BEGINNING. THENCE CONTINUING SOUTH 01°28'12" WEST ALONG SAID WESTERLY LINE OF LOT 2 OF SHORT PLAT 96-07 EXTENDING A DISTANCE OF 200.04' FEET; THENCE NORTH 89°59'11" EAST 344.81 FEET; THENCE NORTH 00°59'25" EAST 200.00 FEET; THENCE SOUTH 89°59'11"WEST 344.0 FEET TO THE SAID TRUE POINT OF BEGINNING. AND EXCEPT THAT PORTION OF LOT 2 OF THE SHORT PLAT RECORDED IN VOLUME 1 OF SHORT PLATS AT PAGE 390, LYING IN FARM UNIT 47 IRRIGATION BLOCK 1 IN THE SOUTHEAST QUARTER OF SECTION 25 TOWNSHIP 10 NORTH, RANGE 28 EAST WM FRANKLIN COUNTY WASHINGTON, LYING 20.0 FEET SOUTHERLY OF THE CENTER LINE OF THE PPWW4.3 DRAIN.

NON-LEGAL DESCRIPTION: This parcel currently has an address of 1603 Richview Dr. (Parcel #124-300-373). Property is located East of Fraser Rd., West of Richview Rd., Northeast of Charolais Trl., and North of Fanning Rd.

SEPA REVIEW: A SEPA Checklist was submitted with the CUP application. Planning Staff *[Lead Agency Responsible Official]* reviewed the checklist and issued a Notice of Application as part of the Optional Determination of Non-Significance (ODNS) on July 20, 2023 under WAC 197-11-355. Comments on the ODNS were due by August 3, 2023 and no SPEA specific comments or appeals were received.

CONDITIONAL USE DESCRIPTION: This is a Conditional Use Permit application to allow for construction of a booster station, water storage tanks, and a back-up generator for a new Group "A" water system facility. The proposed facility will serve multiple properties slated for future residential development along the North/South Fraser Road alignment. The facility will be constructed upon approximately a half (.50) acre of the northwest corner of Parcel #124-300-373.

An attached site plan (Exhibit A) shows the location of the following features:

- Driveway and Parking area
- Booster Station
- Two (2) reservoir tanks
- Six (6) foot fencing
- Two (2) separate wells
- Backup generator
- Water pipes and the diameter of the pipes
- Underground irrigation canal

FINDINGS OF FACT AND CONDITIONS OF APPROVAL:

Findings of Fact:

1. The proposed construction of the Group "A" water system in the AP-20 Zoning District **IS** in accordance with the goals and policies of the County Development Regulations (Zoning) and the applicable Comprehensive Plan.

    a. The Franklin County Comprehensive Land Use Designation is Agricultural.

    b. The County Zoning Code designates the land as Agricultural Production 20 (AP-20).

    c. Constructing and siting of a Group "A" water system is considered an unclassified use and requires a Conditional Use Permit in any zoning district.

    d. The applicant has applied for a Conditional Use Permit to allow for the construction of the Group "A" water system.

2. The proposal **WILL NOT** adversely affect public infrastructure.

    a. Access to the proposed site will be from Fraser Road.

    b. The Franklin County Public Works Department has determined that the proposed use will not have a significant impact on the County Road System.

3. The proposal **WILL BE** constructed, maintained, and operated in harmony with the existing or intended character of the general vicinity.

    a. The existing character of the immediate area consists of farms, farm staging area, single-family homes, and an underground irrigation canal.

    b. The existing and intended character of the project area is Agricultural as designated by the Franklin County Comprehensive Plan.

c. The site is within the Agricultural area as designated by the Franklin County Comprehensive Plan.

d. The construction of the Group "A" water system will not impair the ability for residential activities to continue, nor will it have negative impact on the intended character of the general vicinity.

4. The location and height of the proposed structure and site design **WILL NOT** discourage the development of permitted uses on property in the general vicinity or impair the value thereof.

   a. The proposed construction of the Group "A" water system will have two (2) reservoir tanks, a booster station, and a back-up generator. All structures will be at or below the maximum building height for the AP-20 zoning district, which is thirty-five (35) feet.

5. The operation in connection with the proposal **WILL NOT** be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district.

   a. The traffic of employees to the site will be intermittent and typically only for repairs, emergency maintenance, or monitoring purposes.

6. The proposal **WILL NOT** endanger the public health, safety, or general welfare if located where proposed.

   a. The project is subject to the County's Right to Farm ordinance.

   b. The proposed Group "A" water system will not have a negative effect on public health, safety, and general welfare.

   c. The project is required to comply with the rules and regulations set forth by the WA State Department of Health and the Office of Drinking Water for a Group "A" water system.

Conditions of Approval:

1. Comply with the requirements of the **Franklin County Planning and Building Department**:

   a. The construction of the proposed Group "A" water system is located in the Agricultural Production 20 (AP-20) zone, is adjacent to the Rural Shoreline Development LAMIRD, which consists of the Rural Community 1 (RC-1) zone.

   b. The Comprehensive Plan Land Use Designation of the site is Agricultural.

c. Individual building permits, as deemed by the Building Official, from the Franklin County Building Department shall be required for all proposed structures.

d. All proposed structures for the water system facility, except the back-up generator, shall be engineered by a civil engineer, whether an individual or firm, licensed as such, in the State of Washington.

e. Applicant will need to comply with any other local, state, or federal regulations pertaining to this development.

f. Exterior lighting shall be directed on-site so as not to interfere with the comfort and repose of adjoining property owners.

g. All storm drainage shall be retained on-site and controlled by way of drainage swales, dry wells, French-drains, or other means as approved by the County Engineer, the South Columbia Basin Irrigation District, or the WA Department of Ecology.

h. Best Management Practices (BMP) to minimize dust during construction shall be used, such as watering the site in accordance with local air-quality requirements. Vegetative cover or a tackifier shall be provided as soon as practicable following clearing and grading. Dust control shall comply with applicable local standards.

i. Should archaeological materials (e.g., bones, shell, beads, ceramics, old bottles, hearths, etc.) or human remains be observed during project activities, all work in the immediate vicinity shall stop. The State Department of Archaeology and Historic Preservation (360-586-3065), the Franklin County Planning and Building Department, the affected Tribe(s) and the County Coroner (if applicable) shall be contacted immediately in order to assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources (RCW 27.53, 27.44 and WAC 25-48) is required.

2. Comply with the requirements of the **Franklin County Public Works Department**:

a. A current franchise agreement or a franchise agreement application shall be required for all utilities within the County right-of-way.

b. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

c. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

3. Comply with the following conditions for **Access** and **Parking:**

   a. Parking on gravel, as proposed, is allowed as long as activity at the site is infrequent and any fire risk (especially during drought or near-drought conditions) is mitigated through appropriate means.

   b. The parking area should be set back an appropriate distance to allow for ingress / egress and as to not hinder driver's vision tringles as they leave or access the site. An internal access driveway shall be established and access shall not be blocked at any time to provide safe ingress / egress for emergency vehicle access.

   c. Parking along Fraser Road is not permitted. Any new approaches onto County roads will require an approach permit from Public Works.

   d. Any signage used to locate the facility must meet the provisions of the Franklin County Sign Code, specifically, FCC 15.16.080.1.

4. Comply with the following conditions regarding **Occupancy** and **Uses**:

   a. The proposed area to be used for the development of the Group "A" public water system. Any proposed expansion of the facility, or number of connections, beyond that area approved may require a new Conditional Use Permit be applied for to accommodate the proposed use causing the expansion.

   b. Occupancies or uses not permitted under this CUP, including the building of additional structures, is not allowed. If the applicant desires to expand the uses allowed on the site at a future date, a new Conditional Use Permit shall be applied for.

5. Comply with the requirements set forth by the **Washington Department of Ecology, WA State Department of Health, and the Office of Drinking Water**

6. RIGHT TO FARM: Applicant shall be aware that this facility is located in an area where farming and farm operations exist. Further, to assist in preserving the right of farmers to operate utilizing accepted and appropriate practices, the County has adopted a Franklin County Right to Farm Ordinance, as amended. At no time shall a farm operation or accessory farm related enterprise, such as crop dusting operation or airstrip use, be deemed to be a public or private nuisance as it related to the activities associated with this land use approval.

7. The applicant shall commence the authorized conditional use within one (1) year after the effective date of this permit, or the permit shall expire.
8. The site shall be maintained at all times as to not let the land become a fire hazard or accumulate with debris and weeds.
9. Shall comply with the **Franklin County Fire Code** as expressed in FCC Chapter 8.40.
10. Future expansions and improvements at the site shall comply with the applicable state and local standards. To allow future flexibility for changes to the plans which are determined to be minor or incidental may be done administratively by the Planning Department. Major changes, which do not meet the intent of, or seriously re-align, the approved plans, shall be reviewed by the Planning Commission through a new Conditional Use Permit prior to that change occurring.
11. Nothing in this CUP approval shall be construed as excusing the applicant from compliance with any federal, state, or local statutes, ordinances, or regulations applicable to this project.
12. In accordance with the County's Zoning Code, any special permit may be revoked by the Board of County Commissioners if, after a public hearing, it is found that the conditions upon which the special permit was authorized have not been fulfilled or if the use authorized has changed in size, scope, nature, or intensity so as to become a detriment to the surrounding area. The decision of the Board is final.
13. This permit applies to the described lands and shall be for the above named individual and/or his heirs and/or assigns. Any transferring of this permit will require that notice be granted to the Franklin County Planning and Building Department or the permit will be cancelled. Once granted, the permit cannot be transferred to another site.

14. By accepting the issuance of this permit, the Permit Holder(s) agree(s) to accept full responsibility for any and all operations conducted or negligence occurring at this location and any incidents that occur on surrounding properties caused by operations or negligence at this location; Permit Holder(s) further agree(s) to indemnify and hold the County harmless and agree that the County is in no way negligent in relation to granting this permit, or operations or negligence on this property; Permit Holder(s) further agree(s) to accept full responsibility for any future cleanup needed due to activities conducted that this location that impact the surrounding properties, and obtaining and retaining appropriate insurance coverage.

This Conditional Use Permit is issued this 25th day of October, 2023.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

Attest:
Clerk of the Board

Chair

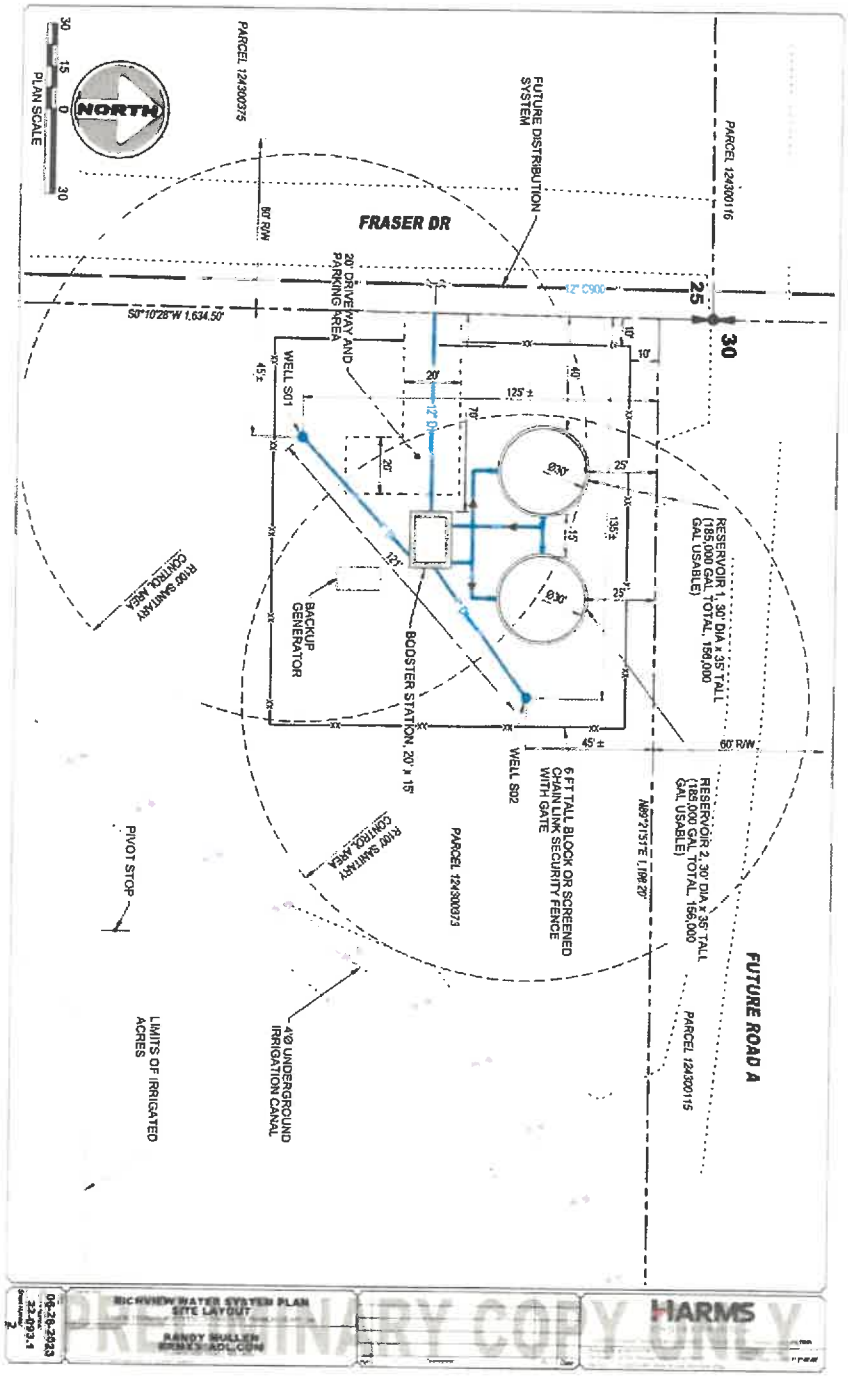
Original to County Commissioners
Duplicate to Applicant
Duplicate to File
Duplicate to be Filed with Auditor

FRANKLIN COUNTY BOARD OF COMMISSIONERS

CONDITIONAL USE PERMIT # 2023-03

RESOLUTION NUMBER 2023-289

EXHIBIT A: PROPOSED SITE PLAN



From: Derrick Braaten <dbraaten@franklincountywa.gov>
Sent: Wednesday, September 18, 2024 2:26 PM
To: Cailyn Taylor <cailyn@harpsterld.com>
Cc: Peter Harpster <peter@harpsterld.com>; Rebeca Gilley <rgilley@franklincountywa.gov>; Aaron Gunderson <agunderson@franklincountywa.gov>; Ryan Nelson <ryann@franklincountywa.gov>; Mike Troidl <mtroidl@franklincountywa.gov>
Subject: RE: [EXTERNAL] Richview Water System CUP - Extension

Ms. Taylor,

As per your request below, CUP 2023-03 is hereby extended for 12-months, based on the following:

1. Your request was made before the current expiration date of October 25, 2024, as required in FCC 14.10.100(D).
2. The inability to proceed with the application was due to circumstances beyond the applicant's control, namely, the approval process by outside agencies for a private Class A water system taking more than 12-months to complete.
3. The property is in compliance with all applicable codes, at this time.

Therefore, the permit expiration date for CUP 2023-03 has been extended for 12-months, and now expires on October 25, 2025. Only one extension may be granted. If this extended timeline is not sufficient, then the currently approved CUP will expire, and a new conditional use permit application will need to be submitted, processed, and approved.

Derrick Braaten

Planning and Building Director

Planning and Building Dept. | Franklin County, WA

Office tel. (509) 545-3521| www.franklincountywa.gov/planning/

Local Government Consistency Determination Form

331-568 • 8/10/2023

Water System Name: Richview Water System PWS ID: _____

Planning/Engineering Document Title: Richview Water System Plan Plan Date: May 2, 2024

Local Government with Jurisdiction Conducting Review: Franklin County

Before the Department of Health (DOH) approves a planning or engineering submittal under Section 100 or Section 110, the local government must review the documentation the municipal water supplier provides to prove the submittal is consistent with **local comprehensive plans, land use plans and development regulations** (WAC 246-290-108). Submittals under Section 105 require a local consistency determination if the municipal water supplier requests a water right place-of-use expansion. The review must address the elements identified below as they relate to water service.

By signing this form, the local government reviewer confirms the document under review is consistent with applicable local plans and regulations. If the local government reviewer identifies an inconsistency, the reviewer should include the citation from the applicable comprehensive plan or development regulation and explain how to resolve the inconsistency, or confirm that the inconsistency is not applicable by marking N/A. See more instructions on page 2.

Local Government Consistency Statement	For Use by Water System: Identify page(s) in submittal	For Use by Local Government: Yes or Not Applicable
a) The water system service area is consistent with the adopted land use and zoning within the service area.	2,3	Yes
b) The growth projection used to forecast water demand is consistent with the adopted city or county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology.	4,6	Yes
c) For cities and towns that provide water service: All water service area policies of the city or town described in the plan conform to all relevant utility service extension ordinances.	N/A	N/A
d) Service area policies for new service connections conform to the adopted local plans and adopted development regulations of all cities and counties with jurisdiction over the service area.	2, App E	Yes
e) Other relevant elements related to water supply are addressed in the water system plan, if applicable. This may include Coordinated Water System Plans, Regional Wastewater Plans, Reclaimed Water Plans, Groundwater Management Area Plans, and the Capital Facilities Element of local comprehensive plans.	N/A	N/A

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

Signature

06/25/2024
Date

Derrick Braaten, Planning & Building Director, Franklin County, WA
Printed Name, Title, & Jurisdiction

Appendix C: Water Right and Groundwater Source Documents

- G3-20242(H) Water Right
- Water Right Self-Assessment Form (WRSA)
- Well Log (Well ID: BPS821)
- Well Drilling and Testing Report and Appendix D, prepared by Aspect Consulting
- Well S01 Declaration of Protective Covenant
- Wellhead Protection Plan Notification Letters

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

February 28, 2024

Randy Mullen
Richview Water Company
P.O. Box 3596
Pasco, WA 99302

Re: Application for Change/Transfer under Ground Water Permit G3-20242(D)
(FRAN-23-02)

Dear Randy Mullen:

On December 18, 2023, our office received from the Franklin County Water Conservancy Board the Record of Decision and Report of Examination for the above referenced application for change/transfer. In accordance with RCW 90.80.080 the Department of Ecology has reviewed the Record of Decision and Report of Examination and has considered all comments, protest, objections, and other relevant information.

The Department has **modified** the decision of the Board, and the proposed change/transfer is **approved** under the following conditions.

Summary of Ecology's Final Order G3-20242(D) Mullen

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	664.7	**228.9 (220.3 CU)**	**664.7 gallons per minute, 228.9 acre-feet per year (220.3 consumptive use) for seasonal irrigation of 52.5 acres from Feb 1 to Oct. 1, each year**
SOURCE			TRIBUTARY OF (IF SURFACE WATER)
Two (2) Wells			

AT A POINT LOCATED:	¼	¼	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
Well #1	**NW¼**	**NW¼**	**11**	**9 N**	**29 E**	**36**	**Franklin**
Well #2	**NW¼**	**NW¼**	**11**	**9 N**	**29 E**	**36**	**Franklin**

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD

Portion of the NE¼ of Section 9, T. 9N., R. 29 E.W.M. Lying easterly of Road 68 and except portion to City of Pasco for road R/W and except portion of DAF: A parcel of land located in the northeast quarter of the northeast quarter and the southeast quarter of the northeast quarter, all in section 9 of township 9 north range 29 east of the Willamette Meridian, Franklin County, Washington, being described more particularly as follows: commencing at the northeast corner of said northeast quarter of section 9 thence south 89 º39'28" west along the north line of said northeast quarter of section 9 a distance of 3.00 ft. to a point on the west right of way line of convention drive and the true point of beginning; Thence south 01 º34'31" east along said west line of convention drive, being parallel to and 3.000' westerly of the east line of the northeast quarter of section 9 a distance of 2509.86 feet to a point on the north right of way line of Sandifur Parkway as follows: Thence south 87 º41'06" west distance of 147.50 feet; Thence with a curve turning to the left with an arc length of 366.09', with a radius of 790.00', with a chord bearing of south 75 º29'50" west with a chord length of 333.56'; Thence with a reverse curve turning to the right with an arc length of 330.33', with a radius of 710.04', with a chord bearing of south 76 º38'14" west, with a chord length of 327.36'; thence south 89 º57'53" west a distance of 47.99 feet; thence north 01 º34'31" west a distance of 2670.08 feet to a point on the north line of the northeast quarter of section 9; Thence north 89 º39'28" east along said north line of said northeast quarter of section 9 a distance of 841.21 feet to a point on the west right of way line of Convention Drive, which is the TRUE POINT OF BEGINNING.

And: Portion of Section 9, T. 9 N., R. 29 E. Described as follows: Commencing at the southeast corner of said Section; Thence north 01 º26' east along easterly line of said section 1120.68' to the TRUE POINT OF BEGINNING; Thence north 89 º43' west, 554.03' to the easterly right of way line of Clemente Lane; Thence north 00 º16' east along said right of way line, 400.06' to the beginning of a curve to the right, radius point bearing south 89 º43' east, 30'; Thence northerly along said curve and said right of way line of said Clemente Lane, 47.85'; Thence north 01 º06' west, 60 º07' thence northerly along said curve, 46.4'; Thence north 87 º37' west, 60.04' to westerly right of way line of said Clemente Lane' Thence north 00 º16' east 923.52' to beginning of a curve to the left, with a radius point bearing north 89 º43' west 30'; Thence northerly along said curve 51.29' to southerly right of way line of Sandifur Parkway and the beginning of a curve to the left, with a radius bearing north 07 º40' west 790'; Thence along said curve and said southerly R/W line of said Sandifur Parkway, 132.78' to said southerly right of way and north line of section ¼ of said section; Thence north 89 º00' East along said north line of said SE¼, 549.46' to northeast corner of said SE¼; Thence south 01 º26' west along the east lane of said section 1498.17' to the TRUE POINT OF BEGINNING.

Franklin County parcels: 116030024, 116030025, 116030026, 116030034, 116030035, 116020017, 116020018, 116020019, 116130030, 116020020, and 116130028.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP	RANGE

Summary of Ecology's Final Order G3-20242(H) Richview Water Company

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	220.0	**135.0 (129.9 CU)**	**220.0 gallons per minute, 135 acre-feet per year (129.9 consumptive use) for continuous Community Domestic Supply**

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
Two (2) Wells	

AT A POINT LOCATED:	¼	¼	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
Well #1	**NW¼**	**SW¼**	**30**	**10 N**	**29 E**	**36**	**Grant**
Well #2	**NW¼**	**SW¼**	**30**	**10 N**	**29 E**	**36**	**Grant**

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD

AREA TO INCLUDE:

Tract 1: That portion of the Public Land Survey to include Govt Lot 1, Govt Lot 2, also that portion of the NE ¼ of Section 24 lying Westly of Columbia River Road all being within Section 24, Township 10 North, Range 28E E.W.M., Franklin County, Washington. Also Lot 2 of Short Plat 90-13, Vol01 of Plats 270, Dec 12th 1990, Section 29, Township 10 North, Range 29E E.W.M Franklin Co. Washington.

Tract 2: Block 1, Unit 34 and Unit 36 of Columbia Basin Project Plat No. 222-116-31423-3, recorded Aug 11TH 1960, Franklin Co. WA. EXCLUDING THOSE LANDS DESCRIBED AS FOLLOWS, Lot 1-2 of Short Plat 95-7 Vol. 1 Pg 353, Lots 1-3 Short Plat 1995-18 Vol. 1 Pg 372, Lots 1-7 of Final Plat Alta Vista Addition Vol. D Pg. 172, Franklin County, Washington. Also Lots 1,2,3 and 4 of Short Plat 2021-25, Bk02 Pg466, Nov 16th 2021, Franklin Co. Washington.

Tract 3: Lot 2 of Short Plat 2022-03, Bk2 Pg474, AF1953880, Franklin Co. Washington. Also revised Parcel D of AF1934236, Bk4 Pg138, March 16th 2021 and the Northly 1,642 feet of Block 1 Unit 67 of Columbia Basin Project Plat No. 222-116-31423-3, recorded Aug 11TH 1960; all being within Franklin Co. Washington.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP	RANGE

NOTE: All references of the "H" portion of the water right to be changed to municipal supply shall be deleted in the Report of Examination. The "H" portion shall be Continuous Community Domestic Supply until compliance with RCW 90.03.015 is achieved.

On page 10 of the Report of Examination under the heading Public Interest" the last sentence reads: "Groundwater preservation is in the public interest." **Ecology deletes the sentence because the water right change is not for groundwater preservation**.

On page 18 of the Report of examination the first paragraph reads: "Potential impairment to senior groundwater users in the vicinity of the Richview Water System proposed wells is expected to be minimal because the high specific capacity in proposed unconsolidated aquifer drawdown during pumping, as further detailed below and in the hydrogeologic memo included as Attachment 5." **Ecology modifies the paragraph to read: Potential impacts to existing groundwater users in the vicinity of the Richview Water System proposed wells is expected to be minimal because the high specific capacity of the unconsolidated aquifer during pumping, as further detailed below and in the hydrogeologic memo included as Attachment 5.**

On page 18 of the Report of Examination under the heading; "DECISION" and sub-heading "Portion H (Richview Water System):" reads; 135.0 acre-ft/yr (129.9CU and 220.0 gpm instantaneous for continuous Municipal Water Supply for the Richview Water System. The instantaneous quantity for Portion H was reduced from the change application based on actual anticipated well yields**." Ecology modifies this to read: 135.0 acre-ft/yr (129.9CU and 220.0 gpm instantaneous for continuous Community Domestic Supply for the Richview Water System. The instantaneous quantity for Portion H was reduced from the change application based on actual anticipated well yields.**

On page 19 of the Report of Examination under the heading "PROVISIONS" the following provisions shall be included for the remaining "D" portion (Mullen) of the water right and are in addition to the provisions in the Report of Examination:

- Any new wells constructed relative to this project shall meet the minimum standards for construction and maintenance as provided under chapter 18.104 RCW and chapter 173-160 WAC.
- Any proposed future wells related to this water right or any wells are reworked/deepened, they shall remain in the shallow alluvial aquifer (Pasco Gravels) overlying the basalt.
- An approved measuring device shall be installed and maintained for each of the sources identified herein in accordance with the rule "Requirements for measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded weekly and shall be submitted to Ecology by January 31
- Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations.
- An approved measuring device shall be installed and maintained for each of the sources identified herein in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded weekly and maintained by the property owner for a minimum of five years and shall be promptly submitted to Ecology upon request.
- The rule above describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".

On page 19 of the Report of Examination under the heading "PROVISIONS" the following provisions shall be included for the remaining "H" portion (Richview) of the water right and are in addition to the provisions in the Report of Examination:

- Any new wells constructed relative to this project shall meet the minimum standards for construction and maintenance as provided under chapter 18.104 RCW and chapter 173-160 WAC.

- Any proposed future wells related to this water right or any wells are reworked/deepened, they shall remain in the shallow alluvial aquifer (Pasco Gravels) overlying the basalt.
- If and at such time as the proposed water system qualifies as a municipal water supplier under RCW 90.03.015(1), the place of use of this water right will be the parcel numbers listed above for the "H" portion of the water right. (Richview) Upon compliance with RCW 90.03.015 and approval of a water system plan or small water system management program by the Washington State Department of Health, the place of use may change within RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.
- Under RCW 90.03.015(4)(a), "municipal water supply purposes" includes a beneficial use of water for residential purposes through fifteen or more residential service connections. Until the subject water right actually serves 15 or more residential connections, its purpose of use is community domestic supply. When beneficial use occurs through at least fifteen residential service connections, the purpose of use of the subject water right will, by operation of law, be municipal water supply purposes.
- An approved measuring device shall be installed and maintained for each of the sources identified herein in accordance with the rule "Requirements for measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded weekly and maintained by the property owner for a minimum of five years and shall be promptly submitted to Ecology upon request.
- The rule above describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".
- Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations.

YOUR RIGHT TO APPEAL

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by RCW 43.21B and WAC 371-08. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this Administrative Order.

- File your notice of appeal and a copy of this decision with the PCHB (see filing information below). "Filing" means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.
- Serve a copy of your notice of appeal and this decision on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in RCW 43.21B and WAC 371-08.

FILING AN APPEAL

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: https://eluho.wa.gov/ or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

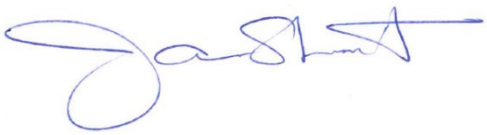
Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

SIGNATURE

DATED this 28th day of February 2024, at Spokane, Washington.



Jaime R. Short
Section Manager
Water Resources Program
Eastern Regional Office

JRS:HS:mw

ecc: Mark Nielson, Franklin County Water Conservancy Board, mark-nielson@franklincd.org
Tyson Carlson, Aspect Consulting, tcarlson@aspectconsulting.com

Sent Certified Mail: 9214 8901 9403 8300 0050 6492 27

Water Right Self-Assessment Form for Water System Plan

Mouse-over any link for more information. Click on any link for more detailed instructions.

Water Right Permit, Certificate, or Claim # *If water right is interruptible, identify limitation in yellow section below	WFI Source # If a source has multiple water rights, list each water right on separate line	Existing Water Rights Qi= Instantaneous Flow Rate Allowed (GPM or CFS) Qa= Annual Volume Allowed (Acre-Feet/Year) This includes wholesale water sold				Current Source Production – Most Recent Calendar Year Qi = Max Instantaneous Flow Rate Withdrawn (GPM or CFS) Qa = Annual Volume Withdrawn (Acre-Feet/Year) This includes wholesale water sold				10-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold				20-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold			
		Primary Qi Maximum Rate Allowed	Non-Additive Qi Maximum Rate Allowed	Primary Qa Maximum Volume Allowed	Non-Additive Qa Maximum Volume Allowed	Total Qi Maximum Instantaneous Flow Rate Withdrawn	Current Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume Withdrawn	Current Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 10 Years	10-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 10 Years	10-Year Forecasted Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 20 Years	20-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 20 Years	20-Year Forecasted Excess or (Deficiency) Qa
1 G3-20242(H)	Well S01	220		135		N/A		N/A		220		83.8		220		110.3	
2																	
3																	
4																	
5																	
6																	
	TOTALS =	220		135		N/A		N/A		220	0	83.8	51.2	220	0	110.3	24.7
Column Identifiers for Calculations:		A		B		C	=A-C	D	=B-D	E	= A-E	F	=B-F	G	=A-G	H	=B-H

PENDING WATER RIGHT APPLICATIONS: Identify any water right applications that have been submitted to Ecology.

Application Number	New or Change Application?	Date Submitted	Quantities Requested			
			Primary Qi	Non-Additive Qi	Primary Qa	Non-Additive Qa

INTERTIES: Systems receiving wholesale water complete this section. Wholesaling systems must include water sold through intertie in the current and forecasted source production columns above.

Name of Wholesaling System Providing Water	Quantities Allowed In Contract		Expiration Date of Contract	Currently Purchased Current quantity purchased through intertie				10-Year Forecasted Purchase Forecasted quantity purchased through intertie				20-Year Forecasted Purchase Forecasted quantity purchased through intertie			
	Maximum Qi Instantaneous Flow Rate	Maximum Qa Annual Volume		Maximum Qi Instantaneous Flow Rate	Current Excess or (Deficiency) Qi	Maximum Qa Annual Volume	Current Excess or (Deficiency) Qa	Maximum Qi 10-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 10-Year Forecast	Future Excess or (Deficiency) Qa	Maximum Qi 20-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 20-Year Forecast	Future Excess or (Deficiency) Qa
1															
2															
3															
TOTALS =															
Column Identifiers for Calculations:	A	B		C	=A-C	D	=B-D	E	=A-E	F	=B-F	G	=A-G	H	=B-H

INTERRUPTIBLE WATER RIGHTS: Identify limitations on any water rights listed above that are interruptible.

Water Right #	Conditions of Interruption	Time Period of Interruption
1		
2		
3		

ADDITIONAL COMMENTS:

WATER WELL REPORT

DEPARTMENT OF ECOLOGY State of Washington

Type of Work:
☒ Construction
☐ Decommission ⟹ Original installation NOI No. _____

Proposed Use: ☐ Domestic ☐ Industrial ☐ Municipal ☐ Dewatering ☐ Irrigation ☒ Test Well ☐ Other _____

Construction Type: ☒ New well ☐ Alteration ☐ Deepening ☐ Other _____
Method: ☐ Driven ☐ Jetted ☐ Cable Tool ☐ Dug ☒ Air- ☐ Mud-Rotary

Dimensions: Diameter of boring 12 in., to 280 ft.
Depth of completed well 280 ft.

Construction Details:

Casing	Liner	Diameter	From	To	Wall Thickness	Steel	PVC	Welded	Thread
☒	☐	8 in.	+3	220	.250 in.	☒	☐	☒	☐
☐	☐	____ in.	____	____	____ in.	☐	☐	☐	☐
☐	☐	____ in.	____	____	____ in.	☐	☐	☐	☐
☐	☐	____ in.	____	____	____ in.	☐	☐	☐	☐

Perforations: ☐ Yes ☒ No Type of perforator used _____
No. of perforations ____ Size of perforations ____ in. by ____ in.
Perforated from ____ ft. to ____ ft. below ground surface

Screens: ☒ Yes ☐ No ☐ K-Packer ⟹ Depth ____ ft.
Manufacturer's Name Johnson Screen
Type 304 Stainless Model No. F480 Threaded
Diameter 8 in. Slot size 0.035 in. from 220 ft. to 265 ft.
Diameter ____ in. Slot size ____ in. from ____ ft. to ____ ft.

Sand/Filter pack: ☒ Yes ☐ No Size of pack material 12/20 in.
Materials placed from 215 ft. to 267 ft.

Surface Seal: ☒ Yes ☐ No To what depth? 215 ft.
Material used in seal Bentonite Grout 0-212 Benonite Pellets 212-215
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

Pump: Manufacturer's Name _____ Type: _____
H.P. ____ Pump intake depth: ____ ft. Designed flow rate: ____ gpm

Water Levels: Land-surface elevation above mean sea level 495 ft.
Stick-up of top of well casing +3 ft. above ground surface
Static water level 143 ft. below top of well casing Date 3-14-2024
Artesian pressure ____ lbs. per square inch Date _____
Artesian water is controlled by _____ (cap, valve, etc.)

Well Tests:
Was a pumping test performed? ☐ No ☒ Yes ⟹ by whom? Stillwater
Yield 144 gpm with 49 ft. drawdown after 24 hrs.
Yield ____ gpm with ____ ft. drawdown after ____ hrs.
Yield ____ gpm with ____ ft. drawdown after ____ hrs.
Recovery data (time = zero when pump is turned off – water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
0	192	15	146		
2	150	60	143		
10	148				

Date of pumping test 3-13-2024
Bailer test ____ gpm with ____ ft. drawdown after ____ hrs.
Air test ____ gpm with stem set at ____ ft. for ____ hrs. Date _____
Artesian flow ____ gpm
Temperature of water cold ° F Was a chemical analysis made? ☒ Yes ☐ No

Notice of Intent No. WE54453
Unique Ecology Well ID Tag No. BPS 821
Site Well Name (if more than one well): _____
Water Right Permit/Certificate No. G3-30963
Property Owner Name Richview Water Company
Well Street Address Fraser Rd
City Pasco County Franklin
Tax Parcel No. 124300373
Was a variance approved for this well? ☐ Yes ☒ No
If yes, what was the variance for? _____

Location (see instructions on page 2): ☐ WWM or ☒ EWM
NW ¼-¼ of the SW ¼; Section 30 Township T10 Range 29E
Latitude (Example: 47.12345) 46.32160
Longitude (Example: -120.12345) -119.24076

Driller's Log/Construction or Decommission Procedure
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information. Use additional sheets if necessary.

Material	From	To
Fine Sands	0	160
Gravel and Fine Sands	160	198
2" Cobbels and Medium Sands (144 GPM)	198	265
Fine Sands	265	270
Gray Clay	270	280
Abandoned from 280-270		
Bentonite Hole Plug		
12/20 sand from 270-267		
Set steel tail pipe 267-265 (sump)		

Start Date 10-16-2024 Completed Date 3-27-2024

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ PE – Print Name Andres Alatorre
Signature _____
License No. 3301
IF TRAINEE: Sponsor's License No.
Sponsor's Signature

Drilling Company Stillwater LLC
Address 1118 N Oregon Ave
City, State, Zip Pasco Wa 99301
Contractor's Registration No. STILL**916KO Date 3-27-2024

WELL DRILLING AND TESTING REPORT

Prepared for: Richview Water Company

Project No. AS230088A • May 6, 2024 FINAL

Aspect
A Geosyntec Company

earth + water

WELL DRILLING AND TESTING REPORT

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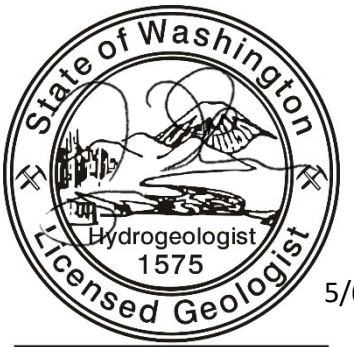
Aspect Consulting



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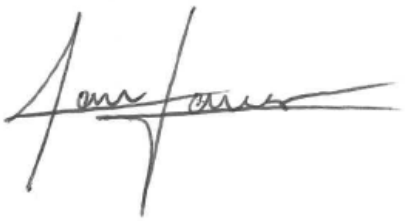

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Executive Summary

This report documents the construction and testing of Richview Water Company's (Richview) new water supply Well No. 1 (S01). The well was completed as a new point of withdrawal (POW) for Richview's Group A water system. The Richview Water System will supply water under water right G3-20242(H) for indoor domestic water use within the residential development.

Well No. 1 is completed to a depth of 267 feet below ground surface (bgs), with the primary water-bearing zone located between 143 and 267 feet bgs across the Pasco Gravels. The well is constructed as a fully cased and screened assembly (steel casing, welded stainless-steel well screen assembly, and endcap). The well screen is screened across the water-bearing formation between depths of 220 to 265 feet bgs. At time of completion, the well exhibited semiconfined aquifer conditions with a static water level of 142 feet bgs. This equates to a potentiometric surface elevation of approximately 360 feet (NAVD88). There is currently 77 feet of available drawdown from static water level to the top of the well screen.

Well No. 1 was tested with a step-rate and 24-hour constant rate pumping test. The step-rate test was performed at average flow rates of 72, 105, 130, and 157 gallons per minute (gpm) and resulted in a final drawdown of 52.6 feet. The 24-hour constant rate pumping test was conducted at an average flow rate of 144 gpm and resulted in 49.4 feet of drawdown. Testing resulted in a specific capacity of approximately 2.9 gpm/ft at the maximum flow rate. Based on the pumping test data and observed aquifer response, we conclude that the aquifer transmissivity is 29,000 gallons per day per foot (gpd/ft), or 3,880 square feet per day (ft^2/d).

Based on the constant rate pumping test data, observed aquifer response, and available drawdown, we conclude that Well No. 1 can be safely pumped at a maximum instantaneous quantity of 170 gpm with a recommended pump set depth of 215. As needed, a second well is planned to provide system redundancy and provide system capacity up to the maximum instantaneous quantity (Qi) of 220 gpm permitted by the water right.

This Executive Summary should only be used in the context of the full report.

1 Introduction

This report documents the installation and testing of Richview Water System (Richview) Well No. 1 (Unique Well ID BPS-821), a new municipal water supply well. Richview is a Group A system located in Pasco, Washington, in Franklin County, in Sections 19, 24, 25, 30, and 36, Township 10 North, Range 29 East Willamette Meridian (E.W.M.). The well is located on Parcel 124300373 in Section 30, Township 10 North, Range 29 E.W.M., as shown on Figure 1.

Well No. 1 is a new point of withdrawal (POW) for the water system, which is authorized for 135 acre-feet per year (ac-ft/yr) and an instantaneous quantity of 220 gallons per minute (gpm) under the water right G3-20242(H), and will serve the community's approved service area in Sections 19, 24, 25, 30, and 36, Township 10 North, Range 29 E.W.M..

Well No. 1 is located at approximately 46.3216 N, -119.2411 E. The elevation of the property is approximately 503 feet (NAVD88) on a flat, graded surface. Well No. 1 is 267 feet deep and completed in the Pasco Gravels, a glacial outburst flood deposit.

Aspect Consulting, a Geosyntec Company (Aspect) provided hydrogeologic consulting services associated with installation and testing of Well No. 1, under contract to Richview.

1.1 Project Background

Richview will provide water for residential use within a housing development consisting of approximately 600 Equivalent Residential Unit (ERUs). The water system consists of several developments with different property owners. The water right permit will be used for indoor domestic use only. Outdoor water use for the development will be served via a separate authorization from the South Columbia Basin Irrigation District.

Aspect completed well drilling, installation, and testing specifications, periodic drilling oversight, well testing oversight, and analysis and reporting. Stillwater Drilling (Stillwater) of Pasco, Washington, was contracted directly by Richview to perform drilling and installation of the well. All drilling and testing was completed in accordance with technical specifications and minimum standards for well construction (WAC173-160).

1.2 Geologic Setting

The project area is located in the Columbia River Basin, east of the City of Richland and west of the City of Pasco. Local geology at the project area is largely the product of regional volcanism, formation of structural basins within the Yakima Fold and Thrust Belt (YFTB), and recent glaciation. The region is characterized by the Columbia River Basalt Group (CRBG), a series of basalt flows that flooded the landscape in multiple stages and form most of the bedrock within central and eastern Washington. The CRBG

was syn- and post-depositionally folded and faulted in a broad region of east-west compression and clockwise plate rotation that formed east-west trending valleys and surrounding topography of the YFTB.

Following deposition of the CRBG, development of alluvial systems and outburst floods occurred with repeated failure of ice dams in the Columbia River system. These outburst floods transported sand and gravel into the Pasco area where they were deposited in a thick sequence of sedimentary deposits below the project site.

Surficial geology is shown on Figure 2. Geologic unit and structural data from the Washington State Department of Natural Resources (DNR, 2018), water well log data from the Washington Department of Ecology (Ecology) online water well database, and observations during drillings were used to develop the subsurface interpretation.

1.3 Hydrostratigraphy

Hydrogeology of the project area is comprised of three main hydrostratigraphic units. Generally, from the ground surface down, the characteristics and distribution of each unit is described as follows:

- **Glaciofluvial Deposits (Pasco Gravels)** — This is a mixture of sand to boulders with beds of fine sediment. The flood deposit is known to be approximately 100 to 250 feet thick in the project area. Where saturated, the glacial outburst flood deposits host a highly productive and highly permeable water table aquifer. Several regional hydrogeologic studies (Heywood et. Al., 2014; Drost et. Al., 1997; Meyers et. Al., 1985; Tanaka et. Al., 1974) have reported extremely high hydraulic conductivities within this hydrogeologic unit—up to 7,100 feet/day.
- **Ringold Formation** — This sedimentary rock consists of fine and coarse, semi-indurated, fluvial and lacustrine deposits. The top of unit is often encountered between 150 and 240 feet bgs with a thickness of approximately 30 to 80 feet. Local well logs typically describe the Ringold Formation as layers of clay, silty sand and cemented gravel. Although wells are typically not completed within the Ringold Formation, usable quantities of water within this unit have been documented (Heywood et. al., 2016).
- **Columbia River Basalt Group** — The CRBG is the basement unit in the area. The CRBG is defined by the Saddle Mountain Basalt Formation, the Wanapum Basalt Formation, and the Grande Ronde Formation in the Pasco Basin. These units are composed of multiple basalt flows and intervening sedimentary interbeds. Depth to the CRGB in the project area is approximately 240 to 300 feet bgs.

Directly beneath the project lies the surficial aquifer, which is derived from Columbia River Glacial Outburst Flood deposits known locally as the Pasco Gravels. This aquifer is composed of highly transmissive sands and gravels and extends from ground surface down to depths between 100 and 250 feet bgs. Regionally, the Pasco Gravel aquifer has a significant hydraulic boundary with Columbia River that borders the proposed place of use to the west. Groundwater flow direction in the unconsolidated aquifer is generally toward west to southwest, toward the Columbia River.

To inform the site-specific hydrogeology of the proposed withdrawal point, Aspect reviewed well logs within Sections 25 and 30 of Township 10 N., Range 28 E.W.M. Based on the well log review, wells completed in the unconsolidated aquifer record water levels between 140 and 160 feet bgs, which correlate to the adjacent reach of the Columbia River (Aspect, 2023). Recent studies have documented an overall increase in groundwater supply within the unconsolidated aquifer unit, resulting largely from construction of the Columbia Basin Project and the associated irrigation return flow (Heywood et al., 2016).

Beneath the glaciofluvial deposits lie the Ringold Formation, which consists of fine and coarse, fluvial and lacustrine deposits. The Ringold Formation is thick and continuous throughout the project area and, although less productive than the Pasco Gravels, has been reported in recent studies to host usable amounts of water (Heywood et. al., 2016; C2HM 1983; C2HM, 2009).

2 Well Drilling and Installation

The following section describes the siting, drilling, construction, and testing of the new Richview water supply well.

2.1 Well Drilling

Drilling of Well No. 1 was completed by Stillwater Drilling (Stillwater) of Pasco, Washington using air rotary drilling techniques. Drilling began on October 17, 2023, and was completed on October 19, 2023. The well boring was drilled to a total depth of 280 feet bgs.

A 12-inch-diameter borehole was initially drilled and cased to a depth of 280 feet through alluvial sediments and flood gravel deposits. Detailed well construction is provided in Appendix A, and generalized stratigraphy is provided in Appendix B.

Drill cuttings were collected every 5 feet and at changes in lithology. An Aspect hydrogeologist was on-site periodically during drilling to collect samples and document the hydrogeologic conditions.

2.1.1 Stratigraphy

Alluvial sedimentary and Pasco Gravel deposits were observed from near ground surface to 270 feet bgs. These deposits consisted of multiple stratified layers of gravel, sands, silts, and clays. The water bearing zones were observed to be composed of fine to coarse sand and gravel from 140 to 235 feet and fine to medium sand from 235 to 270 feet. The Ringold Formation was observed from 270 to 280 feet and was composed of clay and fine sand to silt. The flow-top of the uppermost CRBG flows was not encountered but based on existing logs is expected to occur at a depth of approximately 290 to 300 at the well's location.

2.1.2 Groundwater Occurrence

The primary water-bearing zones for this well are the sand to gravel deposits of the Pasco Gravels from 143 to 270 feet bgs. During drilling, static water levels were observed at approximately 143 feet bgs until the Ringold Formation was penetrated at 270 feet. After penetrating the Ringold, groundwater production immediately shut off and was not observed to recover while drilling continued to the final depth at 280 feet. The groundwater elevation within the Pasco Gravels is approximately 17 feet higher than the elevation of the Columbia River, which is 2,000 feet to the west.

2.2 Well Construction and Development

Construction of Well No. 1 consists of an 8-inch-diameter casing, wire wrapped screen, and filter pack assembly constructed in the 12-inch-diameter borehole. Construction began with the advancement of a temporary 12-inch-diameter casing during drilling to a depth of 280 feet bgs through the Pasco Gravels and 10 feet into the Ringold Formation. After observing loss of the water production in the clay deposits of the Ringold, the temporary casing was withdrawn back to the bottom interval of Pasco Gravel at 270 feet, and the lower 10 feet of the borehole from 270 to 280 feet bgs was decommissioned with bentonite chips per WAC 173-160-381. The bentonite was then capped with a layer of pea gravel from 267 to 270 feet to provide a footing for landing the casing and screen assembly.

Following decommissioning of the lower borehole, the 8-inch-diameter casing and screen assembly was installed from ground surface to 267 feet bgs. The screen assembly consists of 45 feet of a 35-slot wire-wrapped screen and a 2-foot sump and end cap installed from 220 to 267 feet bgs. The open interval of the screen is 220 to 265 feet bgs. An 8-inch steel casing extends from the top of the screen at 220 feet up to ground surface. A 12/20 (RFS 3) silica sand filter pack was installed via tremie pipe from 265 to 215 feet bgs in small lifts. The 12-inch-diameter temporary casing was withdrawn after each lift, and the filter pack was agitated and settled in place by swabbing the newly exposed screened zone.

Following screen and filter pack placement, a test pump was installed and the well was developed. Development consisted of pumping and surging until field parameters stabilized and sediment production was no longer observed using an Imhoff Cone. Following development, step-rate and constant-rate pumping tests were performed, as described in Section 3.

After testing, the filter pack was tagged to verify its depth and the 8-inch-diameter casing was sealed in place with a high-solids bentonite grout from 215 to 20 ft bgs. 3/8-inch bentonite chips were installed from 20 ft bgs to ground surface and hydrated to complete the seal. The annular seal meets the requirements specified by WAC 173-160-231.

3 Well Yield and Aquifer Testing

Well testing consisted of a 4-hour step-rate and a 24-hour constant rate pumping test performed with a temporary test pump. Figures 3 through 5 present hydrographs and

analysis from the test period(s). Groundwater level observations in the pumping well (Well No. 1) were monitored throughout the testing program using an electric tape water level indicator.

3.1 Step-Rate Test

A step-rate pumping test was conducted on March 12, 2024. The test was performed in four steps with average flow rates of 72, 105, 130, and 157 gpm. Each step was conducted for 1 hour, as shown on Figure 3. The resulting drawdown, specific capacity, and well efficiency calculations are provided on Figure 4 and summarized in Table 1.

Table 1. Step-Rate Pumping Test Results

Step #	Average Pumping Rate (gpm)	Drawdown (feet)	Specific Capacity (gpm/ft)	Well Efficiency (%)
1	72	24.2	3.0	99.1
2	105	31.9	3.3	98.6
3	130	42.8	3.05	98.3
4	157	52.6	2.98	98.0

Following the step rate test, recovery data were collected in Well No. 1 until it reached 95 percent recovery, 13 minutes after the pumping stopped. The well was allowed to rest for an additional 20 hours prior to beginning the constant-rate test and was observed to reach static conditions.

3.2 Constant Rate Test

The constant rate test was conducted on March 13 and 14, 2024. Well No. 1 was pumped at 144 gpm continuously for 24 hours. Figure 5 presents the constant rate pumping test drawdown curve. There was a maximum of 49.4 feet of total drawdown at the conclusion of the 24-hour constant rate pumping test, resulting in a specific capacity of 2.9 gpm/ft.

As shown on Figure 5, a period between 25 and 1,440 minutes was selected for calculating the aquifer transmissivity using the Cooper-Jacob Straight Line method for non-equilibrium flow in a confined aquifer (Cooper-Jacob method). Using the Cooper-Jacob method, the aquifer transmissivity (quantitative measure of an aquifer's ability to transmit water) can be calculated in the vicinity of Well No. 1 based on the following equation (Fetter, 2001):

$T = 264Q/\Delta s$

Where: T = Aquifer transmissivity (gpd/foot)

Q = Well discharge (gpm)

Δs = Change in drawdown over one log cycle during pumping (feet)

Using the Cooper-Jacob Method, we estimate an aquifer transmissivity of 29,000 gallons per day per foot (gpd/ft), or approximately 3,880 square feet per day (ft^2/d).

3.2.1 Recovery

Recovery was measured following the conclusion of the pumping test until water levels recovered to within 95 percent of the total drawdown. Water levels reached 95 percent recovery within 13 minutes after pumping ended.

3.3 Predicted Drawdown at Longer Pumping Time

The Hantusch-Bierschenk method (Kruseman, and deRidder, 2000) was used to model drawdown for long-term pumping scenarios. Using the transmissivity estimated from the constant rate test, the calculated drawdown due to pumping was analyzed for multiple pumping rates. Figure 6 presents predicted pumping levels over a 100-day period of continuous pumping at 150, 170, and 190 gpm.

To determine a recommended pumping rate, the maximum allowable pumping water level is calculated and then compared to predicted pumping levels produced above with an additional safety factor of 120 percent of the predicted drawdown. The maximum recommended pumping water level is 205 feet (equal to the pump depth of 215 feet bgs minus 10 feet for pump submergence). As illustrated on Figure 7, continuous pumping for 3 months at a rate of 170 gpm results in an estimated pumping water level of 204 feet bgs, within acceptable pumping water level limits. Based on this, the well is likely to produce sustainable production at 170 gpm. However, fluctuations in groundwater levels, losses in well efficiency, and other factors may reduce the maximum achievable pumping rate over time.

4 Groundwater Susceptibility and Water Quality

This section describes Aspect's work to determine groundwater susceptibility and water quality at Well No. 1. Water quality laboratory results and a completed Washington State Department of Health (DOH) Groundwater Susceptibility Assessment form and are included in Appendices C and D, respectively.

4.1 Groundwater Susceptibility

The time of travel (TOT) was determined using the calculated fixed-radius method and is detailed in Appendix D. Results from the assessment found that the potential sources of contamination within the 10-year TOT were adjacent agricultural lands to the north and east and individual septic systems in nearby residences to the south. The agricultural lands are upgradient of the well-site and the residential septic systems are downgradient of the well, assuming a hydrologic gradient declining towards the Columbia River to the west. No indication of current contamination from either potential source was found in water quality results (Appendix C). Well No. 1 draws from a semiconfined aquifer within the Pasco Gravels that is buffered from surficial contamination sources by multiple stratified sedimentary deposits of silt and clay which were observed between ground surface and the water bearing formation. Figure D-1 in Appendix D illustrates the TOTs and potential sources of contamination at the facility.

4.2 Groundwater Quality

Water quality samples, and general water quality parameters, were collected near the conclusion of the 24-hour constant rate pumping test. Water quality laboratory results are included in Appendix B.

4.2.1 General Water Quality Parameters

A calibrated water quality multimeter with a flow-cell (AquaTroll 600 Multiparameter Sonde) was used to collect water quality parameters during the 24-hour constant rate pumping test from an inline sampling port. The general water quality parameters are summarized in Table 2.

Table 2. General Water Quality Results

Parameter	Value	Unit
Temperature	63.5	°F
Specific Conductance	525	uS/cm
pH	8.1	SU
Dissolved Oxygen	2.0	mg/L
Oxidation-Reduction Potential	84.6	mV
Turbidity	2.06	NTU

The general water quality parameters are normal and within the expected range. The dissolved oxygen and oxidation-reduction potential (ORP) indicates the aquifer is in a weakly oxidizing state.

4.2.2 Water Quality Results

Water quality samples were collected by HARMS Engineering at the end of the 24-hour test and submitted to Anatek Labs of Spokane, Washington. Samples were collected following standard operating procedures for collection of bacteria, inorganic and physical substances, and organic contaminants, and were immediately placed on ice and transported to the lab. All samples arrived at the lab in good condition. A copy of the laboratory results and chain of custody is included in Appendix C.

The sample results (Appendix C) indicated a single exceedance for manganese at 0.169 milligrams per liter (mg/L), which is over the secondary standard Maximum Contaminant Limit (MCL) of 0.05 mg/L. No other constituents were found to exceed regulatory standards for the tested water quality parameters (bacteria, inorganic compounds [IOCs], volatile organic compounds [VOCs], synthetic organic compounds [SOCs], herbicides, pesticides, radionuclides, and PFAS).

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6 Limitations

Work for this project was performed for the Richview Water Company (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

FIGURES

Site Map

Well No. 1 Drilling and Testing Report
Richview Water System
Franklin County, Washington

Aspect Consulting	APR-2024	BY: IHL / ---	FIGURE NO. 1
	PROJECT NO. 230088	REVISED BY: --- / ---	

Data source credits: None || Basemap Service Layer Credits: WSU Facilities Services GIS, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, Geophex Surveys Ltd., Maxar, State of Oregon GEO, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

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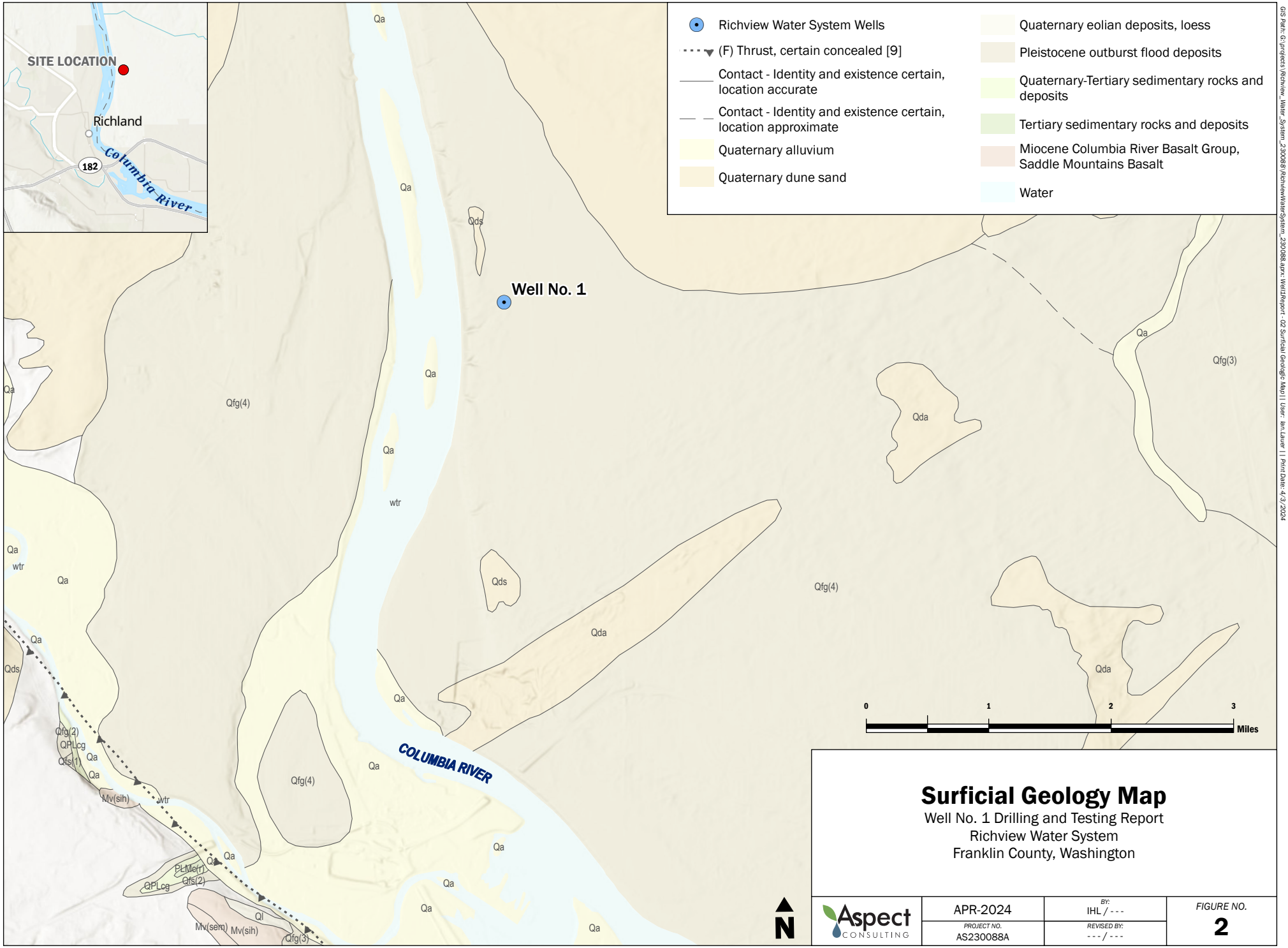

Surficial Geology Map

Well No. 1 Drilling and Testing Report
Richview Water System
Franklin County, Washington

Aspect Consulting	APR-2024	BY: IHL / ---	FIGURE NO. 2
	PROJECT NO. AS230088A	REVISED BY: --- / ---	

Data source credits: None || Basemap Service Layer Credits: Esri, NASA, NGA, USGS, State of Oregon GEO, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

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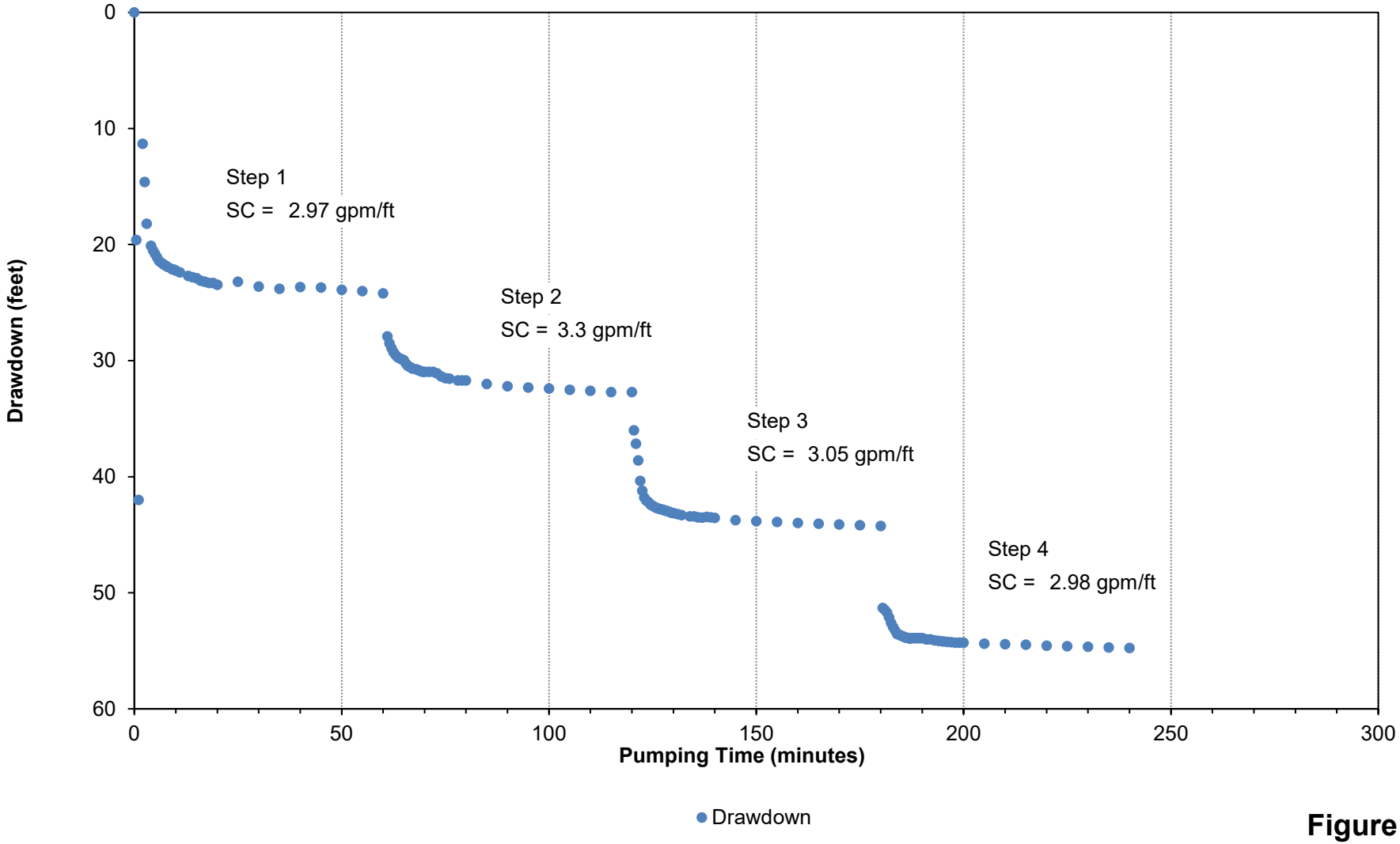

Figure 3
Step-Rate Test Hydrograph

Well No.1 Drilling and Testing Report
Richview Water System, Pasco, WA

Aspect Consulting
April 26, 2024

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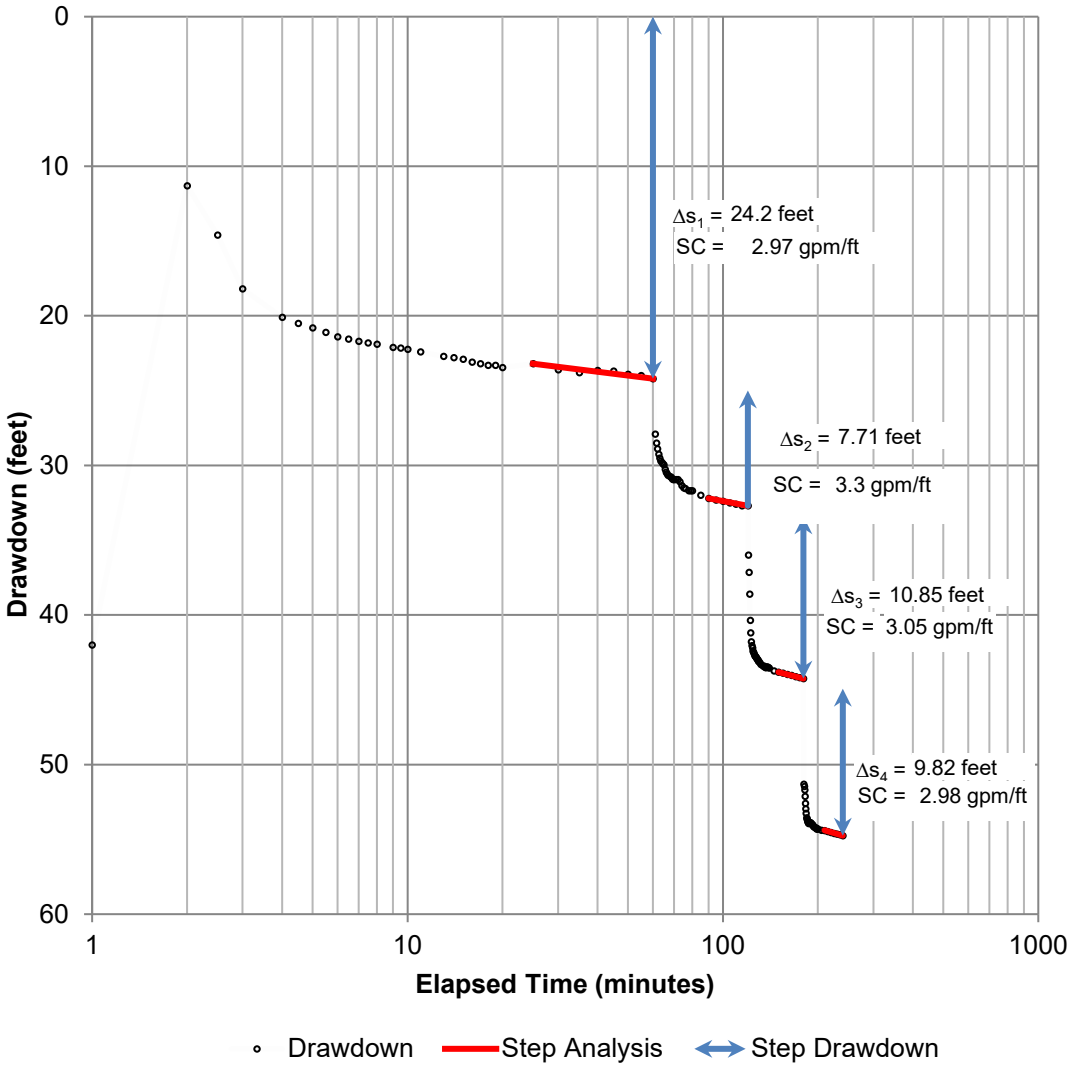

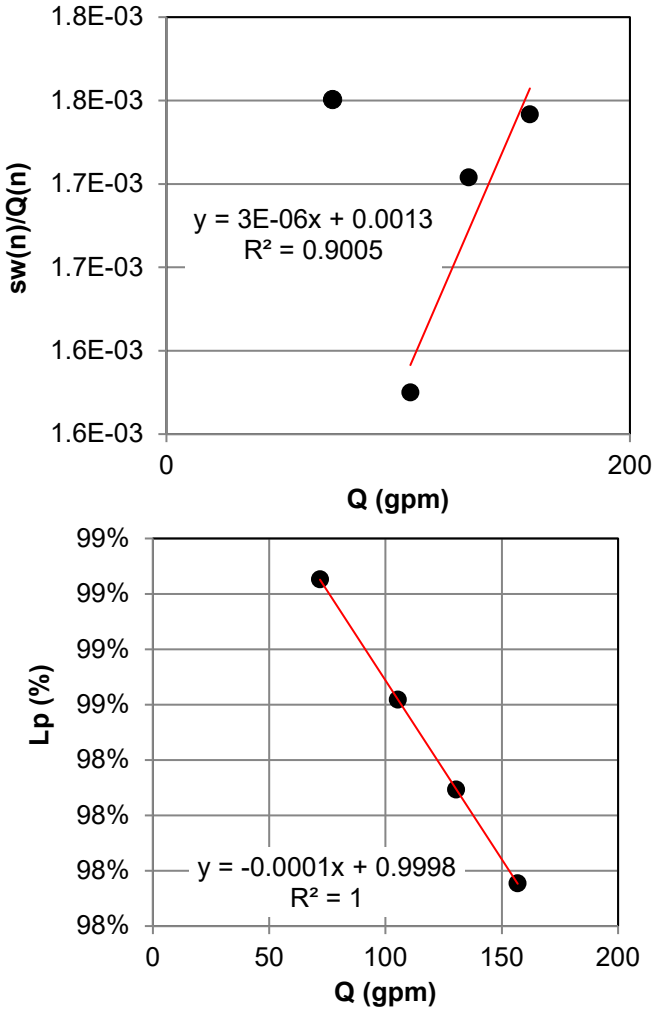

Aspect Consulting

April 26, 2024

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Figure 4
Step-Rate Test Analysis

Well No.1 Drilling and Testing Report
Richview Water System, Pasco, WA

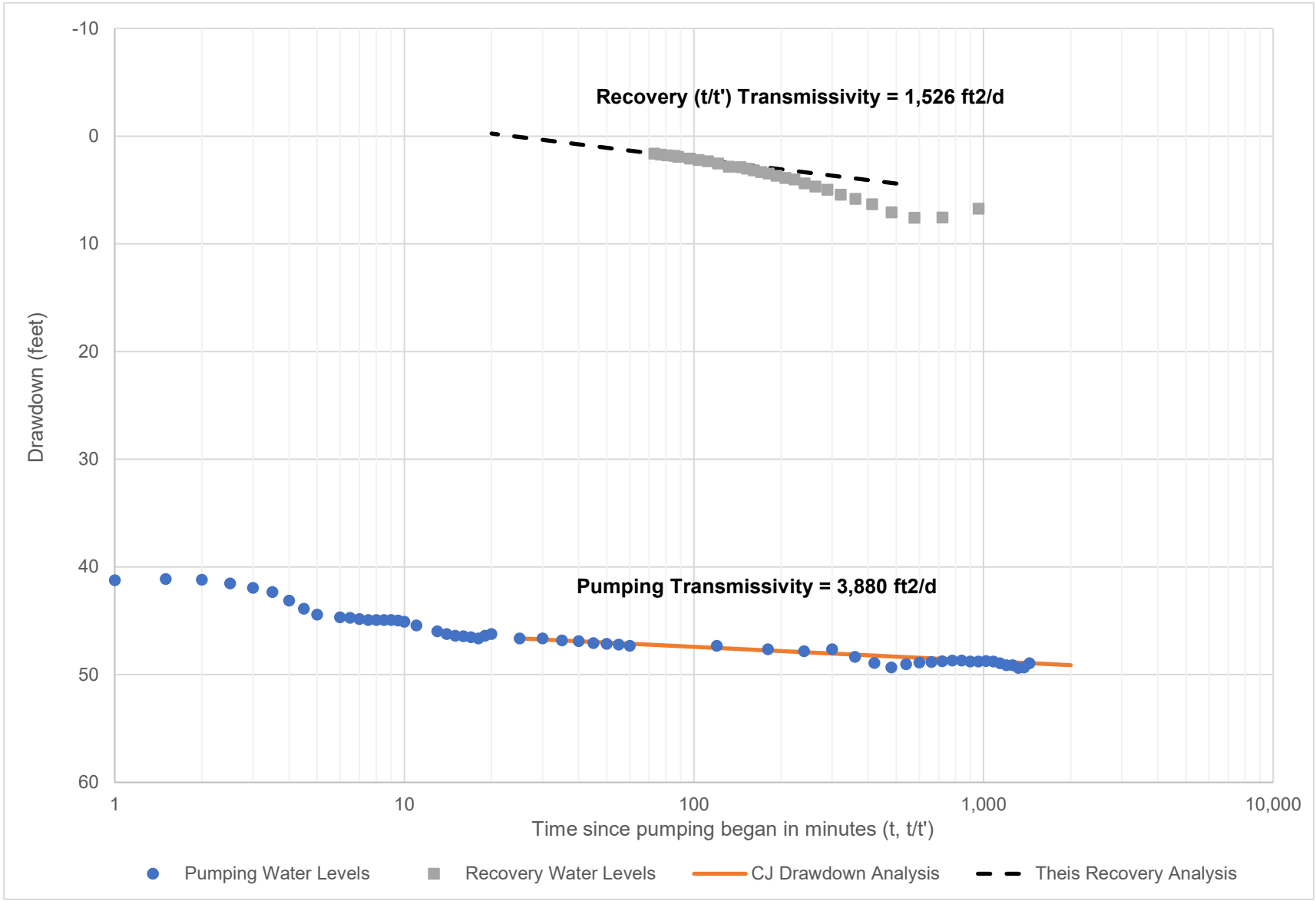

Figure 5
24-hr Constant-Rate Test, Cooper Jacob Analysis
Well No. 1 Drilling and Testing Report
Richview Water System, Pasco, WA

Aspect Consulting
March 14, 2024
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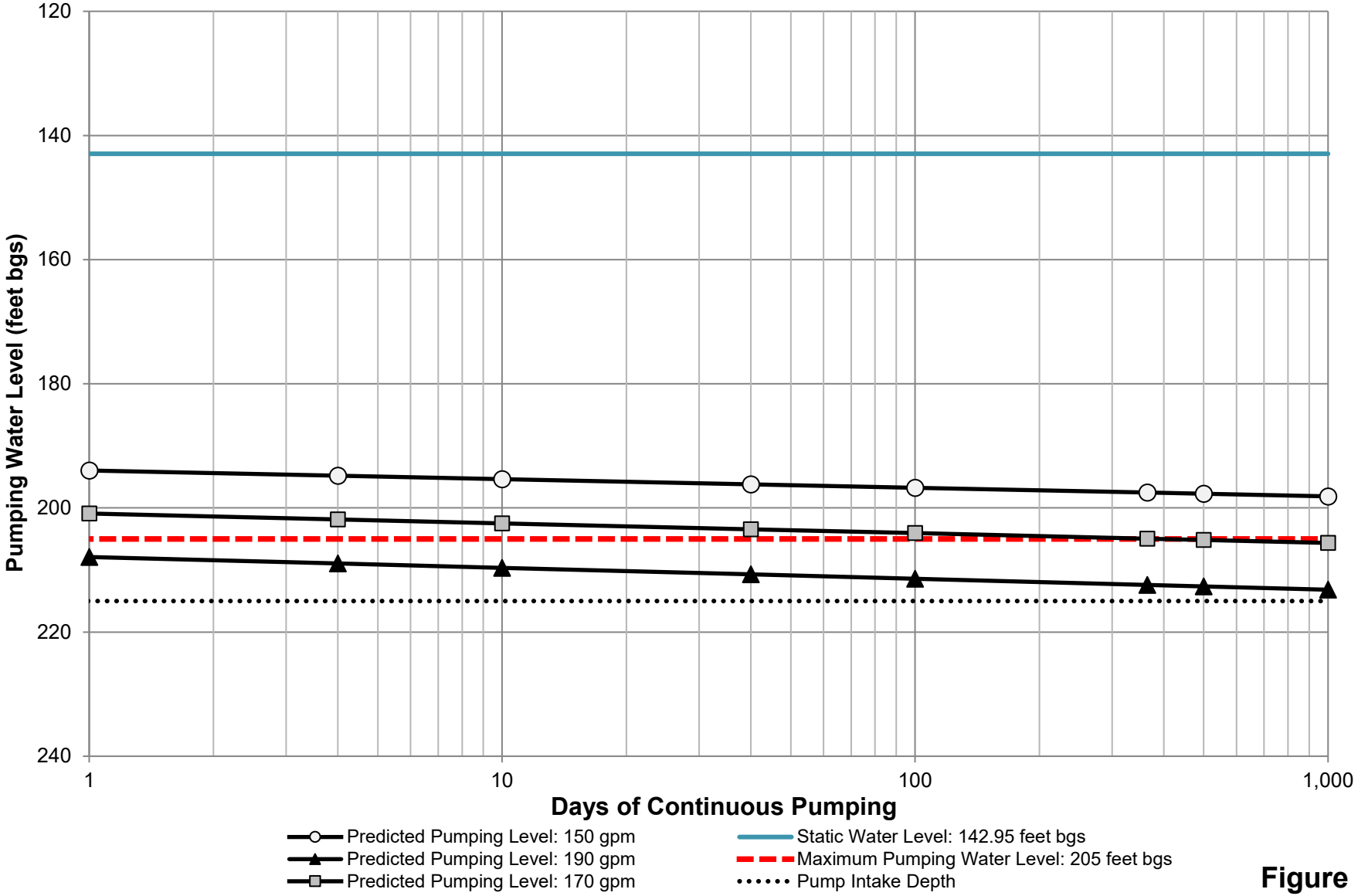

Figure 6

Long-Term Drawdown Analysis

Aspect Consulting

April 26, 2024

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Well No.1 Drilling and Testing Report

Richview Water System, Pasco, WA

APPENDIX D

Ground Water Contamination Susceptibility Assessment

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Ground Water Contamination
Susceptibility Assessment Survey Form

Complete **one** form for **eac**h ground water source (well, wellfield, spring) used in your water system (photocopy as necessary).

- - - -

PART II: Well Construction and Source Information

1) Date well originally constructed: 03/27/2024

last reconstruction:

❑ Information unavailable

2) Well driller: Stillwater (STILL**916KO)

❑ Well driller unknown

3) Type of well: Drilled: ☑ rotary ❑ bored ❑ cable (percussion) ❑ Dug

other: ❑ spring(s) ❑ lateral collector (Ranney)

❑ driven ❑ jetted ❑ other:

4) Well report available ☑ Yes (attach copy to form) ❑ No

5) Average pumping rate: 220 gallons per minute

Source of information: 24-hour Pumping Test, Water Right Qi

If not documented, how was pumping rate determined?

❑ Pumping rate unknown

6) Is this source treated? No, treatment and filtration not necessary

If so, what type of treatment:

❑ disinfection ❑ filtration ❑ carbon filter ❑ air stripper ❑ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

_____

7) If source is chlorinated, is a chlorine residual maintained: ❑ Yes ❑ No

Residual level:_____ (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

❑ <20 ft ❑ 20-50ft ❑ 50-100ft ❑ 100-200ft ☑ >200ft

❑ information unavailable

2) Depth to ground water (static water level):

❑ <20ft ❑ 20-50ft ❑ 50-100ft ☑ >100ft

❑ flowing well/spring (artesian)

How was water level determined?

❑ well log ☑ other water level sounding tape

❑ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

NA psi (pounds per square inch) **or**

NA feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ❑ Yes ❑ No

5) Wellhead elevation (height above mean sea level): 503 feet amsl

How was elevation determined? ❑ topographic map ☑ Drilling/Well Log ❑ altimeter

❑ other:

❑ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

Yes evidence of a confining layer in well log

no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ❑ Yes ☑ No

❑ information unavailable

7) Sanitary setback:

❑ < 100ft* ☑ 100-120ft ❑ 120-200 ft ❑ >200ft

* If less than 100ft, describe the site conditions:

8) Wellhead construction:

❑ wellhead enclosed in a wellhouse

❑controlled access (describe): well is located inside fenced area that controls access to area.

❑ other uses for wellhouse (describe):

☑ no wellhead control

9) Surface seal:

☑ 18 ft

❑ <18 ft (no Department of Ecology approval)

❑ <18 ft (Approved by Ecology, include documentation)

❑ depth of seal unknown

❑ no surface seal

10) Annual rainfall (inches per year):

☑ <10 in/yr ❑ 10-25 in/yr ❑ >25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: 43,989,885 gallons

How was this determined?

❑ meter

☑ estimated: ❑ pumping rate (_____)

❑ pump capacity (_____)

☑ other: Total annual quantity (Qa) of Water Right G3-20242(H)

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: 322 feet

1-year ground water travel time: 456 feet

5-year ground water travel time: 1020 feet

10-year ground water travel time: 1442 feet

Information available on length of screened/open interval?

☑ Yes ❑ No

Length of screened/open interval: 45 feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6- month time of travel boundary?

❑ Yes ☑No (mark and identify on map)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

❑ Yes ☑No (mark and identify on map)

Comments:

PART V: Assessment of Water Quality

1) **Regional sources of risk to ground water**:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time. If you do not know if one of the following is present, mark the "unknown" space.

	6-month	1-year	5-year	unknown
• likely pesticide application	None	None	Yes	
• stormwater injection wells	None	None	None	
• other injection wells	None	None	None	
• abandoned ground water well	None	None	None	
• landfills, dumps, disposal areas	None	None	None	
• known hazardous materials clean-up site	None	None	None	
• water system(s) with known quality problems	None	None	None	
• population density >1 house/acre	None	None	None	
• residences commonly have septic tanks	None	None	Yes	
• Wastewater treatment lagoons	None	None	None	
• sites used for land application of waste	None	None	None	

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

Agricultural lands to the east of the wellhead may apply pesticides. Water treatment methods for residential housing southwest of the property is unknown, but assumed to be on septic and is located down-gradient of the well head.

2) **Source-specific water quality records**: For each type of test below, mark the row that applies to the sample results for this source. Consider all the sample results from the past 12 years. (MCLs are noted next to the specific test or listed in assistance package.)

A. **Nitrate:** (Nitrate MCL = 10 mg/l)

Results greater than MCL	
<2 mg/liter nitrate	X
2-5 mg/liter nitrate	
<5 mg/liter nitrate	
Nitrate sampling records unavailable	

B. **VOCs:** (VOC detection level is 0.5 ug/l or 0.0005 mg/l)

Results greater than MCL or SAL	
VOCs detected at least once	
VOCs never detected	X
VOC sampling records unavailable	

C. **EDB/DBCP:**
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once	
EDB/DBCP detected above MCL at least once	
EDB/DBCP never detected	X
EDB/DBCP tests required but not yet completed	
EDB/DBCP tests not required	

D. **Other SOCs (Pesticides):**

Other SOCs detected (pesticides and other synthetic organic chemicals)	
Other SOC tests performed but none detected (list test methods in comments)	X
Other SOC tests not performed	

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here: EPA 524.3, 533

E. **Bacterial contamination:**

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)? No

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? NA

Source sampling records for bacteria unavailable No

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

❑ Yes ☑ No

Describe with references to map produced in Part IV:
The 10-yr radius is entirely contained within a relatively flat portion of land. The source aquifer is unlikely to be strongly influenced by surficial features within the 10-yr radius.

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

❑ Yes ☑ No

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☑ Yes ❑ No

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

❑ Yes ☑ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within…

	YES	NO	unknown
<6-month travel time	--	X	--
6 month—1 year travel time	--	X	--
1—5 year travel time	--	X	--
5—10 year travel time	--	X	--

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within…

	YES	NO	unknown
<1-year travel time	--	X	--
1—5 year travel time	--	X	--
5—10 year travel time	--	X	--

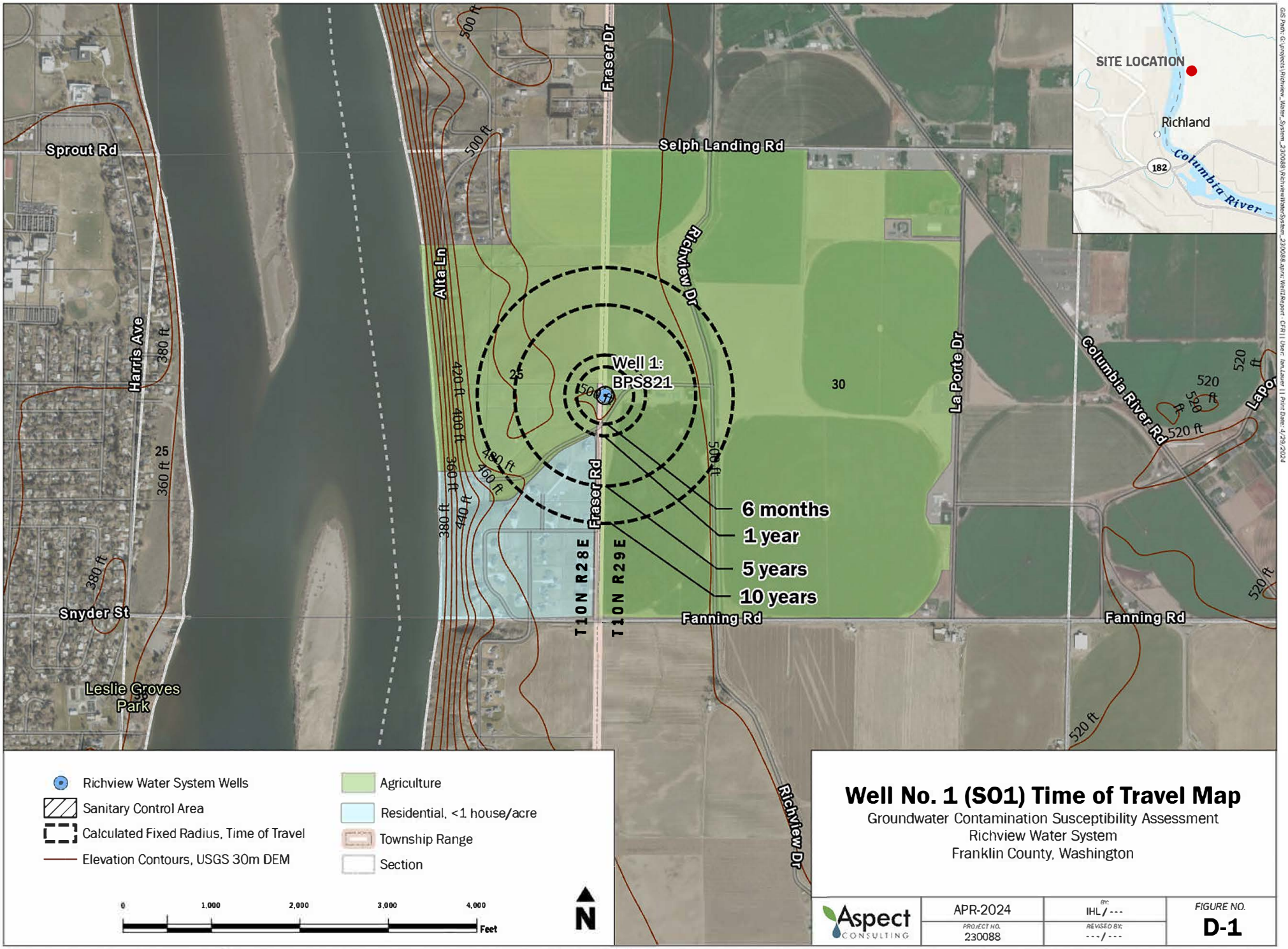
Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

The well is located in the Pasco Gravels, the uppermost aquifer in the area. The top of the aquifer is approximately 143 feet below ground surface and is insulated from surficial influence and contamination by the overlying alluvium and flood deposits which are composed of highly stratified fine sand, silt, and clay deposits.

FORM COMPLETED BY:

Ian Lauer, LG 04/26/2024
Print Name Date

Signature



Well No. 1 (SO1) Time of Travel Map

Groundwater Contamination Susceptibility Assessment
Richview Water System
Franklin County, Washington

Aspect Consulting	APR-2024	BY: IHL / ---	FIGURE NO. D-1
	PROJECT NO. 230088	REVISED BY: --- / ---	

GIS Path: G:\projects\Richview_Water_System_230088\Richview Water System_230088.aprx: WellReport - CFR | User: IanLauer | Print Date: 4/29/2024

Data source credits: None || Basemap Service Layer Credits: WSU Facilities Services GIS, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, Geophex Surveys Ltd., Maxar, State of Oregon GEO, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

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06/17/2024 01:41 PM
4 Page(s) $306.50
Matt Beaton, Auditor
Franklin Co., WA

FRANKLIN COUNTY RECORDING COVER SHEET

NAME AND RETURN ADDRESS:
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

FORM COMPLETED BY: _____ PHONE # 509-547-2679
PLEASE PRINT OR TYPE INFORMATION:

DOCUMENT TITLE(S) (or transaction contained therein)
1. Declaration of Covenant
2.
3.

GRANTOR(S) (Last name, first name, middle name/initials):
1. M&R2, LLC
2.
3.
4.
☐ Additional names on page _____of document

GRANTEE(S) (Last name, first name, middle name/initials):
1. Richview Water System
2.
3.
4.
☐ Additional names on page _____of document

LEGAL DESCRIPTION (Abbreviated: ie.lot, block, plat or section, township, range)
Ptn Lot 2, Short Plat 96-07 & Farm Unit 47, Blk 1, Col. Basin Project, NW SW S30 T10N R29E WM
☑ Additional legal is on page 1 of document

AUDITOR'S REFERENCE NUMBER(S)

ASSESSOR'S PROPERTY TAX PARCEL NUMBER
124300373
☐ Additional parcel numbers on page _____of document

The Auditor/Recorder will rely on the information provided on this form. The staff will not read the document to verify the accuracy or completeness of the indexing information

EMERGENCY NONSTANDARD REQUEST

I am requesting an emergency nonstandard recording for an additional fee of $50.00 as provided in RCW 36.18.010. I understand that the recording processing requirements may cover up or otherwise obscure some part of the text of the original document.

_____
Signature Date

DECLARATION OF COVENANT

I (we) the undersigned, owner(s) in fee simple of the land described herein, hereby declare this covenant and place same on record.

I (we) the grantor(s) herein, am (are) the owner(s) in fee simple of (an interest to) the following described real estate situated in Franklin County, State of Washington; to wit:

Parcel No. 124300373 consisting of Lot 2 of Short Plat 96-07, as recorded in Volume 1 of Short Plats, page 390, under Auditor's File No 529330 and that portion of Farm Unit 47, Irrigation Block 1, Columbia Basin Project, Franklin County, Washington, according to the Farm Unit Plat thereof, records of Franklin County Washington, EXCEPT any portion lying in Section 25, Township 10 north, Range 28 East, WM.

All within the NW ¼, SW ¼, S30, T10N, R29E, W.M.

on which the Richview Water System owns and operates a well and waterworks supplying water for public use located on said real estate, at:

125 ft south and 45 ft east of the northwest corner of Parcel No. 124300373, S30, T10N, R29E, W.M. Refer to Attached Exhibit A.

and grantor(s) is (are) required to keep the water supplied from said well free from impurities which might be injurious to the public health.

It is the purpose of these grants and covenants to prevent certain practices hereinafter enumerated in the use of said grantor(s) water supply.

NOW, THEREFORE, the grantor(s) agree(s) and covenant(s) that said grantor(s), his (her) (their) heirs, successors and assigns will not construct, maintain, or suffer to be constructed or maintained upon the said land of the grantor(s) and within 100 (one hundred) feet of the well herein described, so long as the same is operated to furnish water for public consumption, any potential source of contamination. such as septic tanks and drainfields, sewerlines, underground storage tanks, roads, railroad tracks, vehicles, structures (except well house and reservoir), barns, feed stations, grazing animals, enclosures for maintaining fowl or animal manure, liquid or dry chemical storage, herbicides, insecticides, hazardous waste, or garbage of any kind or description.

These covenants shall run with the land and shall be binding to all parties having or acquiring any right, title, or interest in the land described herein or any part thereof, and shall inure to the benefit of each owner thereof.

WITNESS his (his/her) hand on this 8th day of May, 2024.

(Seal)

(Seal)

Grantor(s)

State of Washington)

County of Franklin)

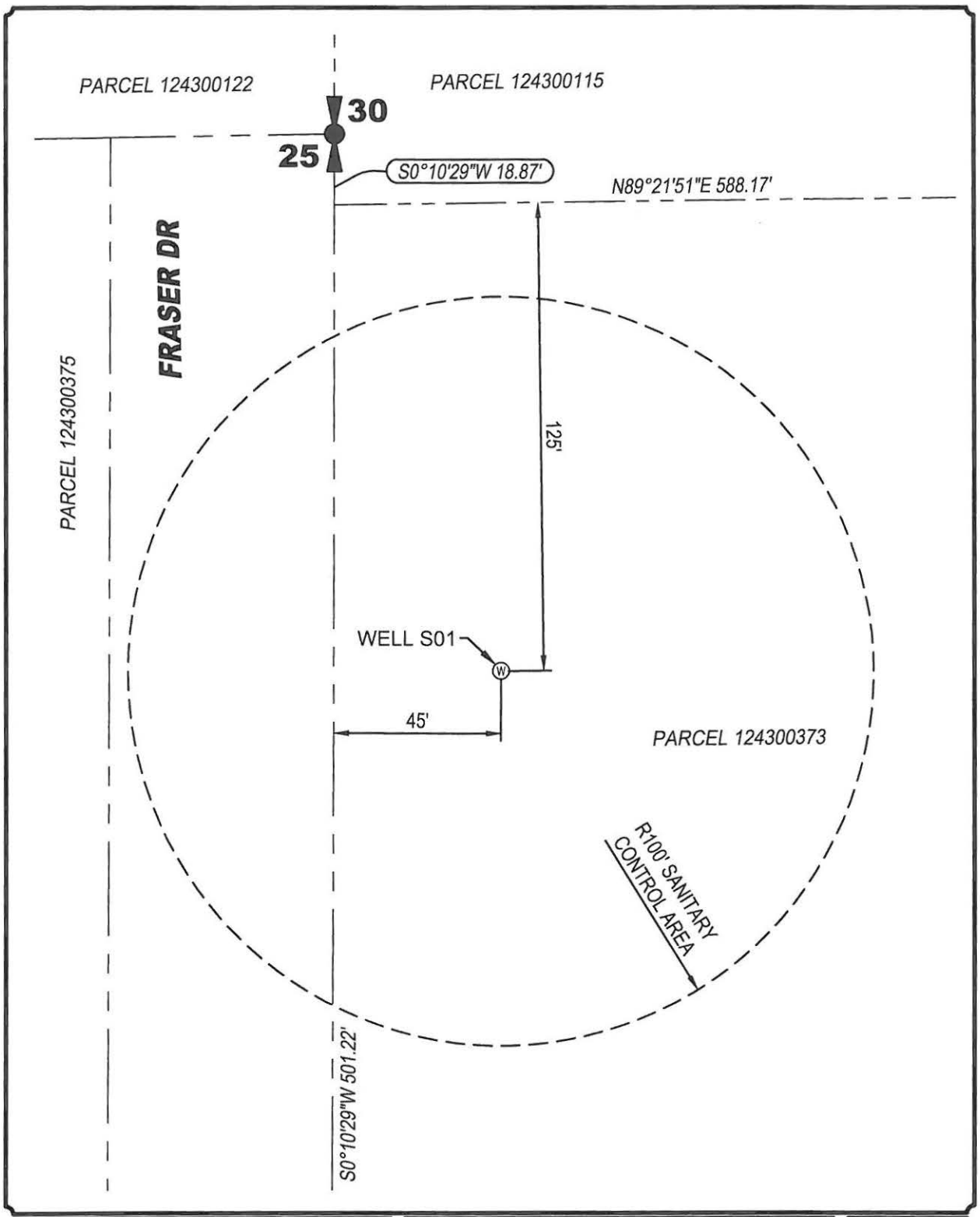
I, the undersigned, a Notary Public in and for the above named County and State, do hereby certify that on this 8th day of May, 2024, personally appeared before me Randy Mullen to me known to be the individual described in and who executed the within instrument, and acknowledge that he (they) signed and sealed the same as free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Notary Public in and for the State of WASHINGTON, residing at PASCO, WA

My Commission Expires:
05/01/26

PETER HARPSTER
NOTARY PUBLIC
STATE OF WASHINGTON
COMM. NO. 22016663
MY COMM. EXP. 05-01-26



HARMS ENGINEERING, INC.
1632 W Sylvester Street, Pasco WA 99301 | 509.547.2679 | HarmsEngineering.com

Designed By: B ANDERSON
Drawn By: B KETTERLING
File Name: 22-093 Richview Water System Plan 03
File Path: P:\2022\22-093.1 Mullen Richview Water System\Dwgs

Drawing Name
WELL COVENANT MAP EXHIBIT
1603 RICHVIEW DR, PASCO, WA 99301

Client/Project Information
RICHVIEW WATER SYSTEM
RANDY MULLEN

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Date A
05-03-2024
Project Number
22-093.1
Sheet Number
A

Dear Residents:

The Richview Water System is developing a Source Water Protection Program as required by the State Department of Health. Wellhead protection, a component of the program, involves protecting the land area surrounding their wells to help prevent the contamination of their drinking water supply.

Part of the plan is a letter of notification to all potential sources of contamination to their wells, including residents. Many of us live within the wellhead protection zones surrounding the wells (see included map). This letter is intended to inform you of the location of their wells and to serve as a reminder that hazardous materials put onto the ground (or in septic systems) can contaminate the drinking water supply. Some potentially harmful activities to avoid are:

- Improper use of a septic system (dumping paint, household cleaners, or solvents into your septic system).
- Dumping motor oil, gasoline, antifreeze or similar fluids onto the ground.
- Heavy use of fertilizers and pesticides.
- Dumping or burying garbage in the ground.

Any unwanted or unused household hazardous materials (like those mentioned above) can be disposed of at the Household Hazardous Waste Collection Facility, located at 1721 Dietrich Rd in Pasco. Call (509) 547-2088 for details, hours of operation, etc.

TIPS TO AVOID SEPTIC SYSTEM TROUBLE:

- DO take leftover household chemicals to a hazardous waste collection center for disposal.
- DO practice water conservation. Repair dripping faucets and leaking toilets, run dishwashers and washing machines only when full.
- DO learn the location of your septic system and drain field.
- DON'T allow anyone to drive or park over any part of the system. Areas should be left undisturbed with only a mowed grass cover. Roots from nearby trees or shrubs may clog and damage your drain lines.
- DON'T use commercial septic tank additives. These products usually do not help and some may hurt your system in the long run.
- DON'T poison your system by pouring chemicals down the drain. They can kill the beneficial bacteria that treat your wastewater.

In addition, private residential wells within the wellhead protection area provide a potential pathway for contamination to the aquifer. Wells provide a rapid pathway into groundwater from within and along the outside of a well's casing. If you have an existing residential well or intend to establish one, please ensure that the well is constructed properly and you are careful maintaining an acceptable sanitary control zone. Information and brochures are available from the Department of Ecology regarding safe well practices.

It should be everyone's intent to keep our water sources protected for continued good use, and for the ones that come after us. Thank you for following these guidelines. If you have any questions about this matter, please feel free to contact us.

Sincerely,

Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

Judi Ellis, Water System Operator
Columbia Water Services
PO Box 2061
Moses Lake, WA 98837

Dear Business Owner/Operator:

The Richview Water System is developing a wellhead protection plan for their water system as required by the Washington State Department of Health. Wellhead protection involves protecting the land area surrounding their wells in order to prevent contamination of the drinking water supply. Part of the plan requires notification to all potential sources of contamination of the well locations. Refer to the attached map for the well location and wellhead protection areas.

One of the goals of this plan is to raise public awareness about how vulnerable the groundwater in this area is to contamination. The purpose of this letter is to inform you of the proximity of your business to the wellhead protection area and to serve as a reminder that any hazardous material spilled onto the ground, put into your septic system or an abandoned well, or traveling along a residential well's casing, has the potential of contaminating the drinking water supply. Some potential contamination sources are:

- Dumping motor oil, gasoline, antifreeze or similar fluids onto the ground. These materials can be recycled, free of charge, at most major shops and parts stores.
- Leaking fuel storage tanks and distribution lines.
- Accidental spillage of fuel.
- Improper use of septic system (dumping paint, cleaners, or solvents into your septic system).

Because everyone plays a role in the protection plan, local residents are also being contacted with similar information. We are fortunate to have a good supply of high-quality water. Please help us keep it that way for continued good use, and for the ones that come after us. Thank you for your attention to this matter. If you have any questions about the plan, please feel free to contact us.

Sincerely,

Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

Judi Ellis, Water System Operator
Columbia Water Services
PO Box 2061
Moses Lake, WA 98837

Dear Agricultural Producer:

Richview Water System is developing a Wellhead Protection Program as required by the Washington State Department of Health. Wellhead protection involves protecting the land area surrounding their wells in order to prevent contamination of the drinking water supply. Part of the plan requires notification to all potential sources of contamination to the wells. Refer to the attached map for the well location and wellhead protection areas.

We are informing you of the sensitivity of your ag-land location with regard to the wellhead protection area. This should serve as a reminder that any hazardous material spilled onto the ground, put into a septic system or an abandoned well, or traveling along an irrigation well's casing, has the potential of contaminating the drinking water supply. Some potential contamination sources are:

- Dumping or accidental spillage motor oil, gasoline, antifreeze or similar fluids onto the ground.
- Leaking fuel storage tanks and distribution lines.
- Accidental spillage or improper application of pesticides and fertilizers.
- Improper use or failure of a septic system or dumping unwanted chemicals or industrial wastewater into your septic system.
- Excessive irrigation rates or leaky irrigation distribution systems.
- Improper storage and disposal of animal wastes.

Because everyone plays a role in wellhead protection, local residents are also being contacted with similar information. Please help us protect this well for continued good use, and for those that come after us. Thank you for your attention to this matter. If you have any questions about the plan, please feel free to contact us.

Free Technical Assistance for Agricultural Land Management is available from:

U.S.D.A. Natural Resource Conservation Service, 1251 S. 2nd Ave, Okanogan (509) 422-2750
Washington State University, Okanogan County Extension Office, (509) 422-7245

Sincerely,

Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

Judi Ellis, Water System Operator
Columbia Water Services
PO Box 2061
Moses Lake, WA 98837

Dear Emergency Responder:

The Richview Water System is developing a wellhead protection plan as required by the Washington State Department of Health. As part of this plan, we must provide wellhead protection information to agencies responsible for incident/spill response procedures. Using the results of the susceptibility assessment and the findings of the wellhead protection area inventory, local emergency responders are asked to evaluate whether changes in incident/spill response procedures are needed to better protect groundwater within wellhead protection areas. As stated in the Wellhead Protection Program Guidance Document, “If a public water system’s source water is determined to be vulnerable to surface activities, special procedures may need to be incorporated into local emergency response plans.”

The State Dept of Health is reviewing the source for the Richview Water System and has not yet rated the susceptibility of the new well. Richview will follow federal and state regulations to protect the water source from contamination, and is preparing a contingency plan to provide bottled water in case of emergencies.

A map of the wellhead protection areas with potential contaminant sources are enclosed for your review. An acknowledgement of receipt of this information or a response from your office is not required as part of the wellhead protection plan documentation.

Thank you for your attention to this matter. If you have any questions about the plan, please feel free to contact us.

Sincerely,

Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

Judi Ellis, Water System Operator
Columbia Water Services
PO Box 2061
Moses Lake, WA 98837

Washington State Department of Ecology
Hazardous Waste & Toxics Reduction, Spills Prevention, and Toxic Cleanup Programs
Eastern Regional Office
4601 N. Monroe, Suite 202
Spokane, WA 99205-1295

Re: Richview Water System Wellhead Protection Area

All:

As part of the Richview Water System Wellhead Protection (WHPP) Plan, we are required to provide notification of the WHPP area boundary and the potential contaminant sources within that boundary. Please use the enclosed map and potential contaminant source list accordingly when considering future inspections and permitting for the storage, use, and disposal of hazardous materials within our WHPP area.

Sincerely,

Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

Name	Parcel	Type	Mailing Address
Deep Creek Investment Properties, Inc.	124300375	Residential	1020 N Center Pkwy, Ste B, Kennewick, WA 99336
Coria, Lorenzo & Diana	124300505	Residential	2 Bull Pen Ln, Pasco, WA 99301
You, Jean	124300504	Residential	2201 Fraser Rd, Pasco, WA 99301
Gardner, Kane & Sara	124300506	Residential	36 Bull Pen Ln, Pasco, WA 99301
Heaston-Helms (Etvir), Karen M	124300501	Residential	460 Sundance Dr, Richland, WA 99352
Eickmeyer, Lee A	124300078	Agrilcultural	510 Easy St, Pasco, WA 99301
Inspiration Builders, Inc.	124300502	Residential	70 Bull Pen Ln, Pasco, WA 99301
Swank, Adam & Koren	124300507	Residential	70 Bull Pen Ln, Pasco, WA 99301
Roberts (etal), Kristina	124300508	Residential	71 Bull Pen Ln, Pasco, WA 99301
Kapitula, Yury & Nino	124300503	Residential	PO Box 1261, Richland, WA 99352
Farm HM Props, LLC	124300361	Agricultural	PO Box 3596, Pasco, WA 99302
M&R2 LLC	124300115	Agricultural	PO Box 3596, Pasco, WA 99302
M&R2 LLC	124300082	Agricultural	PO Box 3596, Pasco, WA 99302
M&R2 LLC	124300373	Agricultural	PO Box 3596, Pasco, WA 99302
Selph Landing Ranch LLC	124300122	Agricultural	PO Box 3596, Pasco, WA 99302
Rivas, Zeff D & Maribel Y	124300509	Residential	PO Box 3771, Pasco, WA 99302

Emergency Responders		
Franklin County Sheriff's Office	Emergency	1016 N 4th Ave, D201, Pasco WA 99301
Franklin County Fire Protection Dist 3	Emergency	7809 N Road 36, Pasco, WA 99301
Franklin County Emergency Management	Emergency	1011 E Ainsworth St, Pasco, WA 99301
Benton Franklin Health District	Emergency	7102 W Okanogan Pl, Kennewick, WA 99336
WA Dept of Ecology ERO	Ecology	4601 N. Monroe, Suite 202, Spokane, WA 99205-1295

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From: Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

To: Deep Creek Investments Properties
1020 N Center Parkway, Ste B
Kennewick, WA 99336

PS Form **3817**, April 2007 PSN 7530-02-000-9065

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From: Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

To: Kane & Sara Gardner
36 Bull Pen Lane
Pasco, WA 99301

PS Form **3817**, April 2007 PSN 7530-02-000-9065

Postmark Here

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USPS

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This form may be used for domestic and international mail.

From: Braden Anderson, PE
Harms Engineering, Inc.
1632 W Sylvester St
Pasco, WA 99301

To: Inspiration Builders, Inc.
70 Bull Pen Lane
Pasco, WA 99301

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To: Franklin County Sheriff's Office
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To: Franklin Co. Fire Protection Dist. #3
7809 N Road 36
Pasco, WA 99301

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1011 E Ainsworth St
Pasco, WA 99301

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To: Yury & Nino Kapitula
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To: Benton Franklin Health District
7102 W Okanogan Pl.
Kennewick, WA 99336

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Pasco, WA 99301

To: WA Dept of Ecology ERO
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Spokane, WA 99205-1295

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Appendix D: Water System Design Calculations

- Hydraulic Calculations and Network Analysis
- WSDM Worksheet 4-1 ERU Capacity Summary

WATER SYSTEM DESIGN CALCULATIONS

The following calculations are based on the requirements and equations found in the *Water System Design Manual,* revised June 2020, published by the Washington State Department of Heath.

Water Usage:

The Richview Water Co. is a new water system for several proposed single-family residential developments, and does not have existing usage data. The water system will supply water for domestic-only waterusage and fire, and residential water usage is estimated per Appendix D. Below is a table summarizing the number of ERUs and phasing of each development connected to the system.

Residential Development		**Phase 1**	**Full Build-out**
Mullen	The Plateau at River Ranch	29	29
	The Heights at River Ranch	46	46
	Selph Landing Development		40
Underwood Estates Phase 1		22	22
Underwood Estates Phase 2		113	113
Diamondback			45
Eickmeyer			45
Kohler Estates		60	60
Total Connections (eru)		**270**	**400**
Number of Connections for Design, N =		**300**	**600**

Average Daily Demand, ERU_{ADD} = 200 gpd/eru, per Appendix D

Maximum Day Demand, ERU_{MDD} = 400 gpd/eru, 2x ADD, conservative estimate per Appendix D

Peak Hour Demand, PHD = (MDD/1440)*[C*N+F]+18 Eq. 3-1

C =	1.8	1.6	from Table 3-1
F =	125	225	from Table 3-1

	Phase 1	**Full Build-out**	
# of Connections for Design, N =	**300**	**600**	**eru**
Total ADD =	60,000	120,000	gpd
Total ADD * 365 =	67.2	134.4	ac-ft/yr
Total MDD =	120,000	240,000	gpd
Total PHD =	203	347	gpm
ERU_{PHD} =	0.7	0.6	gpm/eru

0.48007681

Fire Flow

Fire flow will be supplied by the domestic water system. Franklin County requires hydrant systems to provide the minimum flow rate according to IFC 2021, Appendix B, for one- and two- family dwellings as follows:

Fire Flow (FF) =	1,000	gpm
Duration =	1	hr

Water Rights

Water rights have been transferred to Richview Water Company for community domestic supply under water right G3-20242(H).

	Annual		Instantaneous	
Total Water Right:	135.0	acre-ft/yr	220	gpm

New Well

A new 270 ft deep well has been constructed for the water system on Parcel 124300373. The design flow rate is based on well pump test results and analysis by Aspect Consulting (see report). The system will operate from a single source at first, and construct a second source to accommodate the growth of the System. DOH recommends that water system sources be capable of supplying the system MDD after 20 hours of pumping, and that multi-source systems also supply the ADD with the largest source out of service.

Single-Source Capacity

Design Pumping Rate, Q =	**170**	**gpm**	per well test
=	0.38	cfs	
MDD Source Capacity: Q * (20 hrs * 60 min/hr) / ERU_{MDD} =	510	ERU's	

Multi-Source Capacity (two wells)

Min combined flow rate = Total MDD / (20 hrs * 60 min/hr) =	200	gpm	
Min single-source flow rate = Total ADD / (20 hrs * 60 min/hr) =	100	gpm	
Design Pumping Rate per Well =	110	gpm	
Combined Pumping Rate, Q =	220	gpm	max per water right
=	0.49	cfs	

Phasing: A second well would improve system reliability. While the capacity of the new well is sufficient to supply up to 510 ERUs, it is recommended the second well be constructed when the system has reached 50% of its total size (300 ERU's), or at the beginning of the next WSP approval period (in 10 years), whichever comes sooner.

Well Pump

Determine Well Pump Design point.

Pressure Head

Pressure Head = 0 psi pumps to atmosphere

Headloss in Pipe (Well to Reservoir)

Headloss (Hazen-Williams) = 3.02*L*D^-1.167*(V/Ch)^1.85 = 9.7 ft

Pipe Type =	4" DI, Class 52 and	Flow, Q =	0.38	cfs
	4" Galvanized	Velocity, V =	4.3	fps
ID =	4 inches	Ch =	120	
		Depth of Pump =	215	ft
		Distance from Pump to reservoir =	198	ft
		Total Length, L =	413.0	ft

Head loss in fittings, valves, meter, etc. (Well to Reservoir)

head loss = K V^2 / 2g (maximum velocity through fittings; for increasers use $V1^2 - V2^2$)

K = loss coefficient, Table 5-3 in *Hydraulic Engineering* , Roberson and Tables B-6 and B-7 in *Pumping Station Design* , Sanks
(note: K values increase from chart by 5% for each 1" increment smaller than 12")

g = 32.2 ft/s^2

	Pipe Size (in)	Flow (cfs)	V1 (fps)	K	# of Fittings	Head Loss (ft)	
90 Bend	4	0.38	4.34	0.37	8	0.9	
Gate Valve	4	0.38	4.34	0.44	3	0.4	
Tee - Branch	4	0.38	4.34	1.11	2	0.6	
Tee - Line	4	0.38	4.34	0.44	2	0.3	
						2.2	ft

	Pressure Loss* (ft)	#		
Flow Meter	9.2	1	9.2	
Check Valve (Poppet)	3.7	2	7.4	
Check Valve (Globe)	1.0	1	1.0	
			17.6	ft

*The following are Pressure Losses for specific components (used rather than K)
Pressure Loss for 4" Promag W400 meter is 4 psi at 170 gpm
Pressure Loss for 4" Simmons Poppet Check Valve is 1.6 psi at 170 gpm.
Pressure Loss for 4" APCO Globe Check Valve is 1 ft at 170 gpm

Estimated headloss due to check valves, meter, valves, and fittings: 20.0 ft

Elevation Head

Static Water Level =	143	ft	
Drawdown =	61	ft, per well test analysis	
Pumping Water Level =	204	ft	
Water Height in Reservoir =	29	ft	(Overflow - ground elev)
Total Elevation Head =	233	ft	

Total Dynamic Head

Total Dynamic Head, TDH = Pressure Head + Elev. Head + Headloss = **263 ft**

Pump Horsepower (HP) = TDH x pumping rate x sp. Gr /(3960 x efficiency) = 19.5 hp
specific gravity = 1
Pumping Efficiency (estimated) = 75%

Design Point = 170 gpm at 263 ft

A Grundfos Submersible pump 150S150-8 with a 15hp motor would be sufficient for the system, supplying 171 gpm at 263 ft of TDH.

Reservoir

A reservoir/storage tank is composed of standby storage (used for emergencies), fire suppression storage, operational storage (for well pump cycling), equalizing storage (used to meet peak demand), and dead storage (unuseable tank volume). Determine reservoir size based on well pump design point.

Standby Storage

DOH recommends standby storage volume equivalent to one day of MDD.

	Phase 1	Full Build-out	
Standby Storage, S.S. = MDD * N * 1 day =	120,000	240,000	gal

Fire Flow Storage

Fire Flow storage required by Franklin County is based on the IFC 2021 minimum required flow and duration for single family dwellings, which is 1,000 gpm for 1 hr.

Fire Suppession Storage, F.S. = Fire flow * duration =	60,000	gal

Fire Suppression and Standby Storage can be nested with approval from fire marshall. Use the greater Standby Storage value.

Equalizing Storage

Equalizing storage will be required for both Phase 1 (one well) and Full Build-out (two wells) because the source of supply for each phase is less than the peak hour demand.

Equalizing Storage = 150 minutes * (Peak Hour Demand - Pumping Rate) =	6,575	19,075	gal

Operational Storage

Estimate operational storage based average daily demand and a well pump cycle time of 10 min. (Rule of thumb is maximum of six cycles per hour.)

Operational Storage, O.S. = $(ERU_{ADD}/1440)*N*10min$ =	417	833	gal
Total Storage, T.S. = (S.S. or F.S.) + O.S. + E.S. =	**126,992**	**259,908**	**gal**

Tank Height

Tank Diameter = 30 ft

	One Tank	Two Tanks	
Storage Vol./ft =	5,287	10,575	gal/ft
Min tank height = (T.S. / Vol./ft) + 2 ft at bottom and top for dead storage =	28.0	28.6	ft

For Phase 1, one 30 ft tall x 30 ft diameter storage tank would be adequate for up to 300 connections. For Full-Build-out, two tanks of that size would be adequate for 600 total connections.

Control Levels

	One Tank	Two Tanks	
Storage Vol/ft =	5,287	10,575	gal/ft
Standby Storage Water Depth = Standby Storage / Tank Vol. per ft. =	22.7	22.7	ft
Operational Storage Water Depth = Operational Storage / Tank Vol. per ft. =	0.1	0.1	ft

Description	*Operation / Alarm*	*Level Depth (ft)*	Water Level (ft)	Elev.	Float
Reservoir Top (interior)			30.0	531.0	
Main Overflow		1.0	29.0	530.0	
High Water Level	*High Water*	0.5	28.5	529.5	A
Top of Operational Storage	*Well Pump Off*	0.5	28.0	529.0	
Bottom of Operational Storage	*Well Pump On*	0.5	27.5	528.5	
Low Water Level	*Low Water*	2.0	25.5	526.5	B
Top of Equalizing Storage (Same as Bottom of Operational Storage)		2.0	27.5	528.5	
Bottom of Equalizing Storage/Top of Standby Storage		23.0	25.5	526.5	
Bottom of Standby Storage	*Booster Pumps Off / Emergency Off*	2.5	2.5	503.5	
Reservoir Base (interior)		0	0.0	501.0	
Well				501.0	
Booster Pump Manifold Elevation				502.7	

Storage Volume	**Phase 1 (One Tank)**			**Phase 2 (Two Tanks)**		
	Volume (gal)	Required (gal)	Sufficient?	Volume (gal)	Required (gal)	Sufficient?
Top of tank Dead Storage	10,575	N/A	N/A	21,149	N/A	N/A
Operational Storage	2,644	417	Yes	5,287	833	Yes
Equalizing Storage	10,575	6,575	Yes	21,149	19,075	Yes
Fire Suppression Storage	121,608	60,000	Yes	243,216	60,000	Yes
Standby Storage		120,000	Yes		240,000	Yes
Bottom of tank Dead Storage	13,218	N/A	N/A	26,437	N/A	N/A
Total Volume	158,620			317,238		

Tank Turnover Time

Water volume in tank =	296,089	gallons	(bottom of tank to pump off)	
ADD =	120,000	gpd		
Turnover Time = Volume in Tank / (ADD * ERU) =	2.5	days	OK	

Phasing: One 30 ft x 30 diameter storage tank is adequate to provide operational, equalizing, standby, and fire suppression storage for 300 eru's. A second identical tank will be adequate to increase the capacity to 600 eru's.

Booster

A packaged booster pump skid will provide water to the distribution system at a constant pressure. The DOH requires that booster stations be capable of supplying the PHD at 30 psi min, and MDD plus Fire Flow at 20 psi min to all points in the system. Below are the demand scenarios for each development connected to the System. For design, some demands are increased to reflect the full-buildout PHD demand for 600 eru.

Demand Scenarios

		Calculated		Design		
Development	ERU	PHD (gpm)	MDD (gpm)	PHD (gpm)	MDD (gpm)	MDD + FF (gpm)
Mullen	115	67	32	100	48	
Underwood Estates	135	78	38	130	62	
Diamondback	45	26	13	35	17	
Eickmeyer	45	26	13	50	24	
Kohler Estates	60	35	17	35	17	
		231	111	**350**	**168**	**1168**

Hydraulic Model

EPANet version 2.2 is used to model the proposed piping and determine the booster pump set point.

Model

>> Proposed water system layouts for each development used for modelling where available (Mullen, Kohler, Underwood). Demands for other developments are applied to their respective connection points on the transmission main.

>> Apply PHD to the most remote point of the pipe network for each Development. Apply FF to most remote points of System (Underwood and Kohler Estates).

>> Multi-point pump curve used to model pressure-setting control of multi-pump booster station. Booster pumps to have same set point (+/-1 ft) for both PHD and MDD+FF scenarios to model constant-pressure system (VFDs).

>> Apply a roughness coefficient of 150 for all pipes (C900)

Hydraulic Model Results:

Max PHD Headloss (N207) =	1.6	ft
Max MDD + FF Headloss (N207, Underwood) =	52	ft
Max MDD + FF Headloss (N505, Kohler) =	89	ft
Booster Pressure Setting =	60	psi
System Max Pressure =	80.0	psi
System Min Pressure =	60.4	psi

Domestic Booster Pump Design Point (PHD Scenario)
Determine Booster Pump Design Point for PHD Scenario

Pump Rate = Peak Hour Demand = 347 gpm

Elevation Head at Booster Pump

Water Elev. =	503.5	Bottom of Standby Storage
Booster Station Elev. =	502.7	Booster Manifold Elevation
Elev. Head at Booster =	0.8	ft

Headloss in Pipe (Reservoir to Booster Pumps)
Friction Loss (Hazen-Williams) = 3.02*L*D^-1.167*(V/Ch)^1.85 = 0.2 ft

Pipe Type =	DI	Flow =	0.77	cfs
Size =	8	Velocity, V =	2.2	fps
ID =	8.04	Length, L =	66	ft
Ch =	120			

Head loss in fittings, valves, meter, etc. (Reservoir to Booster Pumps)
head loss = K V^2 / 2g (maximum velocity through fittings; for increasers use $V1^2 - V2^2$)
K = loss coefficient, Table 5-3 in *Hydraulic Engineering* , Roberson and Tables B-6 and B-7 in *Pumping*
g = 32.2 ft/s^2

	Pipe Size (in)	Flow (gpm)	V1 (fps)	# of Fittings	K	Head Loss (ft)
Pipe Entrance	8	347	2.2	1	0.97	0.07
90 DI Bend	8	347	2.2	5	0.30	0.11
Gate Valve	8	347	2.2	3	0.36	0.08
Tee - Branch	8	347	2.2	1	0.91	0.07
				Totals:	4.50	0.34

Total Friction Losses = Headloss in Pipe + Headloss in Fittings = 0.5 ft

Total Dynamic Head = Pressure Setting*2.31 - Elev. Head + friction losses = 139 ft

Pump Horsepower (HP) = TDH x pumping rate x sp. Gr /(3960 x efficiency) = 16.2 hp
specific gravity = 1
Pumping Efficiency (estimated) = 75%

Booster Design Point = 347 gpm at 139 ft

Booster pump set will include 3 booster pumps capable of meeting design point, with one additional pump provided for redundancy. Fire Flow will be handled by a dedicated fire flow pump.

Fire Flow Pump Design Point (MDD+FF Scenario)
Determine Fire Pump Design Point for MDD + FF Scenario

Pump Rate = MDD + FF =	1,168	gpm	

Elevation Head at Fire Pump

Water Elev. =	503.5	Bottom of Standby Storage
Booster Station Elev. =	502.7	Booster Manifold Elevation
Elev. Head at Booster =	0.8	ft

Headloss in Pipe (Reservoir to Booster Pumps)

Friction Loss (Hazen-Williams) = 3.02*L*D^-1.167*(V/Ch)^1.85 =	1.8	ft	
Flow =	2.60	cfs	
Velocity, V =	7.4	fps	
Headloss in Fittings =	3.8	ft	
Total Dynamic Head = Pressure Setting*2.31 - Elev. Head + friction losses =	143	ft	

Hydrant Check

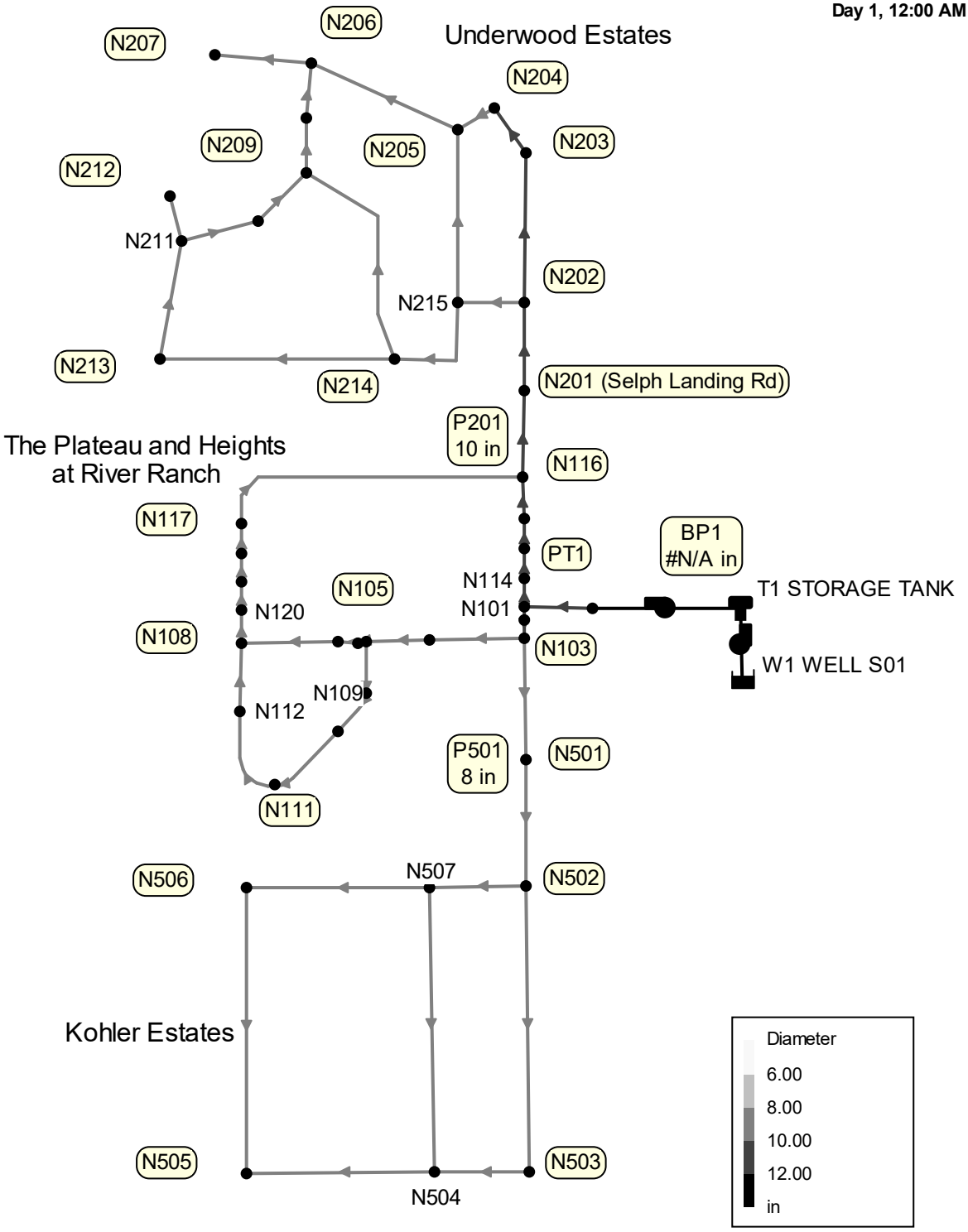
Max MDD+FF headloss to critical hydrant =	88.8	ft
Elevation Head at critical hydrant (Elev 455 ft) =	48.5	ft
Min Residual at Hydrant =	42.2	psi

Pump Horsepower (HP) = TDH x pumping rate x sp. Gr /(3960 x efficiency) =	56.4	hp
specific gravity =	1	
Pumping Efficiency (estimated) =	75%	

Fire Pump Design Point = 1168 gpm at 143 ft

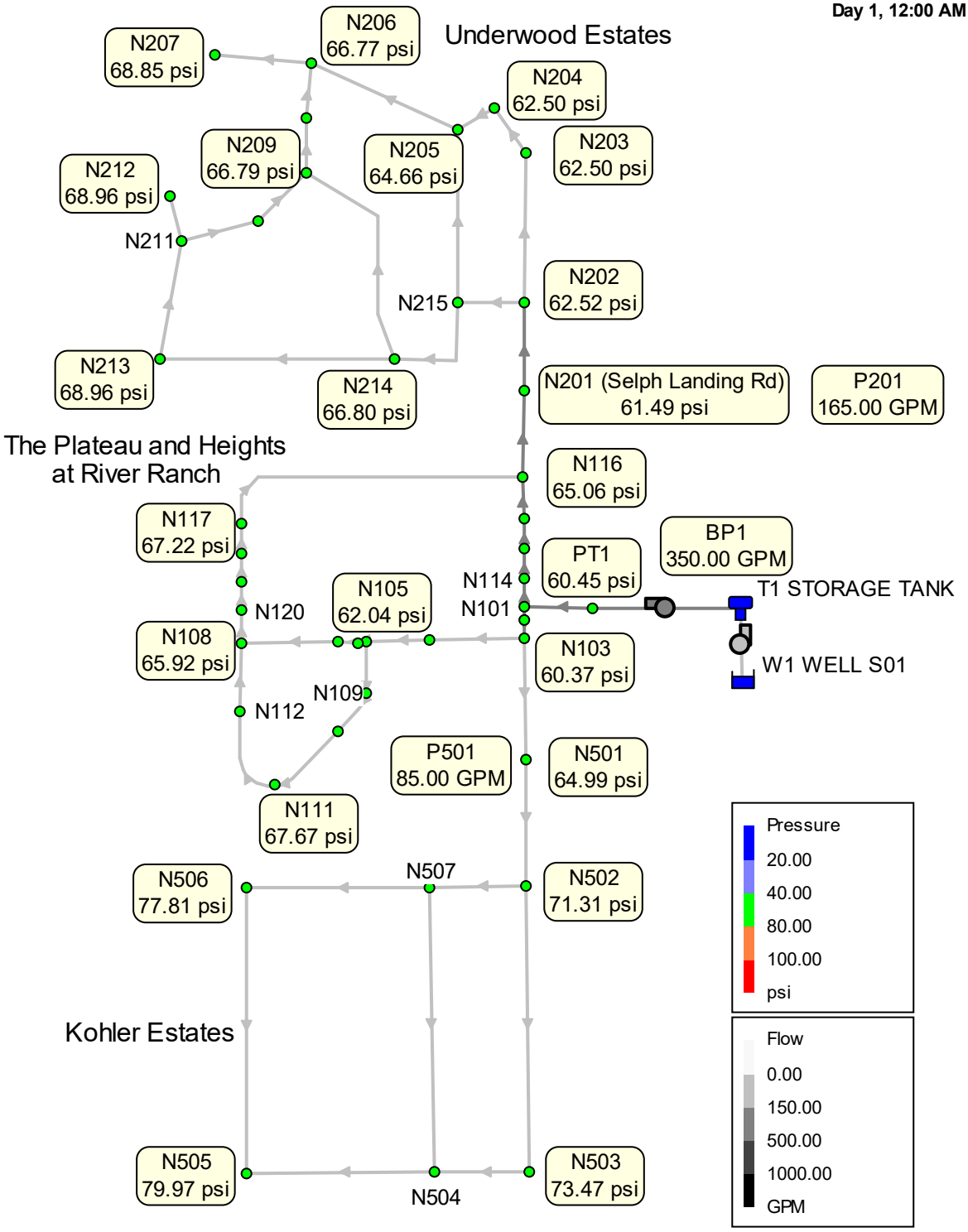
Richview Hydraulic Analysis
Link Map

Day 1, 12:00 AM



Richview Hydraulic Analysis
PHD

Day 1, 12:00 AM



Richview Hydraulic Analysis - PHD
Network Table - Links

	Length	Diameter	Roughness	Flow	Velocity
Link ID	ft	in		GPM	fps
Pipe P101	130	10	120	-350	1.4
Pipe P102	62	10	150	-186	0.8
Pipe P103	83	10	150	-186	0.8
Pipe P104	427	8	150	101	0.7
Pipe P105	293	8	150	-101	0.7
Pipe P106	36	8	150	-64	0.4
Pipe P107	93	8	150	-64	0.4
Pipe P108	437	8	150	-64	0.4
Pipe P109	236	8	150	-37	0.2
Pipe P110	216	8	150	-37	0.2
Pipe P111	389	8	150	-37	0.2
Pipe P112	442	8	150	-37	0.2
Pipe P113	305	8	150	-37	0.2
Pipe P114	129	10	150	164	0.7
Pipe P115	227	10	150	164	0.7
Pipe P116	500	10	150	164	0.7
Pipe P117	500	10	150	164	0.7
Pipe P118	1745	8	150	-1	0.0
Pipe P119	500	8	150	-1	0.0
Pipe P120	226	8	150	-1	0.0
Pipe P121	199	8	150	-1	0.0
Pipe P122	77	8	150	-1	0.0
Pipe P201	1365	10	150	165	0.7
Pipe P202	3785	10	150	165	0.7
Pipe P203	339	8	150	-73	0.5
Pipe P204	1086	10	150	57	0.2
Pipe P205	421	10	150	57	0.2
Pipe P206	269	8	150	57	0.4
Pipe P207	1076	8	150	79	0.5
Pipe P208	599	8	150	130	0.8
Pipe P209	459	8	150	51	0.3

Richview Hydraulic Analysis - PHD
Network Table - Links

	Length	Diameter	Roughness	Flow	Velocity
Link ID	ft	in		GPM	fps
Pipe P210	413	8	150	51	0.3
Pipe P211	383	8	150	22	0.1
Pipe P212	386	8	150	22	0.1
Pipe P213	192	8	150	0	0.0
Pipe P214	826	8	150	22	0.1
Pipe P215	1391	8	150	-22	0.1
Pipe P216	1736	8	150	29	0.2
Pipe P217	1155	8	150	-51	0.3
Pipe P218	1292	8	150	22	0.1
Pipe P501	2422	8	150	85	0.5
Pipe P502	2817	8	150	85	0.5
Pipe P503	1349	8	150	12	0.1
Pipe P504	256	8	150	12	0.1
Pipe P505	1349	8	150	9	0.1
Pipe P506	870	8	150	21	0.1
Pipe P507	1352	8	150	-14	0.1
Pipe P508	817	8	150	-14	0.1
Pipe P509	256	8	150	-23	0.2
Pump BP1	#N/A	#N/A	#N/A	350	0.0

Richview Hydraulic Analysis - PHD
Network Table - Nodes

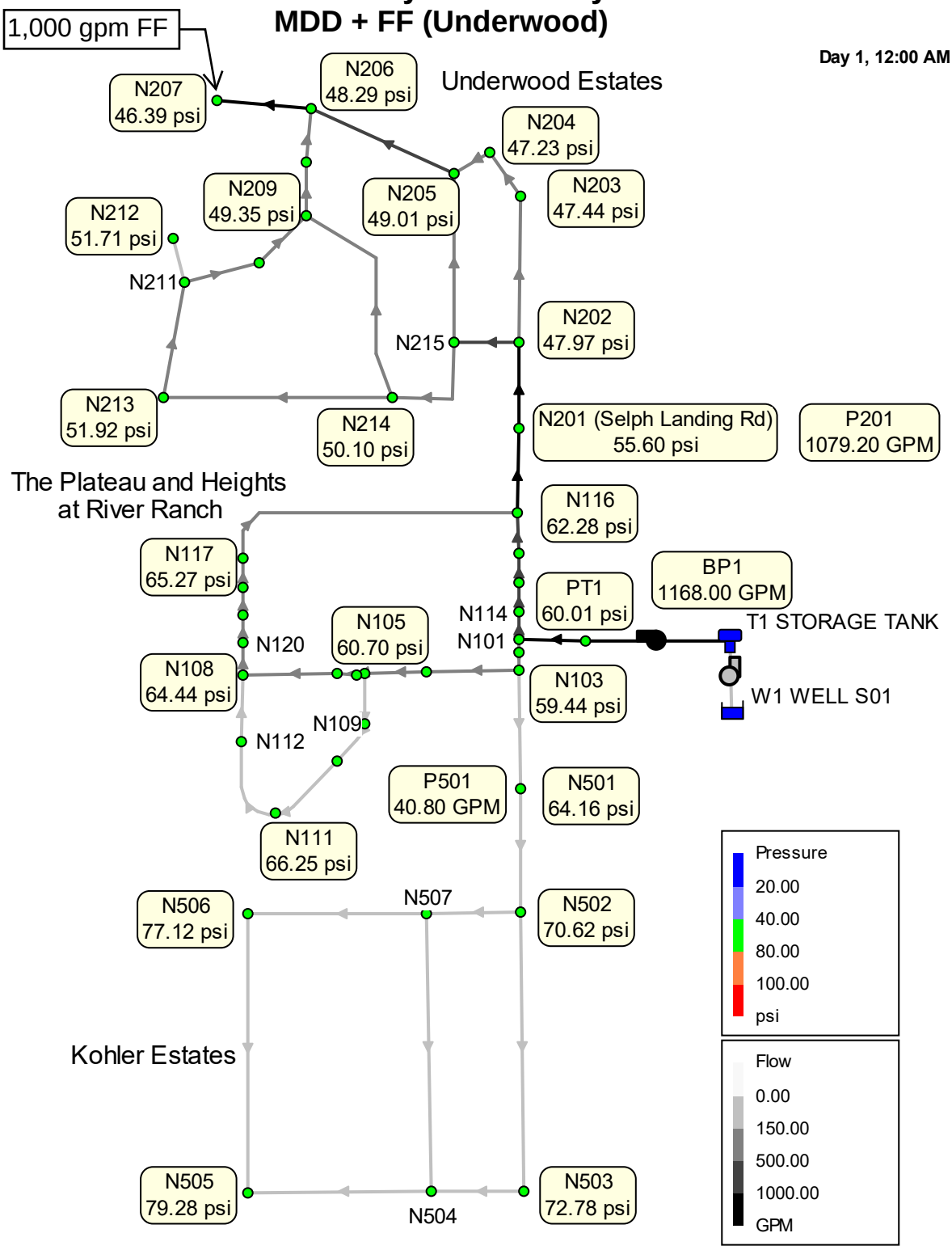
	Elevation	Demand	Head	Pressure
Node ID	ft	GPM	ft	psi
Junc N101	501	0	640.4	60.4
Junc N102	501	0	640.4	60.4
Junc N103	501	0	640.3	60.4
Junc N104	496	0	640.3	62.5
Junc N105	497	0	640.2	62.0
Junc N106	498	0	640.2	61.6
Junc N107	498	0	640.2	61.6
Junc N108	488	100	640.1	65.9
Junc N109	498	0	640.2	61.6
Junc N110	494	0	640.2	63.3
Junc N111	484	0	640.2	67.7
Junc N112	487	0	640.2	66.4
Junc N113	497	0	640.4	62.1
Junc N114	495	0	640.3	63.0
Junc N115	495	0	640.2	62.9
Junc N116	490	0	640.1	65.1
Junc N117	485	0	640.1	67.2
Junc N118	490	0	640.1	65.1
Junc N119	492	0	640.1	64.2
Junc N120	489	0	640.1	65.5
Junc N201	498	0	639.9	61.5
Junc N202	495	35	639.3	62.5
Junc N203	495	0	639.3	62.5
Junc N204	495	0	639.2	62.5
Junc N205	490	0	639.2	64.7
Junc N206	485	0	639.1	66.8
Junc N207	480	130	638.9	68.9
Junc N208	485	0	639.1	66.8
Junc N209	485	0	639.1	66.8
Junc N210	480	0	639.1	69.0
Junc N211	480	0	639.2	69.0

Richview Hydraulic Analysis - PHD
Network Table - Nodes

	Elevation	Demand	Head	Pressure
Node ID	ft	GPM	ft	psi
Junc N212	480	0	639.2	69.0
Junc N213	480	0	639.2	69.0
Junc N214	485	0	639.2	66.8
Junc N215	490	0	639.2	64.7
Junc N501	490	0	640.0	65.0
Junc N502	475	50	639.6	71.3
Junc N503	470	0	639.6	73.5
Junc N504	460	0	639.6	77.8
Junc N505	455	35	639.6	80.0
Junc N506	460	0	639.6	77.8
Junc N507	470	0	639.6	73.5
Junc PT1	501	0	640.5	60.5
Resvr W1	501	0	501.0	0.0
Tank T1	501	-350	528.5	11.9

Richview Hydraulic Analysis
MDD + FF (Underwood)

Day 1, 12:00 AM



Richview Hydraulic Analysis - MDD + FF (Underwood)
Network Table - Links

	Length	Diameter	Roughness	Flow	Velocity
Link ID	ft	in		GPM	fps
Pipe P101	130	10	120	-1168	4.8
Pipe P102	62	10	150	-340	1.4
Pipe P103	83	10	150	-340	1.4
Pipe P104	427	8	150	299	1.9
Pipe P105	293	8	150	-299	1.9
Pipe P106	36	8	150	-190	1.2
Pipe P107	93	8	150	-190	1.2
Pipe P108	437	8	150	-190	1.2
Pipe P109	236	8	150	-109	0.7
Pipe P110	216	8	150	-109	0.7
Pipe P111	389	8	150	-109	0.7
Pipe P112	442	8	150	-109	0.7
Pipe P113	305	8	150	-109	0.7
Pipe P114	129	10	150	828	3.4
Pipe P115	227	10	150	828	3.4
Pipe P116	500	10	150	828	3.4
Pipe P117	500	10	150	828	3.4
Pipe P118	1745	8	150	-251	1.6
Pipe P119	500	8	150	-251	1.6
Pipe P120	226	8	150	-251	1.6
Pipe P121	199	8	150	-251	1.6
Pipe P122	77	8	150	-251	1.6
Pipe P201	1365	10	150	1079	4.4
Pipe P202	3785	10	150	1079	4.4
Pipe P203	339	8	150	-600	3.8
Pipe P204	1086	10	150	462	1.9
Pipe P205	421	10	150	462	1.9
Pipe P206	269	8	150	462	3.0
Pipe P207	1076	8	150	643	4.1
Pipe P208	599	8	150	1062	6.8
Pipe P209	459	8	150	419	2.7

Richview Hydraulic Analysis - MDD + FF (Underwood)
Network Table - Links

	Length	Diameter	Roughness	Flow	Velocity
Link ID	ft	in		GPM	fps
Pipe P210	413	8	150	419	2.7
Pipe P211	383	8	150	179	1.1
Pipe P212	386	8	150	179	1.1
Pipe P213	192	8	150	0	0.0
Pipe P214	826	8	150	179	1.1
Pipe P215	1391	8	150	-179	1.1
Pipe P216	1736	8	150	240	1.5
Pipe P217	1155	8	150	-419	2.7
Pipe P218	1292	8	150	181	1.2
Pipe P501	2422	8	150	41	0.3
Pipe P502	2817	8	150	41	0.3
Pipe P503	1349	8	150	6	0.0
Pipe P504	256	8	150	6	0.0
Pipe P505	1349	8	150	4	0.0
Pipe P506	870	8	150	10	0.1
Pipe P507	1352	8	150	-7	0.0
Pipe P508	817	8	150	-7	0.0
Pipe P509	256	8	150	-11	0.1
Pump BP1	#N/A	#N/A	#N/A	1168	0.0

Richview Hydraulic Analysis - MDD + FF (Underwood)
Network Table - Nodes

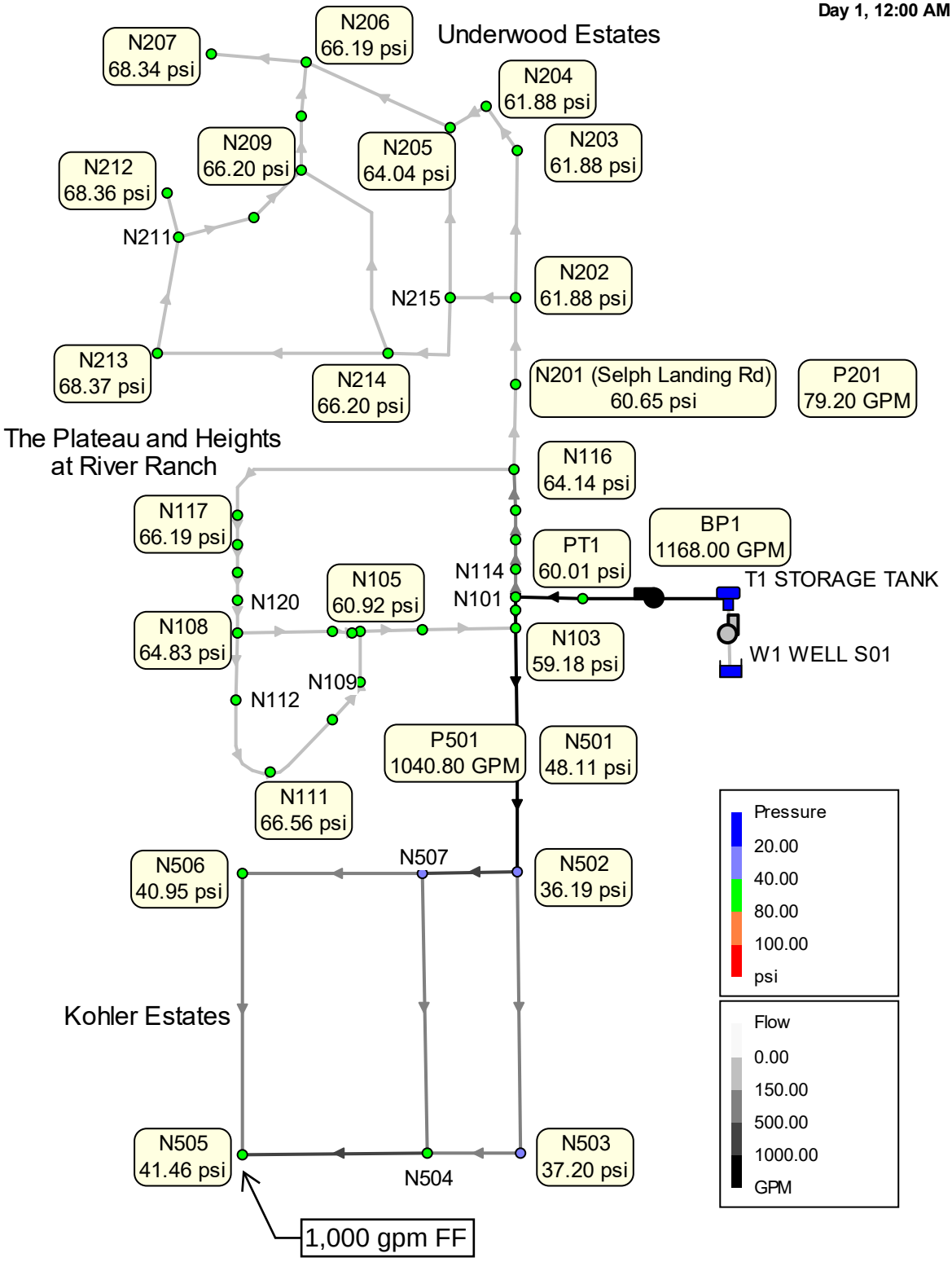
	Elevation	Demand	Head	Pressure
Node ID	ft	GPM	ft	psi
Junc N101	501	0	638.3	59.5
Junc N102	501	0	638.2	59.5
Junc N103	501	0	638.2	59.4
Junc N104	496	0	637.5	61.3
Junc N105	497	0	637.1	60.7
Junc N106	498	0	637.1	60.3
Junc N107	498	0	637.0	60.2
Junc N108	488	48	636.7	64.4
Junc N109	498	0	637.0	60.2
Junc N110	494	0	637.0	62.0
Junc N111	484	0	636.9	66.3
Junc N112	487	0	636.8	64.9
Junc N113	497	0	637.8	61.0
Junc N114	495	0	637.1	61.6
Junc N115	495	0	635.4	60.8
Junc N116	490	0	633.7	62.3
Junc N117	485	0	635.6	65.3
Junc N118	490	0	636.2	63.3
Junc N119	492	0	636.4	62.6
Junc N120	489	0	636.6	64.0
Junc N201	498	0	626.3	55.6
Junc N202	495	17	605.7	48.0
Junc N203	495	0	604.5	47.4
Junc N204	495	0	604.0	47.2
Junc N205	490	0	603.1	49.0
Junc N206	485	0	596.5	48.3
Junc N207	480	1062	587.1	46.4
Junc N208	485	0	597.7	48.9
Junc N209	485	0	598.9	49.4
Junc N210	480	0	599.1	51.6
Junc N211	480	0	599.3	51.7

Richview Hydraulic Analysis - MDD + FF (Underwood)
Network Table - Nodes

	Elevation	Demand	Head	Pressure
Node ID	ft	GPM	ft	psi
Junc N212	480	0	599.3	51.7
Junc N213	480	0	599.8	51.9
Junc N214	485	0	600.6	50.1
Junc N215	490	0	603.9	49.3
Junc N501	490	0	638.1	64.2
Junc N502	475	24	638.0	70.6
Junc N503	470	0	638.0	72.8
Junc N504	460	0	638.0	77.1
Junc N505	455	17	638.0	79.3
Junc N506	460	0	638.0	77.1
Junc N507	470	0	638.0	72.8
Junc PT1	501	0	639.5	60.0
Resvr W1	501	0	501.0	0.0
Tank T1	501	-1168	528.5	11.9

Richview Hydraulic Analysis
MDD + FF (Kohler)

Day 1, 12:00 AM



Richview Hydraulic Analysis - MDD + FF (Kohler)
Network Table - Links

	Length	Diameter	Roughness	Flow	Velocity
Link ID	ft	in		GPM	fps
Pipe P101	130	10	120	-1168	4.8
Pipe P102	62	10	150	-1001	4.1
Pipe P103	83	10	150	-1001	4.1
Pipe P104	427	8	150	-40	0.3
Pipe P105	293	8	150	40	0.3
Pipe P106	36	8	150	25	0.2
Pipe P107	93	8	150	25	0.2
Pipe P108	437	8	150	25	0.2
Pipe P109	236	8	150	14	0.1
Pipe P110	216	8	150	14	0.1
Pipe P111	389	8	150	14	0.1
Pipe P112	442	8	150	14	0.1
Pipe P113	305	8	150	14	0.1
Pipe P114	129	10	150	167	0.7
Pipe P115	227	10	150	167	0.7
Pipe P116	500	10	150	167	0.7
Pipe P117	500	10	150	167	0.7
Pipe P118	1745	8	150	88	0.6
Pipe P119	500	8	150	88	0.6
Pipe P120	226	8	150	88	0.6
Pipe P121	199	8	150	88	0.6
Pipe P122	77	8	150	88	0.6
Pipe P201	1365	10	150	79	0.3
Pipe P202	3785	10	150	79	0.3
Pipe P203	339	8	150	-35	0.2
Pipe P204	1086	10	150	27	0.1
Pipe P205	421	10	150	27	0.1
Pipe P206	269	8	150	27	0.2
Pipe P207	1076	8	150	38	0.2
Pipe P208	599	8	150	62	0.4
Pipe P209	459	8	150	25	0.2

Richview Hydraulic Analysis - MDD + FF (Kohler)
Network Table - Links

	Length	Diameter	Roughness	Flow	Velocity
Link ID	ft	in		GPM	fps
Pipe P210	413	8	150	25	0.2
Pipe P211	383	8	150	11	0.1
Pipe P212	386	8	150	11	0.1
Pipe P213	192	8	150	0	0.0
Pipe P214	826	8	150	11	0.1
Pipe P215	1391	8	150	-11	0.1
Pipe P216	1736	8	150	14	0.1
Pipe P217	1155	8	150	-25	0.2
Pipe P218	1292	8	150	11	0.1
Pipe P501	2422	8	150	1041	6.6
Pipe P502	2817	8	150	1041	6.6
Pipe P503	1349	8	150	346	2.2
Pipe P504	256	8	150	346	2.2
Pipe P505	1349	8	150	250	1.6
Pipe P506	870	8	150	596	3.8
Pipe P507	1352	8	150	-421	2.7
Pipe P508	817	8	150	-421	2.7
Pipe P509	256	8	150	-670	4.3
Pump BP1	#N/A	#N/A	#N/A	1168	0.0

Richview Hydraulic Analysis - MDD + FF (Kohler)
Network Table - Nodes

	Elevation	Demand	Head	Pressure
Node ID	ft	GPM	ft	psi
Junc N101	501	0	638.3	59.5
Junc N102	501	0	638.0	59.4
Junc N103	501	0	637.6	59.2
Junc N104	496	0	637.6	61.4
Junc N105	497	0	637.6	60.9
Junc N106	498	0	637.6	60.5
Junc N107	498	0	637.6	60.5
Junc N108	488	48	637.6	64.8
Junc N109	498	0	637.6	60.5
Junc N110	494	0	637.6	62.2
Junc N111	484	0	637.6	66.6
Junc N112	487	0	637.6	65.3
Junc N113	497	0	638.2	61.2
Junc N114	495	0	638.2	62.1
Junc N115	495	0	638.1	62.0
Junc N116	490	0	638.0	64.1
Junc N117	485	0	637.8	66.2
Junc N118	490	0	637.7	64.0
Junc N119	492	0	637.7	63.1
Junc N120	489	0	637.6	64.4
Junc N201	498	0	638.0	60.7
Junc N202	495	17	637.8	61.9
Junc N203	495	0	637.8	61.9
Junc N204	495	0	637.8	61.9
Junc N205	490	0	637.8	64.0
Junc N206	485	0	637.8	66.2
Junc N207	480	62	637.7	68.3
Junc N208	485	0	637.8	66.2
Junc N209	485	0	637.8	66.2
Junc N210	480	0	637.8	68.4
Junc N211	480	0	637.8	68.4

Richview Hydraulic Analysis - MDD + FF (Kohler)
Network Table - Nodes

	Elevation	Demand	Head	Pressure
Node ID	ft	GPM	ft	psi
Junc N212	480	0	637.8	68.4
Junc N213	480	0	637.8	68.4
Junc N214	485	0	637.8	66.2
Junc N215	490	0	637.8	64.0
Junc N501	490	0	601.0	48.1
Junc N502	475	24	558.5	36.2
Junc N503	470	0	555.9	37.2
Junc N504	460	0	555.4	41.3
Junc N505	455	1017	550.7	41.5
Junc N506	460	0	554.5	41.0
Junc N507	470	0	556.8	37.6
Junc PT1	501	0	639.5	60.0
Resvr W1	501	0	501.0	0.0
Tank T1	501	-1168	528.5	11.9

WORKSHEET 4-1
ERU Capacity Summary

Specific Single-Family Residential Connection Criteria (measured or estimated demands)

Average Day Demand (ADD): _____200_____ gpd/ERU

Maximum Day Demand (MDD) _____400_____ gpd/ERU

Water System Connections Correlated to ERUs			
Service Classification	**Total MDD for the classification, gpd**	**Total # Connections in the classification**	**ERUs**
Residential			
Single-family	240,000	600	600
Multifamily			
Nonresidential			
Industrial			
Commercial			
Governmental			
Agricultural			
Recreational			
Other (specify)			
DSL		N/A	
Other (identify)			
Total existing ERUs (Residential + Nonresidential + DSL + Other) = 600			

Service Capacity as ERUs and Gallons Per Day		
Water System Component (Facility)	**ERU Capacity for Each Component**	**GPD Capacity for Each Component**
Source(s)	600	
Treatment	600	
Equalizing Storage	600	
Standby Storage	600	
Transmission	600	
Water Rights (Qa and Qi)	600	
Other (specify)		
Water System Service Capacity (ERUs) = 600 **(based on the limiting water system component shown above)**		

Notes:

- *Capacity determinations are only for existing facilities that are operational for the water system.*
- *Not shown above are distribution system limitations (Section 4.5.4) on ERUs because these are location-specific within the distribution system. These limits not expected to limit the ERU capacity of the entire water system.*

Appendix E: Water System Supplementary Documents

- Conditions of Service and Duty to Serve
- Coliform Monitoring Program
- Emergency Response Program
- Cross Connection Control Program
- Complaint Log
- Template Asset Management Spreadsheet
- WUE Educational Materials

Richview Water System
Conditions of Service and Duty to Provide Service Policy

Richview Water System will provide service within its retail service area if:

- The System has sufficient capacity to serve water in a safe and reliable manner;
- The service request is consistent with adopted local plans and development regulations;
- The System has sufficient water rights to provide service; and
- Service can be provided in a timely and reasonable manner.

Conditions that a property must meet to receive water service includes:

- The property must be located within the future service area of the water system.
- The applicant who needs an extension of the water distribution system must provide proposed construction plans prepared by a licensed civil engineer that meets Department of Health requirements and the minimum design and the most recent construction standards of the Washington State Department of Transportation *Standard Specifications for Road, Bridge and Municipal Construction*.
- The applicant must install the extension at the applicant's expense in conformance with plans approved by the System and all required State laws and regulations.
- The applicant must pay water service connections fees and charges established by the System.

Process and Procedures:

Requests for new service connections must be submitted to the System. Within 30 days of receipt of the request, the System will review the request for new service to determine whether or not the location of the proposed use is within the retail service area, the System has sufficient capacity to serve the proposed user, the service request is consistent with adopted local plans and development regulations, and the System has sufficient water rights to provide the service. If the request meets the conditions, the applicant will be requested to submit plans for the proposed service (plans for distribution line extensions must be prepared by a licensed civil engineer).

Once the plans are submitted the System will take up to 30 days to review the plans to determine the conformance of the proposed work with the Water System Plan and any other applicable requirements.

The applicant for a new water connection will be required to submit a construction schedule which will be reviewed and approved or revised by the System. If the project is unable to be completed within the time frame approved by the System, the applicant must submit a revised schedule for review and approval or revision by the System.

Disputes over the denial of water service or conditions on providing service may be appealed to the System by the applicant by filing a written request for review within 30 days of the System decision. Within 30 days of the request for a review, the System will meet with the applicant to make a determination on the dispute.

Richview Water System (AE302)

Water Quality Sampling Plan

Prepared by

SJ ENVIRONMENTAL

Introduction **3**
Schedule 4
Monitoring Requirements **5**
Coliform 6
Disinfection Byproducts (DBPs) 16
Chlorine Residual 17
Nitrates 18
Arsenic 19
Lead and Copper 20
Radionuclides 21
Inorganic Compounds (IOC) 22
Synthetic Organic Compounds (SOCs) 23
Volatile Organic Compounds (VOCs) 24
ATTACHMENT A - National Primary Drinking Water Regulations **25**
ATTACHMENT B - Washington State Monitoring Regulations **26**
ATTACHMENT C - EPA Quick Reference Guides **27**

Introduction

The Richview Water System (RWS) is a community water system located in Pasco that will have approximately 600 service connections at build out. It is owned by the Richview Water Company.

Like all drinking water systems in the State of Washington, RWS is required by the Department of Health (DOH) to monitor water quality in accordance with the Safe Drinking Water Act. Most systems must monitor for the same contaminants like coliforms, lead and disinfection by-products, regardless of system size or type. Some monitoring is driven by the source of the drinking water supply and system size often determines how many and how often samples must be collected.

This document was put together to help RWS operators and managers understand and meet the sampling requirements established for your water system by the DOH. It contains all the information needed to collect required samples correctly and on schedule.

This information in this plan is organized as follows:

a. A schedule showing the frequency at which specific contaminants must be sampled for, whether monthly, yearly or some other interval. It incorporates the Water Quality Monitoring Schedule (WQMS) that DOH releases ach March. See below for further information about the WQMS.
b. This is followed by separate sections for each contaminant or contaminant category. These sections provide the sampling location as well as contaminant-specific sampling procedures developed by DOH, where available.
c. The document ends with attachments consisting of detailed regulatory information that you should have at your finger tips even though you probably won't need it to perform routine sampling.

One last note on the Water Quality Monitoring Schedule issued by DOH. Issued each March, it is your guide to sampling requirements for the following 12 months. And while it may vary from year-to-year for contaminants like lead, radionuclides and some others that do not require annual sampling, it will require routine sampling for coliforms (and chlorine residuals), and other contaminants based on the source water assessment and the WQMS.

Schedule – The schedule below lays out when samples are likely to be required by DOH. Those items in **green** are required in the current year (2025); those in **red** are expected in future years, based on historical requirements.

Analyte	Daily	Monthly	Annually	Tri-Annually	Other	Notes
Coliform		X				See attached coliform monitoring plan for monthly requirement.
Chlorine Residual	X	X				
Nitrates		X				
Arsenic		X				
Disinfection Byproducts			X	X		Annual monitoring requirement reduced to triannual if water quality requirements met.
Lead and Copper				X	X	Given system's vintage, sampling should be reduced to nine years.
Radionuclides					X	Every nine years commencing.
Inorganic Compounds (IOCs)					X	Every two to six years.
Synthetic Organic Compounds (SOCs)				X		Usually every three years.
Volatile Organic Compounds (VOCs)				X		Usually every three years, sometimes every six.

Monitoring Requirements

Distribution System Monitoring – DOH requires all systems monitor coliforms, disinfection byproducts (DBPs) and a chlorine residual.

Coliform – This section contains the Coliform Monitoring Plan (CMP) required by DOH. Samples are taken at the locations and on the frequency stated in the CMP.

DOH procedures on how to collect coliforms samples are found at the end of the CMP. Take these samples early in the week and early in the month and remember to take a chlorine residual at the same time!

Coliform Monitoring Plan for: Richview Water System

A. System Information **Plan Date:**

Water System Name Richview Water System	**County** Franklin	**System I.D. Number** AE302
Name of Plan Preparer Jay Favor	**Position** Operator	**Daytime Phone** **314-240-2377**
Sources: DOH Source Number, Source Name, Well Depth, Pumping Capacity	S01 Well #1 (270 feet, 170 gpm)	
Storage: List and Describe	Tank 1 – 180,000 gallons Tank 2 – 180,000 gallons (Future)	
Treatment: Source Number & Process	Hypochlorite?	
Pressure Zones: Number and name	Pressure Zone 1	
Population by Pressure Zone	1,980	
Number of Routine Samples Required Monthly by Regulation:		3/TBD
Number of Sample Sites Needed to Represent the Distribution System:		3/TBD
***Request DOH Approval of Triggered Source Monitoring Plan?**		**Yes** ☐ **No** ☒

*If approval is requested a fee will be charged for the review.

B. Laboratory Information

Laboratory Name Benton Franklin-Health District	**Office Phone (509)-547-9737** **After Hours Phone - -**
Address 412 W. Clark Street Pasco, WA 99301	**Cell Phone - -** **Email** _____
Hours of Operation **8 am – 12 pm, 1 pm – 5 pm**	
Contact Name	
Emergency Laboratory Name Kuo Testing Labs	**Office Phone (509)-488-0112** **After Hours Phone - -**
Address 1320 E. Spokane St. Suite C Pasco, WA 99301	**Cell Phone - -** **Email** _____
Hours of Operation M – Th: 8 am – 5 pm; Fri: 8 am – 4 pm	
Contact Name	

C. Wholesaling of Groundwater

	Yes	No
We are a consecutive system and purchase groundwater from another water system.	☐	☒
If yes, Water System Name: Contact Name: Telephone Numbers Office - - After Hours - -		
We sell groundwater to other public water systems.	☐	☒

D. Routine, Repeat, and Triggered Source Sample Locations*

Location/Address for **Routine Sample Sites**	Location/Address for **Repeat Sample Sites**	Groundwater Sources for **Triggered Sample Sites****
X1. TBD (The Plateau)	**1-1.**	**S_01__**
	1-2.	**S___**
	1-3.	**S___**
		S___
		S___
X2. TBD (Underwood Estates)	**2-1.**	**S_01__**
	2-2.	**S___**
	2-3.	**S___**
		S___
		S___
X3. TBD (Kohler Estates)	**3-1.**	**S_01__**
	3-2.	**S___**
	3-3.	**S___**
		S___
		S___

*NOTE: If you need more than three routine samples to cover the distribution system, attach additional sheets as needed.

**** When you collect the repeats, you must sample every groundwater source that was in use when the original routine sample was collected.**

Important Notes for Sample Collector:

1. Collect samples early in the month and the week
2. Check the chlorine residual when collecting a coliform sample
3. Complete the chain-of-custody form provided by the lab
4. Review lab results for the coliform samples

E. Routine Sample Rotation Schedule

Month	Routine Site(s)	Month	Routine Site(s)
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

F. Level 1 and Level 2 Assessment Contact Information

Name **Sam Snead**	**Office Phone 509-855-3360** **After Hours Phone - -**
Address	**Email sneadst@sjenvrnmntl.com**
Name **Jay Favor**	**Office Phone 314-240-2377** **After Hours Phone - -**
Address	**Email JayFavor@sjenvrmntl.com**

G. *E. coli*-Present Sample Response

Distribution System *E. coli* Response Checklist				
Background Information	**Yes**	**No**	**N/A**	**To Do List**
We inform staff members about activities within the distribution system that could affect water quality.	☒	☐	☐	☐
We document all water main breaks, construction & repair activities, and low pressure and outage incidents.	☒	☐	☐	☐
We can easily access and review documentation on water main breaks, construction & repair activities, and low pressure and outage incidents.	☒	☐	☐	☐
Our Cross-Connection Control Program is up-to-date.	☒	☐	☐	☐
We test all cross-connection control devices annually as required, with easy access to the proper documentation.	☒	☐	☐	☐
We routinely inspect all treatment facilities for proper operation.	☒	☐	☐	☐
We identified one or more qualified individuals who are able to conduct a Level 2 assessment of our water system.	☒	☐	☐	☐
We have procedures in place for disinfecting and flushing the water system if it becomes necessary.	☒	☐	☐	☐
We can activate an emergency intertie with an adjacent water system in an emergency.	☒	☐	☐	☐
We have a map of our service area boundaries.	☒	☐	☐	☐
We have consumers who may not have access to bottled or boiled water.	☐	☐	☐	☐
There is a sufficient supply of bottled water immediately available to our customers who are unable to boil their water.	☐	☐	☐	☐
We have identified the contact person at each day care, school, medical facility, food service, and other customers who may have difficulty responding to a Health Advisory.	☐	☐	☒	☐
We have messages prepared and translated into different languages to ensure our consumers will understand them.	☐	☐	☐	☐
We have the capacity to print and distribute the required number of notices in a short time period.	☒	☐	☐	☐
Policy Direction	**Yes**	**No**	**N/A**	**To Do List**
We have discussed the issue of *E. coli*-present sample results with our policy makers.	☒	☐	☐	☐
If we find *E. coli* in a routine distribution sample, the policy makers want to wait until repeat test results are available before issuing advice to water system customers.	☐	☐	☐	☐
(Cont.)				

Distribution System *E. coli* Response Checklist				
Potential Public Notice Delivery Methods	**Yes**	**No**	**N/A**	**To Do List**
It is feasible to deliver a notice going door-to-door.	☒	☐	☐	☐
We have a list of all of our customers' addresses.	☒	☐	☐	☐
We have a list of customer telephone numbers or access to a Reverse 9-1-1 system.	☐	☐	☐	☐
We have a list of customer email addresses.	☐	☐	☐	☐
We encourage our customers to remain in contact with us using social media.	☐	☐	☐	☐
We have an active website we can quickly update to include important messages.	☐	☐	☐	☐
Our customers drive by a single location where we could post an advisory and expect everyone to see it.	☐	☒	☐	☐
We need a news release to supplement our public notification process.	☐	☐	☐	☐

Distribution System *E. coli* Response Plan

If we have *E. coli* in our distribution system we will immediately:

1. Call DOH.
2. Collect repeat and triggered source samples per Part D. Collect additional investigative samples as necessary.
3. Advise RWS management of results and next steps, including possible early notification of customers.
4. If two repeat samples are positive, call DOH.
5. Implement the Flushing and Disinfection Plan.
6. Distribute public health advisory to all customers within 24 hours of receiving positive *E. coli* test results
7. Click on this link for DOH materials and written guidance on coliform response: https://doh.wa.gov/community-and-environment/drinking-water/drinking-water-emergencies/coliform-advisory-packet
8. Discuss with DOH whether to issue a Health Advisory based on the findings of steps 3-6.

***E. coli*-Present Triggered Source Sample Response Checklist – All Sources**				
Background Information	**Yes**	**No**	**N/A**	**To Do List**
We review our sanitary survey results and respond to any recommendations affecting the microbial quality of our water supply.	☒	☐	☐	☐
We address any significant deficiencies identified during a sanitary survey.	☒	☐	☐	☐
There are contaminant sources within our Wellhead Protection Area that could affect the microbial quality of our source water, and	☐	☒	☐	☐
If yes, we can eliminate them.	☐	☐	☐	☐
We routinely inspect our well site(s).	☒	☐	☐	☐
We have a good raw water sample tap installed at each source.	☐	☐	☐	☐
After we complete work on a source, we disinfect the source, flush, and collect an investigative sample.	☒	☐	☐	☐
Public Notice	**Yes**	**No**	**N/A**	**To Do List**
We discussed the requirement for immediate public notice of an *E. coli*-present source sample result with our water system's governing body (board of directors or commissioners) and received direction from them on our response plan.	☒	☐	☐	☐
We discussed the requirement for immediate public notice of an *E. coli*-present source sample result with our wholesale customers and encouraged them to develop a response plan.	☐	☐	☒	☐
We have prepared templates and a communications plan that will help us quickly distribute our messages.	☐	☐	☐	☒

E. coli*-Present Triggered Source Sample Response Checklist – Source S__				
Alternate Sources	**Yes**	**No**	**N/A**	**To Do List**
We can stop using this source and still provide reliable water service to our customers.	☐	☒	☐	☐
We have an emergency intertie with a neighboring water system that we can use until corrective action is complete (perhaps for several months).	☐	☒	☐	☐
We can provide bottled water to all or part of the distribution system for an indefinite period.	☒	☐	☐	☐
We can quickly replace our existing source of supply with a more protected new source.	☐	☒	☐	☐
Temporary Treatment	**Yes**	**No**	**N/A**	**To Do List**
This source is continuously chlorinated, and our existing facilities can provide 4-log virus treatment (CT = 6) before the first customer. If yes, at what concentration? _____ mg/L	☐	☐	☐	☐
We can quickly introduce chlorine into the water system and take advantage of the existing contact time to provide 4-log virus treatment to a large portion of the distribution system.	☐	☐	☐	☐
We can reduce the production capacity of our pumps or alter the configuration of our storage quantities (operational storage) to increase the amount of time the water stays in the system before the first customer to achieve CT = 6.	☐	☐	☐	☐
We can alter the demand for drinking water (maximum day or peak hour) through conservation messages to increase the time the water is in the system prior to the first customer in order to achieve 4-log virus treatment with chlorine.	☐	☐	☐	☐

*NOTE: If your system has multiple sources, you may want to complete a separate checklist for each source.

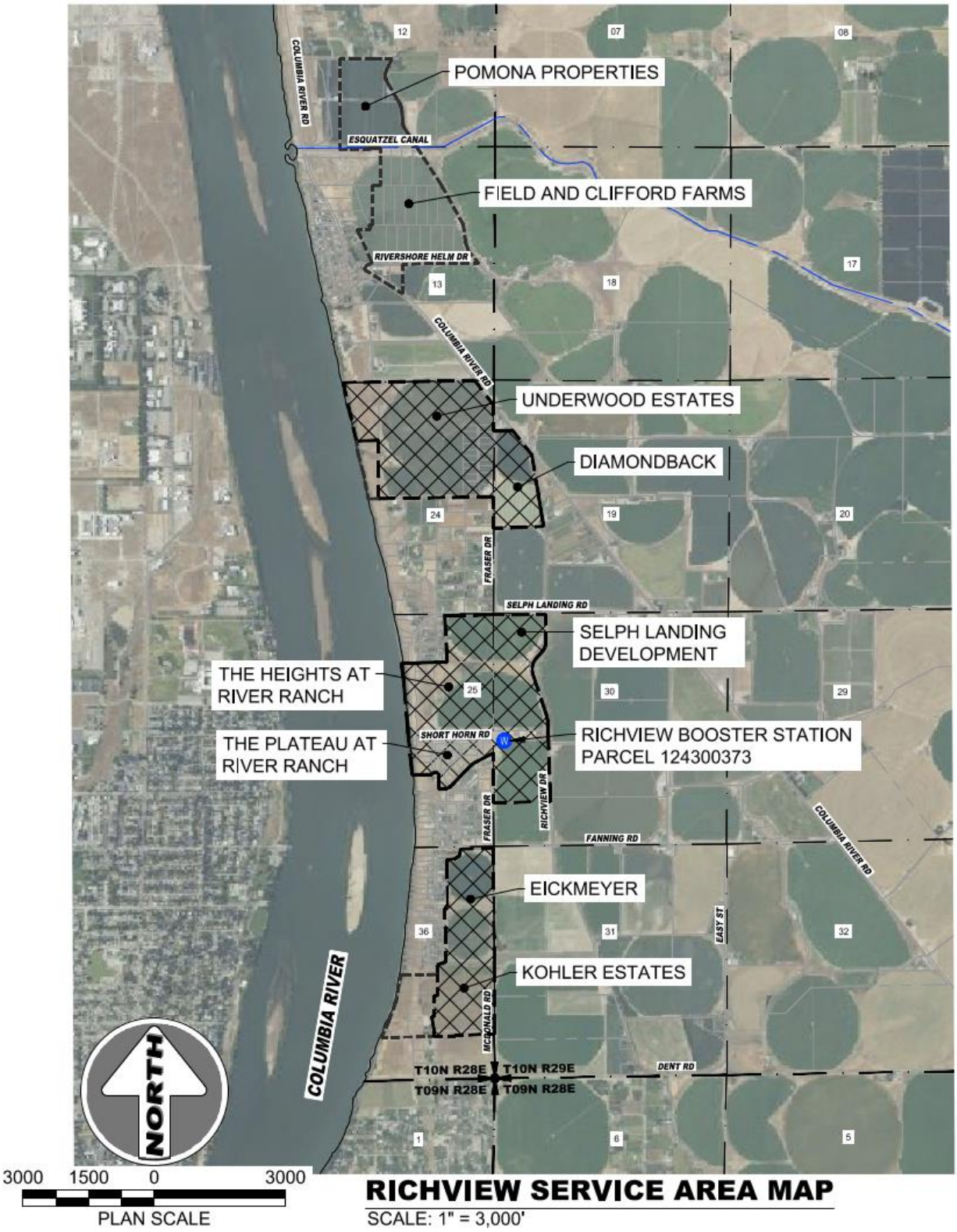
E. coli-Present Triggered Source Sample Response Plan – Source _Well #1__

If we have *E. coli* in Source _Well #1__ water we will immediately:

1. Call DOH.
2. Isolate the source.
3. Flush and disinfect source Well #1 and reservoir.
4. Confirm proper operation of disinfection feed system.
5. Confirm chlorine residual and CT.

6. Collect post disinfection total coliform samples and deliver to the laboratory.
7. Confirm negative results.
8. Restore the source Well #1 to service.
9. Follow-up total coliform monitoring the day after restoration to service.

H. System Map


POMONA PROPERTIES
FIELD AND CLIFFORD FARMS
UNDERWOOD ESTATES
DIAMONDBACK
SELPH LANDING DEVELOPMENT
THE HEIGHTS AT RIVER RANCH
THE PLATEAU AT RIVER RANCH
RICHVIEW BOOSTER STATION PARCEL 124300373
EICKMEYER
KOHLER ESTATES
COLUMBIA RIVER RD
ESQUATZEL CANAL
RIVERSHORE HELM DR
FRASER DR
SELPH LANDING RD
SHORT HORN RD
RICHVIEW DR
FANNING RD
EASY ST
MCDONALD RD
DENT RD
COLUMBIA RIVER
T10N R28E
T10N R29E
T09N R28E
T09N R28E
NORTH
3000 1500 0 3000
PLAN SCALE
RICHVIEW SERVICE AREA MAP
SCALE: 1" = 3,000'

Disinfection Byproducts (DBPs)

- Frequency reduced to tri-annual in 202x. Next sampling event is scheduled to occur in September or October of 202x.
- Sampling locations:
    - HAAs – Location TBD
    - TTHMs – Location TBD

Chlorine Residual

- Collect daily and submit a report with the results to DOH each month. Also, sample with monthly coliform sample. See the section on Coliforms for sampling locations.

Nitrates – Collect a sample from the Well #1 raw water sample tap location .

Arsenic – Collect samples from the Well #1 raw water sample tap location.

Lead and Copper – Collect five samples from sites per the following guidance from DOH:

Site Selection Tier 40 CFR 141.86(a)(3)	Building Type(s)	Select residential sites that:
1	Single Family Residence (SFR)	• Contain copper pipes with lead solder installed after December 31, 1982, or contain lead pipes *and/or* • Are served by a lead service line (may include MFR if they make up more than 20% of the structures on the system)
2	Buildings including Multifamily Residence (MFR)	• Contain copper pipes with lead solder installed after December 31, 1982, or contain lead pipes *and/or* • Are served by a lead service line
3	SFR	• Contain copper pipes with lead solder installed before January 1, 1983
Other	Representative sites	• Contain plumbing materials typically found at other sites the water system serves

Note: You will need homeowners who volunteer to collect the samples or allow water system staff access to the premises to collect the samples.

Radionuclides – Take one sample at every entry point to the distribution system that is representative of all sources being used under normal operating conditions, for example from the Well #1 raw water sample tap.

Inorganic Compounds (IOC) – IOCs include compounds such as arsenic and nitrates. It also includes compounds such as fluoride and a variety of metals that DOH may require be sampled from time-to-time. Follow the sampling procedures provided below when required to collect a "Complete Inorganic Analysis" for example from the Well #1 raw water sample tap .

Synthetic Organic Compounds (SOCs) – SOCs are manmade contaminants that may be present in ground water such as herbicides, pesticides, and other chemicals that come from agriculture, urban storm water runoff, or industrial activities. Testing for these compounds is usually required every three years. Follow the sampling procedures provided below when required to collect an SOC sample from the Well #1 raw water sample tap. SOCs may also be referred to as a fumigant, herbicide or pesticide sample.

Volatile Organic Compounds (VOCs) - VOCs are chemical solvents or cleaners (and their by-products) as well as petroleum-derived chemicals, often associated with industrial processes. Compounds found in this group include benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene, and xylene among others. Sampling for these compounds is generally conducted every three to six years. Follow the sampling procedures found below when required to conduct VOC sampling from the Well #1 raw water sample tap.

ATTACHMENT A - National Primary Drinking Water Regulations

National Primary Drinking Water Regulations

Contaminant	MCL or TT[1] (mg/L)[2]	Potential health effects from long-term[3] exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L)[2]
Acrylamide	TT[4]	Nervous system or blood problems; increased risk of cancer	Added to water during sewage/ wastewater treatment	zero
Alachlor	0.002	Eye, liver, kidney, or spleen problems; anemia; increased risk of cancer	Runoff from herbicide used on row crops	zero
Alpha/photon emitters	15 picocuries per Liter (pCi/L)	Increased risk of cancer	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation	zero
Antimony	0.006	Increase in blood cholesterol; decrease in blood sugar	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	0.006
Arsenic	0.010	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes	0
Asbestos (fibers >10 micrometers)	7 million fibers per Liter (MFL)	Increased risk of developing benign intestinal polyps	Decay of asbestos cement in water mains; erosion of natural deposits	7 MFL
Atrazine	0.003	Cardiovascular system or reproductive problems	Runoff from herbicide used on row crops	0.003
Barium	2	Increase in blood pressure	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	2
Benzene	0.005	Anemia; decrease in blood platelets; increased risk of cancer	Discharge from factories; leaching from gas storage tanks and landfills	zero
Benzo(a)pyrene (PAHs)	0.0002	Reproductive difficulties; increased risk of cancer	Leaching from linings of water storage tanks and distribution lines	zero
Beryllium	0.004	Intestinal lesions	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries	0.004
Beta photon emitters	4 millirems per year	Increased risk of cancer	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation	zero
Bromate	0.010	Increased risk of cancer	Byproduct of drinking water disinfection	zero
Cadmium	0.005	Kidney damage	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	0.005
Carbofuran	0.04	Problems with blood, nervous system, or reproductive system	Leaching of soil fumigant used on rice and alfalfa	0.04

LEGEND

Contaminant	MCL or TT[1] (mg/L)[2]	Potential health effects from long-term[3] exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L)[2]
Carbon tetrachloride	0.005	Liver problems; increased risk of cancer	Discharge from chemical plants and other industrial activities	**zero**
Chloramines (as Cl_2)	MRDL=4.0[1]	Eye/nose irritation; stomach discomfort; anemia	Water additive used to control microbes	**MRDLG=4[1]**
Chlordane	0.002	Liver or nervous system problems; increased risk of cancer	Residue of banned termiticide	**zero**
Chlorine (as Cl_2)	MRDL=4.0[1]	Eye/nose irritation; stomach discomfort	Water additive used to control microbes	**MRDLG=4[1]**
Chlorine dioxide (as ClO_2)	MRDL=0.8[1]	Anemia; infants, young children, and fetuses of pregnant women: nervous system effects	Water additive used to control microbes	**MRDLG=0.8[1]**
Chlorite	1.0	Anemia; infants, young children, and fetuses of pregnant women: nervous system effects	Byproduct of drinking water disinfection	**0.8**
Chlorobenzene	0.1	Liver or kidney problems	Discharge from chemical and agricultural chemical factories	**0.1**
Chromium (total)	0.1	Allergic dermatitis	Discharge from steel and pulp mills; erosion of natural deposits	**0.1**
Copper	TT[5]; Action Level=1.3	Short-term exposure: Gastrointestinal distress. Long-term exposure: Liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	Corrosion of household plumbing systems; erosion of natural deposits	**1.3**
Cryptosporidium	TT[7]	Short-term exposure: Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	**zero**
Cyanide (as free cyanide)	0.2	Nerve damage or thyroid problems	Discharge from steel/metal factories; discharge from plastic and fertilizer factories	**0.2**
2,4-D	0.07	Kidney, liver, or adrenal gland problems	Runoff from herbicide used on row crops	**0.07**
Dalapon	0.2	Minor kidney changes	Runoff from herbicide used on rights of way	**0.2**
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	Reproductive difficulties; increased risk of cancer	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	**zero**
o-Dichlorobenzene	0.6	Liver, kidney, or circulatory system problems	Discharge from industrial chemical factories	**0.6**
p-Dichlorobenzene	0.075	Anemia; liver, kidney, or spleen damage; changes in blood	Discharge from industrial chemical factories	**0.075**
1,2-Dichloroethane	0.005	Increased risk of cancer	Discharge from industrial chemical factories	**zero**

LEGEND DISINFECTANT | DISINFECTION BYPRODUCT | INORGANIC CHEMICAL | MICROORGANISM | ORGANIC CHEMICAL | RADIONUCLIDES

Contaminant	MCL or TT[1] (mg/L)[2]	Potential health effects from long-term[3] exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L)[2]
1,1-Dichloroethylene	0.007	Liver problems	Discharge from industrial chemical factories	**0.007**
cis-1,2-Dichloroethylene	0.07	Liver problems	Discharge from industrial chemical factories	**0.07**
trans-1,2, Dichloroethylene	0.1	Liver problems	Discharge from industrial chemical factories	**0.1**
Dichloromethane	0.005	Liver problems; increased risk of cancer	Discharge from industrial chemical factories	**zero**
1,2-Dichloropropane	0.005	Increased risk of cancer	Discharge from industrial chemical factories	**zero**
Di(2-ethylhexyl) adipate	0.4	Weight loss, liver problems, or possible reproductive difficulties	Discharge from chemical factories	**0.4**
Di(2-ethylhexyl) phthalate	0.006	Reproductive difficulties; liver problems; increased risk of cancer	Discharge from rubber and chemical factories	**zero**
Dinoseb	0.007	Reproductive difficulties	Runoff from herbicide used on soybeans and vegetables	**0.007**
Dioxin (2,3,7,8-TCDD)	0.00000003	Reproductive difficulties; increased risk of cancer	Emissions from waste incineration and other combustion; discharge from chemical factories	**zero**
Diquat	0.02	Cataracts	Runoff from herbicide use	**0.02**
Endothall	0.1	Stomach and intestinal problems	Runoff from herbicide use	**0.1**
Endrin	0.002	Liver problems	Residue of banned insecticide	**0.002**
Epichlorohydrin	TT[4]	Increased cancer risk; stomach problems	Discharge from industrial chemical factories; an impurity of some water treatment chemicals	**zero**
Ethylbenzene	0.7	Liver or kidney problems	Discharge from petroleum refineries	**0.7**
Ethylene dibromide	0.00005	Problems with liver, stomach, reproductive system, or kidneys; increased risk of cancer	Discharge from petroleum refineries	**zero**
Fecal coliform and *E. coli*	MCL[6]	Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes may cause short term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.	Human and animal fecal waste	**zero[6]**

LEGEND

DISINFECTANT | DISINFECTION BYPRODUCT | INORGANIC CHEMICAL | MICROORGANISM | ORGANIC CHEMICAL | RADIONUCLIDES

Contaminant	MCL or TT[1] (mg/L)[2]	Potential health effects from long-term[3] exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L)[2]
Fluoride	4.0	Bone disease (pain and tenderness of the bones); children may get mottled teeth	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	**4.0**
Giardia lamblia	TT[7]	Short-term exposure: Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	**zero**
Glyphosate	0.7	Kidney problems; reproductive difficulties	Runoff from herbicide use	**0.7**
Haloacetic acids (HAA5)	0.060	Increased risk of cancer	Byproduct of drinking water disinfection	**n/a[9]**
Heptachlor	0.0004	Liver damage; increased risk of cancer	Residue of banned termiticide	**zero**
Heptachlor epoxide	0.0002	Liver damage; increased risk of cancer	Breakdown of heptachlor	**zero**
Heterotrophic plate count (HPC)	TT[7]	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.	HPC measures a range of bacteria that are naturally present in the environment	**n/a**
Hexachlorobenzene	0.001	Liver or kidney problems; reproductive difficulties; increased risk of cancer	Discharge from metal refineries and agricultural chemical factories	**zero**
Hexachloro-cyclopentadiene	0.05	Kidney or stomach problems	Discharge from chemical factories	**0.05**
Lead	TT[5]; Action Level=0.015	Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities; Adults: Kidney problems; high blood pressure	Corrosion of household plumbing systems; erosion of natural deposits	**zero**
Legionella	TT[7]	Legionnaire's Disease, a type of pneumonia	Found naturally in water; multiplies in heating systems	**zero**
Lindane	0.0002	Liver or kidney problems	Runoff/leaching from insecticide used on cattle, lumber, and gardens	**0.0002**
Mercury (inorganic)	0.002	Kidney damage	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands	**0.002**
Methoxychlor	0.04	Reproductive difficulties	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, and livestock	**0.04**
Nitrate (measured as Nitrogen)	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	**10**

LEGEND DISINFECTANT | DISINFECTION BYPRODUCT | INORGANIC CHEMICAL | MICROORGANISM | ORGANIC CHEMICAL | RADIONUCLIDES

Contaminant	MCL or TT[1] (mg/L)[2]	Potential health effects from long-term[3] exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L)[2]
Nitrite (measured as Nitrogen)	1	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	1
Oxamyl (Vydate)	0.2	Slight nervous system effects	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	0.2
Pentachlorophenol	0.001	Liver or kidney problems; increased cancer risk	Discharge from wood-preserving factories	zero
Picloram	0.5	Liver problems	Herbicide runoff	0.5
Polychlorinated biphenyls (PCBs)	0.0005	Skin changes; thymus gland problems; immune deficiencies; reproductive or nervous system difficulties; increased risk of cancer	Runoff from landfills; discharge of waste chemicals	zero
Radium 226 and Radium 228 (combined)	5 pCi/L	Increased risk of cancer	Erosion of natural deposits	zero
Selenium	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	0.05
Simazine	0.004	Problems with blood	Herbicide runoff	0.004
Styrene	0.1	Liver, kidney, or circulatory system problems	Discharge from rubber and plastic factories; leaching from landfills	0.1
Tetrachloroethylene	0.005	Liver problems; increased risk of cancer	Discharge from factories and dry cleaners	zero
Thallium	0.002	Hair loss; changes in blood; kidney, intestine, or liver problems	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	0.0005
Toluene	1	Nervous system, kidney, or liver problems	Discharge from petroleum factories	1
Total Coliforms	5.0 percent[8]	Coliforms are bacteria that indicate that other, potentially harmful bacteria may be present. See fecal coliforms and *E. coli*	Naturally present in the environment	zero
Total Trihalomethanes (TTHMs)	0.080	Liver, kidney, or central nervous system problems; increased risk of cancer	Byproduct of drinking water disinfection	n/a[9]
Toxaphene	0.003	Kidney, liver, or thyroid problems; increased risk of cancer	Runoff/leaching from insecticide used on cotton and cattle	zero
2,4,5-TP (Silvex)	0.05	Liver problems	Residue of banned herbicide	0.05
1,2,4-Trichlorobenzene	0.07	Changes in adrenal glands	Discharge from textile finishing factories	0.07

LEGEND

DISINFECTANT | DISINFECTION BYPRODUCT | INORGANIC CHEMICAL | MICROORGANISM | ORGANIC CHEMICAL | RADIONUCLIDES

Contaminant	MCL or TT[1] (mg/L)[2]	Potential health effects from long-term[3] exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L)[2]
1,1,1-Trichloroethane	0.2	Liver, nervous system, or circulatory problems	Discharge from metal degreasing sites and other factories	**0.2**
1,1,2-Trichloroethane	0.005	Liver, kidney, or immune system problems	Discharge from industrial chemical factories	**0.003**
Trichloroethylene	0.005	Liver problems; increased risk of cancer	Discharge from metal degreasing sites and other factories	**zero**
Turbidity	TT[7]	Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (e.g., whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites, and some bacteria. These organisms can cause short term symptoms such as nausea, cramps, diarrhea, and associated headaches.	Soil runoff	**n/a**
Uranium	30µg/L	Increased risk of cancer, kidney toxicity	Erosion of natural deposits	**zero**
Vinyl chloride	0.002	Increased risk of cancer	Leaching from PVC pipes; discharge from plastic factories	**zero**
Viruses (enteric)	TT[7]	Short-term exposure: Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	**zero**
Xylenes (total)	10	Nervous system damage	Discharge from petroleum factories; discharge from chemical factories	**10**

LEGEND DISINFECTANT | DISINFECTION BYPRODUCT | INORGANIC CHEMICAL | MICROORGANISM | ORGANIC CHEMICAL | RADIONUCLIDES

NOTES

1 Definitions
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

2 Units are in milligrams per liter (mg/L) unless otherwise noted. Milligrams per liter are equivalent to parts per million (ppm).

3 Health effects are from long-term exposure unless specified as short-term exposure.

4 Each water system must certify annually, in writing, to the state (using third-party or manufacturers certification) that when it uses acrylamide and/or epichlorohydrin to treat water, the combination (or product) of dose and monomer level does not exceed the levels specified, as follows: Acrylamide = 0.05 percent dosed at 1 mg/L (or equivalent); Epichlorohydrin = 0.01 percent dosed at 20 mg/L (or equivalent).

5 Lead and copper are regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps. For copper, the action level is 1.3 mg/L, and for lead is 0.015 mg/L.

6 A routine sample that is fecal coliform-positive or E. coli-positive triggers repeat samples--if any repeat sample is total coliform-positive, the system has an acute MCL violation. A routine sample that is total coliform-positive and fecal coliform-negative or E. coli-negative triggers repeat samples--if any repeat sample is fecal coliform-positive or E. coli-positive, the system has an acute MCL violation. See also Total Coliforms.

7 EPA's surface water treatment rules require systems using surface water or ground water under the direct influence of surface water to (1) disinfect their water, and (2) filter their water or meet criteria for avoiding filtration so that the following contaminants are controlled at the following levels:
- ***Cryptosporidium*:** 99 percent removal for systems that filter. Unfiltered systems are required to include Cryptosporidium in their existing watershed control provisions.
- **Giardia lamblia:** 99.9 percent removal/inactivation
- **Viruses:** 99.9 percent removal/inactivation
- ***Legionella*:** No limit, but EPA believes that if *Giardia* and viruses are removed/inactivated, according to the treatment techniques in the surface water treatment rule, *Legionella* will also be controlled.
- **Turbidity:** For systems that use conventional or direct filtration, at no time can turbidity (cloudiness of water) go higher than 1 nephelometric turbidity unit (NTU), and samples for turbidity must be less than or equal to 0.3 NTU in at least 95 percent of the samples in any month. Systems that use filtration other than the conventional or direct filtration must follow state limits, which must include turbidity at no time exceeding 5 NTU.
- **HPC:** No more than 500 bacterial colonies per milliliter
- **Long Term 1 Enhanced Surface Water Treatment:** Surface water systems or ground water systems under the direct influence of surface water serving fewer than 10,000 people must comply with the applicable Long Term 1 Enhanced Surface Water Treatment Rule provisions (e.g. turbidity standards, individual filter monitoring, *Cryptosporidium* removal requirements, updated watershed control requirements for unfiltered systems).
- **Long Term 2 Enhanced Surface Water Treatment:** This rule applies to all surface water systems or ground water systems under the direct influence of surface water. The rule targets additional *Cryptosporidium* treatment requirements for higher risk systems and includes provisions to reduce risks from uncovered finished water storages facilities and to ensure that the systems maintain microbial protection as they take steps to reduce the formation of disinfection byproducts. (Monitoring start dates are staggered by system size. The largest systems (serving at least 100,000 people) will begin monitoring in October 2006 and the smallest systems (serving fewer than 10,000 people) will not begin monitoring until October 2008. After completing monitoring and determining their treatment bin, systems generally have three years to comply with any additional treatment requirements.)
- **Filter Backwash Recycling:** The Filter Backwash Recycling Rule requires systems that recycle to return specific recycle flows through all processes of the system's existing conventional or direct filtration system or at an alternate location approved by the state.

8 No more than 5.0 percent samples total coliform-positive in a month. (For water systems that collect fewer than 40 routine samples per month, no more than one sample can be total coliform-positive per month.) Every sample that has total coliform must be analyzed for either fecal coliforms or E. coli. If two consecutive TC-positive samples, and one is also positive for E. coli or fecal coliforms, system has an acute MCL violation.

9 Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:
- **Haloacetic acids:** dichloroacetic acid (zero); trichloroacetic acid (0.3 mg/L)
- **Trihalomethanes:** bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06 mg/L)

NATIONAL SECONDARY DRINKING WATER REGULATION

National Secondary Drinking Water Regulations are non-enforceable guidelines regarding contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, some states may choose to adopt them as enforceable standards.

Contaminant	Secondary Maximum Contaminant Level
Aluminum	0.05 to 0.2 mg/L
Chloride	250 mg/L
Color	15 (color units)
Copper	1.0 mg/L
Corrosivity	Noncorrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
pH	6.5-8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Total Dissolved Solids	500 mg/L
Zinc	5 mg/L

FOR MORE INFORMATION ON EPA'S SAFE DRINKING WATER:

visit: **epa.gov/safewater**

call: **(800) 426-4791**

ADDITIONAL INFORMATION:

To order additional posters or other ground water and drinking water publications, please contact the National Service Center for Environmental Publications at: **(800) 490-9198**, or email: **nscep@bps-lmit.com**.

ATTACHMENT B - Washington State Monitoring Regulations

WAC 246-290-300 Monitoring requirements. (1) General.

(a) The monitoring requirements specified in this section are minimums. The department may require additional monitoring when:

(i) Contamination is present or suspected in the water system;

(ii) A groundwater source is determined to be a potential GWI;

(iii) The degree of source protection is not satisfactory;

(iv) Additional monitoring is needed to verify source vulnerability for a requested monitoring waiver;

(v) Under other circumstances as identified in a department order; or

(vi) Additional monitoring is needed to evaluate continuing effectiveness of a treatment process where problems with the treatment process may exist.

(b) Special purpose samples collected by the purveyor do not count toward fulfillment of the monitoring requirements of this chapter unless the quality of data and method of sampling and analysis are acceptable to the department.

(c) The purveyor shall ensure samples required by this chapter are collected, transported, and submitted for analysis according to EPA-approved methods. The analyses must be performed by a laboratory accredited by the state using EPA-approved methods or other department-approved methods. Qualified water utility, accredited laboratory, health department personnel, and other parties approved by the department may conduct measurements for pH, temperature, residual disinfectant concentration, alkalinity, bromide, chlorite, TOC, SUVA, turbidity, calcium, conductivity, orthophosphate, and silica as required by this chapter, provided, these measurements are made according to EPA approved methods.

(d) Compliance samples required by this chapter must be taken at locations listed in Table 4 of this section.

(e) Purveyors failing to comply with a monitoring requirement shall notify:

(i) The department under WAC 246-290-480; and

(ii) The owner or operator of any consecutive system served and the appropriate water system users under 40 C.F.R. 141.201 and Part 7, Subpart A of this chapter.

(2) Selling and receiving water.

(a) Source monitoring. Purveyors, with the exception of those that "wheel" water to their consumers (i.e., sell water that has passed through another purchasing purveyor's distribution system), shall conduct source monitoring under this chapter for the sources under their control. The level of monitoring must satisfy the monitoring requirements associated with the total population served by the source.

(b) Distribution system monitoring. The purveyor of a system that receives and distributes water shall perform distribution-related monitoring requirements. Monitoring must include, but not be limited to, the following:

(i) Collect coliform samples under subsection (3) of this section;

(ii) Collect disinfection byproduct samples as required by subsection (6) of this section;

(iii) Perform the distribution system residual disinfectant concentration monitoring under subsection (6) of this section, and as required under WAC 246-290-451, 246-290-664, or 246-290-694. Systems with fewer than one hundred connections shall measure residual disinfectant concentration at the same time and location that a routine or

repeat coliform sample is collected, unless the department determines that more frequent monitoring is necessary to protect public health;

(iv) Perform lead and copper monitoring required under 40 C.F.R. 141.86, 141.87, and 141.88;

(v) Perform the distribution system monitoring under 40 C.F.R. 141.23(b) for asbestos if applicable;

(vi) Other monitoring as required by the department.

(c) Reduced monitoring for regional programs. The receiving purveyor may receive reductions in the coliform, lead and copper, disinfection byproduct (including TTHMs and HAA5) and distribution system disinfectant residual concentration monitoring requirements, provided the receiving system:

(i) Purchases water from a purveyor that has a department-approved regional monitoring program;

(ii) Has a written agreement with the supplying system or regional water supplier that is acceptable to the department, and which identifies the responsibilities of both the supplying and receiving system(s) with regards to monitoring, reporting and maintenance of the distribution system; and

(iii) Has at least one compliance monitoring location for disinfection byproducts, if applicable.

(d) Periodic review of regional programs. The department may periodically review the sampling records of public water systems participating in a department-approved monitoring program to determine if continued reduced monitoring is appropriate. If the department determines a change in the monitoring requirements of the receiving system is appropriate:

(i) The department shall notify the purveyor of the change in monitoring requirements; and

(ii) The purveyor shall conduct monitoring as directed by the department.

(3) Bacteriological.

(a) The purveyor shall be responsible for collection and submittal of coliform samples from representative points throughout the distribution system. Samples must be collected after the first service and at regular time intervals each month the system provides water to consumers. Samples must be collected that represent normal system operating conditions.

(i) Systems providing disinfection treatment shall measure the residual disinfectant concentration within the distribution system at the same time and location of routine and repeat samples.

(ii) Systems providing disinfection treatment shall assure that disinfectant residual concentrations are measured and recorded on all coliform sample report forms submitted for compliance purposes.

(b) Coliform monitoring plan.

(i) Systems shall develop a written coliform monitoring plan that identifies sampling sites and a sample collection schedule that are representative of water throughout the distribution system. The plan is subject to department review and approval. Systems shall collect total coliform samples according to the plan. Monitoring may take place at a customer's premises, dedicated sampling station, or other designated compliance sampling location. Routine and repeat sample sites and any sampling points necessary to meet the requirements of Part 6 of this chapter and WAC 246-290-300 (3)(h) must be identified in the plan.

(ii) Systems shall collect samples at regular time intervals throughout the month, except for systems that use groundwater and

serve four thousand nine hundred or fewer people may collect all required samples on a single day if the samples are taken from different sites.

(iii) Systems shall take at least the minimum number of required samples even if the system has had an *E. coli* MCL violation or has exceeded the coliform treatment technique triggers in WAC 246-290-320(2).

(iv) Systems may conduct more compliance monitoring than is required under subsection (3)(b) of this section to investigate potential problems in the distribution system and use monitoring as a tool to assist in identifying problems. Systems may take more than the minimum number of required routine samples and must include the results in calculating whether or not the coliform treatment technique triggers in WAC 246-290-320(2) have been exceeded only if the samples are taken in accordance with the plan and are representative of water throughout the distribution system.

(v) Systems shall identify repeat monitoring locations in the plan. Unless the provisions of subsection (3)(b)(i) through (iv) of this section are met, the system shall collect at least one repeat sample from the sample tap where the original total coliform-positive sample was taken, and at least one repeat sample at a tap within five service connections upstream and at least one repeat sample at a tap within five service connections downstream of the original sample site. If a total coliform-positive sample is at the end of the distribution system, or one service connection away from the end of the distribution system, the system shall still take all required repeat samples. The department may allow an alternative sampling location in lieu of the requirement to collect at least one repeat sample upstream or downstream of the original sampling site. Systems may propose repeat monitoring locations to the department that the system believes to be representative of a pathway for contamination of the distribution system. A system may elect to specify either alternative fixed locations or criteria for selecting repeat sampling sites on a situational basis in a standard operating procedure (SOP) in its plan. The system shall design its SOP to focus the repeat samples at locations that best verify and determine the extent of potential contamination of the distribution system area based on specific situations. The department may modify the SOP or require alternative monitoring locations as needed.

(vi) The purveyor shall:

(A) Keep the coliform monitoring plan on file with the system and make it available to the department for inspection upon request;

(B) Revise or expand the plan at any time the plan no longer ensures representative monitoring of the system, or as directed by the department; and

(C) Submit the plan to the department for review and approval when requested and as part of the water system plan required under WAC 246-290-100.

(c) Special purpose coliform samples. Special purpose coliform samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement, or repair, must not be used to determine whether or not the coliform treatment technique trigger has been exceeded. Repeat samples taken in accordance with subsection (3) of this section are not considered special purpose coliform samples, and must be used to determine whether or not the coliform treatment technique trigger has been exceeded.

(d) Invalidation of total coliform samples. A total coliform-positive sample invalidated under subsection (3) of this section does not count toward meeting the minimum monitoring requirements of this section.

(i) The department may invalidate a total coliform-positive sample if one or more of the following conditions are met:

(A) The laboratory establishes that improper sample analysis caused the total coliform-positive result;

(B) The department, on the basis of the results of repeat samples collected as required under subsection (3) of this section, determines that the total coliform-positive samples resulted from a domestic or other nondistribution system plumbing problem. The department may not invalidate a sample on the basis of repeat sample results unless all repeat samples collected at the same tap as the original total coliform-positive sample are also total coliform-positive, and all repeat samples collected at a location other than the original tap are total coliform-negative. For example, the department may not invalidate a total coliform-positive sample on the basis of repeat samples if all the repeat samples are total coliform-negative, or if the system has only one service connection; or

(C) The department has substantial grounds to believe that a total coliform-positive result is due to a circumstance or condition that does not reflect water quality in the distribution system. In this case, the system shall still collect all repeat samples required under subsection (3) of this section, and use the samples to determine whether a coliform treatment technique trigger under WAC 246-290-320(2) has been exceeded.

(ii) Unless total coliforms are detected, a laboratory shall invalidate a total coliform sample if the sample produces a turbid culture in the absence of gas production using an analytical method where gas formation is examined such as the multiple-tube fermentation technique, produces a turbid culture in the absence of an acid reaction in the presence-absence coliform test, or exhibits confluent growth or produces colonies TNTC with an analytical method using a membrane filter such as a membrane filter technique. If a laboratory invalidates a sample because of such interference, the system shall collect another sample from the same location as the original sample within twenty-four hours of notification of the interference problem, and have it analyzed for the presence of total coliforms. The system shall continue to re sample within twenty-four hours and have the samples analyzed until it obtains a valid result. The department may waive the twenty-four hour time limit on a case-by-case basis.

(e) Monitoring frequency. The number of required routine coliform samples is based on total population served.

(i) Purveyors of community systems shall collect and submit for analysis no less than the number of routine samples listed in Table 2 of this section during each calendar month of operation;

(ii) Unless directed otherwise by the department, purveyors of noncommunity systems shall collect and submit for analysis no less than the number of samples required in Table 2 of this section. Each month's population must be based on the average daily population and must include all residents and nonresidents served during that month. During months when the average daily population served is less than twenty-five, routine sample collection is not required when:

(A) Using only protected groundwater sources;

(B) The system has a clean compliance history for a minimum of twelve months;

(C) The system has no sanitary defects or significant deficiencies;

(D) The system has detected no total coliform-positive routine or repeat samples in the previous month; and

(E) The system has collected and submitted for analysis one routine sample during one of the previous two months.

(iii) Purveyors of NTNC and TNC systems are not required to collect routine samples in months when the population served is zero.

(iv) Purveyors of systems serving both a resident and a nonresident population shall base their minimum sampling requirement on the total of monthly populations served, both resident and nonresident as determined by the department, but no less than the minimum required in Table 2 of this section.

(v) Seasonal systems.

(A) In accordance with WAC 246-290-480 (2)(f)(ii), seasonal systems shall certify that a department-approved start-up procedure, which may include a requirement for start-up sampling, was completed prior to serving water to the public.

(B) Seasonal systems shall monitor every month that it is in operation unless it meets the criteria in subsection (3)(e)(ii) of this section.

(C) The department may exempt a seasonal system from some or all of the requirements in subsection (3)(e)(v)(A) of this section if the entire distribution system remains pressurized during the entire period that the system is not operating, except that systems that monitor less frequently than monthly shall still monitor during the vulnerable period designated by the department.

Table 2
Total Coliform Monitoring Frequency

Population served	Minimum number of samples per month
1 to 1,000*	1
1,001 to 2,500	2
2,501 to 3,300	3
3,301 to 4,100	4
4,101 to 4,900	5
4,901 to 5,800	6
5,801 to 6,700	7
6,701 to 7,600	8
7,601 to 8,500	9
8,501 to 12,900	10
12,901 to 17,200	15
17,201 to 21,500	20
21,501 to 25,000	25
25,001 to 33,000	30
33,001 to 41,000	40
41,001 to 50,000	50
50,001 to 59,000	60
59,001 to 70,000	70
70,001 to 83,000	80
83,001 to 96,000	90

Population served	Minimum number of samples per month
96,001 to 130,000	100
130,001 to 220,000	120
220,001 to 320,000	150
320,001 to 450,000	180
450,001 to 600,000	210
600,001 to 780,000	240
780,001 to 970,000	270
970,001 to 1,230,000	300
1,230,001 to 1,520,000	330
1,520,001 to 1,850,000	360
1,850,001 to 2,270,000	390
2,270,001 to 3,020,000	420
3,020,001 to 3,960,000	450
3,960,001 or more	480

*Noncommunity systems using only protected groundwater sources and serving less than twenty-five individuals, may collect and submit for analysis, one sample every three months per WAC 246-290-300 (3)(e)(ii).

(f) Repeat monitoring.

(i) If a routine sample taken under subsection (3) of this section is total coliform-positive, the system shall collect a set of repeat samples within twenty-four hours of being notified of the positive result. Additional treatment, such as batch or shock chlorination must not be started prior to the collection of repeat samples unless the department gives prior authorization. The purveyor shall contact the department to determine the best interim approach in this situation. The system shall collect no fewer than three repeat samples for each total coliform-positive sample found. The department may extend the twenty-four hour limit on a case-by-case basis if the system has a logistical problem in collecting the repeat samples within twenty-four hours that is beyond its control. Following the collection of repeat samples, and before the analytical results are known, the system may provide interim precautionary treatment or other means to protect public health.

(ii) The system shall collect all repeat samples on the same day, except the department may allow a system with a single connection to collect the required set of repeat samples over a three-day period or to collect a larger volume of repeat samples in one or more sample containers of any size, as long as the total volume collected is at least 300 mL.

(iii) The system shall collect an additional set of repeat samples in the manner specified in subsection (3)(f)(i) through (iii) of this section if one or more repeat samples in the current set of repeat samples is total coliform-positive. The system shall collect the additional set of repeat samples within twenty-four hours of being notified of the positive result, unless the department extends the time limit as provided in subsection (3)(f)(i) of this section. The system shall continue to collect additional sets of repeat samples until either total coliforms are not detected in one complete set of repeat samples or the system determines that a coliform treatment technique trigger specified in WAC 246-290-320 (2)(a) has been exceeded as a re-

sult of a repeat sample being total coliform-positive and notifies the department. If a treatment technique trigger identified in WAC 246-290-320 (2)(a) is exceeded as a result of a routine sample being total coliform-positive, the system is required to conduct only one round of repeat monitoring for each total coliform-positive routine sample.

(iv) After a system collects a routine sample and before it gets the results of the analysis of that sample, if it collects subsequent routine samples from within five adjacent service connections of the initial sample, and the initial sample, after analysis, is found to contain total coliforms, then the system may count the subsequent samples as a repeat sample instead of as a routine sample.

(v) Results of all routine and repeat samples taken under subsection (3)(e) and (f) of this section not invalidated by the department under subsection (3)(d) of this section must be used to determine whether a coliform treatment technique trigger specified in WAC 246-290-320 (2)(a) has been exceeded.

(g) *E. coli* testing.

(i) If any routine or repeat sample is total coliform-positive, the system shall analyze that total coliform-positive culture medium to determine if *E. coli* are present. If *E. coli* are present, the system shall notify the department by the end of the day when the system is notified of the test result.

(ii) The department may allow a system, on a case-by-case basis, to forgo *E. coli* testing on a total coliform-positive sample if the system assumes that the total coliform-positive sample is *E. coli*-positive. Accordingly, the system shall notify the department as specified in WAC 246-290-320 (1)(a).

(h) Triggered source water monitoring.

(i) All groundwater systems with their own groundwater sources must conduct triggered source water monitoring unless the following conditions exist:

(A) The system has submitted a project report and received department approval that it provides at least 4-log treatment of viruses using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal before or at the first customer for each groundwater source; and

(B) The system is conducting compliance monitoring under WAC 246-290-453(2).

(ii) Any groundwater source sample required under this subsection (3) must be collected at the source prior to any treatment unless otherwise approved by the department.

(iii) Any groundwater source sample collected under this subsection (3) must be at least 100 mL in size and must be analyzed for *E. coli* using one of the analytical methods under 40 C.F.R. 141.402(c).

(iv) Groundwater systems shall collect at least one sample from each groundwater source in use at the time a routine sample collected under subsection (3) of this section is total coliform-positive and not invalidated under subsection (3)(d) of this section. These source samples must be collected within twenty-four hours of notification of the total coliform-positive sample. The following exceptions apply:

(A) The twenty-four hour time limit may be extended if granted by the department and will be determined on a case-by-case basis. If an extension is granted, the system shall sample by the deadline set by the department.

(B) Systems with more than one groundwater source may meet the requirements of subsection (3)(h)(iv) of this section by sampling a

representative groundwater source or sources. The system shall have a department-approved triggered source water monitoring plan that identifies one or more groundwater sources that are representative of each monitoring site in the system's coliform monitoring plan under subsection (3)(b) of this section. The plan must be approved by the department before representative sampling will be allowed.

(v) Groundwater systems with an *E. coli* positive source water sample that is not invalidated under subsection (3)(h)(vii) of this section, shall:

(A) Notify the department by the end of the day when the system is notified of the test result.

(B) Provide Tier 1 public notice as required under Part 7, Subpart A of this chapter and special notification under WAC 246-290-71005 (4) and (5);

(C) If directed by the department, take corrective action as required under WAC 246-290-453(1); and

(D) Systems that are not directed by the department to take corrective action shall collect five additional samples from the same source within twenty-four hours of being notified of the *E. coli* positive source water sample. If any of the five additional samples are *E. coli* positive, the system shall take corrective action under WAC 246-290-453(1).

(vi) Any consecutive groundwater system that has a total coliform-positive routine sample collected under this subsection and not invalidated under subsection (3)(d) of this section shall notify each wholesale system it receives water from within twenty-four hours of being notified of the total coliform-positive sample and comply with subsection (3)(h) of this section.

(A) A wholesale groundwater system that receives notice from a consecutive system under subsection (3)(h)(vi) of this section shall conduct triggered source water monitoring under subsection (3)(h) of this section unless the department determines and documents in writing that the total coliform-positive sample collected was caused by a distribution system deficiency in the consecutive system.

(B) If the wholesale groundwater system source sample is *E. coli* positive, the wholesale system shall notify all consecutive systems served by that groundwater source within twenty-four hours of being notified of the results and shall meet the requirements of subsection (3)(h)(v) of this section.

(C) Any consecutive groundwater system receiving water from a source with an *E. coli* positive sample shall notify water system users as required under subsection (3)(h)(v)(B) of this section.

(vii) An *E. coli* positive groundwater source sample may be invalidated only if one of the following conditions apply:

(A) The system provides the department with written notice from the laboratory that improper sample analysis occurred; or

(B) The department determines and documents in writing that there is substantial evidence that the *E. coli* positive groundwater sample is not related to source water quality.

(viii) If the department invalidates an *E. coli* positive groundwater source sample, the system shall collect another source water sample within twenty-four hours of being notified by the department of its invalidation decision and have the sample analyzed using the same analytical method. The department may extend the twenty-four hour time limit as allowed under subsection (3)(h)(iv)(A) of this section.

(ix) Groundwater systems that fail to meet any of the monitoring requirements of subsection (3)(h) of this section shall conduct Tier 2 public notification under Part 7, Subpart A of this chapter.

(i) Assessment source water monitoring. If directed by the department, a groundwater system shall conduct assessment source water monitoring which may include, but is not limited to, the collection of at least one representative groundwater source sample each month the source provides groundwater to the public, for a minimum of twelve months.

(i) Sampling must be conducted as follows:

(A) Source samples must be collected at a location prior to any treatment. If the water system's configuration does not allow sampling at the source itself, the department may approve an alternative source sampling location representative of the source water quality.

(B) Source samples must be at least 100 mL in size and must be analyzed for *E. coli* using one of the analytical methods under 40 C.F.R. 141.402(c).

(ii) A groundwater system may use a triggered source water sample collected under subsection (3)(h) of this section to meet the requirements for assessment source water monitoring.

(iii) A groundwater system with an *E. coli* positive assessment source water sample that is not invalidated under subsection (3)(h)(vii) of this section, and consecutive systems receiving water from this source shall:

(A) Provide Tier 1 public notice under Part 7, Subpart A of this chapter and special notification under WAC 246-290-71005 (4) and (5); and

(B) Take corrective action as required under WAC 246-290-453(1).

(iv) A groundwater system that fails to conduct assessment source water monitoring as directed by the department shall provide Tier 2 public notice under Part 7, Subpart A of this chapter.

(4) Inorganic chemical and physical.

(a) A complete inorganic chemical and physical analysis must consist of the primary and secondary chemical and physical contaminants.

(i) Primary chemical and physical contaminants are antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate (as N), nitrite (as N), selenium, sodium, thallium, and for unfiltered surface water, turbidity. (Except that the MCL for arsenic under WAC 246-290-310 does not apply to TNC systems.)

(ii) Secondary chemical and physical contaminants are chloride, color, hardness, iron, manganese, specific conductivity, silver, sulfate, total dissolved solids, and zinc. Total dissolved solids are required only when specific conductivity exceeds seven hundred micromhos/centimeter.

(b) Purveyors shall monitor for all primary and secondary chemical and physical contaminants identified in WAC 246-290-310, Table 5 and Table 6. Samples must be collected in accordance with the monitoring requirements referenced in 40 C.F.R. 141.23 introductory text, 141.23(a) through 141.23(j), and 40 C.F.R. 143.4, except for composite samples for systems serving less than three thousand three hundred one persons. For these systems, compositing among different systems may be allowed if the systems are owned or operated by a department-approved satellite management agency.

(c) Samples required by this subsection must be taken at designated locations under 40 C.F.R. 141.23(a) through 141.23(j), and 40 C.F.R. 143.4, and Table 4 of this section.

(i) Wellfield samples are allowed from department designated wellfields; and

(ii) Under 40 C.F.R. 141.23 (a)(3), alternate sampling locations may be used if approved by the department. The process for determining these alternate sites is described in department guidance. Purveyors of community and NTNC systems may ask the department to approve an alternate sampling location for multiple sources within a single system that are blended prior to entry to the distribution system. Alternate sampling plans must address the following:

(A) Source vulnerability;

(B) Individual source characteristics;

(C) Previous water quality information;

(D) Status of monitoring waiver applications; and

(E) Other information deemed necessary by the department.

(d) Composite samples:

(i) Under 40 C.F.R. 141.23 (a)(4), purveyors may ask the certified laboratory to composite samples representing as many as five individual samples from within one system. Sampling procedures and protocols are outlined in department guidance; and

(ii) For systems serving a population of less than three thousand three hundred one, the department may approve composite sampling between systems when those systems are part of an approved satellite management agency.

(e) When the purveyor provides treatment for one or more inorganic chemical or physical contaminants, the department may require the purveyor to sample before and after treatment. The department shall notify the purveyor if and when this additional source sampling is required.

(f) Inorganic monitoring plans.

(i) Purveyors of community and NTNC systems shall prepare an inorganic chemical monitoring plan and base routine monitoring on the plan.

(ii) The purveyor shall:

(A) Keep the monitoring plan on file with the system and make it available to the department for inspection upon request;

(B) Revise or expand the plan at any time the plan no longer reflects the monitoring requirements, procedures or sampling locations, or as directed by the department; and

(C) Submit the plan to the department for review and approval when requested and as part of the water system plan required under WAC 246-290-100.

(g) Monitoring waivers.

(i) Purveyors may request in writing, a monitoring waiver from the department for any nonnitrate/nitrite inorganic chemical and physical monitoring requirements identified in this chapter.

(ii) Purveyors requesting a monitoring waiver shall comply with applicable subsections of 40 C.F.R. 141.23 (b)(3), and 141.23 (c)(3).

(iii) Purveyors shall update and resubmit requests for waiver renewals as applicable during each compliance cycle or period or more frequently as directed by the department.

(iv) Failure to provide complete and accurate information in the waiver application may be grounds for denial of the monitoring waiver.

(h) The department may require the purveyor to repeat sample for confirmation of results.

(i) Purveyors with emergency and seasonal sources shall monitor those sources when they are in use.

(5) Lead and copper. Monitoring for lead and copper shall be conducted in accordance with 40 C.F.R. 141.86 (a) - (f), 141.87, and 141.88. All systems that have fewer than five drinking water taps used for human consumption shall collect at least one sample from each tap and then collect additional samples from those taps on different days during the monitoring period to meet the required number of samples as described in 40 C.F.R. 141.86(c).

(6) Disinfection byproducts (DBP), disinfectant residuals, and disinfection byproduct precursors (DBPP). Purveyors of community and NTNC systems providing water treated with chemical disinfectants and TNC systems using chlorine dioxide shall monitor as follows:

(a) General requirements.

(i) Systems shall collect samples during normal operating conditions.

(ii) All monitoring shall be conducted in accordance with the analytical requirements in 40 C.F.R. 141.131.

(iii) Systems required to monitor under this subsection shall prepare and implement a monitoring plan in accordance with 40 C.F.R. 141.132(f) or 40 C.F.R. 141.622, as applicable.

(A) Community and NTNC surface water and GWI systems that deliver water that has been treated with a disinfectant other than ultraviolet light and serve more than three thousand three hundred people shall submit a monitoring plan to the department.

(B) The department may require submittal of a monitoring plan from systems not specified in subsection (6)(a)(iii)(A) of this section, and may require revision of any monitoring plan.

(C) Failure to monitor for TTHM, HAA5, or bromate will be treated as a violation for the entire period covered by the annual average where compliance is based on a locational running annual average or running annual average of monthly or quarterly samples or averages, as applicable.

(D) Failure to monitor for chlorine and chloramine residuals will be treated as a violation for the entire period covered by the annual average where compliance is based on a running annual average of monthly or quarterly samples or averages and the systems' failure to monitor makes it impossible to determine compliance with the MRDLs.

(b) Disinfection byproducts - Community and NTNC systems only.

(i) TTHMs and HAA5.

(A) Systems shall monitor for TTHM and HAA5 in accordance with 40 C.F.R. 141.620, 141.621, and 141.622.

(B) With department approval, systems may reduce monitoring in accordance with 40 C.F.R. 141.623.

(C) Systems on department-approved reduced monitoring schedules may be required to return to routine monitoring, or initiate increased monitoring in accordance with 40 C.F.R. 141.625 or 40 C.F.R. 141.627, as applicable.

(D) Systems must meet requirements of 40 C.F.R. 141.628 and 40 C.F.R. 141.625(c) to return to routine monitoring.

(E) Systems must calculate operational evaluation levels each calendar quarter and take action, as needed, in accordance with 40 C.F.R. 141.626.

(F) NTNC systems serving ten thousand or more people and community systems must comply with the provisions of 40 C.F.R. Subpart U - Initial Distribution System Evaluation under:

40 C.F.R. 141.600	General requirements.
40 C.F.R. 141.601	Standard monitoring.

40 C.F.R. 141.602	System specific studies.
40 C.F.R. 141.603	40/30 certification.
40 C.F.R. 141.604	Very small system waivers.
40 C.F.R. 141.605	Subpart V compliance monitoring location recommendations.

(ii) Chlorite - Only systems that use chlorine dioxide.

(A) Systems using chlorine dioxide shall conduct daily and monthly monitoring in accordance with 40 C.F.R. 141.132 (b)(2)(i) and additional chlorite monitoring in accordance with 40 C.F.R. 141.132 (b)(2)(ii).

(B) With department approval, monthly monitoring may be reduced in accordance with 40 C.F.R. 141.132 (b)(2)(iii)(B). Daily monitoring at entry to distribution required by 40 C.F.R. 141.132 (b)(2)(i)(A) may not be reduced.

(iii) Bromate - Only systems that use ozone.

(A) Systems using ozone for disinfection or oxidation must conduct bromate monitoring in accordance with 40 C.F.R. 141.132 (b)(3)(i).

(B) With department approval, monthly bromate monitoring may be reduced to once per quarter in accordance with 40 C.F.R. 141.132 (b)(3)(ii)(B).

(c) Disinfectant residuals.

(i) Chlorine and chloramines. Systems that deliver water continuously treated with chlorine or chloramines, including consecutive systems, shall monitor and record the residual disinfectant level in the distribution system under WAC 246-290-300 (2)(b), 246-290-451, 246-290-664(6), or 246-290-694(8).

(ii) Chlorine dioxide. Community, NTNC, or TNC systems that use chlorine dioxide shall monitor in accordance with 40 C.F.R. 141.132 (c)(2) and record results.

(d) Disinfection byproducts precursors.

Community and NTNC surface water or GWI systems that use conventional filtration with sedimentation as defined in WAC 246-290-660(3) shall monitor under 40 C.F.R. 141.132(d), and meet the requirements of 40 C.F.R. 141.135.

(7) Organic chemicals.

(a) Purveyors of community and NTNC water systems shall comply with monitoring requirements under 40 C.F.R. 141.24 (f)(1) - (f)(15), 141.24 (f)(18) - (19), 141.24 (f)(21), 141.24 (h)(1) - (11), and 141.24 (h)(14) - (17).

(b) Sampling locations shall be as defined in 40 C.F.R. 141.24(f) and 141.24(h).

(i) Wellfield samples are allowed from department designated wellfields; and

(ii) Under 40 C.F.R. 141.24 (f)(3) and 141.24 (h)(3), alternate sampling locations may be allowed if approved by the department. These alternate locations are described in department guidance. Purveyors may ask the department to approve an alternate sampling location for multiple sources within a single system that are blended prior to entry to the distribution system. The alternate sampling location shall consider the following:

(A) Source vulnerability;

(B) An updated organic monitoring plan showing location of all sources with current and proposed sampling locations;

(C) Individual source characteristics;

(D) Previous water quality information;

(E) Status of monitoring waiver applications; and

(F) Other information deemed necessary by the department.

(c) Composite samples:

(i) Purveyors may ask the certified lab to composite samples representing as many as five individual samples from within one system. Sampling procedures and protocols are outlined in department guidance;

(ii) For systems serving a population of less than three thousand three hundred one, the department may approve composite sampling between systems when those systems are part of an approved satellite management agency.

(d) The department may require the purveyor to sample both before and after treatment for one or more organic contaminants. The department shall notify the purveyor if and when this additional source sampling is required.

(e) Organic chemical monitoring plans.

(i) Purveyors of community and NTNC systems shall prepare an organic chemical monitoring plan and base routine monitoring on the plan.

(ii) The purveyor shall:

(A) Keep the monitoring plan on file with the system and make it available to the department for inspection upon request;

(B) Revise or expand the plan at any time the plan no longer reflects the monitoring requirements, procedures or sampling locations, or as directed by the department; and

(C) Submit the plan to the department for review and approval when requested and as part of the water system plan required under WAC 246-290-100.

(f) Monitoring waivers.

(i) Purveyors may request in writing, a monitoring waiver from the department for any organic monitoring requirement;

(ii) Purveyors requesting a monitoring waiver shall comply with 40 C.F.R. 141.24 (f)(7), 141.24 (f)(10), 141.24 (h)(6), and 141.24 (h)(7);

(iii) Purveyors shall update and resubmit requests for waiver renewals as directed by the department; and

(iv) Failure to provide complete and accurate information in the waiver application shall be grounds for denial of the monitoring waiver.

(g) Purveyors with emergency and seasonal sources shall monitor those sources under the applicable requirements of this section when they are actively providing water to consumers.

(8) Radionuclides. Monitoring for radionuclides shall be conducted under 40 C.F.R. 141.26.

(9) *Cryptosporidium* and *E. coli* source monitoring. Purveyors with surface water or GWI sources shall monitor the sources in accordance with 40 C.F.R. 141.701 and 702.

(10) Contaminants with a SAL under WAC 246-290-315, Table 9.

(a) Purveyors shall monitor for contaminants with a SAL in accordance with Tables 3 and 4 of this section. Source sample locations and blended samples are allowed as consistent with other federally regulated organic contaminants referenced in subsection (7)(b) of this section.

TABLE 3
SAL MONITORING

Contaminant or Group of Contaminants	Applicable Water System Classification	Initial Sampling	Routine Sampling Frequency	Sampling Location
Organic Contaminants				
Per- and polyfluoroalkyl substances (PFAS)	Community and NTNC, and if applicable, TNC	One sample on or before December 31, 2025	Once every three years	Per the locations described in WAC 246-290-300 (7)(b) and Table 4 of this section

(b) Purveyors shall monitor for PFAS contaminants using an approved method in WAC 246-390-075 (17)(a) and all method specific contaminants as listed on Table 7 in WAC 246-390-075.

(i) Purveyors, on a schedule determined by the department, but no later than December 31, 2025, shall complete initial sampling for PFAS from a sample location representing each source as listed in Table 4 of this section.

(ii) Initial PFAS sampling prioritization and scheduling is based on the following criteria:

(A) Susceptibility of the source water to contamination by surface activities due to physical attributes of the source;

(B) Vulnerability of the source water to PFAS contamination; and

(C) Population served.

(iii) Purveyors of TNC systems determined by the department to be at risk of PFAS contamination due to proximity of the system's water supply to known PFAS contamination shall collect a sample for analysis as directed by the department and, if detected, comply with the follow-up requirements under WAC 246-290-320(8).

(c) Analytical results for contaminants or groups of contaminants listed in Table 3 of this section reported prior to January 1, 2023, that meet the SDRL and requirements established in chapter 246-390 WAC with the effective date of January 1, 2022, or later may be used to comply with the initial PFAS monitoring requirement in this chapter.

(d) For sources that become active after January 1, 2022, purveyors shall perform the required monitoring as part of the source approval process under WAC 246-290-130.

(e) The department may require a confirmation sample. If a confirmation sample is required by the department, the result will be averaged with the first sampling result and the average is used as the final result. The department has the discretion to delete results of obvious sampling errors from this calculation.

(f) After completing initial sampling as described in Table 3 of this section, each source must be monitored as follows:

(i) For sources with organic results less than the SDRL, purveyors shall begin routine monitoring as described in Table 3 of this section, unless a monitoring waiver is granted by the department under (h) of this subsection.

(ii) For sources with organic detections equal to or greater than the SDRL, purveyors shall conduct follow-up monitoring under WAC 246-290-320(8).

(iii) For sources with inorganic detections below the SAL, purveyors shall monitor as identified in subsection (4) of this section.

(iv) For sources with inorganic detections above the SAL, purveyors shall conduct follow-up monitoring under WAC 246-290-320(9).

(g) For public water systems required to sample for PFAS under EPA's fifth Unregulated Contaminant Monitoring Rule (UCMR5), if the minimum reporting limits are less than fifty percent of any SAL, the

department shall accept data that has been accepted by EPA under UCMR5 for the purposes of meeting initial monitoring requirements under WAC 246-290-300. Public water systems required to sample for PFAS shall submit all results to the department to be considered in compliance with the initial monitoring requirements.

(i) If the minimum reporting limit for a result is greater than twenty percent of any SAL, but the result is reported as a nondetect, then follow-up monitoring per WAC 246-290-320 will not be required.

(ii) If a detection is reported below the minimum detection limit and is greater than twenty percent of a SAL, then one additional quarter of follow-up monitoring will be required per WAC 246-290-320 (8)(b).

(h) Monitoring waivers for contaminants with a SAL.

(i) The department may grant a waiver for SAL monitoring requirements identified in this chapter.

(ii) As a condition of the waiver, the department may require a purveyor take a minimum of one sample per source while the waiver is effective.

(11) Other contaminants. On the basis of public health concerns, the department may require a purveyor to monitor for additional contaminants.

TABLE 4
MONITORING LOCATION

Sample Type	Sample Location
Asbestos	One sample from distribution system or if required by department, from the source.
Bacteriological	From representative points throughout distribution system.
Cryptosporidium and *E. coli* (Source Water) - WAC 246-290-630(16)	Under 40 C.F.R. 141.703.
Complete Inorganic Chemical & Physical	From a point representative of the source, after treatment, and prior to entry to the distribution system.
Lead/Copper	From the distribution system at targeted sample tap locations.
Nitrate/Nitrite	From a point representative of the source, after treatment, and prior to entry to the distribution system.
Disinfection Byproducts - TTHMs and HAA5 - WAC 246-290-300(6)	Under 40 C.F.R. 141.132 (b)(1) (Subpart L of the C.F.R.).
Disinfection Byproducts - TTHMs and HAA5 - WAC 246-290-300(6)	Under 40 C.F.R. 141.600 - 629 (IDSE and LRAA in Subparts U and V of the C.F.R.).
Disinfection Byproducts - Chlorite (Systems adding chlorine dioxide)	Under 40 C.F.R. 141.132 (b)(2).
Disinfection Byproducts - Bromate (Systems adding ozone)	Under 40 C.F.R. 141.132 (b)(3).
Disinfectant Residuals - Chlorine and Chloramines	Under 40 C.F.R. 141.132 (c)(1).
Disinfectant Residuals - Chlorine dioxide	Under 40 C.F.R. 141.132 (c)(2).

Sample Type	Sample Location
Disinfection Precursors - Total Organic Carbon (TOC)	Under 40 C.F.R. 141.132(d).
Disinfection Precursors - Bromide (Systems using ozone)	From the source before treatment.
Radionuclides	From a point representative of the source, after treatment and prior to entry to distribution system.
Organic Chemicals (VOCs, SOCs, & PFAS)	From a point representative of the source, after treatment and prior to entry to distribution system.
Other contaminants without an MCL, MRDL, TT or SAL	As directed by the department.

[Statutory Authority: RCW 43.20.050, 70A.125.080, and 70A.130.010. WSR 21-23-097, § 246-290-300, filed 11/17/21, effective 1/1/22. Statutory Authority: RCW 43.20.050 and 70.119A.080. WSR 17-01-062, § 246-290-300, filed 12/14/16, effective 1/14/17. Statutory Authority: RCW 43.20.050(2) and 70.119A.080. WSR 11-17-062, § 246-290-300, filed 8/15/11, effective 10/1/11. Statutory Authority: RCW 43.20.050 and 70.119A.080. WSR 10-20-068, § 246-290-300, filed 9/29/10, effective 11/1/10. Statutory Authority: RCW 43.20.050. WSR 09-21-045, § 246-290-300, filed 10/13/09, effective 1/4/10. Statutory Authority: RCW 70.119A.180 and 43.20.050. WSR 08-03-061, § 246-290-300, filed 1/14/08, effective 2/14/08. Statutory Authority: RCW 43.20.050 and 70.119A.080. WSR 04-04-056, § 246-290-300, filed 1/30/04, effective 3/1/04. Statutory Authority: RCW 43.20.050 (2) and (3) and 70.119A.080. WSR 03-08-037, § 246-290-300, filed 3/27/03, effective 4/27/03. Statutory Authority: RCW 43.02.050 [43.20.050]. WSR 99-07-021, § 246-290-300, filed 3/9/99, effective 4/9/99. Statutory Authority: RCW 43.20.050. WSR 94-14-001, § 246-290-300, filed 6/22/94, effective 7/23/94; WSR 93-08-011 (Order 352B), § 246-290-300, filed 3/25/93, effective 4/25/93; WSR 92-04-070 (Order 241B), § 246-290-300, filed 2/4/92, effective 3/6/92. Statutory Authority: Chapter 43.20 RCW. WSR 91-07-031 (Order 150B), § 246-290-300, filed 3/15/91, effective 4/15/91. Statutory Authority: RCW 43.20.050. WSR 91-02-051 (Order 124B), recodified as § 246-290-300, filed 12/27/90, effective 1/31/91. Statutory Authority: P.L. 99-339. WSR 89-21-020 (Order 336), § 248-54-165, filed 10/10/89, effective 11/10/89. Statutory Authority: RCW 34.04.045. WSR 88-05-057 (Order 307), § 248-54-165, filed 2/17/88. Statutory Authority: RCW 43.20.050. WSR 83-19-002 (Order 266), § 248-54-165, filed 9/8/83.]

ATTACHMENT C - EPA Quick Reference Guides

Revised Total Coliform Rule

Arsenic Rule

Lead and Copper Rule

DBP Rule

Radionuclides Rule

EPA
United States
Environmental Protection
Agency

Revised Total Coliform Rule: A Quick Reference Guide

Overview of the Rule

Title*	Revised Total Coliform Rule (RTCR) 78 FR 10269, February 13, 2013, Vol. 78, No. 30
Purpose	Increase public health protection through the reduction of potential pathways of entry for fecal contamination into distribution systems.
General Description	The RTCR establishes a maximum contaminant level (MCL) for *E. coli* and uses *E. coli* and total coliforms to initiate a "find and fix" approach to address fecal contamination that could enter into the distribution system. It requires public water systems (PWSs) to perform assessments to identify sanitary defects and subsequently take action to correct them.
Utilities Covered	The RTCR applies to all PWSs.

***** This document provides a summary of federal drinking water requirements; to ensure full compliance, please consult the federal regulations at 40 CFR 141 and any approved state requirements.

Public Health Benefits

Implementation of the RTCR will result in:

- A decrease in the pathways by which fecal contamination can enter the drinking water distribution system.
- Reduction in fecal contamination *should* reduce the potential risk from all waterborne pathogens including bacteria, viruses, parasitic protozoa, and their associated illnesses.

Critical Deadlines and Requirements

For Public Water Systems

Before April 1, 2016	► PWSs must develop a written sample siting plan that identifies the system's sample collection schedule and all sample sites, including sites for routine and repeat monitoring. ► PWSs monitoring quarterly or annually must also identify additional routine monitoring sites in their sample siting plans. ► Sample siting plans are subject to state review and revision.
Beginning April 1, 2016	PWSs must comply with the RTCR requirements unless the state selects an earlier implementation date.

For State Drinking Water Agencies

By February 13, 2015	State submits final primacy program revision package to the EPA Region, including: ► Adopted State Regulations. ► Regulation Crosswalk. ► 40 CFR 142.10 Primacy Update Checklist. ► 40 CFR 142.14 and 142.15 Reporting and Recordkeeping. ► 40 CFR 142.16 Special Primacy Requirements. ► Attorney General's Enforceability Certification. NOTE: EPA regulations allow states until February 13, 2015, for this submittal. An extension of up to 2 years may be requested by the state.
Before February 13, 2015	State must submit a primacy program revision extension request if it does not plan to submit the final primacy program revision package by February 13, 2015. The state extension request is submitted to the EPA Region including all of the information required in 40 CFR 142.12(b): ► A schedule (not to exceed 2 years) for the submission of the final primacy program revision package. ► Justification that meets the federal requirements for an extension request. ► Confirmation that the state is implementing the RTCR within its scope of its current authorities and capabilities. ► An approved workload agreement with the EPA Region.
No later than February 13, 2017	For states with an approved extension, submit complete and final program revision package by the agreed upon extension date.

What are the Major Provisions?

Routine Sampling Requirements

- Total coliform samples must be collected by PWSs at sites which are representative of water quality throughout the distribution system according to a written sample siting plan subject to state review and revision.
- For PWSs collecting more than one sample per month, collect total coliform samples at regular intervals throughout the month, except that ground water systems serving 4,900 or fewer people may collect all required samples on a single day if the samples are taken from different sites.

Routine Sampling Requirements (cont.)

- Each total coliform-positive (TC+) routine sample must be tested for the presence of *E. coli*.
- If any TC+ sample is also *E. coli*-positive (EC+), then the EC+ sample result must be reported to the state by the end of the day that the PWS is notified.

- If any routine sample is TC+, repeat samples are required.
  - PWSs on quarterly or annual monitoring must take a minimum of three additional routine samples (known as additional routine monitoring) the month following a TC+ routine or repeat sample.

- Reduced monitoring may be available for PWSs using only ground water and serving 1,000 or fewer persons that meet certain additional PWS criteria.

Repeat Sampling Requirements

Within 24 hours of learning of a TC+ routine sample result, at least 3 repeat samples must be collected and analyzed for total coliform:	► One repeat sample must be collected from the same tap as the original sample. ► One repeat sample must be collected from within five service connections upstream. ► One repeat sample must be collected from within five service connections downstream.
	► The PWS may propose alternative repeat monitoring locations that are expected to better represent pathways of contamination into the distribution system.
If one or more repeat sample is TC+:	► The TC+ sample must be analyzed for the presence of *E. coli.* ► If any repeat TC+ sample is also EC+, then the EC+ sample result must be reported to the state by the end of the day that the PWS is notified. ► The PWS must collect another set of repeat samples, unless an assessment has been triggered and the PWS has notified the state.

Assessments and Corrective Action

The RTCR requires PWSs that have an indication of coliform contamination (e.g., as a result of TC+ samples, *E. coli* MCL violations, performance failure) to assess the problem and take corrective action. There are two levels of assessments (i.e., Level 1 and Level 2) based on the severity or frequency of the problem.

Purpose of Level 1 and Level 2 Assessments	To find sanitary defects at the PWS including: ► Sanitary defects that could provide a pathway of entry for microbial contamination, or ► Sanitary defects that indicate failure (existing or potential) of protective barriers against microbial contamination. *Guidance on how to conduct Level 1 and Level 2 Assessments and how to correct sanitary defects found during the Assessments can be found at:* http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm.
Deadline for Completing Corrective Actions	When sanitary defects are identified during a Level 1 or Level 2 Assessment, they should be corrected as soon as possible to protect public health. The PWS must complete corrective actions by one of the following timeframes: ► No later than the time the assessment form is submitted to the state, which must be within 30 days of triggering the assessment, or ► Within state-approved timeframe which was proposed in the assessment form.

Level 1 Assessments

Conducting Level 1 Assessments	► Performed by the PWS owner or operator each time a Level 1 Assessment is triggered.
	► Upon trigger of a Level 1 Assessment, the Level 1 Assessment form must be submitted within 30 days to the state.
Level 1 Assessment Triggers	Level 1 Assessment is triggered if any one of the following occurs: ► A PWS collecting fewer than 40 samples per month has 2 or more TC+ routine/repeat samples in the same month. ► A PWS collecting at least 40 samples per month has greater than 5.0 percent of the routine/repeat samples in the same month that are TC+. ► A PWS fails to take every required repeat sample after any single TC+ sample.

Level 2 Assessments

Conducting Level 2 Assessments	► Performed by the state or state-approved entity each time a Level 2 Assessment is triggered. ► The PWS is responsible for ensuring that the Level 2 Assessment is conducted regardless of the entity conducting the Level 2 Assessment.
	► Upon trigger of a Level 2 Assessment, the Level 2 Assessment form must be submitted within 30 days to the state.
Level 2 Assessment Triggers	Level 2 Assessment is triggered if any one of the following occurs: ► A PWS incurs an *E. coli* MCL violation. ► A PWS has a second Level 1 Assessment within a rolling 12-month period. ► A PWS on state-approved annual monitoring has a Level 1 Assessment trigger in 2 consecutive years.

For additional information on the RTCR:

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA website at http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm; or contact your state drinking water representative.

Seasonal System Provisions

The RTCR defines seasonal systems and specifies additional requirements for these types of PWSs:

- A seasonal system is defined as a non-community water system that is not operated as a PWS on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

Start-up Procedures for Seasonal Systems	At the beginning of each operating period, before serving water to the public, seasonal water systems must: ► Conduct state-approved start-up procedures. ► Certify completion of state-approved start-up procedures. ► An exemption from conducting state-approved start-up procedures may be available for seasonal systems that maintain pressure throughout the distribution system during non-operating periods.
	Examples of state-approved start-up procedures, which need to be completed prior to serving water to the public, may include one or more of the following: ► Disinfection. ► Distribution system flushing. ► Sampling for total coliform and *E. coli*. ► Site visit by state. ► Verification that any current or historical sanitary defects have been corrected.
Routine Monitoring for Seasonal Systems	► The baseline monitoring frequency for seasonal systems is monthly. ► A reduced monitoring frequency may be available for seasonal systems that use ground water only and serve fewer than 1,000 persons.

Other Provisions for the State Drinking Water Agency

Special Monitoring Evaluation	The state must perform a special monitoring evaluation at all ground water systems serving 1,000 or fewer persons during each sanitary survey to review the status of the PWS and to determine whether the sample sites and monitoring schedule need to be modified.

Major Violations

***E. coli* MCL Violation**

A PWS will receive an *E. coli* MCL violation when there is any combination of an EC+ sample result with a routine/repeat TC+ or EC+ sample result:

***E. coli* MCL Violation Occurs with the Following Sample Result Combination**	
Routine	**Repeat**
EC+	**TC+**
EC+	**Any missing sample**
EC+	**EC+**
TC+	**EC+**
TC+	**TC+ (but no *E. coli* analysis)**

Treatment Technique Violation

A PWS will receive a Treatment Technique violation when any of the following occur:

- Failure to conduct a Level 1 or Level 2 Assessment within 30 days of a trigger.
- Failure to correct all sanitary defects from a Level 1 or Level 2 Assessment within 30 days of a trigger or in accordance with the state-approved timeframe.
- Failure of a seasonal system to complete state-approved start-up procedures prior to serving water to the public.

Key Points for Public Water Systems to Remember

Find and correct sanitary defects as soon as you become aware of them.

- This can help reduce *E. coli* MCL violations, which trigger a Level 2 Assessment.
- This can help reduce TC+ sample results, which may trigger a Level 1 Assessment.

Make sure to collect all routine and repeat samples as required.

- Timely and correct monitoring can help reduce triggering a Level 1 or Level 2 Assessment because:
  - Failure to conduct repeat monitoring triggers a Level 1 Assessment.
  - A Level 1 Assessment triggered twice within a certain timeframe triggers a Level 2 Assessment.

United States Environmental Protection Agency
Office of Water (4606)
EPA 816-F-01-004
January 2001

Arsenic and Clarifications to Compliance and New Source Monitoring Rule: A Quick Reference Guide

Overview of the Rule

Title	**Arsenic and Clarifications to Compliance and New Source Monitoring Rule 66 FR 6976 (January 22, 2001)**
Purpose	**To improve public health by reducing exposure to arsenic in drinking water.**
General Description	**Changes the arsenic MCL from 50 µg/L to 10 µg/L; Sets arsenic MCLG at 0; Requires monitoring for new systems and new drinking water sources; Clarifies the procedures for determining compliance with the MCLs for IOCs, SOCs, and VOCs.**
Utilities Covered	**All community water systems (CWSs) and nontransient, noncommunity water systems (NTNCWSs) must comply with the arsenic requirements. EPA estimates that 3,024 CWSs and 1,080 NTNCWSs will have to install treatment to comply with the revised MCL.**

Public Health Benefits

Implementation of the Arsenic Rule will result in . . .	• **Avoidance of 16 to 26 non-fatal bladder and lung cancers per year.** • **Avoidance of 21 to 30 fatal bladder and lung cancers per year.** • **Reduction in the frequency of non-carcinogenic diseases.**

Critical Deadlines & Requirements

Consumer Confidence Report Requirements *

Report Due	*Report Requirements*
July 1, 2001	**For the report covering calendar year 2000, systems that detect arsenic between 25 µg/L and 50 µg/L must include an educational statement in the consumer confidence reports (CCRs).**
July 1, 2002 and beyond	**For reports covering calendar years 2001 and beyond, systems that detect arsenic between 5 µg/L and 10 µg/L must include an educational statement in the CCRs.**
July 1, 2002 - July 1, 2006	**For reports covering calendar years 2001 to 2005, systems that detect arsenic between 10 µg/L and 50 µg/L must include a health effects statement in their CCRs.**
July 1, 2007 and beyond	**For reports covering calendar year 2006 and beyond, systems that are in violation of the arsenic MLC (10 µg/L) must include a health effects statement in their CCRs.**

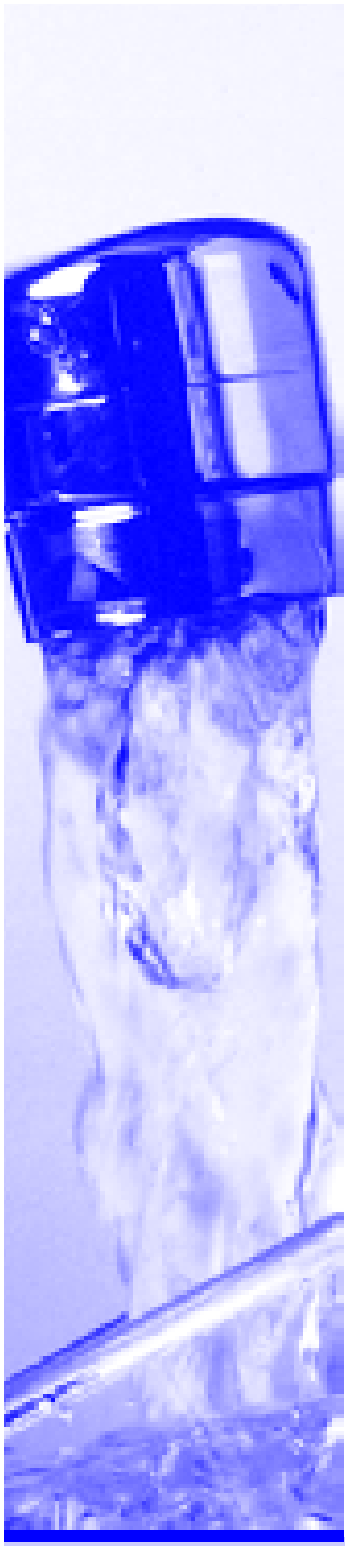
For Drinking Water Systems

Jan. 22, 2004	**All *NEW* systems/sources must collect initial monitoring samples for all IOCs, SOCs, and VOCs within a period and frequency determined by the State.**
Jan. 1, 2005	**When allowed by the State, systems may grandfather data collected after this date.**
Jan. 23, 2006	**The new arsenic MCL of 10 µg/L becomes effective. All systems must begin monitoring or when allowed by the State, submit data that meets grandfathering requirements.**
Dec. 31, 2006	**Surface water systems must complete initial monitoring or have a State approved waiver.**
Dec. 31, 2007	**Ground water systems must complete initial monitoring or have a State approved waiver.**

For States

Spring 2001	**EPA meets and works with States to explain new rules and requirements and to initiate adoption and implementation activities.**
Jan. 22, 2003	**State primacy revision applications due.**
Jan. 22, 2005	**State primacy revision applications due from States that received 2-year extensions.**

* For required educational and health effects statements, please see 40 CFR 141.154.



For additional information on the Arsenic Rule

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA Web site at www.epa.gov/safewater; or contact your State drinking water representative. EPA will provide arsenic training over the next year.

Compliance Determination (IOCs, VOCs, and SOCs)

1. Calculate compliance based on a running annual average at each sampling point.
2. Systems will not be in violation until 1 year of quarterly samples have been collected (unless fewer samples would cause the running annual average to be exceeded.)
3. If a system does not collect all required samples, compliance will be based on the running annual average of the samples collected.

Monitoring Requirements for Total Arsenic [1]

Initial Monitoring

One sample after the effective date of the MCL (January 23, 2006). Surface water systems must take annual samples. Ground water systems must take one sample between 2005 and 2007.

Reduced Monitoring

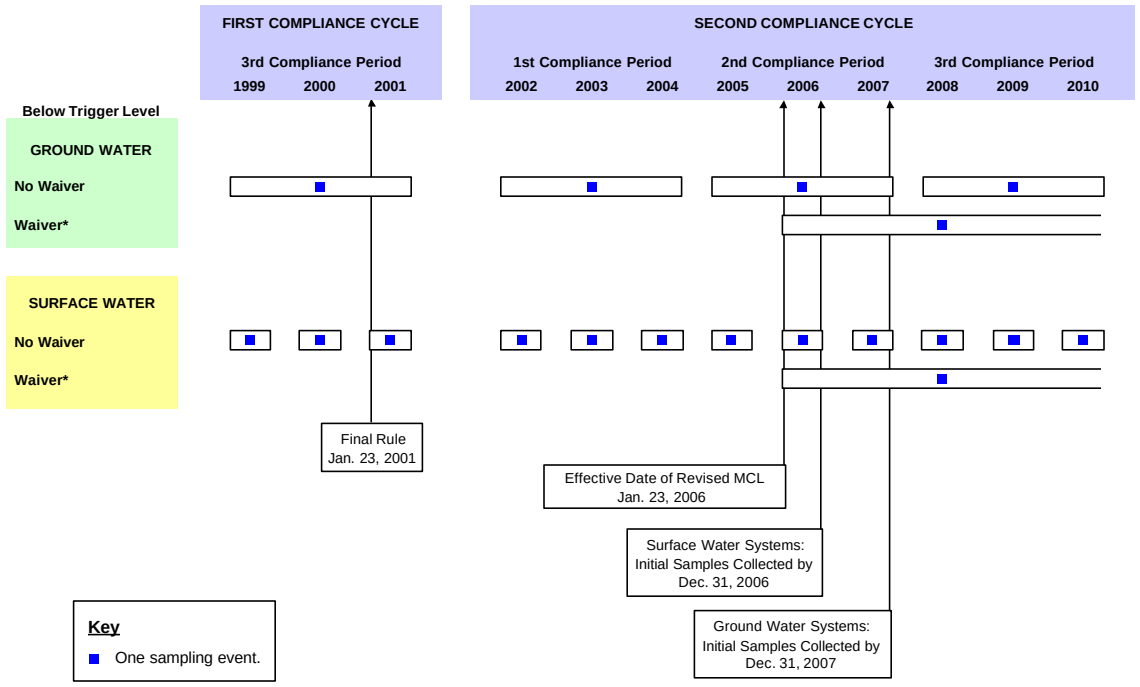
If the initial monitoring result for arsenic is less than the MCL . . .	Ground water systems must collect one sample every 3 years. Surface water systems must collect annual samples.

Increased Monitoring

A system with a sampling point result above the MCL must collect quarterly samples at that sampling point, until the system is reliably and consistently below the MCL.

[1] All samples must be collected at each entry point to the distribution system, unless otherwise specified by the State.

Applicability of the Standardized Monitoring Framework to Arsenic



*Waivers are not permitted under the current arsenic requirements. States may issue 9 year monitoring waivers under the revised final arsenic rule. To be eligible for a waiver, surface water systems must have monitored annually for at least 3 years. Ground water systems must conduct a minimum of 3 rounds of monitoring with detection limits below 10 µg/L.

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Lead and Copper Rule: A Quick Reference Guide

Overview of the Rule

Title[1]	Lead and Copper Rule (LCR)[2], 56 FR 26460 - 26564, June 7, 1991
Purpose	Protect public health by minimizing lead (Pb) and copper (Cu) levels in drinking water, primarily by reducing water corrosivity. Pb and Cu enter drinking water mainly from corrosion of Pb and Cu containing plumbing materials.
General Description	Establishes action level (AL) of 0.015 mg/L for Pb and 1.3 mg/L for Cu based on 90th percentile level of tap water samples. An AL exceedance is not a violation but can trigger other requirements that include water quality parameter (WQP) monitoring, corrosion control treatment (CCT), source water monitoring/treatment, public education, and lead service line replacement (LSLR).
Utilities Covered	All community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) are subject to the LCR requirements.

Public Health Benefits

Implementation of the LCR has resulted in	► Reduction in risk of exposure to Pb that can cause damage to brain, red blood cells, and kidneys, especially for young children and pregnant women. ► Reduction in risk of exposure to Cu that can cause stomach and intestinal distress, liver or kidney damage, and complications of Wilson's disease in genetically predisposed people.

Major Monitoring Provisions

Lead and Copper Tap

Applicability	► All CWSs and NTNCWSs.
Standard	► CWSs and NTNCWSs must collect first-draw samples at taps in homes/buildings that are at high risk of Pb/Cu contamination as identified in 40 CFR 141.86(a). ► Number of samples is based on system size (see Table 1). ► Systems must conduct monitoring every 6 months unless they qualify for reduced monitoring.
Reduced	► See Table 1 for sample number and Table 2 for criteria.

Water Quality Parameter (WQP)

Applicability	► Systems serving > 50,000 people. ► Systems serving ≤ 50,000 during monitoring periods in which either AL is exceeded.
Standard	► WQP samples at taps are collected every 6 months. ► WQPs at entry points to distribution system (EPTDS) are collected every 6 months prior to CCT installation, then every 2 weeks.
Reduced	► See Table 1 for sample number and page 2 for criteria. Does not apply to EPTDS WQP monitoring.

Table 1: Lead and Copper Tap and WQP Tap Monitoring

Size Category	System Size	Number of Pb/Cu Tap Sample Sites[3]		Number of WQP Tap Sample Sites[4]	
		Standard	Reduced	Standard	Reduced
Large	> 100K	100	50	25	10
	50,001 - 100K	60	30	10	7
Medium	10,001 - 50K	60	30	10	7
	3,301 - 10K	40	20	3	3
Small	501 - 3,300	20	10	2	2
	101 - 500	10	5	1	1
	≤ 100	5	5	1	1

[3] With written State approval, PWSs can collect < 5 samples if all taps used for human consumption are sampled.
[4] Two WQP tap samples are collected at each sampling site.

Table 2: Criteria for Reduced Pb/Cu Tap Monitoring

Annual	1. PWS serves ≤ 50,000 people and is ≤ both ALs for 2 consecutive 6-month monitoring periods; or 2. Any PWS that meets optimal WQPs (OWQPs) and is ≤ Pb AL for 2 consecutive 6-month monitoring periods.
Triennial	1. PWS serves ≤ 50,000 people and is ≤ both ALs for 3 consecutive years of monitoring; or 2. Any PWS that meets OWQP specifications and is ≤ Pb AL for 3 consecutive years of monitoring; or 3. Any PWS with 90th percentile Pb and Cu levels ≤ 0.005 mg/L and ≤ 0.65 mg/L, respectively, for 2 consecutive 6-month monitoring periods (i.e., accelerated reduced Pb/Cu tap monitoring).
Every 9 years	PWS serves ≤ 3,300 people and meets monitoring waiver criteria found at 40 CFR 141.86(g).

Lead Consumer Notice

Within 30 days of learning the results, all systems must provide individual Pb tap results to people who receive water from sites that were sampled, *regardless of whether the results exceed the Pb AL*, as required by 40 CFR 141.85(d).

Consumer Confidence Report (CCR)

All CWSs, irrespective of their lead levels, must provide an educational statement about lead in drinking water in their CCRs as required by 40 CFR 141.154. Must be in 2008 CCR (due July 1, 2009) if EPA is Primacy Agency, State adopts the rule by reference automatically, or adopts during 2008. Otherwise, this statement is required in the 2009 CCR (due July 1, 2010).

[1] This document provides a summary of federal drinking water requirements; to ensure full compliance, please consult the federal regulations at 40 CFR 141 and any approved state requirements.

[2] The June 1991 LCR was revised with the following Technical Amendments: 56 FR 32112, July 15, 1991; 57 FR 28785, June 29, 1992; 59 FR 33860, June 30, 1994.

It was subsequently revised by: the LCR Minor Revisions, 65 FR 1950, January 12, 2000; and the LCR Short-Term Revisions, 72 FR 57782, October 10, 2007.

Treatment Technique and Sampling Requirements if the AL is Exceeded[5]

[5] Based on 90th percentile level. Multiply number of valid samples by 0.9 (e.g., 10 samples x 0.9 = 9; thus, use 9th highest Pb and Cu test result to compare to AL). For 5 samples, average 4th and 5th highest results. For < 5 samples, use highest result.

Water Quality Parameter (WQP)

Applicability	Refer to page 1.
Parameters	► pH, alkalinity, calcium *(initial only, unless calcium carbonate stabilization is used)*, conductivity *(initial monitoring only)*, orthophosphate *(if inhibitor is phosphate-based)*; silica *(if inhibitor is silicate-based)*, and temperature *(initial monitoring only)*.
Frequency	► Systems installing CCT, must conduct follow-up monitoring for 2 consecutive 6-month periods. ► WQP tap monitoring is conducted every 6 months, EPTDS monitoring increases to every 2 weeks. ► After follow-up monitoring, State sets OWQP specifications that define optimal CCT.
Reduced Tap Monitoring	► Collect reduced number of sampling sites (see Table 1) if meet OWQPs for 2 consecutive 6-month periods. ► Collect reduced number of sampling sites at reduced frequency if meet OWQPs for: – 6 consecutive 6-month monitoring periods can monitor annually; – 3 consecutive years of annual monitoring can monitor triennially.

Public Education (PE)

Applicability	► Systems that exceed the Pb AL (*not required if only the Cu AL is exceeded*).
Purpose	► Educates consumers about lead health effects, sources, and steps to minimize exposure.
Delivery Method	► CWSs: deliver materials to bill-paying customers and post lead information on water bills, work in concert with local health agencies to reach at-risk populations (children, pregnant woman), deliver to other organizations serving "at-risk" populations, provide press releases, include new outreach activities from list in 40 CFR 141.85(a)(2)(vi), and post to Web site (CWSs serving > 100,000 only). ► NTNCWSs: posting and distribution to all consumers (can be electronic with State permission). Can apply to CWSs such as hospitals and prisons where population cannot make improvements.
Timing	► Within 60 days *after end of monitoring period* in which Pb AL was exceeded if not already delivering PE.[6] ► Repeat annually except: water bill inserts - quarterly; press releases - 2x/year, and Web posting - continuous. ► Can discontinue whenever ≤ Pb AL but must recommence if subsequently exceed Pb AL.

[6] State may allow extension in some situations. Also, State may require approval of message content prior to delivery.

Source Water Monitoring and Source Water Treatment (SOWT)

Applicability	► Systems that exceed Pb or Cu AL.
Purpose	► Determine contribution from source water to total tap water Pb and Cu levels and need for SOWT.
Timing	► One set of samples at each EPTDS is due within 6 months of first AL exceedance. ► System has 24 months to install any required SOWT. ► State sets maximum permissible levels (MPLs) for Pb and Cu in source water based on initial and follow-up source water monitoring.
Standard	► Ground water PWSs monitor once during 3-year compliance periods; surface water PWSs monitor annually.
Reduced	► Monitor every 9 years if MPLs are not exceeded during 3 consecutive compliance periods for ground water PWSs or 3 consecutive years for surface water PWSs.

Corrosion Control Treatment (CCT)

Applicability	► All large systems except those meeting requirements of 40 CFR 141.81(b)(2) or (b)(3). ► Medium and small systems that exceed either AL; may stop CCT steps if ≤ both ALs for 2 consecutive 6-month periods but must recommence CCT if subsequently exceed either AL.
Study	► All large systems except as noted above. ► If State requires study for small or medium systems, it must be completed within 18 months.
Treatment	► Once State determines type of CCT to be installed, PWS has 24 months to install. ► Systems installing CCT must conduct 2 consecutive 6 months of follow-up tap and WQP monitoring.
OWQPs	► After follow-up Pb/Cu tap and WQP monitoring, State sets OWQPs. *Refer to WQP section above.*

Lead Service Line Replacement (LSLR)

Applicability	► Systems that continue to exceed the Pb AL after installing CCT and/or SOWT. ► Can discontinue LSLR whenever ≤ Pb AL in tap samples for 2 consecutive 6-month monitoring periods; must recommence if subsequently exceed.
Monitoring	► Optional: Sample from LSL to determine if line must be replaced. If all samples are ≤ 0.015 mg/L, line is considered "replaced through testing"; must reconsider these lines if Pb AL is subsequently exceeded. ► Required: Sample from any LSLs not completely replaced to determine impact on Pb levels.
Replacement	► Must replace at least 7% of LSLs annually; State can require accelerated schedule. ► If only portion of LSL is replaced, PWS must: – Notify customers at least 45 days prior to replacement about potential for increased Pb levels. – Collect samples within 72 hours of replacement and provide results within 3 days of receipt.

For additional information on the LCR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA Web site at http://water.epa.gov/drink; or contact your State drinking water representative.

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Comprehensive Disinfectants and Disinfection Byproducts Rules (Stage 1 and Stage 2): Quick Reference Guide

Overview of the Rules

Titles*	► Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) 63 FR 69390, December 16, 1998, Vol. 63, No. 241 ► Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) 71 FR 388, January 4, 2006, Vol. 71, No. 2
Purpose	Improve public health protection by reducing exposure to disinfection byproducts. Some disinfectants and disinfection byproducts (DBPs) have been shown to cause cancer and reproductive effects in lab animals and suggested bladder cancer and reproductive effects in humans.
General Description	The DBPRs require public water systems (PWSs) to: ► Comply with established maximum contaminant levels (MCLs) and operational evaluation levels (OELs) for DBPs, and maximum residual disinfection levels (MRDLs) for disinfectant residuals. ► Conduct an initial evaluation of their distribution system. In addition, PWSs using conventional filtration are required to remove specific percentages of organic material that may react to form DBPs through the implementation of a treatment technique.
Utilities Covered	The DBPRs apply to all sizes of community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that add a disinfectant other than ultraviolet (UV) light or deliver disinfected water, and transient noncommunity water systems (TNCWSs) that add chlorine dioxide.

*This document provides a summary of federal drinking water requirements; to ensure full compliance, please consult the federal regulations at 40 CFR 141 and any approved state requirements.

Overview of Requirements

This table shows how the requirements for the Stage 2 DBPR build on the existing requirements established in the Stage 1 DBPR. For more information on changes in monitoring requirements, see Table 1.

		Stage 1 DBPR	Stage 2 DBPR	For More Info:
Coverage	All CWSs and NTNCWSs that add disinfectant other than UV light and TNCWSs that treat with chlorine dioxide.	✓	✓	
	Consecutive systems that deliver water treated with a disinfectant other than UV light.		✓	
TTHM & HAA5 MCL Compliance	MCL compliance is calculated using the running annual average (RAA) of all samples from all monitoring locations across the system.	✓		See Table 3 and Table 4.
	MCL compliance is calculated using the locational RAA (LRAA) for each monitoring location in the distribution system.		✓	
Regulated Contaminants & Disinfectants	*Contaminants*			See Table 2.
	Total Trihalomethanes (TTHM)	✓	✓	
	5 Haloacetic Acids (HAA5)	✓	✓	
	Bromate	✓	Regulated under Stage 1 DBPR[1]	
	Chlorite	✓	Regulated under Stage 1 DBPR	
	Disinfectants			
	Chlorine/chloramines	✓	Regulated under Stage 1 DBPR	
	Chlorine dioxide	✓	Regulated under Stage 1 DBPR	
Operational Evaluation	If an operational evaluation level (OEL) is exceeded, systems must evaluate practices and identify DBP mitigation actions.		✓	See Table 5.

1. A new analytical method for bromate was approved with the Stage 2 DBPR.

Table 1. Changes in Monitoring Requirements

			Stage 1 DBPR	Stage 2 DBPR
TTHM/ HAA5 Routine Monitoring	Number of Samples		Based on source water type, population, and number of treatment plants or wells.	Based on source water type and population.
	Sample Locations		At location of maximum residence time.[1]	Based on Initial Distribution System Evaluation (IDSE) requirements.[2]
	Compliance Calculation		RAA must not exceed the MCL for TTHM or HAA5.	LRAA must not exceed the MCL for TTHM or HAA5.
Reduced Monitoring	Eligibility	TTHM/HAA5	All systems need TTHM RAA ≤ 0.040 mg/L and HAA5 ≤ 0.030 mg/L. Subpart H systems also need source water TOC RAA at location prior to treatment ≤ 4.0 mg/L .[3, 4] The Stage 2 DBPR left eligibility unchanged but specifies that Subpart H systems must take source water TOC samples every 30 days. Subpart H systems on reduced monitoring must take source water TOC samples every 90 days to qualify for reduced monitoring.	
		Bromate[5]	Source water bromide RAA < 0.05 mg/L. With the Stage 2 DBPR specified entry point to distribution system bromate RAA ≤ 0.0025 mg/L.	

[1]Subpart H systems serving ≥ 10,000 must have at least 25 percent of samples at the location of maximum residence time; the remaining samples must be representative of average residence time.

[2]All systems are required to satisfy their IDSE requirement by July 10, 2010.

[3]Subpart H systems are water systems that use surface water or ground water under the direct influence of surface water (GWUDI).

[4]Ground water systems serving < 10,000 must meet these RAA for 2 years; can also qualify for reduced monitoring if the TTHM RAA is ≤ 0.020 mg/L and a HAA5 RAA ≤ 0.015 mg/L for 1 year.

[5]A new analytical method for bromate was established with the Stage 2 DBPR.

Table 2. Regulated Contaminants and Disinfectants

	Stage 1 DBPR		Stage 2 DBPR	
Regulated Contaminants	MCL (mg/L)	MCLG (mg/L)	MCL (mg/L)	MCLG (mg/L)
TTHM	0.080		Unchanged[2]	
Chloroform		-		0.07
Bromodichloromethane		Zero		Unchanged[2]
Dibromochloromethane		0.06		Unchanged[2]
Bromoform		Zero		Unchanged[2]
HAA5	0.060		Unchanged[2]	
Monochloroacetic acid		-		0.07
Dichloroacetic acid		Zero		Unchanged[2]
Trichloroacetic acid		0.3		0.2
Bromoacetic acid		-		-
Dibromoacetic acid		-		-
Bromate (plants that use ozone)[1]	0.010	Zero	Unchanged[2]	Unchanged[2]
Chlorite (plants that use chlorine dioxide)	1.0	0.8	Unchanged[2]	Unchanged[2]
Regulated Disinfectants	**MRDL[3] (mg/L)**	**MRDLG[3] (mg/L)**	**MRDL (mg/L)**	**MRDLG (mg/L)**
Chlorine	4.0 as Cl_2	4	Unchanged[2]	Unchanged[2]
Chloramines	4.0 as Cl_2	4	Unchanged[2]	Unchanged[2]
Chlorine dioxide	0.8	0.8	Unchanged[2]	Unchanged[2]

[1]A new analytical method for bromate was established with the Stage 2 DBPR.

[2]Stage 2 DBPR did not revise the MCL or MRDL for this contaminant/disinfectant.

[3]Stage 1 DBPR included MRDLs and MRDLGs for disinfectants, which are similar to MCLs and MCLGs.

Table 3. Compliance Determination

	Stage 1 DBPR	Stage 2 DBPR
TTHM/HAA5	RAA	LRAA
Bromate[1]	RAA	Unchanged[2]
Chlorite	Daily/follow-up monitoring	Unchanged[2]
Chorine dioxide	Daily/follow-up monitoring	Unchanged[2]
Chlorine/chloramines	RAA	Unchanged[2]
DBP precursors (TOC sample set)*	Monthly for TOC and alkalinity	Every 30 days for TOC and alkalinity

[1]A new analytical method for bromate was established with the Stage 2 DBPR.

[2]Stage 2 DBPR did not change the compliance requirements for this contaminant/disinfectant.

*TOC sample set is comprised of source water alkalinity, source water TOC, and treated TOC.

Table 4. Compliance with MCLs and MRDLs (Routine Monitoring)

Contaminant/ Disinfectant	Coverage		Stage 1 DBPR		Stage 2 DBPR	
	Source Water	Population	Monitoring Frequency	Total Distribution System Monitoring Locations	Monitoring Frequency[1]	Total Distribution System Monitoring Locations
TTHM/HAA5	Subpart H	< 500	Per year[2]	1 per treatment plant	Per year[2]	2
		500 - 3,300	Per quarter	1 per treatment plant	Per quarter	2
		3,301 - 9,999				
		10,000 - 49,000		4 per treatment plant		4
		50,000 - 249,999				8
		250,000 - 999,999				12
		1,000,000 - 4,999,999				16
		≥ 5,000,000				20
	Ground water	< 500	Per year[2]	1 per treatment plant	Per year[2]	2
		500 - 9,999				
		10,000 - 99,999	Per quarter		Per quarter	4
		100,000 - 499,999				6
		≥ 500,000				8
Bromate[3]	Systems that use ozone as a disinfectant		Monthly	1 at entry point to distribution system	Unchanged[4]	
Chlorite	Systems that use chlorine dioxide as a disinfectant		**Daily** (at entrance to distribution system); **monthly** (in distribution system)	1 at entry point to distribution system; 3 in distribution system	Unchanged[4]	
Chlorine dixoide	Systems that use chlorine dioxide as a disinfectant		Daily	1 at entry point to distribution system	Unchanged[4]	
Chorine/ Chloramines	All systems		Same location and frequency as Total Coliform Rule (TCR) sampling		Unchanged[4]	
DBP precursors (TOC sample set)*	Systems that use conventional filtration		Monthly	1 per source water source	Unchanged[4]	

[1]All systems must monitor during the month of highest DBP concentrations. Systems on quarterly monitoring, except Subpart H systems serving 500 - 3,300, must take dual sample sets every 90 days at each monitoring location. Systems on annual monitoring and Subpart H systems serving 500 - 3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. If monitoring annually, only one location with a dual sample set per monitoring period is needed if the highest TTHM and HAA5 concentrations occur at the same location and in the same month.

[2]Ground water systems serving < 10,000 and Subpart H systems serving < 500 must increase monitoring to quarterly if an MCL is exceeded.

[3]A new analytical method for bromate was established with the Stage 2 DBPR.

[4]Stage 2 DBPR did not revise the monitoring frequency or location requirements for this contaminant/disinfectant.

*TOC sample set is comprised of source water alkalinity, source water TOC, and treated TOC.

Table 5. Operational Evaluation Levels (OELs)

Applies to:	All systems subject to Stage 2 DBPR monitoring requirements that conduct compliance monitoring and collect samples quarterly.
Purpose of establishing OELs:	To reduce peaks in DBP levels and exposure to high DBP levels.
OEL calculations:	► Calculated for both TTHMs and HAA5s at each monitoring location using Stage 2 DBPR compliance monitoring results. ► OEL is determined by the sum of the two previous quarter's TTHM or HAA5 result plus twice the current quarter's TTHM or HAA5 result at that location, divided by four. ► OEL = (Q1 + Q2 + 2Q3) / 4
OELs are exceeded:	During any quarter in which the OEL is greater than the TTHM or HAA5 MCL.
If an OEL is exceeded, a system must:	► Conduct an operational evaluation. ► Submit a written report of the evaluation to the state no later than 90 days after being notified of the analytical results that caused the exceedance(s). ► Keep a copy of the operational evaluation report and make it publically available upon request.
The operational evaluation must include:	► An examination of the treatment and distribution systems' operational practices that may contribute to TTHM and HAA5 formation. ► Steps to minimize future exceedances.
OEL requirements take effect:	When the system begins compliance monitoring for the Stage 2 DBPR.

Table 6. Standard Monitoring Compliance Dates

If You are a System Serving:	Schedule[1]	Begin LRAA TTHM & HAA5 Monitoring By:
At least 100,000 people or part of a combined distribution system (CDS) serving at least 100,000 people.	1	April 1, 2012
50,000 to 99,999 people or part of a CDS serving 50,000 to 99,999 people.	2	October 1, 2012
10,000 to 49,999 people or part of a CDS serving 10,000 to 49,999 people.	3	October 1, 2013
Less than 10,000 people or part of a CDS serving less than 10,000 people.	4	October 1, 2013[2]

[1]Your schedule is determined by the largest system in your CDS.

[2]Systems not conducting *Cryptosporidium* monitoring under Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) must begin LRAA TTHM/HAA5 monitoring by this date. Systems conducting *Cryptosporidium* monitoring under LT2ESWTR must begin LRAA TTHM/HAA5 monitoring by October 1, 2014.

Table 7. TOC Removal

Subpart H systems that use conventional filtration treatment are required to remove specific percentages of organic materials, measured as total organic carbon (TOC), that may react with disinfectants to form DBPs. Removal must be achieved through a treatment technique (enhanced coagulation or enhanced softening) unless a system meets alternative criteria. Systems practicing softening must meet TOC removal requirements for source water alkalinity greater than 120 mg/L $CaC0_3$.

Source Water TOC (mg/L)	Source Water Alkalinity, mg/L as $CaCO_3$		
	0 - 60	> 60 to 120	> 120
> 2.0 to 4.0	35.0%	25.0%	15.0%
> 4.0 to 8.0	45.0%	35.0%	25.0%
> 8.0	50.0%	40.0%	30.0%

For additional information on the DBPRs:

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at http://water.epa.gov/drink; or contact your state drinking water representative.

United States Environmental Protection Agency
Office of Water (4606)
EPA 816-F-01-003
June 2001

Radionuclides Rule: A Quick Reference Guide

Overview of the Rule

Title	Radionuclides Rule 66 FR 76708 December 7, 2000 Vol. 65, No. 236
Purpose	Reducing the exposure to radionuclides in drinking water will reduce the risk of cancer. This rule will also improve public health protection by reducing exposure to all radionuclides.
General Description	The rule retains the existing MCLs for combined radium-226 and radium-228, gross alpha particle radioactivity, and beta particle and photon activity. The rule regulates uranium for the first time.
Utilities Covered	Community water systems, all size categories.

Public Health Benefits

Implementation of the Radionuclides Rule will result in . . .	Reduced uranium exposure for 620,000 persons, protection from toxic kidney effects of uranium, and a reduced risk of cancer.
Estimated impacts of the Radionuclides Rule include . . .	Annual compliance costs of $81 million. Only 795 systems will have to install treatment.

Regulated Contaminants

Regulated Radionuclide	MCL	MCLG
Beta/photon emitters*	4 mrem/yr	0
Gross alpha particle	15 pCi/L	0
Combined radium-226/228	5 pCi/L	0
Uranium	30 µg/L	0

*A total of 168 individual beta particle and photon emitters may be used to calculate compliance with the MCL.

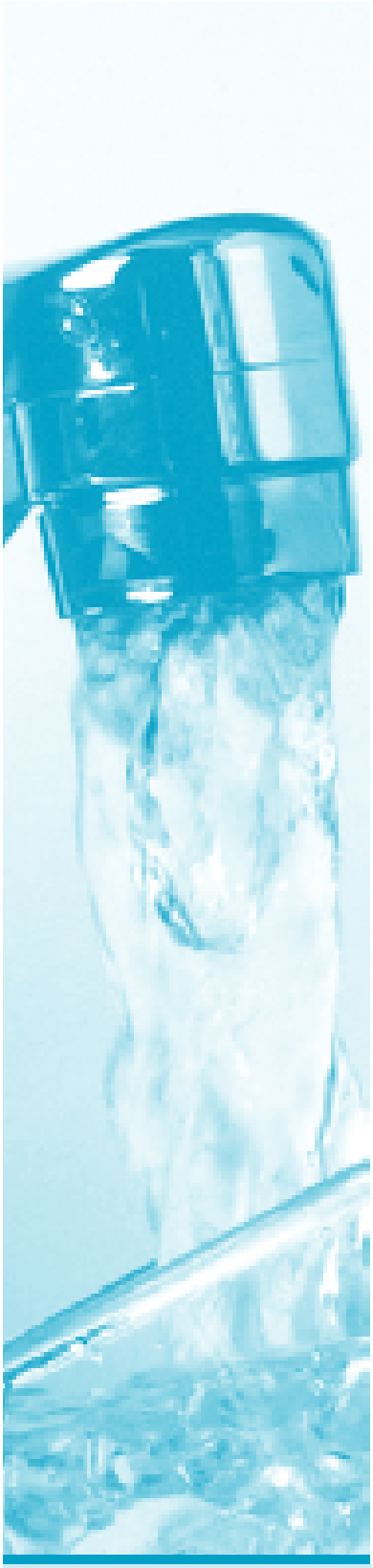
Critical Deadlines & Requirements

For Drinking Water Systems

June 2000 - December 8, 2003	When allowed by the State, data collected between these dates may be eligible for use as grandfathered data (excluding beta particle and photon emitters).
December 8, 2003	Systems begin initial monitoring under State-specified monitoring plan unless the State permits use of grandfathered data.
December 31, 2007	All systems must complete initial monitoring.

For States

December 2000 - December 2003	States work with systems to establish monitoring schedules.
December 8, 2000	States should begin to update vulnerability assessments for beta photon and particle emitters and notify systems of monitoring requirements.
Spring 2001	EPA meets and works with States to explain new rules and requirements and to initiate adoption and implementation activities.
December 8, 2002	State submits primacy revision application to EPA. (EPA approves within 90 days.)



For additional information on the Radionuclides Rule

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA Web site at www.epa.gov/safewater; or contact your State drinking water representative. EPA will provide radionuclide training over the next year.

Monitoring Requirements

Gross Alpha, Combined Radium-226/228, and Uranium (1)	Beta Particle and Photon Radioactivity (1)
Initial Monitoring	
Four consecutive quarters of monitoring.	No monitoring required for most CWSs. Vulnerable CWSs (2) must sample for: • Gross beta: quarterly samples. • Tritium and Strontium-90: annual samples.
Reduced Monitoring	
If the average of the initial monitoring results for each contaminant is below the detection limit: One sample every 9 years. If the average of the initial monitoring results for each contaminant is greater than or equal to the detection limit, but less than or equal to one-half the MCL: One sample every 6 years. If the average of the initial monitoring results for each contaminant is greater than one-half the MCL, but less than or equal to the MCL: One sample every 3 years.	If the running annual average of the gross beta particle activity minus the naturally occurring potassium-40 activity is less than or equal to 50 pCi/L: One sample every 3 years.
Increased Monitoring	
A system with an entry point result above the MCL must return to quarterly sampling until 4 consecutive quarterly samples are below the MCL.	If gross beta particle activity minus the naturally occurring potassium-40 activity exceeds 50 pCi/L, the system must: • Speciate as required by the State. • Sample at the initial monitoring frequency.

(1) All samples must be collected at each entry point to the distribution system.
(2) The rule also contains requirements for CWSs using waters contaminated by effluents from nuclear facilities.

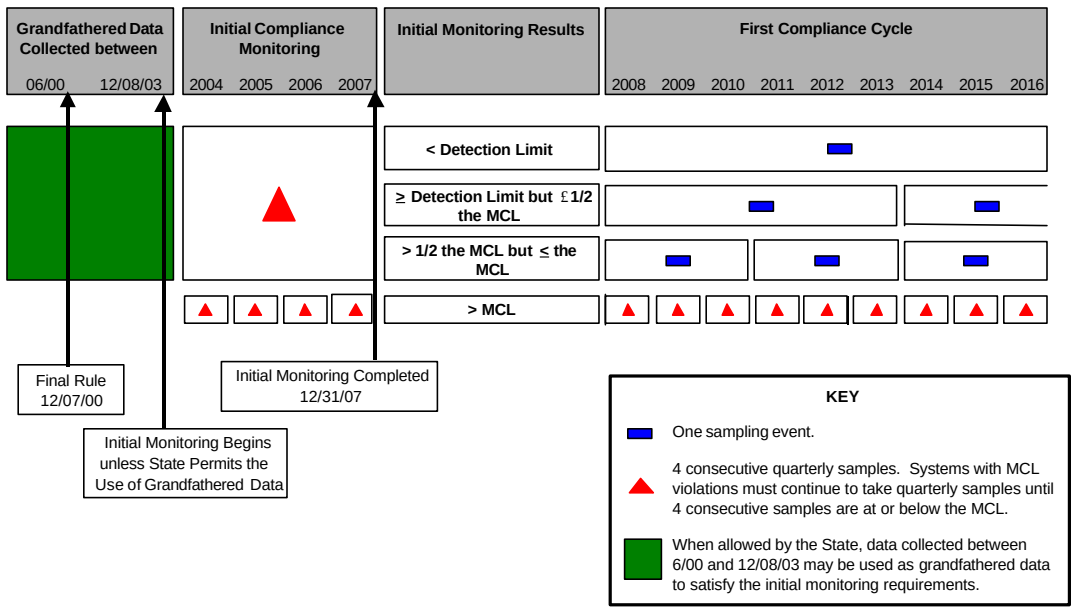
Grandfathering of Data

When allowed by the State, data collected between June, 2000 and December 8, 2003 may be used to satisfy the initial monitoring requirements if samples have been collected from:

- Each entry point to the distribution system (EPTDS).
- The distribution system, provided the system has a single EPTDS.
- The distribution system, provided the State makes a written justification explaining why the sample is representative of all EPTDS.

Applicability of the Standardized Monitoring Framework to Radionuclides

(Excluding the Beta Particle and Photon Emitters)



Emergency Response Plan

Richview Water System

PWS # AE302

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Section 1.
Emergency Response Mission and Goals

Mission statement for emergency response	In an emergency, the mission of the Richview Water System is to protect the health of our customers by responding promptly to events that may result in contamination of the water or disruption of the supply.
Goal 1	Be able to quickly identify an emergency and initiate timely and effective response action.
Goal 2	Be able to quickly notify local, state, and, as needed, federal agencies of conditions.
Goal 3	Protect public health by quickly determining if the water is safe to drink. Promptly and effectively notify customers of the situation and advise them of appropriate protective action. Provide for interim supply if needed.
Goal 4	To be able to quickly respond and repair damage to minimize system down time.

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Section 2.
System Information

System identification number	AE302	
System name and address	Richview Water System 1603 Richview Drive Pasco, WA 99301	
Directions to the system	From 1-182, head Northwest on Road 100/Broadmoor Blvd to Fanning Road, Head West on Fanning Road, North on Fraser Dr, to 1603Richview Drive, east side of road.	
Basic description and location of system facilities	Well, Storage Tanks, Treatment System and Booster Station are located on main site off Richview Dr, with main distribution lines extending north and south along Fraser Dr.	
Location/Town	Pasco, Franklin County, Washington	
Population served and service connections from Division of Drinking Water records.	1,980 people	600 connections
System owner (the owner should be listed as a person's name)	Randy Mullen, Richview Water Company	
Name, title, and phone number of person responsible for maintaining and implementing the emergency plan.	Jay Favor O&M Supervisor	314-240-2377

Section 3.
Chain of Command – Lines of Authority

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions.

Name and Title	Responsibilities during an emergency	Contact numbers
Operator (Collin Favor)	Assess situation, report conditions to supervisor, take action	509-212-4136 collinfavor@sjenvrnmntl.com
O&M Supervisor (Jay Favor)	Notify General Manager, contact DOH, arrange for additional manpower, secure equipment and services from vendors	509-855-3360 sneadst@sjenvrnmntl.com
General Manager (Peter Harpster)	Notify owner, inform customers, work with O&M contractor to resolve emergency, authorize vendor payments	509-212-9596 peter@harpsterld.com

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Section 4.
Emergency Types and Responses

The tables below list types of emergency RWS is most likely to experience and the recommended responses. These lists are not exhaustive and should be periodically reviewed and updated to ensure the information contained within them is current and relevant.

This section contains two subsections. Subsection a. is focused on severe weather and natural disasters that may be experienced. Subsection b. contains information about potential occurrences in the system itself that could constitute an emergency.

Regardless of the type of emergency, RWS responders should follow the following steps when dealing with an emergency:

1. Confirm and analyze the type and severity of the emergency
2. Take immediate actions to save lives
3. Take action to reduce injuries and system damage
4. Inform client and DOH or other appropriate agency
5. Make repairs based on priority demand
6. Return the system to normal operation

Subsection 4.a – Severe Weather and Natural Disasters

Tornado:

- When a warning is issued by sirens or other means, seek inside shelter. Consider the following:
  - Ensure the ground storage reservoirs are full prior to a storm approaching.
  - Provide assistance to the disabled and elderly
  - Small interior rooms on the lowest floor and without windows,
  - Hallways on the lowest floor away from doors and windows, and
  - Rooms constructed with reinforced concrete, brick, or block with no windows.
- Stay away from outside walls and windows.
- Use arms to protect head and neck.
- Remain sheltered until the tornado threat is announced to be over.
- Assess system functionality and any damage following the storm event.
- Provide support as needed to the wastewater system, streets, and generally to the community.
- Utilize 72 hour kit supplies as necessary

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Earthquake:

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Keep away from overhead fixtures, windows, filing cabinets, and electrical power.
- Assist people with disabilities in finding a safe place.
- Evacuate as instructed by the Emergency Coordinator and/or the designated official.
- Assess system functionality and any damage following the earthquake event.
- Provide support as needed to the wastewater system, streets, and generally to the community.
- Utilize 72 hour kit supplies as necessary

Flood:

If indoors:

- Be ready to evacuate as directed by the Emergency Coordinator and/or the designated official.
- Follow the recommended primary or secondary evacuation routes.

If outdoors:

- Climb to high ground and stay there.
- Avoid walking or driving through flood water.
- If car stalls, abandon it immediately and climb to higher ground.
- Assess system functionality and any damage following the flood event.
- Provide support as needed to the wastewater system, streets, and generally to the community.
- Utilize 72 hour kit supplies as necessary

Blizzard:

If indoors:

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Stay indoors!
- If there is no heat:
  - Close off unneeded rooms or areas.
  - Stuff towels or rags in cracks under doors.
  - Cover windows at night.
- Eat and drink. Food provides the body with energy and heat. Fluids prevent dehydration.
- Wear layers of loose-fitting, light-weight, warm clothing, if available.
- Assess system functionality and any damage following the storm event.
- Provide support as needed to the wastewater system, streets, and generally to the community.
- Utilize 72 hour kit supplies as necessary

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If outdoors:

- Find a dry shelter. Cover all exposed parts of the body.
- If shelter is not available:
  - Prepare a lean-to, wind break, or snow cave for protection from the wind.
  - Build a fire for heat and to attract attention. Place rocks around the fire to absorb and reflect heat.
  - Do not eat snow. It will lower your body temperature. Melt it first.

If stranded in a car or truck:

- Stay in the vehicle!
- Utilize vehicle emergency kit supplies as necessary
- Run the motor about ten minutes each hour. Open the windows a little for fresh air to avoid carbon monoxide poisoning. Make sure the exhaust pipe is not blocked.
- Make yourself visible to rescuers.
  - Turn on the dome light at night when running the engine.
  - Tie a colored cloth to your antenna or door.
  - Raise the hood after the snow stops falling.
- Exercise to keep blood circulating and to keep warm.

Subsection 4.b – System Emergencies

The following information summarizes primary response steps. For more detailed instructions, consult the relevant Standard Operating Procedure (SOP).

Power Outage

Assessment	Power outages are possible in rural areas. Standby generator minimizes the effect of power outages.
Immediate actions	Verify that emergency generator has switched on, the automatic transfer switch (ATS) has properly transferred and system is operating. If necessary, consult the separate SOP to manually start and manually transfer the ATS.
Notifications	Notify Franklin PUD and water customers.
Follow-up actions	Keep fuel tank full. When power has been re-established, verify that generator has switched off. Immediately request a re-fuel of the generator.

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Line Break

Assessment	A line break could occur due to digging or extreme freezing conditions.
Immediate actions	Identify location of break and close shut off valves to isolate area from rest of system.
Notifications	Notify contractor to repair break, notify affected customers.
Follow-up actions	Disinfect and return line to service once repair has been made.

Well Pump Failure

Assessment	Well pump could fail due to mechanical or electrical problems.
Immediate actions	Contact contractor to pull pump and replace with a new pump. Maintain pump manufacturer's stock inventory and lead time information.
Notifications	Notify customers of water conservation curtailment due to pump failure, include time estimate for repair. Contact and engage potable water hauler to maintain necessary inventory in the ground storage reservoirs. Manage the redundant ground storage reservoirs to maintain the conservation water supply. Monitor customer water use via smart meters to identify any potential abuse.
Follow-up actions	Notify customers when well pump is operational.

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Microbial (coliform, E. coli) Contamination

Assessment	System could become contaminated from a line break, cross-connections, or other sources.
Immediate actions	Notify Department of Health and re-test in accordance with coliform monitoring plan.
Notifications	Issue public health advisory if re-test is positive and disinfect system.
Follow-up actions	Testing in accordance with coliform monitoring plan.

Reduction or Loss of Water in the Well

Assessment	Review historical and operational water levels.
Immediate actions	Contact well contractor to lower pump.
Notifications	Notify water customers of reduced water supply and water conservation measures. Contact and engage potable water hauler to maintain necessary inventory in the ground storage reservoirs. Manage the redundant ground storage reservoirs to maintain the conservation water supply. Monitor customer water use via smart meters to identify any potential abuse.
Follow-up actions	Investigate alternatives for additional water.

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Section 5.
Emergency Notification

Notification List

Agency	Daytime Contact	Nighttime Contact
Franklin County Sheriff's Office	Business: 509-545-3501 Emergency call: 911	911
Franklin County Fire Protection District 3	Business: 509-547-9306 Emergency call: 911	911
Ambulance Service	911	911
Benton-Franklin Health District.	(509) 460-4205	
BFHD Testing Laboratory	509-460-4206	Pre-arrange after hours work: 509-460-4206
Emergency Management	509-545-3546	911
Water System Operator: SJ Environmental	Collin Favor Sam Snead Jay Favor	509-212-4136 509-855-3360 314-240-2377
State Police	509-734-7019	509-734-7019
Dept. of Health Eastern WA Regional Office	509-329-2100	800-833-6388
Spill Response	See attached Table 5.1	

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Service/Repair Notification List

	Daytime Contact	Nighttime Contact
Franklin PUD for power	509-547-5591	509-542-5300(for outages0
Cascade Natural Gas, for gas	888-522-1130	888-522-1130
SCADA/Controls: Townsend Control	509-545-1600	
Plumber: McGee Plumbing	509-541-2889	
Pump Specialist: Purswell Pump	509-520-4112	
Large Pipe Repair: C&E Trenching	509-948-4883	
Generator Rentals: Cummins	800-666-2561	
Equipment Rentals: Star Rentals United Rentals	 509-545-8521 509-546-2100	
Call Before You Dig	811	811
Local Paper: Tri-City Herald	509-582-1500, ext 4 (Newsroom)	
News Radio: 610 KONA 870 KFLD	 509-547-1618 509-547-8726	

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Notification Responsibilities & Procedures:

	Person Responsible	Procedures:
Notify Water Customers by phone and/or email	(General Manager) Peter Harpster	Telephone calls from the customer list as necessary (<25 connections). Primary notifications via customer email distribution list and/or mass text list (>25 connections).
Notify Water Customers door-to-door as necessary for those customers who could not be contacted via email or phone.	(Operator) Collin Favor	Receive door hangers from Richview
Alert local law enforcement or other officials	(Operations Superintendent) Sam Snead	Call appropriate department.
Contact service and repair contractors	(Operator) Collin Favor / (Operations Superintendent) Sam Snead-	Call appropriate service from lists
Issue Health Advisory	(Operator) Collin Favor / (Operations Superintendent) Sam Snead/ (Operations Supervisor) Jay Favor (General Manager) Peter Harpster--	Notify Health Department Contact customers and send written notice

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TABLE 5.1 – SPILL RESPONSE CONTACT INFORMATION

Operator on duty should immediately contact RWS General Manager in addition to the entities identified in this table.

Type of spill	Reporting requirements	Required contacts
Oil and hazardous substance spills to water	• Report immediately.	• The National Response Center at 1-800-424-8802 • Washington Emergency Management Division at 1-800-258-5990
Release of hazardous or extremely hazardous substance	• Report immediately. • See full EPCRA reporting requirements.	• The State Emergency Response Commission (SERC) at 1-800-258-5990 • Your Local Emergency Planning Committee (LEPC) • The National Response Center at 1-800-424-8802
Dangerous waste	• Report immediately.	• Call 911 • Notify the appropriate Ecology regional office
Leaking underground storage tanks	• Report within 24 hours.	• Notify the appropriate Ecology regional office
Oil spills to ground	• Report within 90 days. • Oil industry contingency plan holders may have different reporting timeframes designated by their contingency plans.	• Notify the appropriate Ecology regional office
Spills to air	• Report within 90 days.	• Notify the appropriate Ecology regional office

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Section 6.
Effective Communication

Communication with customers, the news media, and the general public is a critical part of emergency response.

Designated public spokesperson and alternates

Spokesperson	Alternate 1	Alternate 2
General Manager (Peter Harpster)	Operations Supervisor (Jay Favor), with client authorization	Operations Superintendent (Sam Snead), with client authorization

Health advisories

During events when water quality and human health are in question, it may be necessary to issue a health advisory that gives advice or recommendations to water system customers regarding how to protect their health when drinking water is considered unsafe. These advisories are issued when (in the estimation of the water system or state or local health officials) the health risks to the consumers are sufficient to warrant such advice.

Health advisories usually take the form of a drinking water warning or boil water advisory. Communication during these times is critical. Health advisories should always be well thought out and provide very clear messages.

The Division of Drinking Water has put together a number of tools, including fact sheets, brochures, forms, and templates to help prepare for a health advisory. These are on the Web at: http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/purveyor_assist_2.htm

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Section 7.
The Vulnerability Assessment

This is an evaluation of each water system component to identify weaknesses or deficiencies that may make them susceptible to damage or failure during an emergency. It also assesses facilities for security enhancements that may guard against unauthorized entry, vandalism, or terrorism.

Facility Vulnerability Assessment

Component	Description	Vulnerability	Improvements or mitigating actions	Security improvements
Source	New Well	Single-point failure	Second well to be drilled in future. Interconnect with neighboring system(s)	Secure well cap to be installed and located within the fenced and locked area.
Storage	New Storage Tank	Ground Storage Reservoir failure	Second tank to be installed in future. Redundant tank to be placed in service.	Locked access, alarms and monitoring.
Treatment	Chlorination	Sodium hypochlorite tank leaks. Sodium hypochlorite tank low or empty.	Contact backup supplied. Keep drum of HTH on site for backup use.	Chlorine feed in locked and fenced site or structure.
Booster and pumping facilities	New booster station and building	Redundant pump(s). Shelf spare pump.	Control logic roll-over to standby at duty unit failure or removal from service,	Building to be locked and site fenced off.

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Section 8.
Alternative Water Sources

Intertie to Adjacent Water Supply System

Water systems within one-quarter mile of our system	Feasibility of connecting
Pasco Water Department	Possible within 20 years, but not in current planning horizon
Pasco Heights Domestic Water System	Possible connection point along eastern boundary of Richview, but has not been addressed.

Alternate Source(s) of Water

Alternative sources	Names	Phone	Availability	Is the water safe for drinking?
Bottled Water Distributor	Culligan	509-586-1174	Yes	Yes
Potable Water Hauler	TBD	XX	XX	Yes

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Section 9.
Curtailing Water Usage

Water curtailment measures	Actions
Request curtailment of usage.	Upon making the decision that conservation/curtailment is needed due to reduced water availability in the RWS: • Contact customers via the email contact list. • Telephone customers not able to be contacted by email. • Distribute fliers to all customers with curtailment messages. • Monitor system usage; establish high usage alerts and enable RWS and customer notification via smart meter data • Continue message as long as curtailment is warranted.

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Section 10.
Returning to Normal Operation

Action	Description and actions
Inspect, flush, and disinfect the system	Water system contract operator shall inspect all system facilities, ensure that all water quality tests have been done and that the system has been flushed and disinfected if necessary.
Verification of water quality	Water system contract operator verifies water quality sampling results.
Coordinate with DOH	Water system contract operator coordinates with DOH on system condition and water quality results.
Notify customers	Water system contract operator communicates with General Manager to draft customer communications.

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Section 11.
Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name, Title	Signature	Date
General Manager, Peter Harpster		
Contract Operations Supervisor, Jay Favor		
Owner, Randy Mullen		

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Richview Water System
Cross-Connection Control Policy Resolution

FINDING OF FACT:

WHEREAS it is the responsibility of a water purveyor to provide water to the customer that meets State water quality standards, and

WHEREAS it is the water purveyor's responsibility to prevent the contamination of the public water supply system, and

WHEREAS it is a requirement of the Washington Department of Health for the purveyor to establish a cross connection control program satisfactory to the Department of Health, and

WHEREAS cross connections within the customer's plumbing system pose a potential source for the contamination of the public water supply system:

NOW BE IT RESOLVED that the Richview Water System establishes the attached Cross-Connection Control Program to protect the Richview Water System from the risk of contamination. For public health and safety, this policy shall apply equally to all new and existing customers.

IN WITNESS WHEREOF, the Richview Water System has passed this resolution as of the date and year last written below.

Date:

Signatures:

_____

_____

_____

_____

_____

RICHVIEW WATER SYSTEM
CROSS-CONNECTION CONTROL PROGRAM

Accepted by resolution dated:_____ Secretary:_____

SECTIONS:

1. Definitions.
2. Purpose and references.
3. General Rules

1. Definitions.

ACRONYMS:

AG	Air Gap
AVB	Air Vacuum Breaker
DCVA	Double Check-Valve Assembly
PVB	Pressure Vacuum Breaker
RCW	Revised Code of Washington
RPBA	Reduced Pressure Zone Backflow Assembly
WAC	Washington Administrative Code

1.1 **Air Gap (AG).** A physical separation sufficient to prevent backflow between the free-flowing discharge end of the potable water system and any other surface. Physically defined as a distance from the overflow rim of a receiving vessel to the discharge pipe of at least twice the diameter of the discharge pipe, but never less than one inch.

1.2 **Approved.** Accepted by the System as meeting all applicable specifications cited by program references, and current industry standards and practices.

1.3 **Atmosphere Vacuum Breaker (AVB).** A device that only prevents back-siphonage by creating an atmospheric vent when there is negative pressure in the water distribution system.

1.4 **Auxiliary Water Supply.** Any water supply to the premises other than the water system's approved public potable water supply.

1.5 **Backflow.** The flow of water, mixtures, substances, or gases into the distribution system of the potable water supply from any source other than the original water source.

1.6 **Back Pressure.** Any increase in pressure above supply pressure, at a given point in the water distribution system (caused by pump, elevation of piping, heat expansion, and/or air pressure) which would cause or tend to cause backflow.

1.7 **Backflow Prevention Assembly-Approved.** An assembly that has been listed by the Washington State Department of Health, Drinking Water Program, and so shown on their current listing of approved assemblies. Under WAC 246-290, backflow prevention assemblies that appear on the USC-Approved Assemblies List are acceptable for protection of the public water system.

1.8 Back Siphonage. The flow of water, mixtures, substances, or gases into the potable water distribution system resulting from a partial vacuum (reduced pressure) within the system itself.

1.10 Contaminant. A substance that will impair the quality of water to a degree that it will create a health hazard to the public leading to poisoning, the spread of disease or violation of water quality standards.

1.11 Cross-Connection. A physical arrangement connecting a public water system, directly or indirectly, with anything other than another potable water system, and capable of contaminating the public water system.

1.12 Double Check Valve Assembly (DCVA). An assembly with two independently acting approved check valves, including tightly closing shut-off valves at each end of the assembly and fitted with properly located test cocks. This assembly may only be used to protect against non-health hazards and must be purchased as a complete assembly.

1.13 Owner. Any person who has legal title to, or license to operate a property which is served by the water system.

1.14 Premises. A parcel of land and any structures, buildings or improvements thereon.

1.15 Premises Isolation. The practice of protecting the potable water supply by installing appropriate approved backflow assemblies at or near the point water enters the premises. This type of protection does not provide protection to personnel on the premises.

1.16 Pressure Vacuum Breaker Assembly (PVB). An approved assembly consisting of a spring loaded check valve loaded to the closed position with an independently operating air inlet valve loaded to the open position, and installed as a unit between two shut off valves with suitable test cocks. Unit must be used for non-health hazards and only protects against back siphonage.

1.17 Reduced Pressure Backflow Assembly (RPBA). An approved assembly consisting of two independently operating check-valves with an automatically operating pressure differential relief valve installed between the two. Unit shall be purchased as a complete assembly with two shut off valves and suitable test cocks. This assembly may be used to protect a potable water source against health hazards.

1.18 Water System. All parts of a system that supplies water to customers including wells, pumps, components and equipment, storage facilities, piping and all appurtenances, structures, treatment facilities, necessary vehicles and equipment and anything required to meet current regulations and standards of operation.

2. Purpose and References. This program is adopted by Resolution of the Richview Water System and provides requirements to prevent actual or potential cross-connections, and defines the degree of protection necessary when such cross-connections cannot be eliminated. The following references are the basis for this program:

2.1 **Washington Administrative Code 246-290-490:** establishes requirement for cross-connection control program for Group A water systems and allows disconnection of service.

2.2 **Revised Code of Washington, Chapter 70.54:** establishes failure to furnish pure water as a criminal misdemeanor.

2.3 **Uniform Plumbing Code:** describes water distribution systems and cross-connection control provisions.

3. General Rules. No cross-connections or potential cross-connections shall be created, used or maintained within the Richview Water System water system. WAC 246-290, Group A Public Water Systems, shall be the basis for this program, and specific requirements of that document will be followed.

3.1 The Richview Water System is the water purveyor and has legal rights to protect the public health. Water service shall be terminated per Rule X of the approved tariff, if the System determines at any time a threat exists to the public health.

(a) As a condition of water service, and after reasonable notice, owners shall allow all properties to be inspected for potential cross-connections and shall follow the requirements of this program if a cross-connection or potential cross-connection is found.

(b) Approved backflow assemblies, if required, shall be installed, at the expense of the owner, at the service connection (premises isolation) or, in limited cases, within the premises as determined by the System.

(c) A Double Check Valve Assembly (DCVA) shall be installed at the service connection to the premises, at the expense of the owner, in an approved installation, if the owner wishes to preclude inspections.

3.2 The most common sources of cross-connections in residential settings are on-site wells, water troughs, swimming pools, ponds, fountains, and lawn irrigation systems.

(a) Leaving a hose pressurized or using a hose bib to provide water to trailers/campers or to fill any kind of tank, also allows for potential contamination. These types of activities must be isolated from the potable water system, either by air-gap, or approved backflow assembly.

(b) All irrigation and lawn sprinkler systems shall have, as a minimum, Air Vacuum Breaker (AVB) protection. Increased protection may be required for unusual or complex systems.

(c) If an owner desires to keep an on-site well operational as an auxiliary water supply, an approved reduced pressure zone backflow assembly (RPBA) shall be installed. Capping the well or pulling the pump is not proper abandonment and shall require premises isolation. An owner shall properly abandon a well using a licensed well-driller and complying with (WAC) 173-160 and 248-54 or install an approved reduced pressure zone backflow assembly (RPBA).

3.3 The System shall ensure that plans for all new construction are reviewed, cross-connection hazard inspections are performed prior to water system connection, and will inform the

owner of required or recommended corrections for the prevention of cross-connections including an approved double check valve assembly (DCVA
The homeowner or business owner shall pay inspection costs, which are included in the connection fee.

3.4 The System will develop an information flyer, which will provide information on cross connections. This will be given to new customers and will be included in the annual Consumer Confidence Report mailing.

3.5 The System will utilize a Cross Connection Control Specialist (CCS) to implement this program and provide technical assistance, as necessary. The CCS will coordinate with local officials, as necessary, to ensure water system policy and rules compliments the Uniform Plumbing Code, and other local requirements.

3.6 Backflow assemblies will be inspected and tested annually in accordance with WAC 246-290. Records indicating the location, type, serial number, hazard protected, and all required Backflow Assembly Tester (BAT) inspection data will be maintained.

3.7 Should a backflow incident occur, the System will take immediate action to prevent further hazard to public health by disconnecting the source, and will notify the community, the Department of Health, and the CCS, immediately. The System will allow re-connection of the service line contributing to the backflow incident only after the service issue has been corrected, inspected for compliance and any/all circumstance contributing to the incident have been corrected.

3.8 The System will re-evaluate potential cross-connection hazards and conduct a system assessment from time to time, but not less than every two years, based upon new connections or change of use of water.

Customer Complaint Log

Date	Complaint	Name & Phone	Action

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Richview Water System**	**1/10/2025**		**Number of Units (Connections, ERUs etc.):**			**100**	**Total Equity:**	**$179,928**		**Connection Fee:**	**$1,799**	**Monthly Cost Per Unit to Reserves:**			**$0.00**
2													**Annual $$ to Reserves:**			**$0**
3									**Reserve Cash Applied:**				**Payments over 0 years:**			
4	**2025**	**Calculated Replacement Life**					**Calculated Equity**						**No Calculation**	**Replacement Cost**		
5	**Asset and Description** *RCAC V14*	**Install Date**	**Est. Effective Life**	**Condition Rating**	**Critical Number**	**Calc Remain Life**	**Original Cost**	**Book Value Original $$**	**Replacment Cost**	**Infl. Rate**	**Accum Loss of Value (Dep)**	**Debt and Grants**	**Equity**	**Cash Replace?**	**Saving Acc't Interest**	**Future Cost**
6		**Year**	**Years**	**1 to 10 Tab A**	**1 to 5 Tab A**	**Years**	**Cost $**	**Value $**	**Cost $**	**%**	**Loss $**	**Value $**	**Value $**	**X**	**%**	**Value $**
8	**Well #1 (S01)**	**2024**	**50**	**1**	**1**	**49.0**	**$180,000**	**$179,928**		**2.0%**	**$3,672**		**$179,928**			**$484,486**
9	**Well Pump #1**	**2025**	**30**		**1**											
10	**Storage Tank #1 (30'Dia x 30'H)**	**2025**	**50**		**1**											
11	**Booster Station Building**	**2025**	**30**		**1**											
12	**Booster Pump Skid and Controls**	**2025**	**20**		**1**											
13	**Jockey Pump #1**	**2025**	**10**		**1**											
14	**Domestic Pump #1**	**2025**	**10**		**3**											
15	**Domestic Pump #2**	**2025**	**10**		**3**											
16	**Domestic Pump #3**	**2025**	**10**		**3**											
17	**Domestic Pump #4**	**2025**	**10**		**3**											
18	**Fire Pump #1**	**2025**	**10**		**2**											
19	**Chlorine Chemical Pump #1**	**2025**	**5**		**1**											
20	**Manganese Filter System**	**2025**	**10**		**1**											
21	**Well Pump Control System**	**2025**	**20**		**1**											
22	**Yard Piping**	**2025**	**30**		**1**											
23	**200 kW Diesel Generator**	**2025**	**30**		**3**											
24	**Chain Link Fence and Gate**	**2025**	**20**		**4**											
25	**Well Source Meter**	**2025**	**15**		**3**											
26	**Well #2 (S02)**	**2030**	**50**		**2**											
27	**Well Pump #2**	**2030**	**30**		**2**											
28	**Storage Tank #2 (30'Dia x 30'H)**	**2030**	**50**		**2**											

Residential Water Use Efficiency

Water is essential to our health, our communities, our environment, and our economy. As our state population grows, the demand for water will continue to rise. Not only must water systems ensure a safe and clean supply of water, but they also must ensure that there is enough water available to supply their customers every day of the year.

Water is a shared resource. Other uses include agriculture, fish habitat, industry, hydropower, and recreation. All of these uses add up and can put enormous pressure on local water supplies, especially during summer when the demand is highest.

Depleting reservoirs and groundwater can put water supplies, human health, and the environment at serious risk. Lower water levels can contribute to higher concentrations of natural or human pollutants. Using water more efficiently helps maintain supplies at safe levels, protecting human health and the environment.

The tips you'll find within this brochure are designed to not only save water, but also save you money on your water, energy/gas, and wastewater bills. Maybe all three!

Eliminating Waste Makes Sense

Public water systems are the second largest water user in the state. They use about 18% annually of the total amount of freshwater withdrawn from surface and groundwater sources. By comparison, agriculture uses about 60% of the state's water every year, while industry and hydropower use about 8%.

A lot of hard work goes into providing the water that comes out of your tap every day. When the Department of Health adopted new water efficiency regulations in 2007, many water systems took notice and began to re-think just how efficient they can be. Now more than ever, they are taking action to find and fix leaks in their water distribution system, thereby eliminating waste.

DID YOU KNOW?
The average person unknowingly wastes up to 30 gallons of water every day.

Think of "water efficiency" as a way to eliminate wasteful water practices and promote the long-term goal of saving water. Wasteful water practices are unnecessary and costing you money.

By making just a few small changes to your daily routine, you can save a significant amount of water, money, and preserve water supplies for the future.

As a customer of a water utility, think about:

- How much water is necessary for a specific purpose or task.
- How you can help minimize the impact of water use on local water supplies.

Ask yourself what you can do to eliminate wasteful practices and ***use only what you need!***

- **Is your toilet leaking or faucet dripping?**
  If yes, then stop wasting water and fix it right away—or have someone fix it for you.
- **Do you leave the water on when brushing your teeth or doing the dishes?**
  If yes, make a conscious decision to stop wasting water. Change your habits and turn it off.
- **Are you watering your lawn too often?**
  If you're not sure, evaluate how much water your lawn needs and adjust watering times.
- **Did you really need that much water to accomplish the task?**
  No matter what it is you're doing, always ask yourself if you need that much water. Stop wasting water!

Water Waste Adds Up:
Drops Turn Into Gallons

Count the number of drips in 30 seconds to see how many gallons is wasted.

	1 Day	1 Year
5 drops	0.8	292
10 drops	1.6	584
15 drops	2.4	876
20 drops	3.2	1,168
25 drops	4	1,460
30 drops	4.8	1,752

Go Green: Reduce Energy and Water Use

It takes a lot of energy to treat and deliver the water to everyone in your community. Considerable amounts of energy also go to heat water for laundry, bathing, cooking, dishwashing, and cleaning our homes. Homes with electric water heaters use 25% of their electricity to heat water.

DID YOU KNOW?
About 4% of the nation's electricity consumption is used moving or treating water and wastewater.

Look for the WaterSense Label

WaterSense is a program sponsored by the U.S. Environmental Protection Agency. Much like the ENERGY STAR symbol for energy-efficient products and practices, WaterSense is the symbol for water-efficient products, services, and practices.

WaterSense helps consumers identify products that meet EPA's criteria for water efficiency and performance. WaterSense labeled products use 20% less than standard products.

Best of all, they work!

All WaterSense labeled products have been tested to ensure savings and performance. Look for WaterSense labeled products and start saving water today!

Visit www.epa.gov/watersense to learn more.

DID YOU KNOW?
If a family of four replaces its older, inefficient toilets with new WaterSense toilets, it could save more than 16,000 gallons per year and $2,000 in water and wastewater bills over the lifetime of the toilets.

One of the simplest ways to save both water and energy is to install water-efficient plumbing fixtures. This will save you money on your water and energy bills—it takes less energy to heat less water.

Look for WaterSense labeled products to save the most money. You can let these products do the saving for you!

- **High Efficiency Toilets** use 1.28 gallons per flush or less. Plus, they now have flush ratings that can tell you just how well they perform.
- **Faucet aerators** are very inexpensive and easy to install.
- **Low-flow showerheads.** Look for those that use 2 gallons per minute or less.
- **High Efficiency Washing machines**. Look for ENERGY STAR rated machines with low water use per load (water factor of 4.5 or lower).

DID YOU KNOW?
Gardening professionals agree that most lawns and yards receive more water than they need. Over-watering creates runoff that carries toxic fertilizers and pesticides into our streams, rivers, and lakes—where it can contaminate drinking water supplies too!

$$ Great Water/Money Saving Tips $$

Visit these Web sites to find rebates near you or simply ask your water or wastewater utility if they offer rebates.

www.epa.gov/watersense/rebate_finder_saving_money_water.html

www.toiletrebate.com/index.php

www.greenplumbersusa.com/green-plumber-water-rebates-in-your-area

Install moisture control sensors or rain sensors on your automated irrigation systems. These devices know when to water your lawn, keeping it healthy and green. Best of all they can substantially reduce your water bill and save a ton of water.

Leak Repair

Many homes waste (and pay for) thousands of gallons of water each year because they don't fix leaks that can be easily repaired. Fix it yourself or ask a friend to help you.

DID YOU KNOW?
In one year, water leaks in your home can waste enough water to fill a backyard swimming pool.

Replacement parts are inexpensive and can save you more than 10% on your water bill. In most cases, fixing a leaky toilet should cost you about $10 or less in parts.

You can fix most dripping faucets or showerheads by replacing worn washers. To check your toilet for leaks, drop food coloring in the toilet tank. If color appears in the bowl without flushing, you have a leak.

Water Saving Ideas

- Collect rainwater to irrigate indoor/outdoor plants.
- Install WaterSense labeled low-flow showerheads and save 3 gallons per minute.
- Take shorter showers by 2-3 minutes and save up to 10 gallons per shower.
- If you don't like mowing your yard, get rid of it and replace it with native or drought resistant (xeriscape) landscaping.
- Install WaterSense labeled low-flow fixtures or aerators for every faucet in the house.
- Most landscapes will do well being watered two or three times per week.
- To reduce evaporation, water the lawn in the early morning or evening. Watering during the heat of the day, or when it's windy, wastes water and is much less effective.
- Place a 2" to 4" layer of mulch around plants and trees to avoid excess evaporation and retain moisture.
- Consider using a commercial car wash that recycles water or wash your car on your lawn.
- Sell your lawn mower and use that money as a down payment to replace your lawn with a flower or vegetable garden.
- Protect water quality by limiting or eliminating the use of fertilizers, weed killers, and pesticides.
- Install micro/drip irrigation systems or use soaker hoses to water outdoors.

How You Can Help

Understanding what you can do to save water is where it all begins. You can get the biggest water savings in your home by installing WaterSense fixtures and fixing leaks.

Since outdoor use often doubles in the summertime, use the tips in this brochure to think about what you can do to use less while still maintaining a healthy landscape. Limiting the use of fertilizers and pesticides will also help keep water clean and protect public health.

Using less water leaves more of it in the ground or in our streams, rivers, and lakes. This benefits the environment and provides recreational opportunities for you and your community.

Do what you can to avoid unnecessary water use. You will contribute to the long-term health, adequate future water supply, and sustainability of your watershed!

To learn more about how you can use water efficiently, contact your local water system for more information or visit our Web site at www.doh.wa.gov/ehp/dw/programs/wue.htm

More Information
Washington State Department of Health
Office of Drinking Water
(360) 236-3100 • 1-800-521-0323
www.doh.wa.gov/ehp/dw

DOH 331-450
April 2010

WaterSense® Labeled Homes

INTRODUCTORY GUIDE

EPA-832-F-22-010
AUGUST 2022

EPA

Welcome Home!

We hope this guide will help you understand how WaterSense labeled homes can make a positive impact on your community. Choosing a WaterSense labeled home means making an investment in the future—an investment that saves water and energy in your community, protects resources for future generations, and can help save hundreds of dollars per year in utility bills compared to typical new construction.

THE PURPOSE

This guide is designed to provide an introduction to the WaterSense labeled homes program and the certification process. The content will provide an overview of the benefits of engaging in the program, steps to achieve WaterSense certification, and ways that stakeholders can get involved.

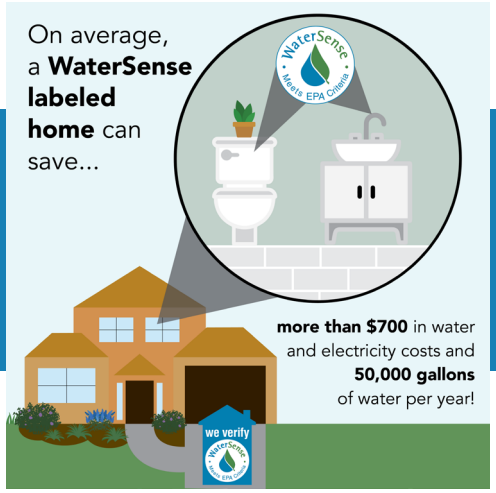
WHO IS THIS FOR?

This resource is for anyone who wants to learn about building, certifying, or buying WaterSense labeled homes. Whether you are a utility, homeowner, builder, or verifier, this guide will help you understand the components of a WaterSense labeled home and provide a roadmap for connecting with the appropriate professionals to achieve certification.

DIG DEEPER!

Learn more with WaterSense's detailed specification and certification materials, technical and marketing resources, and more!
www.epa.gov/watersense/homes

Did you know?



Why WaterSense?

WATERSENSE LABELED HOMES: THE BENEFITS

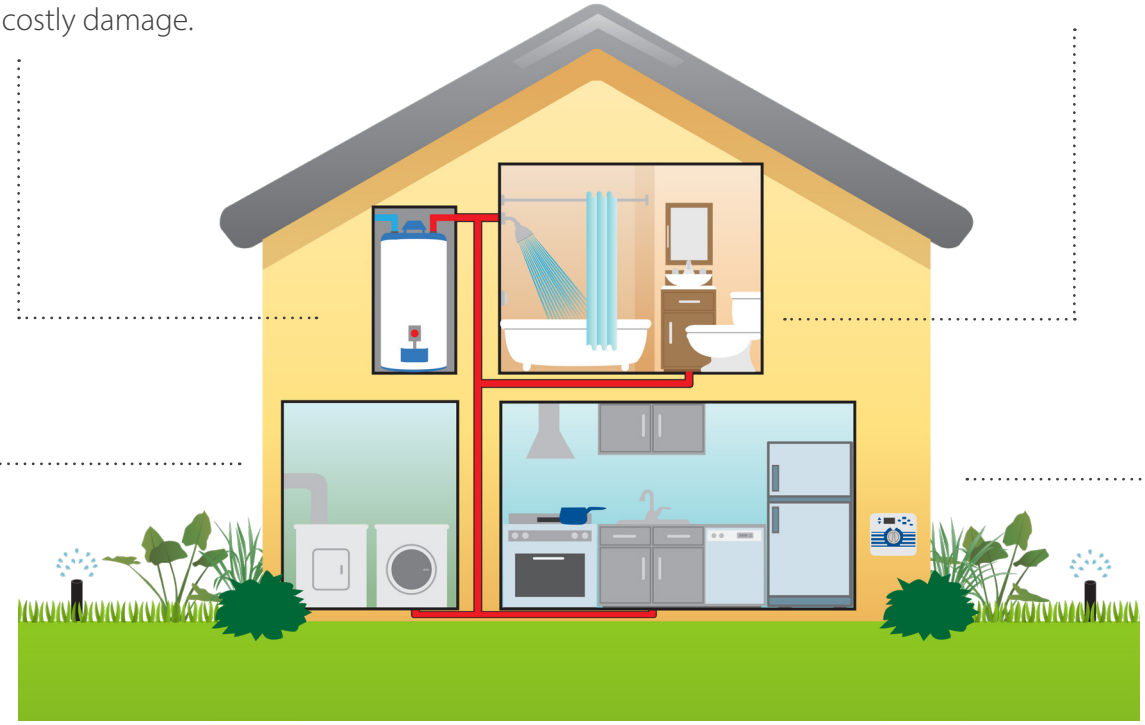
The WaterSense label can help efficient homes stand out in a competitive high-performance building marketplace. WaterSense labeled homes capitalize on consumer demand by offering homeowners a whole-house solution that helps save water, energy, and money while maintaining a high level of performance. Homeowners can save more than $700 in utility bills and reduce water use by up to 50,000 gallons annually.

FREE OF LEAKS

Homes are verified to be free of visible water leaks both inside and out, reducing water waste and preventing potentially costly damage.

SAVINGS THAT PERFORM

WaterSense labeled toilets, showerheads, and bathroom sink faucets are required in every labeled home. These fixtures are independently certified to use less water and perform as well or better than standard models.



PEACE OF MIND

WaterSense labeled homes are independently certified to meet EPA's criteria for efficiency and performance.

FLEXIBILITY IN MEETING EFFICIENCY

Applying a whole-house building science approach gives builders the freedom to select the most cost-effective solutions in their market without sacrificing water savings.

What's in a WaterSense Labeled Home?

All WaterSense labeled homes are independently certified to meet EPA's criteria for both efficiency and performance.

MANDATORY CHECKLIST TO ENSURE QUALITY PERFORMANCE

LEAKS

- ◯ Pressure-loss test on all water supplies detects no leaks
- ◯ Free of visible leaks from all fixtures and appliances at point of use or point of connection to water distribution system
  - ◯ Toilets
  - ◯ Bathroom faucets
  - ◯ Showerheads
  - ◯ Bathroom tub faucets, i.e., tub spouts
  - ◯ Kitchen and other sink faucets
  - ◯ Other fixtures or appliances (e.g., water heaters, clothes washers, dishwashers)

WATERSENSE LABELED PLUMBING FIXTURES

- ◯ Toilets
- ◯ Bathroom sink faucets
- ◯ Showerheads

EFFICIENCY REQUIREMENT

VERIFIED EFFICIENCY

- ◯ At least **30 percent** more water-efficient than a typical new home (based on national standards and common design and landscape practices).

EPA Approved HCOs

EPA approved Home Certification Organizations (HCOs) go through an application and approval process to ensure they have the organizational infrastructure to oversee the certification of homes. They are also responsible for overseeing and training verifiers. As part of the application process, a technical evaluation of their chosen method of measuring water efficiency is carried out. EPA verifies that all methodologies can accurately and consistently identify homes that are at least 30 percent more water-efficient than a typical new home.

Once approved, these methods are referred to as WaterSense Approved Certification Methods (WACMs), which outline the requirements for a home to meet the WaterSense efficiency requirement. HCOs carry out other responsibilities as well, including but not limited to:

Certification. HCOs have authority over the decision to certify a home and issue the WaterSense label.

Training. HCOs train and authorize WaterSense home verifiers to verify homes in accordance with the requirements established by EPA and the HCO's WACM.

Reporting. HCOs submit quarterly reports to EPA providing details on certified homes and authorized WaterSense home verifiers.

It is important to understand the requirements of an HCO's WACM when pursuing WaterSense certification, as each method has distinct ways of measuring water efficiency. Features that can contribute to improved water efficiency may include:

- WaterSense labeled plumbing products and high-efficiency kitchen faucets
- ENERGY STAR certified clothes washers and dishwashers
- Efficient hot water delivery
- Landscape size, design, and plant selection
- Irrigation design and technology, including use of WaterSense labeled irrigation products
- Landscape design or audit by WaterSense Irrigation Professional

Builders have the flexibility to select an HCO and WACM that best fits their needs and works with their existing certifications (if applicable). An overview of EPA approved HCOs is included on the next page. More information about their associated WACMs can be found at:

www.epa.gov/watersense/homes-certification

Overview of EPA Approved HCOs

HCO	SCOPE			METHOD FOR LABELING HOMES
	REGIONALITY	BUILDING TYPES	CONSTRUCTION TYPE	
CHEERS		Single-Family	New Construction	Achieve a score of 70 or less under CHEERS WaterSense
GreenBuilder® COALITION		Single-Family	New & Existing Construction	Achieve a score of 66 or less under the Water Efficiency Rating Score (WERS) with WaterSense Baselines
NGBS GREEN™ Home Innovation Research Labs		Single-Family & Multifamily	New & Existing Construction	Complete a set of selected practices from the National Green Building Standard (NGBS)
			New Construction	Achieve a score of 64 or less under the Water Rating Index
RESNET HERS$_{H2O}$		Single-Family	New & Existing Construction	Achieve a score of 70 or less under HERS$_{H2O}$

HCOs listed have been approved as of August 2022. For more information and the latest list of EPA approved HCOs, please visit www.epa.gov/watersense/homes-certification.

Home Verifiers

Boots on the Ground

Verifiers serve a critical role in the WaterSense labeled homes program. They are responsible for verifying that homes meet the Mandatory Checklist and water efficiency requirement. WaterSense verification is a simple process that can be done in one to two hours during a single site visit. If a verifier identifies issues, they work with builders to resolve the problem before the home earns the WaterSense label. Verifiers can also help guide builders through the certification process.

Becoming a WaterSense Home Verifier

Verifiers can be independent or associated with home rating companies. Individuals interested in becoming a WaterSense home verifier should contact an HCO to obtain the required training. Training covers important information on the *WaterSense Specification for Homes* and the HCO's WACM. Once training is complete, the HCO will formally authorize a verifier, meaning they can offer WaterSense verification services.

Verifiers who have been trained and authorized by an HCO are listed on the WaterSense Verifier Search Tool. Use this tool to identify local verifiers who can assist with WaterSense certification.

www.epa.gov/watersense/find-home-verifier

Promoting WaterSense Verification

Verifiers also perform an important role in marketing WaterSense certification to builders, which includes communicating the benefits of the WaterSense label and the home's potential water, energy, and associated cost savings. WaterSense provides verifiers with a promotional mark that includes the WaterSense label. Verifiers may use this mark on their marketing materials.

WaterSense designed its specification to complement the criteria for other green home certification programs, which makes it easy to integrate the WaterSense verification into home rating site visits. This minimizes additional time and expense for builders, and allows verifiers to check a home's water- and energy-efficiency features during the same site visit. Whether as a stand-alone certification or as an add-on to other green certifications, the WaterSense label adds value for both verifiers and builders.

Ready to Get Started?

Adding the WaterSense label—an independent certification backed by the EPA for both savings and performance—helps provide assurance to home buyers in a competitive market where certifications matter and consumers are looking for efficient homes. You can open the door to savings with WaterSense labeled homes. Here's how:

BUILDERS

- **Partner with WaterSense!** Partnership is free and required for any builder who wants to earn the WaterSense label. Simply fill out WaterSense's brief online partnership agreement at www.epa.gov/watersense/join-watersense.
- **Talk to verifiers** with whom you work and see if they offer WaterSense certification. You can also find a WaterSense home verifier in your area using the WaterSense Verifier Search Tool at www.epa.gov/watersense/find-home-verifier.
- **Review the requirements** of the WaterSense Mandatory Checklist found in the WaterSense specification at www.epa.gov/watersense/homes-specification.
- **Ensure you will meet the water efficiency threshold** by working with your verifier to understand the HCO's WaterSense certification requirements.
- **Design, build, certify, and market** WaterSense labeled homes to your buyers.

VERIFIERS

- **Check the training requirements of your HCO(s).** Every HCO will provide the WaterSense program-specific training as well as their own specific program training.
- **Share opportunities for WaterSense certification** with your builders and market your services as a WaterSense home verifier. Verifiers in good standing will also automatically be listed on the WaterSense Verifier Search Tool.
- **Complete home verifications** to ensure each home meets all of the technical requirements and work with your builders to help them achieve WaterSense certification.

UTILITIES AND LOCAL GOVERNMENTS

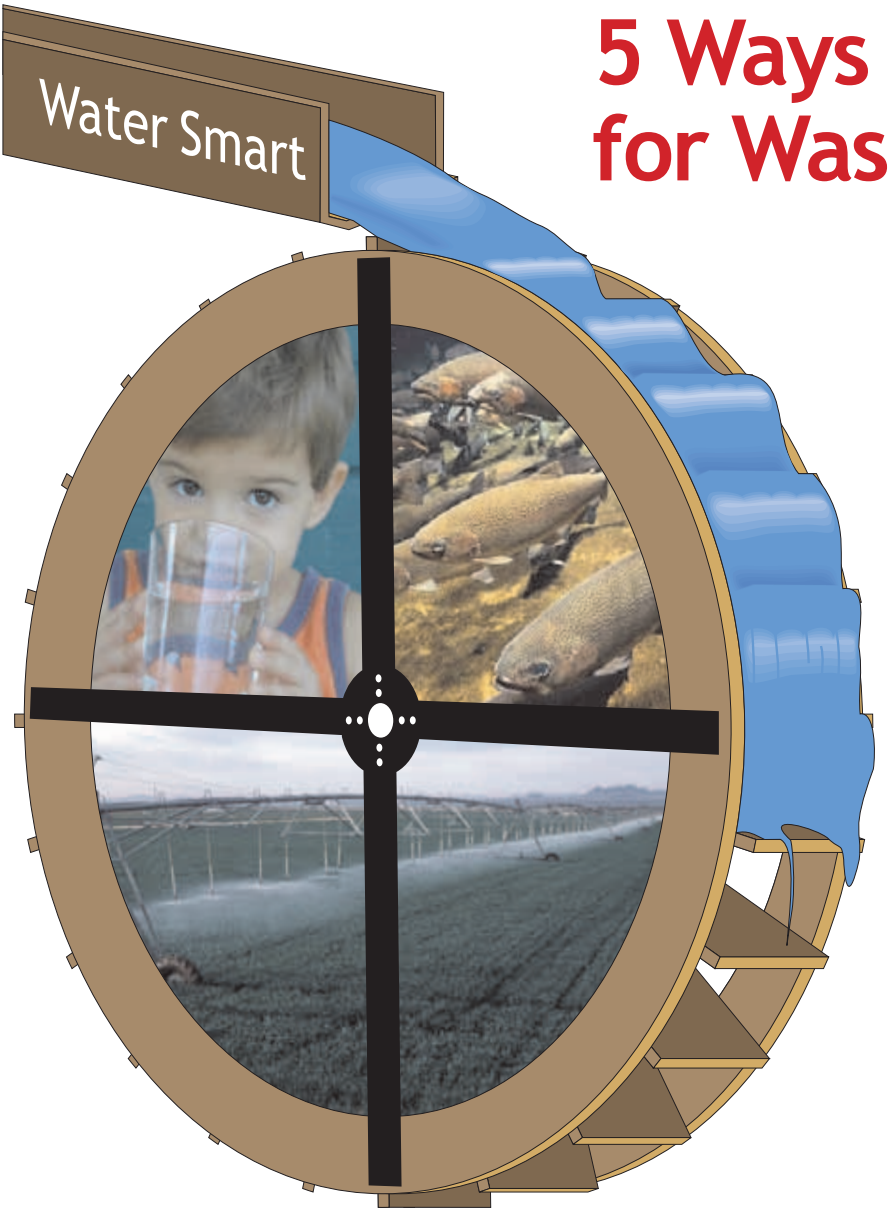
- **Become a WaterSense Promotional Partner.** By partnering with WaterSense, you can access exclusive materials to communicate the value of water efficiency to consumers.
- **Incentivize WaterSense labeled homes and products** through rebate programs, reduced connection fees, or expedited permit reviews. These incentives can help encourage builders to pursue water-efficient homes in your service area.
- **Spread the word** about the importance of water efficiency to builders, homebuilder associations, and prospective home buyers. Encourage customers to look for the WaterSense label when purchasing a new home or water-using product. Help consumers learn about additional ways to save water through messaging focused on specific water-efficient practices.

PHONE (866) WTR-SENS (987-7367) WEBSITE www.epa.gov/watersense EMAIL watersense@epa.gov

EPA-832-F-22-010
AUGUST 2022

Water Smart, not Water Short:

5 Ways to Secure Water for Washington's Future



"We must be water smart today so the future is not water short for our children and grandchildren."
Jay Manning, Director,
Washington State
Department of Ecology

Historically, Washington residents have enjoyed an abundance of water, but water availability is no longer a luxury. The Department of Ecology is working closely with communities to provide effective water management. It will take all of us, working together, to meet current water needs and to ensure future water availability for people, fish, and the natural environment.

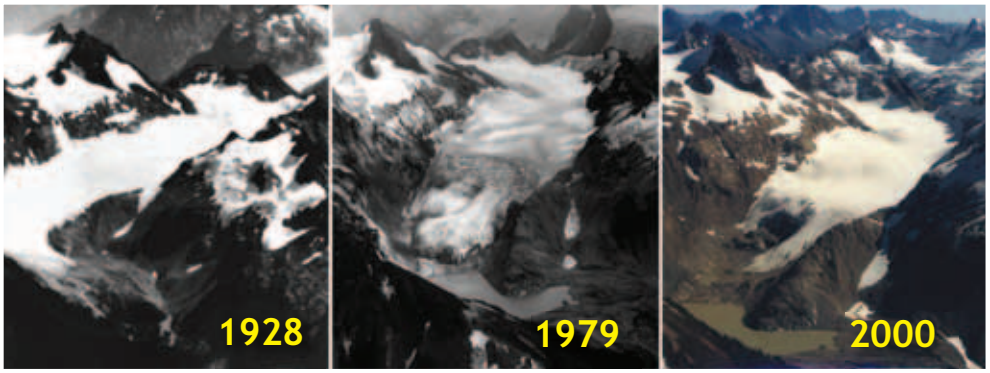
To address the biggest threats to our water supplies and to protect our state from a water short future, we need to be water smart:

- Reduce the causes of climate change and drought
- Protect and preserve groundwater through stronger regulation of homestead (permit-exempt) wells
- Encourage and support the reclamation and reuse of wastewater
- Encourage water conservation
- Develop new water supplies

DEPARTMENT OF ECOLOGY
State of Washington

Washington state draws on public, private expertise to protect water supplies from climate change

By Blanche Sobottke, contributing writer



North Cascade Climate Project, Nichols College, Dudley Mass.

South Cascades Glacier in Glacier Park Wilderness has retreated more than three-quarters of a mile since its last major advance in the 1500s.

As Washington's climate changes, the Governor and the Legislature are working with concerned citizens and experts to reduce contributions to climate change and prepare for and adapt to changes we can't prevent.

According to the Climate Impacts Group at the University of Washington, the average annual temperature in the Pacific Northwest rose by 1.5° F in the 20th century and is expected to rise another 0.5° F per decade in the first half of the 21st century. A few degrees may not seem like much, but they can make the difference between rain and snow, early or late snowmelt, flowing summer streams or dry creek beds.

Our snowfed water supplies are particularly vulnerable to a warming climate. Drought isn't about how much rain falls, it's about water supply — how much water is available and whether it's enough.

Washington's warming climate is expected to result in milder winters and hotter summers. That will mean more rain and less snow falling from October through March, when water demands are lowest, and less rain falling in summer, when water needs are highest.

Much of Washington's water supply is stored in snow pack and glaciers that slowly melt, feeding streams and rivers. Less snow to replenish the frozen supply and more warm months to melt it will alter the usual timing and level of stream flows. As more snow melts earlier in the year, less is left to feed streams through the summer.

Climate change is expected to affect underground water supplies, too. As more precipitation falls as rain, more water can be expected to run off directly into streams rather than soak slowly into the ground to recharge aquifers. Plus, higher summer temperatures coupled with less summer rainfall can dry out the soil. As groundwater levels drop, some wells will go dry.

Washington has developed laws and policies to address climate change. Codes and standards for vehicle emissions, fuel content, energy-efficient buildings, appliances, outdoor burning, and electric utilities all support targets set by the Governor and Legislature to reduce Washington's greenhouse gas emissions to 1990 levels by 2020, and to half that by 2050.

Through the Western Climate Initiative, Washington, six other states, and four Canadian provinces are working to set a regional target for reducing greenhouse gas emissions. Washington is also working with British Columbia on clean technologies. Many Washington cities have joined the U.S. Mayor's Climate Protection Agreement to slow climate change with better energy, water, waste, and transport management. The Climate Action Team (CAT) has engaged business, community, and environmental leaders to consider ways to achieve our state's climate change reduction goals.

(*Assistant State Climatologist Karin Bumbaco contributed to this report.)*

Two new reports show impact of climate change on Washington

Ecology has posted on its Web site two newly released university reports showing the impact of climate change in Washington – and the cost of doing nothing:

- 2009 report: Impacts of Climate Change on Washington's Economy
  http://www.ecy.wa.gov/climatechange/economic_impacts.htm
- Scientific Forecast of Climate Change Effects in Washington State
  http://www.ecy.wa.gov/climatechange/scientific_forecast2009.htm

Water suppliers, government need proactive response to drought

By Lynne Geller, Water Resources, Ecology

After the record-breaking snowfall of the winter of 2008, it's hard to believe that in the big picture temperatures are rising and our water supply is increasingly stressed!

The Washington Climate Impacts Group (CIG) projects that temperature and precipitation in the Pacific Northwest will change significantly over the next 20-40 years. Temperatures will be warmer, and there will likely be wetter winters and drier summers.

And with a warmer climate and drier summers, droughts could become more severe and longer-lasting. As more water evaporates, particularly during summer and fall, drought conditions could intensify and the risk of wildfires increase. Warmer temperatures will reduce winter snowpack and therefore late summer stream flows.

Lower summer stream flows mean less water will be available when needed for irrigation, hydropower, cities, and salmon. And the impact is not just on the amount of water available; higher water temperatures also affect water quality.

Droughts occurring more frequently; economic effects devastating

Although drought is a normal part of Washington's climate cycle, what is unusual is that droughts appear to be occurring more frequently. Areas of the state are affected differently by drought. Based on the state's history with drought from 1895 to 1995, severe or extreme drought is expected:

- 10-15 percent of the time in all of Eastern Washington, except for the Cascade Mountains' eastern foothills.
- 5-10 percent of the time on the eastern slopes of the Cascades and much of Western Washington.

Multiple droughts since 1971 have resulted in dry streams, withered and abandoned crops, dead fish, record low rivers, and declining groundwater levels. The worst drought on record occurred in 1977, with one in 2001 a close second. Several droughts lasted more than one season. Between 2000 and 2005, Washington experienced two drought emergencies, resulting in statewide drought declarations by Governors Locke and Gregoire. A regional drought was declared for the northwest corner of Washington from west of Port Angeles to Cape Flattery in the fall of 2006.

Economic effects can be extensive. The U.S. Federal Emergency Management Agency has estimated that drought costs the U.S. an average of $6-8 billion every year, making it the costliest natural disaster. The impacts primarily occur in agriculture, transportation, recreation and tourism, forestry, and energy sectors. But it is not just the economy that suffers. Environmental and social impacts are also significant, although harder to quantify.

In late 2006, a team of scientists and economists studied the effect of climate change on Washington's economy, revealing potentially costly impacts on forest resources, municipal water supplies and other economic activities, including:

- Direct costs of fighting wildfires may total more than $75 million per year by the 2020s – a 50 percent increase from current costs. And this does not take into account lost timber revenue.
- More frequent droughts in Yakima may cause more crop losses due to water shortages. While drought does not occur every year, the average losses may increase to $66 million for Yakima. (The Yakima River Basin produces crops worth about $1 billion annually.) Other agricultural areas statewide are likely to face similar effects.

A dust storm envelops an Idaho community. Weather systems are fed by energy (heat) in the atmosphere. Extreme weather events are expected to become more common with climate change.

- Water conservation costs to offset the decline in guaranteed water for Seattle's water supply could exceed $8 million by the 2020s and $16 million per year by the 2040s. Eastern Washington communities in Spokane and Yakima will face similar impacts. Consumers could face water price increases in some basins.
- Public health costs will increase due to smoke-related health problems, like asthma, from larger and more frequent wildfires.
- Tourism and recreation losses related to forest closures and smoke could increase from larger and more frequent wildfires. Snow recreation would be impacted.
- Hydropower revenues may be affected as stream flow patterns change because of climate change. University of Washington researchers suggest up to a 5 percent loss in the Columbia River hydrosystem, or $166 million a year.

Drought management plans minimize the effects of water shortages

What can we do now to prevent and prepare for drought? There is little disagreement in the scientific community that rising temperatures are related to climate change, which is a direct result of carbon dioxide and other greenhouse gas emissions from human activities. In 2007, Washington's Climate Advisory Team reported that implementing measures to reduce greenhouse gas emissions statewide could yield a collective net benefit to the state of more than $900 million by 2020.

Ecology photo

Dry river bed of Tuchet River in Walla Walla County in 2005 drought.

The impacts of drought can be lessened through mitigation and preparedness. Experts stress the importance of a proactive, rather than a reactive, approach. Therefore, municipal water suppliers in Washington are required to have drought management plans to minimize the effects of water shortages on public health, recreation, the economy and the environment.

As Gov. Gregoire was declaring a statewide drought emergency in March 2005, water managers in Seattle and Tacoma public utilities were activating their water shortage contingency plans. City water managers worked to capture as much water from spring rains as possible. This collection of rainwater, combined with a decision earlier in the year to release less water than normal from the city's South Fork Tolt and Chester Morse reservoirs, meant the city's primary water sources remained viable even without the normal mountain snow pack.

Strategies needed to extend summer supplies

The Seattle and Tacoma water shortage plans may provide inspiration to other water suppliers working with local and state government to combat the ravages of frequent drought. The Department of Ecology will continue to encourage and support a variety of strategies to augment limited summer supplies, including:

- The devolpment of storage capacities statewide.
- Water rights transfers as an important strategy for making water available when and where it is needed. (In the 2005 drought, Ecology initiated a voluntary online "water exchange" to help link those who needed water with water-right holders who had water to sell or lease.)
- Encourage water efficiency and conservation efforts in the municipal, industrial, and agricultural sectors, and by individuals not served by a municipal system.
- The reuse of reclaimed water.

For more information:

- "Drought Response 2001: Report to the Legislature" (*http://www.ecy.wa.gov/biblio/0111017.html*)
- "2005 Drought Response: Report to the Legislature" (*http://www.ecy.wa.gov/biblio/0611001.html*)
- National Drought Mitigation Center (*http://drought.unl.edu/index.htm*)
- Climate Impacts Group (*http://cses.washington.edu/cig/*)
- U.S. Drought Portal (*http://www.drought.gov/portal/server.pt/community/drought.gov*)
- The Water Center (*http://depts.washington.edu/cuwrm/*)
- 2006 Economic Impacts Report (*http://www.ecy.wa.gov/climatechange/economic_impacts2006.htm*)

Groundwater needs more protection; "homestead" wells can't meet the growing demands for water

By Dan Partridge, Water Resources Communications Manager, Ecology

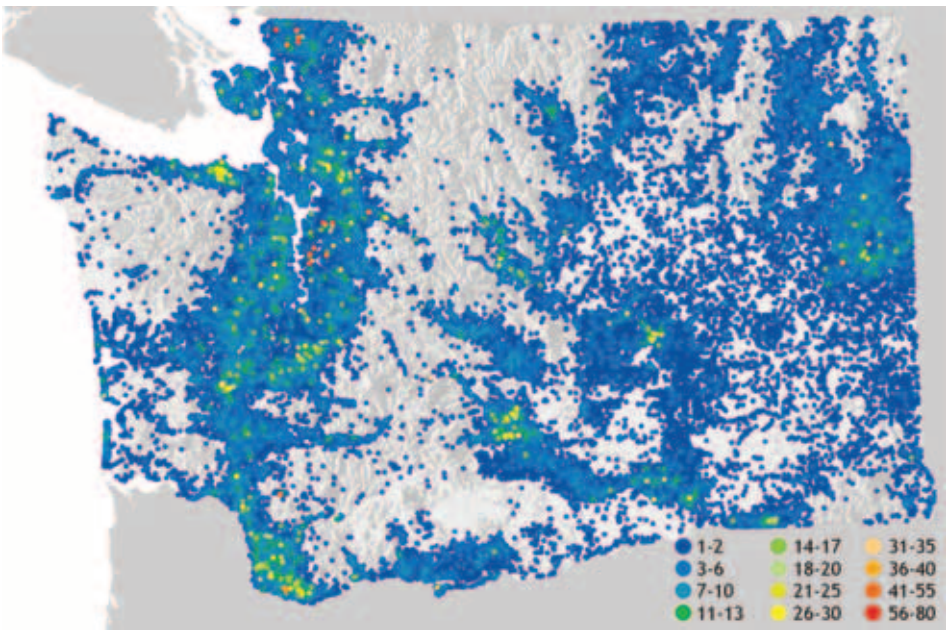
Joe Peck remembers the drought of 2005 when he was ordered to shut off water to the entire city of Roslyn while new, large vacation homes just out of town got to keep watering their lawns.

"This town was one of those that built Washington state. Tell me why, in a drought, those homes faced no restrictions, and we had to bear the brunt of it?" asked Peck, Roslyn's water superintendent, in an interview with the Seattle Times in 2007.

Roslyn's 1908 Water Rights are junior to others

The answer, explained in a Times article headlined "*Big Growth, big fight over water*," is that although the city of Roslyn held water rights dating to 1908, they were still "junior" to even older rights. Meanwhile, newly built vacation homes outside Roslyn in Kittitas County were taking water from groundwater wells that do not require water right permits. Roslyn suffered the consequences of curtailment to satisfy downstream senior surface water rights. Permit-exempt groundwater users, even though their priority dates were far junior, weren't curtailed - a disconnect between the 1945 Groundwater Code and 21st Century water needs.

Water well logs per 40 acres - 2009



Dave Nazy, Water Resources, Department of Ecology

Each dot represents a group of the estimated 1 million water wells drilled in Washington State since the 1940s

Groundwater plays crucial role in state's economic future

The "groundwater permit exemption" or "homestead" exemption in the state Groundwater Code allows for the use of groundwater under certain conditions without obtaining a permit from the Washington Department of Ecology. While exempt from the permitting process, these withdrawals are still subject to all other state water laws, including the fundamental tenet that "first in time is first in (water) right."

Groundwater – that is, water under the ground – plays a critical role in Washington's economic and environmental future. It is the source of drinking water for more than 60 percent of Washington residents. Groundwater irrigates more than 385,000 acres in our state, supporting thousands of agricultural jobs and a large part of the state's economy. It is the primary source of water for hundreds of commercial and industrial needs that use more than 138 million gallons of water each day. It is also expected to provide the majority of drinking water for the millions of new residents predicted for Washington in the next several decades.

"The proliferation of permit-exempt wells in conjunction with increased impervious surface areas, both driven by robust population growth, are jointly the most significant threats to our future groundwater supplies, " said Ken Slattery, manager of Ecology's Water Resources Program.

To reduce the increasing numbers of permit-exempt wells in Kittitas County, Ecology worked in cooperation with the county on a memorandum of agreement for managing groundwater resources.

For more information on how a proposed rule limits the use of permit-exempt wells in Kittitas County housing developments, go to *http://www.ecy.wa.gov/programs/wr/cro/kittitas_wp.html*.

Moses Lake, 1911

Proliferation of permit-exempt wells is not sustainable

At the rate of 6,200 to 7,600 new exempt wells every year, Ecology estimates that close to 1 million wells have been drilled across the state since the 1940s. Washington's total groundwater use is estimated at about 1.1 billion gallons per day (gpd). To put this number in context, the average household indoor use is about 350 gpd.

Groundwater is a finite resource and the best available science suggests at current population growth rates, the proliferation of permit-exempt wells under current law is not sustainable. Washington state's population is now more than 6.3 million, and is expected to be between 8 to 9 million by 2030.

In May 2008, Washington Law Review author Kara Dunn wrote about the history of the Ground Water Code in "*Got Water? Limiting Washington's Stockwatering Exemption to Five Thousand Gallons Per Day*." At the time the Legislature enacted the code in 1945, Washington and the U.S. Bureau of Reclamation "were attempting to populate the Columbia Basin region with family farms,"according to Dunn.

Today, however, most of the permit-exempt wells are concentrated in the high growth areas of Washington and outside existing water systems. While no single exempt well is likely to have a major impact, the cumulative impact is already taking its toll on groundwater and surface water levels in some areas. Local land use regulations have done little to restrict the spread of these wells.

Chaotic interpretation of exempt-well court decision

In 2002 a state Supreme Court decision (Campbell & Gwinn vs. Ecology, 146 Wn. 2d I) established the guiding principle that county governments have been advised to use when making land use decisions involving water use: Housing developments outside of established water systems are entitled to only one exemption per "project." That exemption can be provided by more than one well but water use is limited to 5,000 gallons per day for all the wells combined.

Unfortunately, while establishing the one exemption per project rule, Campbell & Gwinn did not define what a project is and the result has been a chaotic interpretation of the court decision. The number of lots allowed to use the exemption varies from one subdivision to another across the state and from county to county. In some cases, dozens of lots have each been allowed their own exemptions in direct contravention of the Campbell & Gwinn opinion. In other cases, developers have attempted to use multiple exemptions by trying to disguise the ownership of and relationship between adjacent developments.

Ecology seeks clarification of groundwater exemption

Recognizing the need to update the 1945 groundwater exemption, Ecology is seeking to clarify the existing exemption for both group domestic and stockwatering uses. This can be accomplished through legislation, rulemaking or a combination of both.

Regulations that may be considered include:

- Requiring property owners whose place of water use is within the service area of a water purveyor (like a public utility district) to obtain water service from that purveyor if it can be provided in a timely and reasonable manner.
- Restricting all domestic uses of an exempt well (household,

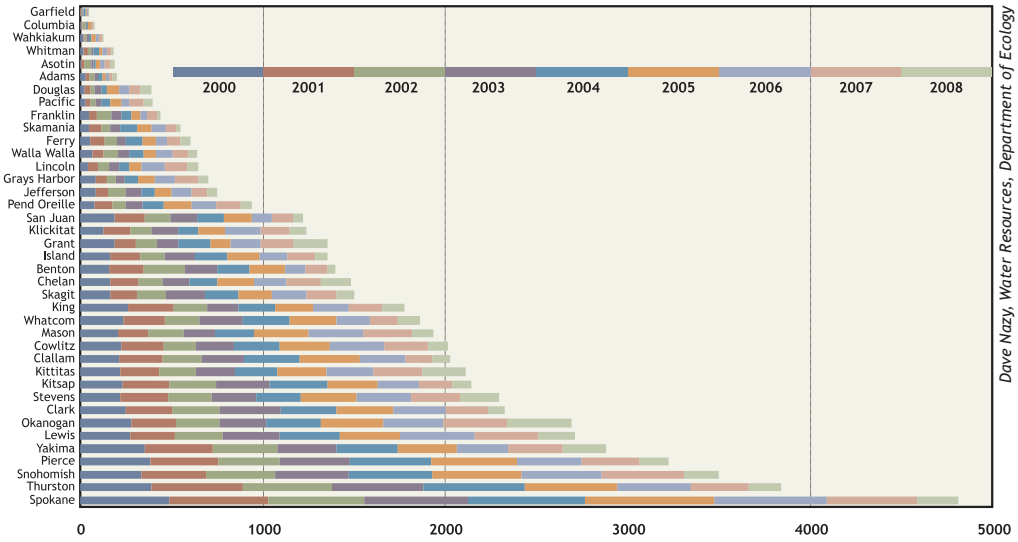
Housing construction has mushroomed in recent years.

stockwatering, and non-commercial gardens) to a combined 5,000 gallons per day.

✹Reducing the 5,000 gallons per day limit on permit-exempt domestic wells when the well is not being used to water livestock. Although reduced limits would not apply to existing wells, different per household limits could be established for Eastern and Western Washington, acknowledging differences in water supplies east and west of the Cascades.

"After years of encouraging both agricultural and urban growth, Washington must realize that water is a limited resource that cannot sustain all uses over time," Law Review author Kara Dunn concluded in her extensively researched stockwatering article of 2008. "Revising the groundwater code to limit exempt uses and enhance Ecology's ability to regulate the state's water resources will be necessary to support future urban and agricultural growth in the state."

Water Well Drilling by County



Dave Nazy, Water Resources, Department of Ecology

More than 90% of wells drilled in Washington are permit-exempt wells

A growing number of water right holders, water purveyors and land use regulators across the state agree with Ecology that there's a need for clarifying permit-exempt well regulations and the stockwatering exemption in Washington's groundwater code.

For more information:

http://www.ecy.wa.gov/programs/wr/comp_enforce/gwpe.html

Ecology photo

Most permit-exempt wells are drilled to accomodate growth outside established water systems.

The four types of groundwater uses exempt from the state water-right permitting requirements are:

- Providing water for livestock (no gallon per day limit or acre restriction).
- Watering a non-commercial lawn or garden one-half acre in size or less (no gallon per day limit).
- Providing water for a single home or group of homes (limited to 5,000 gallons per day).
- Providing water for industrial purposes, including commercial irrigation (limited to 5,000 gallons per day but no acre limit).

Purple pipes deliver a reliable water supply for Washington's future

By Lynne Geller, Water Resources, Ecology

Color the future of Washington's water supply "purple" because a simple concept is becoming more important in meeting the state's growing water needs.

With support from the general public and the Legislature, water suppliers working with Washington state are succeeding in restoring the quality of water taken from the environment for human needs and using it again.

The Legislature has encouraged and supported reclaimed water use since passage of the State's Reclaimed Water Act in 1992. Today there are 20 reclaimed water facilities in operation statewide, easily identified by the purple pipes that carry water now available for uses such as toilet flushing and irrigation. In addition to these facilities capable of producing 31.5 million gallons of reclaimed water per day, seven projects are under construction and another 41 are in the planning or design phases.

Ecology photo

Purple pipes at Medical Lake treatment facility carry water to Medical Lake and Deep Creek.

Ecology photo

Conveyance pipes (far right) send reclaimed water into West Medical Lake

Projections indicate the number of operating reclaimed water projects will double by 2015. As recently as 2007, the Legislature designated $5.4 million of capital funding for grants to local governments in the Puget Sound region to complete reclaimed water projects. Requests for funding far exceeded the money available.

Drought-proof source of water available year-round

Using reclaimed water preserves drinking quality water for direct use and keeps water continually recycling for new uses. It is a drought-proof source of water available on a year-round basis. Using reclaimed water saves taking water out of aquifers, rivers and lakes, which means more water is available for fish, wildlife, recreation, and drinking.

In addition to being a tool to help extend our water supply, reclaimed water is an important mechanism for improving water quality and reducing discharge of treated wastewater into Puget Sound and other sensitive areas.

Reclaiming water is done by using sophisticated treatment systems to speed up nature's restoration of water quality. Treatment cleans wastewater (water that needs cleaning after human use) and makes it ready for use again.

Reclaimed water treatment is highly engineered for safety and reliability. The quality of reclaimed water is more predictable than many existing surface and groundwater sources. Washington's reclaimed water standards are among the most protective in the country.

Utilities across the state have found creative uses for reclaimed water. These include crop and landscape irrigation, toilet flushing, dust control, and industrial cooling. Reclaimed water can also be used to improve wetlands, replenish groundwater, and increase flows in rivers and streams.

Reclaimed water keeps parks and streetscapes green

One successful utility is the LOTT Alliance, the regional wastewater treatment system serving Lacey, Olympia, Tumwater and northern Thurston County (LOTT). LOTT currently produces up to 1.75 million gallons per day of Class A reclaimed water, which is the highest quality of reclaimed water designated by the state Departments of Ecology and Health. This water, which would otherwise be discharged to Puget Sound, serves many community needs, including watering state- and city-owned parks and streetscapes. Reclaimed water supports five constructed wetland ponds in Hawks Prairie, which contain more than 225,000 wetland plants. Water flowing from the ponds replenishes groundwater.

In Spokane County, Class A reclaimed water from the Medical Lake Wastewater Reclamation Facility is used to maintain water levels in West Medical Lake and provide irrigation water for the treatment plant facility grounds. Beginning in 2010, reclaimed water will be used on the grounds of the new Eastern Washington State Veterans Cemetery.

Use of reclaimed water is a "win-win situation," said cemetery director Richard Cesler. "The cemetery will have an efficient, reliable source of water. The city will be paid for water use, which will help pay production costs, and the water use will help keep lake levels at an appropriate level, avoid spring flooding, and protect the declining groundwater table from any further depletion."

Major legislation in 2006 and 2007 elevated the importance of reclaimed water use in Washington. As a direct result, Ecology and Health staff are hard at work developing a clear set of regulations that will streamline the process to support the increased use of reclaimed water while ensuring that both the environment and public health are protected and improved.

Ecology photo

The city of Yelm's reclaimed water enters the Cochrane Memorial Park though this waterfall. Later, it receives further treatment through wetland polishing before recharging to the ground water.

Ecology photo

Biological Oxidation treatment at Medical Lake Water Reclamation Facility.

Moving reclaimed water is biggest challenge

Legislative approval is needed for an expanded grant program providing $50 to $100 million annually for reclamation facilities beginning in 2010. The cost of building infrastructure to move water from reclaimed water plants to customers is one of the most significant challenges to the distribution and use of reclaimed water.

The benefits of reclaimed water are numerous when it is used thoughtfully and deliberately in combination with other tools for securing Washington's water future. In some situations, wastewater discharged into our rivers is already being "reused" by downstream users or to provide water for instream purposes. However, new uses of reclaimed water could adversely impact these existing water uses, so the Governor has directed Ecology to work with legislative leaders to address these issues and avoid unintended consequences with proposed reclaimed water projects.

For more information:

http://www.ecy.wa.gov/programs/wq/reclaim/index.html

Practicing water conservation: a little goes a long way

By Brook Beeler, Communications & Education, Ecology Eastern Region

It's hard to argue with the value of conserving water. Can anyone make a case for wasting a valuable and finite resource? In Washington, water is already limited in the summer and fall when demands are highest. The good news is that even small actions can make a difference. Practicing water conservation is a relatively simple and cost-effective way to significantly extend existing water supplies.

Water utilities lead the way

Water conservation is not a new idea. For years, water utilities across the country have offered conservation programs. Recently, however, those programs have become more developed and beneficial for customers. For example, Denver Water, the largest water utility in Colorado, has led water conservation outreach for 30 years. Over the past two years the utility has highlighted the value of conservation with a major public outreach media campaign to complement their program and seen significant water savings of 20 percent in the service area.

Many water utilities in Washington state are leading the way to water savings and a water smart future. In 2003, the Washington state Legislature established statewide water efficiency requirements. Municipal water suppliers are now setting goals and reporting annually on their water efficiency efforts.

The Saving Water Partnership (SWP), a group of water utilities in and around Seattle, have joined forces to promote water conservation. SWP promotes Natural Yard Care, offers money-saving rebates to both residential and business customers, and has won the Environmental Protection Agency's (EPA) WaterSense Partner of the Year award. EPA's WaterSense program depends on the efforts of more than 1,000 partners to help save water for future generations. SWP earned this special distinction for promoting water-efficiency awareness to customers without asking them for significant changes in lifestyle.

Ecology photo

Sprinkler irrigation conserves water by applying it more evenly and precisely to crops than other types of surface irrigation.

Seattle Public Utilities: proven success

Seattle Public Utilities is reaching its conservation goals by encouraging customers to save water with seasonal rates, a 3-tiered rate structure, and conservation incentive programs. The tiered rate structure essentially rewards low-water users with low rates which are subsidized by water users in the higher tiers.

As described in the Seattle Public Utilities 2007 Drinking Quality Water Report, although the population served by Seattle's regional system has increased by 16 percent since 1990, water consumption has decreased by 26 percent in that same time period. On a per-person basis, in the same period, total water use decreased 36 percent from 152 gallons per day to less than 100 gallons per day per person.

Household water use varies considerably across the state. While usage tends to be highest in some areas of Eastern Washington, there are communities and utilities such as Airway Heights and Medical Lake which are taking steps to save water, such as lawn watering restrictions. Other utilities have begun collaborative conservation programs to help change the culture of high water use in their regions.

Individuals make a difference

You can be water smart even if you're not in a participating utility. Simple changes in habits can add up to hundreds of gallons of water savings. Fixing leaks, turning off faucets, and reducing lawn size all help save water. However, there are ways to become more water efficient without changing your

Per capita water use per day in selected Washington counties

National average: 100 gallons
Washington average: 114 gallons

County	Average daily use
King	87 gallons
Kittitas	238 gallons
Spokane	217 gallons
Stevens	109 gallons
Walla Walla	117 gallons
Whatcom	95 gallons
Yakima	172 gallons

Measures of Water Consumption for Saving Water Partnership Utilities*

	1990	2000	2007	% change since 1990	% change since 2000
Total Billed Water Consumption	121 mgd	108 mgd	94 mgd	-23%	-13%
Residential Consumption	79 mgd	72 mgd	64 mgd	-19%	-12%
Non-Residential Consumption**	43 mgd	35 mgd	30 mgd	-30%	-15%
Avg. Single Family Use per Household	231 gpd	194 gpd	166 gpd	-28%	-15%
Avg. Multifamily Use per Household	142 gpd	120 gpd	100 gpd	-30%	-17%
Residential: Avg. Use per Person	84 gpd	70 gpd	60 gpd	-29%	-15%
Non-Residential: Avg. Use per Employee**	71 gpd	51 gpd	45 gpd	-37%	-11%

mgd = millions of gallons per day; gpd = gallons per day

**Members of the Saving Water Partnership:*
City of Bothell, City of Duvall, City of Mercer Island, City of Seattle, Cedar River Water & Sewer District, Coal Creek Utility District, Highline Water District, King County

*** While most of the decrease in non-residential consumption is due to conservation, some of it is due to changes in the economy. During times of economic slowdown, water consumption tends to decrease.*

lifestyle. Water efficient appliances and fixtures can reduce water use up to 20 percent. Outdoor irrigation sensors and timers can save up to 50 percent of water lost due to poor timing, run-off, and evaporation. By using "just enough water," you can make a difference.

Having a well with a consistent supply of water is a valuable asset in Washington state. Practicing conservation is a good way to protect your well and your watershed community. Although the effects of a single small well far from a river, lake or stream are probably not measurable, the cumulative effects from many wells can make a huge difference.

Conservation: not just for cities and towns

In addition to municipal and individual domestic water use, two other sectors are commonly addressed in the context of water conservation: agriculture and industry. As the single biggest water user in the state, agriculture has been the focus of significant conservation monies and efforts, and important changes have been made. Ecology's Technical Resources for Engineering Efficiency (TREE) program works with industrial facilities to conserve water. Conservation efforts are also being funded as part of the Columbia River Basin Water Management Program.

For more information:

- Alliance for Water Efficiency
  http://www.allianceforwaterefficiency.org/
- Water Use It Wisely – 100 Water Saving Tips
  http://www.wateruseitwisely.com/
- EPA -WaterSense
  http://www.epa.gov/watersense/
- H_20 House
  http://www.h2ouse.org/

Xeriscaping in Eastern Washington: slow-growing, drought tolerant plants are used in landscaping to conserve water and reduce yard trimmings.

Ecology photo

Columbia River Basin Program develops new water supplies, serves as model for future water management

By Joye Redfield-Wilder, Communications Manager, Ecology Central Region

Serving as a model for how water may be managed in the future, a comprehensive approach is being taken to develop new water supplies in arid Eastern Washington.

Authorized by the 2006 Legislature and supported by a broad-based coalition of stakeholders, the Columbia River Basin Program makes $200 million available to develop water supplies that enhance stream flows for fish and meet the out-of-stream needs of cities, farms, and industry in the Columbia River Basin.

The program seeks to get water to where it is needed when it is needed and does so by a formula that recognizes both economic and environmental values. It encourages conservation, explores innovative storage alternatives, and examines current and future water demands.

"These projects provide an array of opportunities to develop new water supplies along the Columbia River," said Jay Manning, director of Ecology. "They will help us to manage our water more efficiently and in turn make water available to support growing communities and declining fish runs. It's a winning formula for the many competing interests along the river."

Piping unlined irrigation canals, storing water both above and below ground, recharging declining aquifers and making existing water delivery systems more efficient are among the ways saved water will be made available for new water rights or released to the river when fisheries need it the most.

The program is:

- Tapping into storage behind Grand Coulee Dam to bring water to as many as 100 small cities, deliver replacement water to farmers in the Odessa Subarea where aquifers are declining, and provide stream flow enhancements for fisheries.
- Exploring projects that capture water in the winter and store it underground in basalt formations or wells to make it available in the summer for cities and fisheries. Projects are underway for the city of Kennewick, Boise Cascade at Wallula, the city of White Salmon, and the Spokane Valley-Rathdrum Prairie.
- Funding projects like one in Benton County at Barker Ranch that will make water delivery more efficient by converting open ditches to a closed pipe system. The result: less water diverted from the Yakima River, adding as much as 6,436 acre-feet, or 2 billion gallons of water, to stream flows when fish need it the most.
- Making $1 million available to the Washington Conservation Commission to identify viable conservation projects in coordination with local conservation districts to develop regional water supplies.
- Investigating potential aquifer storage, storage of surface water off of river and stream channels, and pump exchange projects that will increase stream flows in critical reaches while providing water for farms and communities. Projects in Chelan, Stevens, Benton, Yakima, and Walla Walla counties are among those being explored.

For more information on the Columbia River Basin Program go to: *http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html*

Ecology photo

The Columbia River near Vantage, Washington.

CUP 2025-13

Applicant: St. Paul the Apostle Catholic Church
14181 Glade North Rd,
Eltopia, WA 99330

Owner: St. Paul the Apostle Catholic Church
14181 Glade North Rd,
Eltopia, WA 99330

CUP 2025-13

PC Staff Report

FACT SHEET/STAFF REVIEW

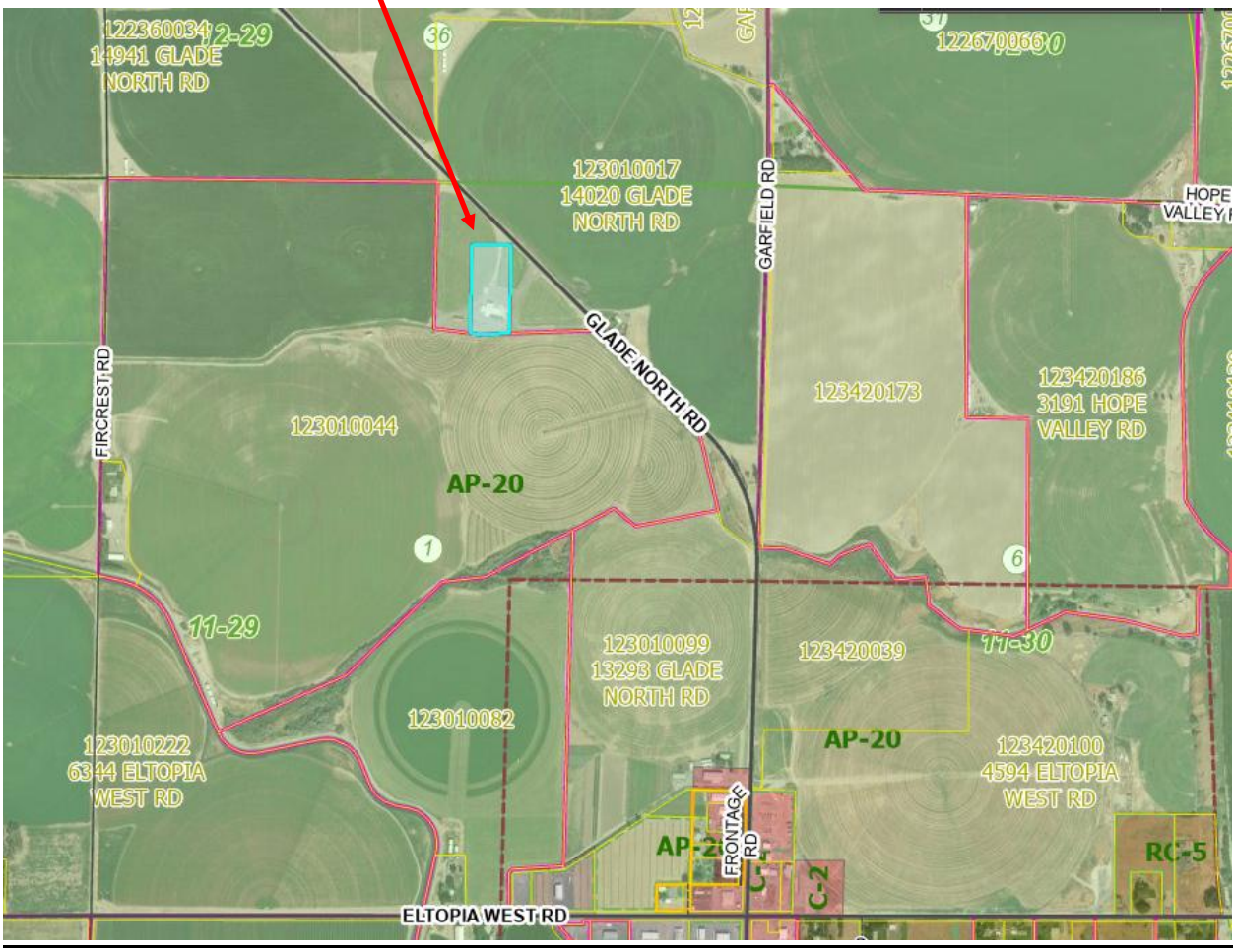
For a Proposed Conditional Use Permit
Franklin County Planning Commission
February 03, 2026

NOTE TO PLANNING COMMISSIONERS:
THIS IS A QUASI-JUDICIAL PUBLIC HEARING
PLEASE AVOID, AND DISCLOSE, ANY EX-PARTE COMMUNICATIONS (CH 42.36 RCW)

Case File:	CUP 2025-13
Hearing Date:	February 3, 2026
Applicant:	St. Paul the Apostle Catholic Church 14181 Glade North Rd, Eltopia, WA 99330
Property Owner:	St. Paul the Apostle Catholic Church 14181 Glade North Rd, Eltopia, WA 99330
Location:	The property is located in the Northeast 1/4 of Section 1, Township 11 North, Range 29 East, W.M., Franklin County, Washington (Parcel Number: 123-010-213). The property is generally located: North of Eltopia West Rd, East and South of Glade North Rd, and West of Fircrest Rd in unincorporated Franklin County.
Parcel Number(s):	123-010-213
Legal Description:	PTN OF GOVT LOT 2 LY O/S 1-11-29 IRR BLK 16 - 315 X 700
Property Size:	The current property size is approximately 5.10 acres
Comp. Plan Use:	Agricultural
Zoning:	Agricultural Production 20 acres (AP-20)
Project Description:	The request is to allow for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped.
Suggested Recommendation:	**POSITIVE** recommendation with **six (6) suggested findings of fact and fourteen (14) conditions of approval**
Suggested Motion:	**"**I move to forward CUP 2025-13 to the Board of County Commissioners with a **POSITIVE** recommendation based on the six (6) suggested findings of fact and fourteen (14) conditions of approval."

Vicinity Map – SUBJECT PROPERTY:

Image 1: Site Location

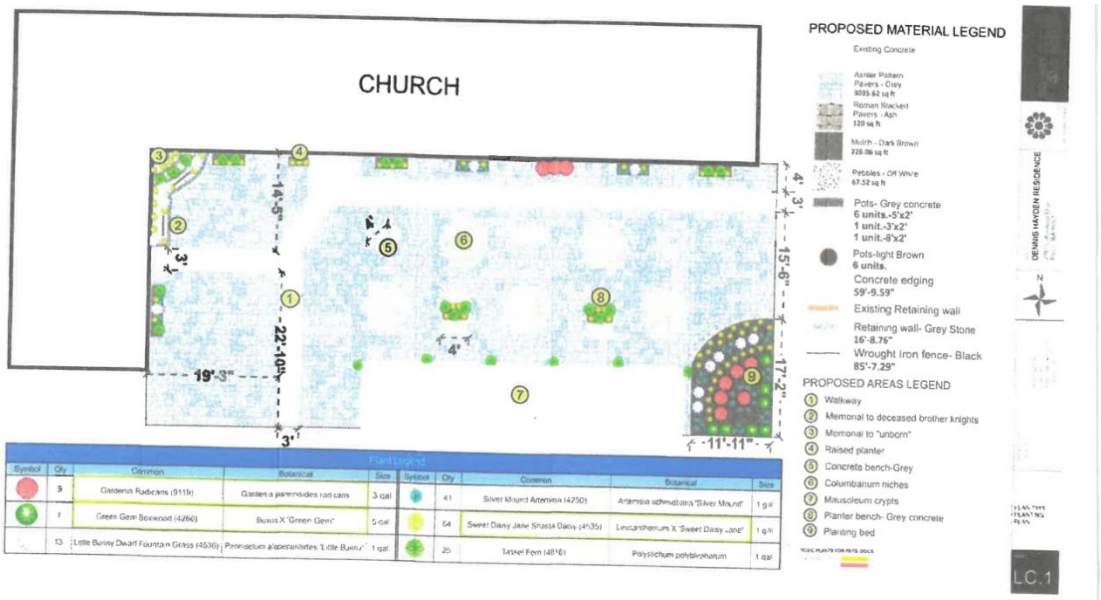


SITE PLAN:

The applicant provided a site plan, which shows the location of the following features:

- Location of existing church.
- Proposed location of hardscape
- Proposed location of columbaria and crypts
- Dimensions of the proposed project

Image 2: Site Plan



PUBLIC NOTICE:

- The Planning staff emailed review requests to agencies on **December 31, 2025.**
- The Planning staff mailed notices to Property Owners within a one-mile (1 mi) radius on **December 31, 2025.**
- The Public Notice was published in the *Franklin County Graphic* on **January 01, 2026.**

SEPA:

- Planning staff determined that the project is categorically exempt.

APPLICABLE STANDARDS/CODES:

1) Title 14 – Development Code Administration
2) Title 17 – Zoning:
    a. Chapter 17.10 – AP-20 Agricultural Production Zone
    b. Chapter 17.66 – Use Regulations
    c. Chapter 17.82 – Special Permits

3) Benton-Franklin District Board of Health Rules and Regulations

STAFF ANALYSIS:

The Planning and Economic Development staff received a Conditional Use Permit application from St. Paul the Apostle Catholic Church, property owner, to allow for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped. Per FCC 17.10.040 (D), "The following additional uses may be permitted subject to securing a conditional use permit/special use permit:[…] Cemeteries, crematoriums or mausoleums"

Alongside the Conditional Use Permit application, the applicant submitted building plans that they will end up using for the proposed above ground cemetery. This proposal is consistent with the overall intent of the AP-20 zone and the requirements for cemeteries. The approval of the cemetery on this site is consistent with the built environment of the surrounding properties in the neighborhood.

Image 3: 1996 Historical Imagery

There is currently a church that has been in existence since 1966, according to the Franklin County Assessor's records. There site does not currently include a cemetery on the premises.

As such, Planning and Economic Development staff are recommending **APPROVAL** of the application, subject to compliance with FCC 17.10.040 and conditions from applicable reviewing departments and agencies.

PUBLIC COMMENTS:

The Planning and Economic Development Department received **no comments** from surrounding property owners and residents within the county.

AGENCY COMMENTS/CRITERIA FOR FINDINGS OF FACT:

1) **Franklin County Public Works Department**: *Comment received on January 7, 2026.*

   Public Works has concluded that the proposed use will not have a significant impact on the County Road System. Public Works has the following general comments:

   a. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

   b. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

2) **Franklin County Planning & Economic Development Department**:

   Staff have determined the following suggested findings and recommended conditions for the application request, should the Planning Commission move forward a positive recommendation to the Board of County Commissioners.

   a. Before construction of the cemetery, a Franklin County Building Permit Application shall be submitted to the Franklin County Planning and Economic Development Department.

   b. The cemetery shall comply with the standards of the current state and 2021 International Building Code.

   c. The cemetery shall not be sold separately from the church or other existing structures on the property.

   d. Any deviations from the submitted site plan or building plans shall be submitted to the Franklin County Planning and Economic Development Department for review.

RECOMMENDATION:

According to the Franklin County Code Chapter 17.82 Special Permits, the Planning Commission shall:

1) Make and enter findings of fact from the record and conclusions thereof;

2) Shall render a recommendation to the Board of County Commissioners as to whether the proposal shall be denied, approved, or approved with modification and/or conditions.

Findings of Fact Criteria by Planning Commission: The Planning Commission shall make and enter findings from the record and conclusions thereof as to whether or not:

1) The proposal is in accordance with the goals, policies, objective, maps, and or narrative text of the comprehensive plan;

2) The proposal will adversely affect public infrastructure;

3) The proposal will be constructed, maintained and operated to be in harmony with the existing or intended character of the general vicinity;

4) The location and height of the proposed structures and the site design will discourage the development of permitted uses on the property in the general vicinity or impair the value thereof;

5) The operation in connection with the proposal will be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district;

6) The proposal will endanger the public health or safety if located and developed where proposed, or in any way will become a nuisance to uses permitted in the district.

Planning and Economic Development Department Staff Assistance: Planning Staff will assist the Planning Commission with the determination of finding and conditions of CUP 2025-13.

Recommendation: The Franklin County Planning Department recommends that the Planning Commission forward a **POSITIVE** recommendation to the Franklin County Board of County Commissioners for Application CUP 2025-13, with the following suggested findings of fact:

Suggested Findings of Fact:

1) The proposal **IS** in accordance with the goals and policies of the County Development Regulations (Zoning) and the applicable Comprehensive Plan.

    a. The Franklin County Comprehensive Land Use Designation is Agricultural.

    b. The County Zoning Code designates the land as Agricultural Production 20-acres (AP-20).

    c. The construction of a cemetery requires a Conditional/Special Use Permit under FCC 17.10.040 (D),

    d. The applicant has applied for a Conditional/Special Use Permit to allow for the construction of a cemetery on Parcel #123-010-213.

2) The proposal **WILL NOT** adversely affect public infrastructure.

a. The Franklin County Public Works Department has determined that the proposed use will not have a significant impact on the County Road System.

3) The proposal **WILL BE** constructed, maintained, and operated in harmony with the existing or intended character of the general vicinity.

   a. The existing and intended character of the area is Agricultural Production 20 Acres, as defined by the Franklin County Comprehensive Plan and FCC 17.10.

   b. The proposed cemetery will not generate excessive traffic, noise, or light, and will not interfere with residential or agricultural activities on surrounding properties.

   c. The proposed cemetery will not have a negative impact on the intended character of the general vicinity and surrounding properties.

4) The location and height of the proposed structure and site design **WILL NOT** discourage the development of permitted uses on property in the general vicinity or impair the value thereof.

   a. The proposed cemetery shall not exceed the maximum building height of an accessory building in the AP-20 zoning district, which has a maximum building height of thirty-five (35) feet.

5) The operation in connection with the proposal **WILL NOT** be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district.

6) The proposal **WILL NOT** endanger the public health, safety, or general welfare if located where proposed.

   a. The proposed cemetery will not have a negative impact on public health, safety, and general welfare.

   b. The cemetery is required to comply with the Health District and Public Works regarding health and access/safety standards for the proposed use.

Suggested Conditions of Approval:

1) Comply with the requirements of the **Franklin County Public Works Department**:

   a. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

   b. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

2) Comply with the requirements of the **Franklin County Planning and Economic Development Department**:

    a. Before construction of the cemetery, a Franklin County Building Permit Application shall be submitted to the Franklin County Planning and Economic Development Department.

    b. The cemetery shall comply with the standards of the current state and currently adopted International Building Code.

    c. The cemetery shall not be sold separately from the church or other existing structures on the property.

    d. Any deviations from the submitted site plan or building plans shall be submitted to the Franklin County Planning and Economic Development Department for review.

3) **Outdoor lighting** at the proposed cemetery and all existing structures shall be shielded down. This will assist in ensuring that outdoor lighting will not become a nuisance to neighboring properties and will limit light pollution in the rural area.

4) Any **discontinuance or abandonment** of the approved use (cemetery) for a period of one (1) year shall make this Conditional Use Permit approval null and void.

5) Any use of the proposed cemetery for purposes other than the approved use shall deem this Conditional Use Permit approval null and void.

6) The site shall be maintained at all times as to not let the land become a fire hazard or accumulate with debris and weeds.

7) Shall comply with the **Franklin County Fire Code** as expressed in FCC Chapter 8.40.

8) **RIGHT TO FARM:** Applicant shall be aware that this facility is located in an area where farming and farm operations exist. Further, to assist in preserving the right of farmers to operate utilizing accepted and appropriate practices, the County has adopted a Franklin County Right to Farm Ordinance, as amended. At no time shall a farm operation or accessory farm related enterprise, such as crop-dusting operation or airstrip use, be deemed to be a public or private nuisance as it relates to the activities associated with this land use approval.

9) Should archaeological materials (e.g., bones, shell, beads, ceramics, old bottles, hearths, etc.) or human remains be observed during project activities, all work in the immediate vicinity shall stop. The State Department of Archaeology and Historic Preservation (360-586-3065), the Franklin County Planning and Economic Development Department, the affected Tribe(s) and the County Coroner (if applicable) shall be contacted immediately in order to assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources (RCW 27.53, 27.44 and WAC 25-48) is required.

10) Future expansions and improvements at the site shall comply with the submitted and approved plans. To allow for future flexibility, changes to the plans which are determined to be minor, or incidental may be administratively approved by the Planning Director. Major changes, which do

not meet with the intent of, or seriously re-align, the approved plans, shall be reviewed per the current code and a new Conditional Use Permit shall be obtained prior to that change occurring.

11) Nothing in this CUP approval shall be construed as excusing the applicant from compliance with any federal, state, or local statutes, ordinances, or regulations applicable to this project.

12) In accordance with the County's Zoning Code, any special permit may be revoked by the Board of County Commissioners if, after a public hearing, it is found that the conditions upon which the special permit was authorized have not been fulfilled or if the use authorized has changed in size, scope, nature, or intensity so as to become a detriment to the surrounding area. The decision of the Board is final.

13) This permit applies to the lands described and shall be for the above-mentioned individual and/or his heirs and/or assigns. Any transferring of this permit will require that notice be granted to the Franklin County Planning and Economic Development Department or the permit will be cancelled. Once granted, the permit cannot be transferred to another site.

14) By accepting the issuance of this permit, the Permit Holder(s) agree(s) to accept full responsibility for any and all operations conducted or negligence occurring at this location and any incidents that occur on surrounding properties caused by operations or negligence at this location; Permit Holder(s) further agree(s) to indemnify and hold the County harmless and agree that the County is in no way negligent in relation to granting this permit, or operations or negligence on this property; Permit Holder(s) further agree(s) to accept full responsibility for any future cleanup needed due to activities conducted that this location that impact the surrounding properties, and obtaining and retaining appropriate insurance coverage.

CUP 2025-13

Public and Agency Notice
& Comments

Outlook

RE: CUP 2025-13 Agency Review Notice

From John Christensen <jchristensen@franklincountywa.gov>
Date Thu 1/8/2026 12:45 PM
To Samuel Albee <salbee@franklincountywa.gov>; Wesley McCart <wmccart@franklincountywa.gov>
Cc Craig Erdman <cerdman@franklincountywa.gov>; Rebeca Gilley <rgilley@franklincountywa.gov>; Gem Belamour <gbelamour@franklincountywa.gov>; AssessorGIS <assessorgis@franklincountywa.gov>; Geoff Wagner <gwagner@franklincountywa.gov>

1 attachment (66 KB)
CUP 2025-13 PW comments.docx;

Wesley,

Public Works comments are attached. Please let me know if you have any questions.

Thank you,

John Christensen
jchristensen@franklincountywa.gov

From: Samuel Albee <salbee@franklincountywa.gov>
Sent: Wednesday, December 31, 2025 4:31 PM
To: Craig Erdman <cerdman@franklincountywa.gov>; John Christensen <jchristensen@franklincountywa.gov>; Michael Morgan <mmorgan@franklincountywa.gov>; Graciela Jimenez <gracielaj@bfhd.wa.gov>; AssessorGIS <assessorgis@franklincountywa.gov>; JoDee Peyton <jodeer@bfhd.wa.gov>; Deana Chiodo <deana.chiodo@bfhd.wa.gov>; mmyers@bbec.org; fdfranklin5@gmail.com
Cc: Wesley McCart <wmccart@franklincountywa.gov>; Rebeca Gilley <rgilley@franklincountywa.gov>; Gem Belamour <gbelamour@franklincountywa.gov>
Subject: CUP 2025-13 Agency Review Notice

Good Afternoon,

Attached are application files for the construction of an above ground cemetery, referred to as Franklin County Planning File #CUP 2025-13.

Please provide comments no later than January 15**, 2025 at 5:00PM.**

Let us know if you have any questions. Thank you!

Best Wishes,

Samuel Albee
Planner I
Department of Planning & Economic Development
Franklin County
502 W. Boeing St.
Pasco, WA 99301
(509) 545-3521 Ext.2153

Be involved in our 2026-2046 Comprehensive Plan Update: https://engage.ahbl.com/Franklin2046

Memo

Public Works Department

To: Wesley McCart, Planning & Building Director

From: John Christensen

cc: Craig Erdman, PE, Director / County Engineer

Date: January 7, 2026

Re: CUP 2025-13 St Paul the Apostle Catholic Church

Wesley,

We have reviewed the application for a Conditional Use Permit to allow for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped.

The property is located in the Northeast 1/4 of Section 1, Township 11 North, Range 29 East, W.M., Franklin County, Washington (Parcel Number: 123-010-213). The property is generally located: North of Eltopia West Rd, East and South of Glade North Rd, and West of Fircrest Rd in unincorporated Franklin County.

Public Works has concluded that the proposed use will not have a significant impact on the County Road System. Public Works has the following general comments:

1. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

2. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

Please let me know if you have any questions.

Outlook

RE: CUP 2025-13 Agency Review Notice

From Michael Morgan <mmorgan@franklincountywa.gov>
Date Wed 1/7/2026 9:47 AM
To Samuel Albee <salbee@franklincountywa.gov>; Craig Erdman <cerdman@franklincountywa.gov>; John Christensen <jchristensen@franklincountywa.gov>
Cc Wesley McCart <wmccart@franklincountywa.gov>; Rebeca Gilley <rgilley@franklincountywa.gov>; Gem Belamour <gbelamour@franklincountywa.gov>; AssessorGIS <assessorgis@franklincountywa.gov>

No comment for addressing.

Michael Morgan
Geographic Information Systems (GIS) Manager
Franklin County, WA
509-545-3585
Web maps: https://franklincountywa.gov/gis

From: Samuel Albee <salbee@franklincountywa.gov>
Sent: Wednesday, December 31, 2025 4:31 PM
To: Craig Erdman <cerdman@franklincountywa.gov>; John Christensen <jchristensen@franklincountywa.gov>; Michael Morgan <mmorgan@franklincountywa.gov>; Graciela Jimenez <gracielaj@bfhd.wa.gov>; AssessorGIS <assessorgis@franklincountywa.gov>; JoDee Peyton <jodeer@bfhd.wa.gov>; Deana Chiodo <deana.chiodo@bfhd.wa.gov>; mmyers@bbec.org; fdfranklin5@gmail.com
Cc: Wesley McCart <wmccart@franklincountywa.gov>; Rebeca Gilley <rgilley@franklincountywa.gov>; Gem Belamour <gbelamour@franklincountywa.gov>
Subject: CUP 2025-13 Agency Review Notice

Good Afternoon,

Attached are application files for the construction of an above ground cemetery, referred to as Franklin County Planning File #CUP 2025-13.

Please provide comments no later than January 15**, 2025 at 5:00PM.**

Let us know if you have any questions. Thank you!

Best Wishes,

Samuel Albee
Planner I
Department of Planning & Economic Development
Franklin County
502 W. Boeing St.
Pasco, WA 99301
(509) 545-3521 Ext.2153

Be involved in our 2026-2046 Comprehensive Plan Update: https://engage.ahbl.com/Franklin2046

Outlook

CUP 2025-13 Agency Review Notice

From Samuel Albee <salbee@franklincountywa.gov>

Date Wed 12/31/2025 4:30 PM

To Craig Erdman <cerdman@franklincountywa.gov>; John Christensen <jchristensen@franklincountywa.gov>; Michael Morgan <mmorgan@franklincountywa.gov>; Graciela Jimenez <gracielaj@bfhd.wa.gov>; AssessorGIS <assessorgis@franklincountywa.gov>; JoDee Peyton <jodeer@bfhd.wa.gov>; Deana Chiodo <deana.chiodo@bfhd.wa.gov>; mmyers@bbec.org <mmyers@bbec.org>; fdfranklin5@gmail.com <fdfranklin5@gmail.com>

Cc Wesley McCart <wmccart@franklincountywa.gov>; Rebeca Gilley <rgilley@franklincountywa.gov>; Gem Belamour <gbelamour@franklincountywa.gov>

5 attachments (2 MB)

CUP 2025-13 St Paul the Apostle; Radius Notification.docx; CUP 2025-13; Application.pdf; CUP 2025-13; Easement.pdf; CUP 2025-13; GIS.pdf; CUP 2025-13; Parcel Report.pdf;

Good Afternoon,

Attached are application files for the construction of an above ground cemetery, referred to as Franklin County Planning File #CUP 2025-13.

Please provide comments no later than January 15**, 2025 at 5:00PM.**

Let us know if you have any questions. Thank you!

Best Wishes,

Samuel Albee
Planner I
Department of Planning & Economic Development
Franklin County
502 W. Boeing St.
Pasco, WA 99301
(509) 545-3521 Ext.2153

Be involved in our 2026-2046 Comprehensive Plan Update: https://engage.ahbl.com/Franklin2046

FRANKLIN COUNTY

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

AGENCY REVIEW NOTICE
(Pending Conditional Use Permit)

DATE: December 31, 2025

RE: CUP 2025-13

TO:

County Engineer		Irrigation District:	SCBID	_X_	FCID ___
County Assessor/GIS		Electric Utility:	BBEC	_X_	FPUD __
County E-911		Benton-Franklin Health District			
Fire District # _5_		Basin Disposal			

FROM: Sam Albee, Planner I

CC: Franklin County Planning Department

Agency Representative:

Enclosed is a copy of a Conditional Use Permit (CUP) application for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped.

The property is zoned Agricultural Production 20-acres (AP-20), with an Agricultural Comprehensive Plan Land Use Designation.

The property is located in the Northeast 1/4 of Section 1, Township 11 North, Range 29 East, W.M., Franklin County, Washington (Parcel Number: 123-010-213). The property is generally located: North of Eltopia West Rd, East and South of Glade North Rd, and West of Fircrest Rd in unincorporated Franklin County.

This land use action is allowed only with an approved CUP, in accordance with Franklin County Code (FCC) Chapter 17.66.060(J).

We would appreciate your review and comments by **January 15, 2026 at 5:00PM.**

See attachments for additional information.

REPLY:

Signed: _____ **Title:** _____ **Date:** _____

FRANKLIN COUNTY

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

NOTICE OF LAND USE ACTION
CONDITIONAL USE PERMIT (CUP) APPLICATION

PLEASE TAKE NOTICE that St Paul the Apostle Catholic Church of 14181 Glade North Road is seeking approval for a Conditional Use Permit (CUP), Planning file #CUP 2025-13, Parcel #123-010-213.

The request is to allow for the construction of an above ground cemetery consisting of 5 columbarium units (72 niches each) and 6 mausoleum units (6 crypts each) with the entire immediate area to be hardscaped.

The property is located in the Northeast 1/4 of Section 1, Township 11 North, Range 29 East, W.M., Franklin County, Washington (Parcel Number: 123-010-213). The property is generally located: North of Eltopia West Rd, East and South of Glade North Rd, and West of Fircrest Rd in unincorporated Franklin County.

See Vicinity Map – Enclosed

This land use action is allowed only with an approved CUP, in accordance with Franklin County Code (FCC) Chapter 17.66.060(J).

An open record public hearing will be held to discuss the project, solicit input from interested citizens, and respond to project questions at the Planning Commission Meeting, scheduled for 6:00 PM, February 3, 2026, in the Commissioner's Room at the Franklin County Courthouse at 1016 N. 4th Ave., Pasco, WA 99301.

If you wish to comment on the Conditional Use Permit, you may do so in writing to the Franklin County Planning and Building Department at 502 W. Boeing Street, Pasco, WA 99301, **on or before January 15, 2026 at 5:00PM**.

For more information you may contact:

Franklin County Planning and Building Department
Sam Albee – Planner I
502 W. Boeing Street
Pasco, WA 99301
planninginquiry@franklincountywa.gov
509-545-3521 (Phone)

Date: **December 31, 2025**
Case File Number: **CUP 2025-13**

SUBJECT PARCEL

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

CERTIFICATE OF OWNERSHIP AND VARIANCE REPORT REQUEST

CUP 2025-13
OWNER:St. Paul the Apostle Catholic Church - Dennis Hayden

Tax Parcel Number(s):

123-010-213

Distance Requirement:

500 feet *1 Mile*

Requested By:

Sue Able

Date and Time Requested:

12/31/26 4:06

CUP 2025-13

Application & Attachments

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

GENERAL LAND USE DEVELOPMENT APPLICATION

FOR STAFF USE ONLY

FILE #: CUP 2025-13
Total Fees: $1400.00
Receipt #: PL25-03139
Reviewed By:
Date deemed complete:
Pre-App Meeting Date:
Hearing Date:

RECEIVED
DEC 18 2025
FRANKLIN COUNTY PLANNING DEPARTMENT

CHECK ALL THAT APPLY AND ATTACH SUPPLEMNETAL FORM(S):

- ☐ Appeal (File # of item appealed: _____)
- ☐ Binding Site Plan (BSP)
- ☐ Boundary Line Adjustment (BLA)
- ☐ Comprehensive Plan Amendment (CPA)
- ☐ Conditional Use Permit (CUP)
- ☐ Determination – Administrative
- ☐ Determination – Critical Areas
- ☐ Determination – Non-Conforming Use
- ☐ Determination – Reasonable Use
- ☐ Determination – Zoning Interpretation
- ☐ Home Occupation
- ☐ H2A Farm Worker Housing (Zoning Review)
- ☐ Planned Unit Development (PUD)
- ☐ Other:
- ☐ SEPA – Environmental Checklist
- ☐ Shoreline (SH) – Conditional Use Permit
- ☐ Shoreline (SH) –
- ☐ Shoreline (SH) –
- ☐ Shoreline (SH) –
- ☐ Shoreline (SH) –
- ☐ Short Plat (SP)
- ☐ Subdivision/Pre
- ☐ Tax Parcel Separation (TPS)
- ☐ Temporary Use Permit
- ☐ Vacation of Easement (VOE) / Alteration
- ☐ Variance
- ☐ Zone Change/Rezone (ZC)

Deemed Complete 12/18/2025

CONTACT INFORMATION (Please provide all necessary information and checkmark the primary contact)

☑ **Property Owner**
Name: St. Paul the Apostle Catholic Church
Phone Number: 509-297-4371
E-mail Address: baleman@diocesofspokane.org
Mailing Address: 14181 Glade North Road, Eltopia, WA 99330

☐ **Applicant/Agent/Contractor** (if different)
Business Name: _____
Contact Name: _____
E-mail Address:
Phone Number: _____
Mailing Address: _____

☐ **Surveyor / Engineer**
Business Name: _____
Contact Name: _____
E-mail Address:
Phone Number: _____
Mailing Address: _____

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

Conditional Use Permit Application Information (all items in **bold** shall be completed)

Parent Parcel Number: (Ex: 000-000-000 or 000000000)	**Parent Parcel Size:** (Ex: 24.92 acres)	**Current Zoning:** (Ex: RS-20, AP-20)

What are you purposing: (ex. Accessory Dwelling Unit, Bed and Breakfast, Commercial Agriculture, Church, Diary, Wireless Communications Facility, Accessory Building deviating from standards, etc.)

Size of the area to be used for the proposed use or building: 3,053 sq. ft.

Irrigation Source: ☒ SCBID ☐ FCID ☐ Private ☐ None

Domestic Water Supply: ☒ On-Site Well ☐ City Water ☐ Farm Exempt Well (provide documentation) ☐ Community Well (Well ID # and location):

Sewage Disposal: ☒ On-Site Septic ☐ City Sewer ☐ Other (specify):

List Existing of Proposed Utility Providers:

Electric Provider: Big Bend Elec.Coop

Cable/Broadband: STARLINK

Natural Gas: _____

Landline Phone (if applicable): 509-297-4371

Sanitary Waste Disposal: _____

Other (if not listed): _____

Describe any existing zoning ordinance violation(s):

NONE

Present use of the land and structures, if any:

Church building, parking, agricultural Land

Detailed description of the proposed use/development proposal: (attach additional sheets if needed)

Above ground Cemetary, consisting of 5 columbariam units (72 niches each) and 6 Mausoleum units (6 crypts each). Entire area to be hardscaped.

Proposed Structures and Use: (size, height, etc.)

Columbariums – 80.5" Height x 81.5 width (5 units This size)

Mausoleums – 66" height x 122.5" width (6 units This size)

How will the proposed development be compatible with the uses permitted in the surrounding zone(s)?

IT will integrate into existing Landscape as courtyard/cemetary area directly behind existing Church Building

Describe how the subject property is physically suitable for the type, density and/or intensity of the use being proposed?

It adjoins or replaces existing hanscape. Adds security and privacy for Cemetary (above ground) and offers adequate space for future expanding needs.

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

Will the project be conducted entirely within a structure? ☐ Yes ☒ No

1) If no, describe the outdoor activities (i.e. outdoor eating, playground, park)
Cemetary (aboveground) existing of 5 Columbarium units and 6 mausoleum units and courtyard reflection area and planters,
2) What is the approximate square footage, or seating capacity of your outdoor use area(s)?
3053 sq. FT
3) What type of noises will the outdoor use generate? (i.e. music, machinery, vehicles)
NONE

Proposed hours of operation/days of the week: (indicate months, if seasonal)
24 hrs day / 365 days a year.

Proposed measures to ensure compatibility with permitted uses in the surrounding zone?
(Ex. fences, landscape buffers, berms, etc.)
Area will have metal fence on east side, retaining wall and fence on South side, and existing Church Buildings on North and West sides.

I, the undersigned, hereby authorize the filing of this application and certify under penalty of perjury that the information contained in this application is complete and correct to the best of my knowledge. Further, I hereby grant Franklin County staff or representatives to enter my property during the course of this review to inspect my property as needed.

☑ **This authorizes the designated Applicant's representative (if applicable) to act on behalf of the applicant for the processing of this request.**

Property Owner (Signature)

Property Owner (Print Name)

Date signed

Applicant/Representative (Signature)

Financial Secretary - ST. Paul's Church
Dennis C. Hayden
Applicant/Representative (Print Name)

12/16/25
Date signed

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

PROPERTY INFORMATION

Parcel Number(s) (9-digit tax number): 123010213
Legal Description of Property: Section 1, Township 11 North, Range 29 East, W.M
Site Address: (describe location if no address is assigned) 14181 GLADE NORTH ROAD

BRIEF DESCRIPTION OF PROJECT OR REQUEST

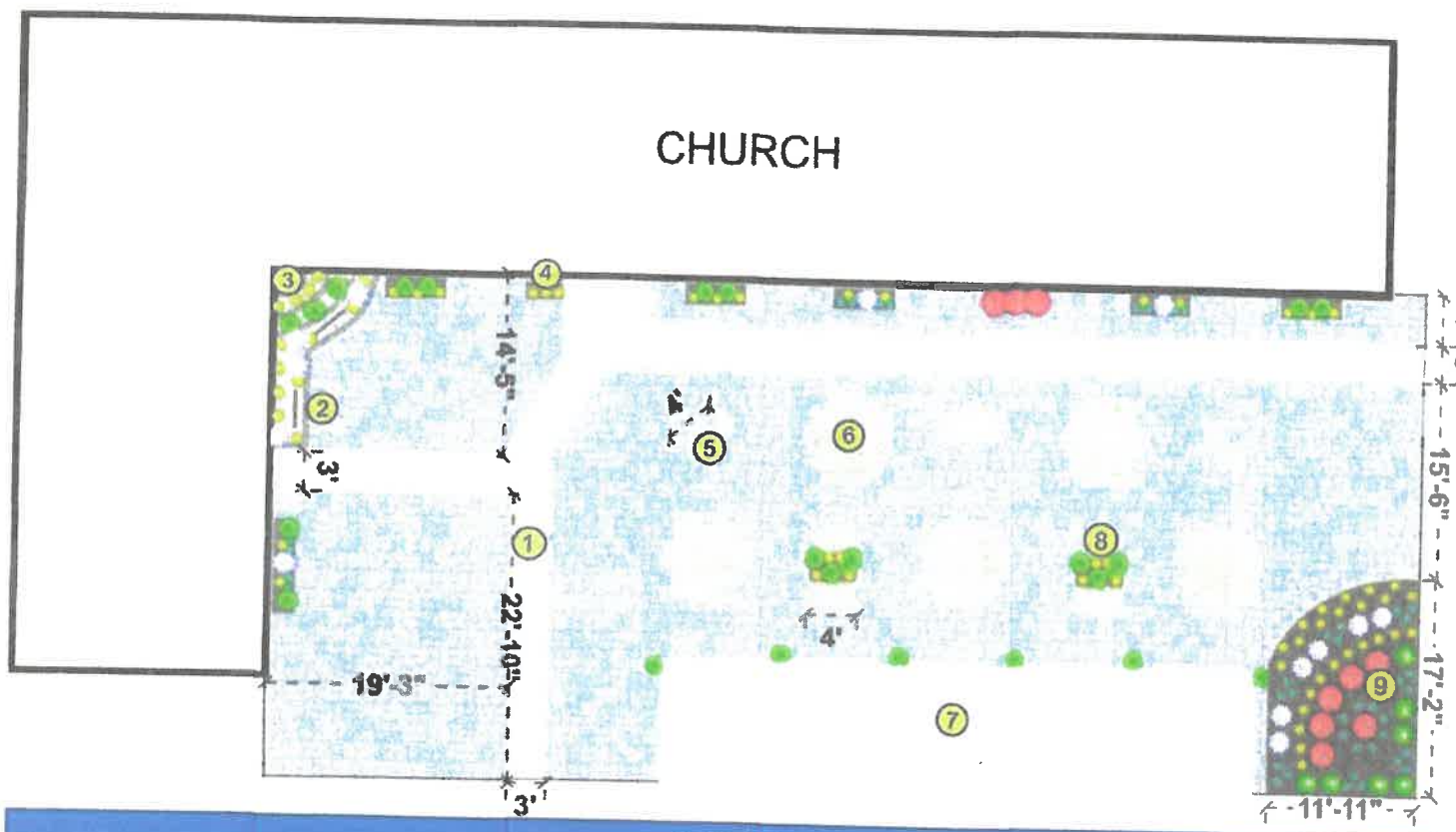
- All appropriate fees must accompany this application. Fees are non-refundable and subject to change. Please contact the Planning Department for current pricing of fees.
- This application, including attachments, must be completed in its entirety for all items applicable to your project.
- Supplemental information is generally required for land use approvals. Please ensure that all required information is submitted along with this application form.
- If the property is owned by a trust, corporation, or LLC, please attach documentation showing that the person signing as the "owner" has the authority to sign on behalf of the trust, corporation, or LLC. If there are multiple owners, provide an attachment in the same format and with the same declarations.

I, the undersigned, hereby authorize the filing of this application and certify under penalty of perjury that the information contained in this application is complete and correct to the best of my knowledge. Further, I hereby grant Franklin County staff or representatives to enter my property during the course of this review to inspect my property as needed.

I understand that any information submitted to the Franklin County Planning and Building Department is subject to public records disclosure laws for the State of Washington (RCW Chapter 42.17) and all other applicable laws that may require the release of the documents to the public.

☐ **This authorizes the designated Applicant's representative (if applicable) to act on behalf of the applicant for the processing of this request.**

		Dennis C. Hayden	12/18/25
Property Owner (Signature)	Date	Applicant/Representative (Signature)	Date
		Financial Secretary Dennis C. Hayden	12/18/25
Property Owner (Print Name)	Date	Applicant/Representative (Print Name)	Date



PROPOSED MATERIAL LEGEND

- Existing Concrete
- Ashlar Pattern Pavers - Grey 3035.62 sq ft
- Roman Stacked Pavers - Ash 120 sq ft
- Mulch - Dark Brown 226.06 sq ft
- Pebbles - Off White 67.52 sq ft
- Pots- Grey concrete 6 units.-5'x2' 1 unit.-3'x2' 1 unit.-8'x2'
- Pots-light Brown 6 units.
- Concrete edging 59'-9.59"
- Existing Retaining wall
- Retaining wall- Grey Stone 16'-8.76"
- Wrought Iron fence- Black 85'-7.29"

PROPOSED AREAS LEGEND

1. Walkway
2. Memorial to deceased brother knights
3. Memorial to "unborn"
4. Raised planter
5. Concrete bench-Grey
6. Columbarium niches
7. Mausoleum crypts
8. Planter bench- Grey concrete
9. Planting bed

TOXIC PLANTS FOR PETS- DOGS

Plant Legend

Symbol	Qty	Common	Botanical	Size
	9	Gardenia Radicans (9119)	Gardenia jasminoides radicans	3 gal
	7	Green Gem Boxwood (4266)	Buxus X 'Green Gem'	5 gal
	13	Little Bunny Dwarf Fountain Grass (4536)	Pennisetum alopecuroides 'Little Bunny'	1 gal
	41	Silver Mound Artemisia (4250)	Artemisia schmidtiana 'Silver Mound'	1 gal
	64	Sweet Daisy Jane Shasta Daisy (4535)	Leucanthemum X 'Sweet Daisy Jane'	1 gal
	25	Tassel Fern (4816)	Polystichum polyblepharum	1 gal

DENNIS HAYDEN RESIDENCE

LC.1

MEMORIAL TO
UNBORN

MEMORIAL TO
DECEASED
K OF C
MEMORIAL TO
UNBORN

MEMORIAL TO
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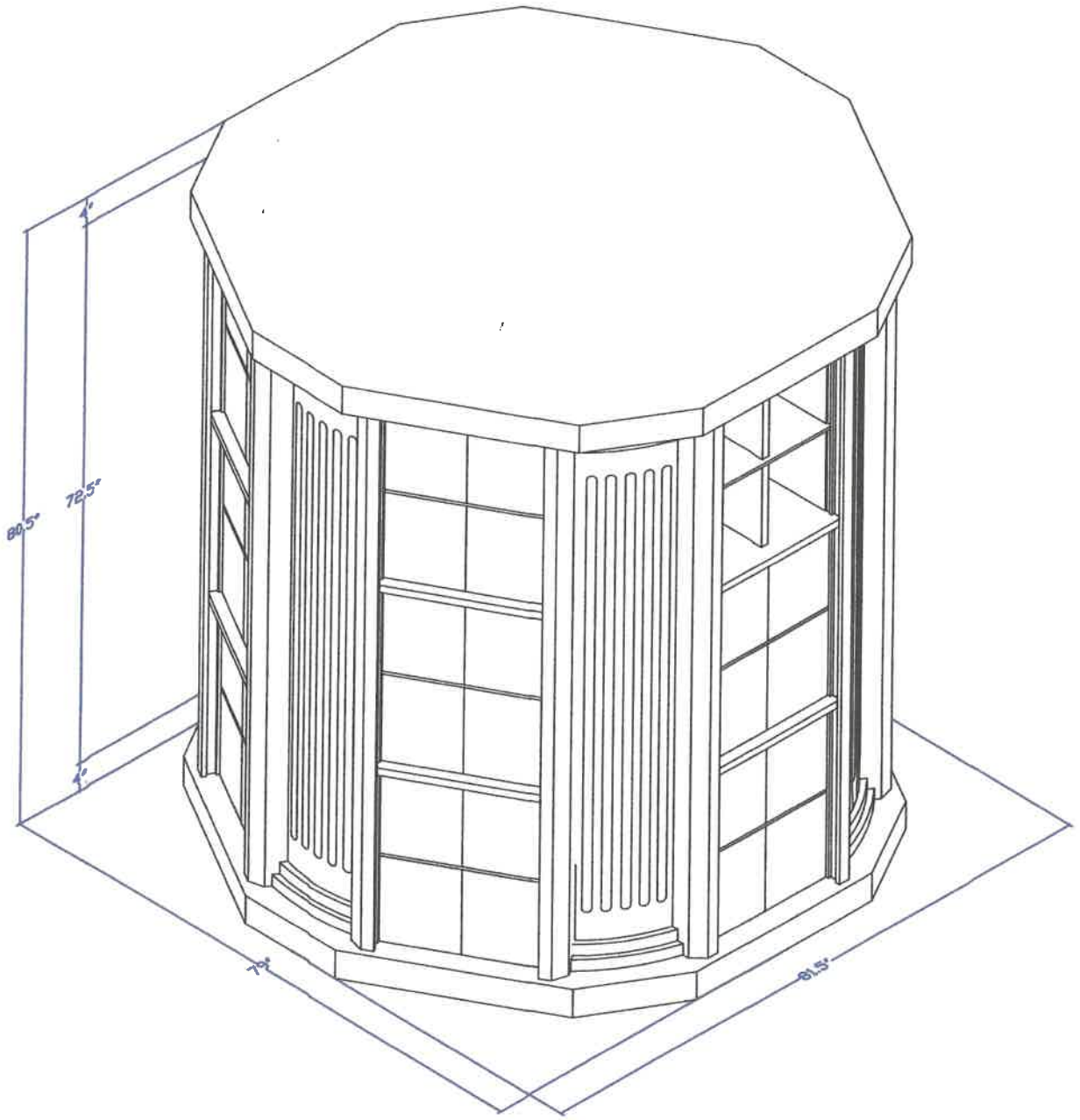
MEMORIAL TO
UNBORN

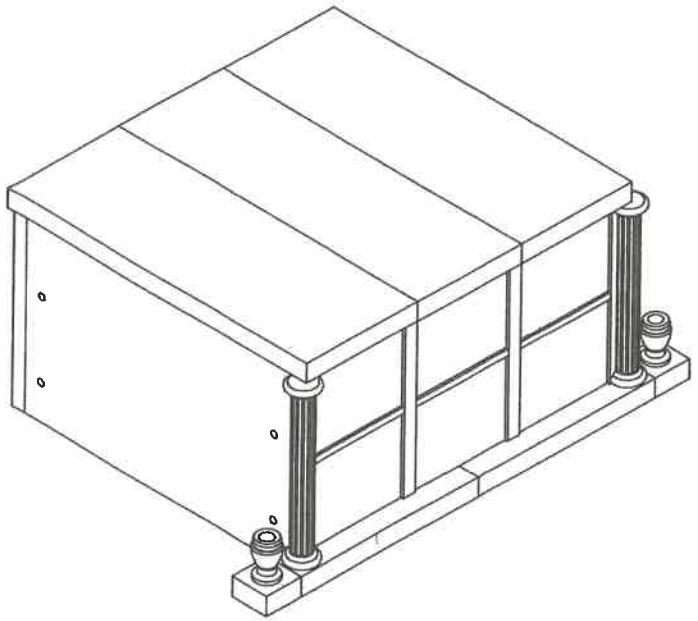


2023. 01. 09

John/Chris

图纸编号/Order No. 2018/1/15 HYS

HYS-PDF-6L-1089E



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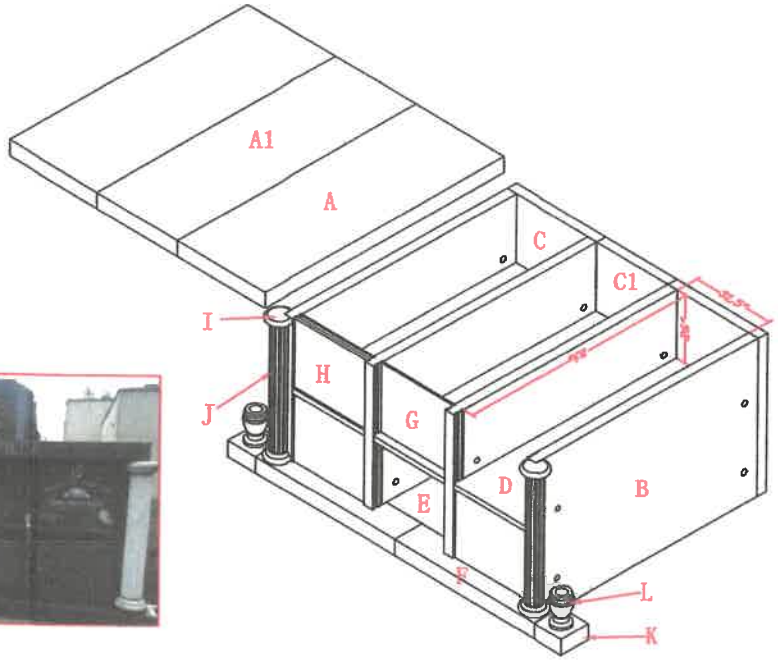
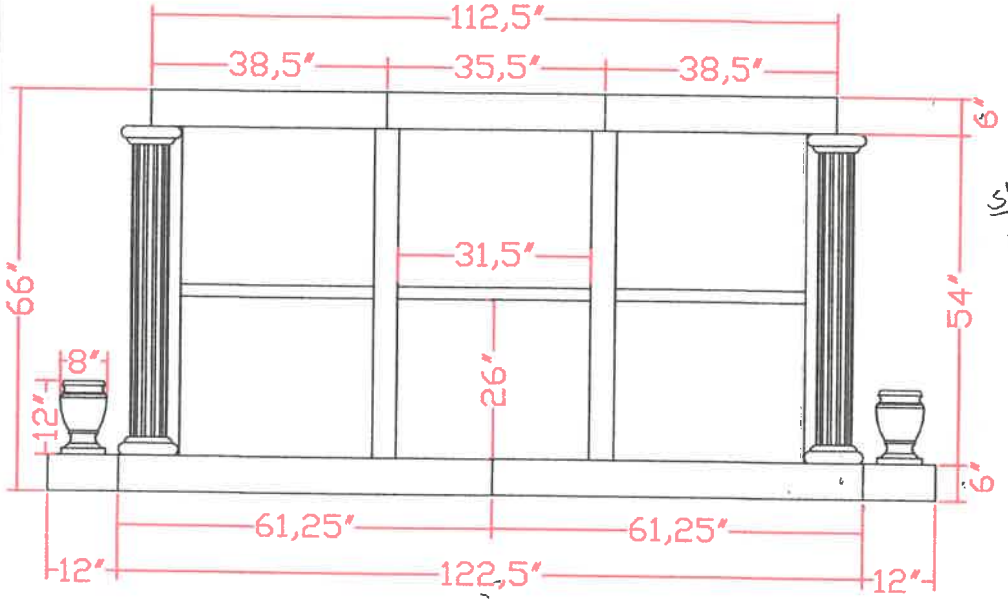
C1:31.5*4*60-1
D:32.5*97*2-3
E:31.5*91*6-1
F:61.25*12*6-2
G:32.5*0.75*26-6
H:32.5*1.2*26-6
I:10*10*3-4
J:6*6*48-2
K:12*12*6-2
L:8*8*12-2





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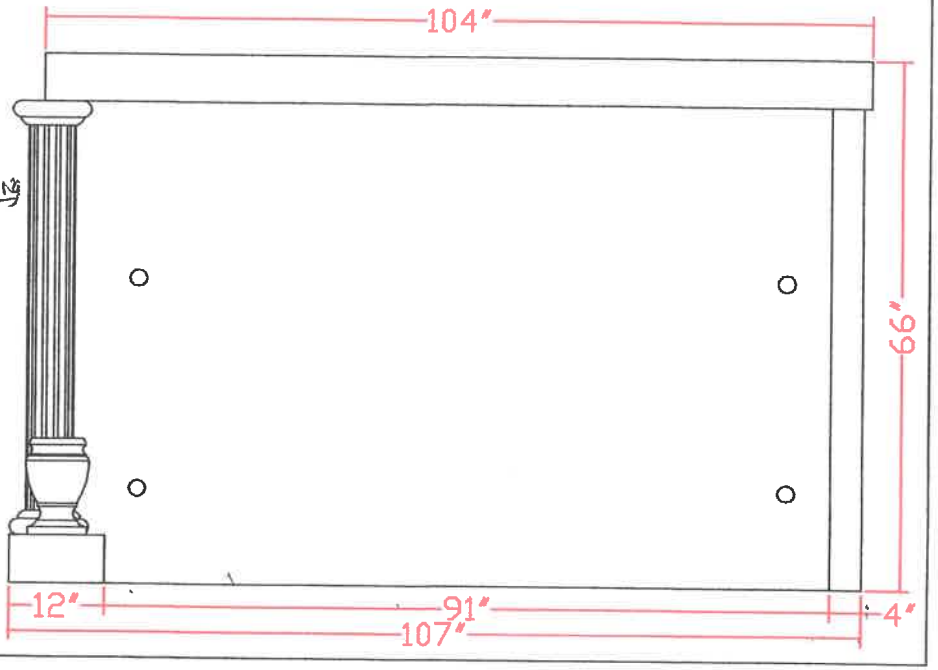

11,25″

(http://www.facebook.com/pages/Pacific-Coast-Memorials/193971930617566)

(https://twitter.com/intent/follow?original_referer=https%3A%2F%2Ftwitter.com%2Fgoodies%2Fbuttons&region=follow

(425) 348-9868 (tel:14253489868)

PACIFIC COAST MEMORIALS (https://pacificcoastmemorials.com/)

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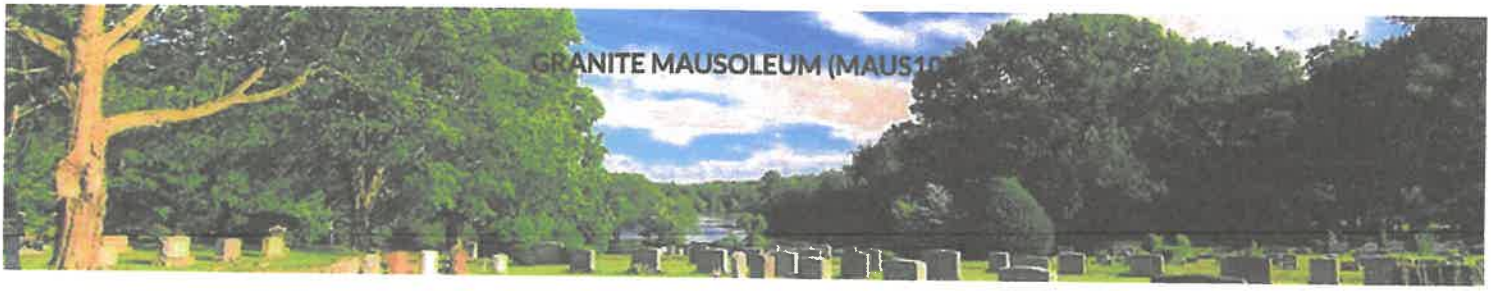
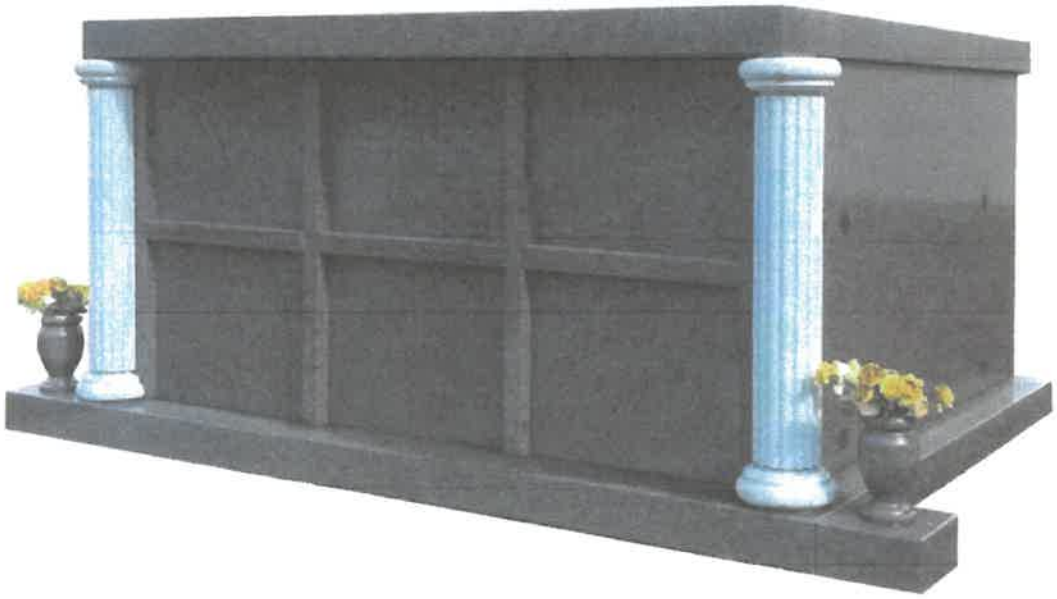
Product Search...

MENU



GRANITE MAUSOLEUM (MAUS102)

Guardian Angel



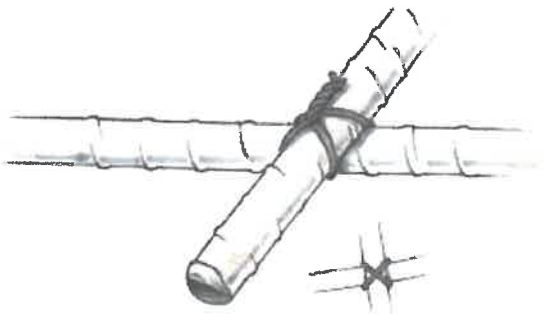
MEMORIAL PRODUCTS

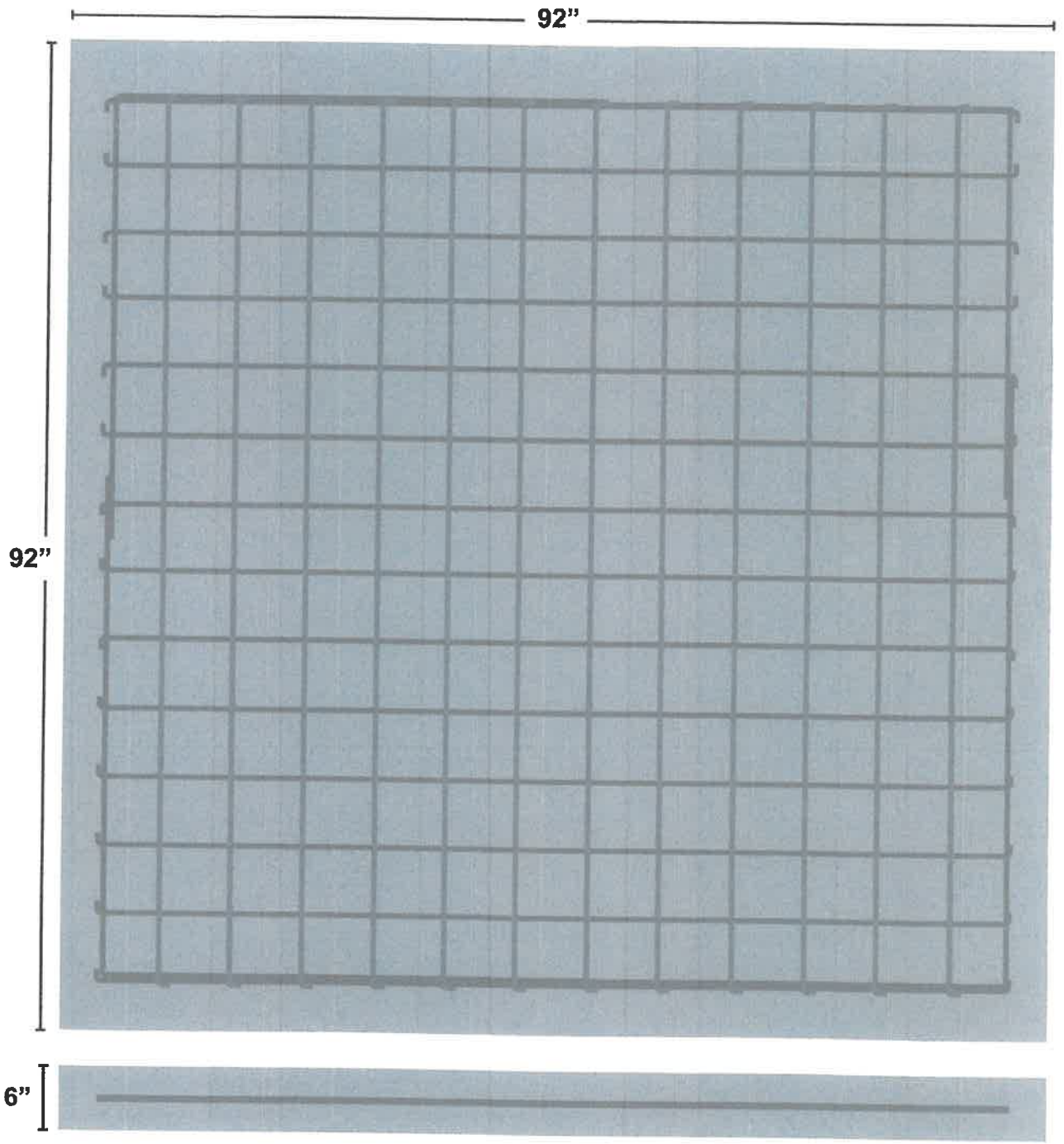
Upright Monument Headstones (https://pacificcoastmemorials.com/custom-headstones)

Flat Grave Markers (https://pacificcoastmemorials.com/flat-grave-markers)

PACIFIC COAST MEMORIALS

CONCRETE FOUNDATION SPECS





John A. Rosenau
Franklin County Assessor 1016 N. 4th Ave Bldg. A104 Pasco, WA 99301

Parcel

Parcel#:	123010213	**Owner Name:**	ST PAUL APOSTLE CATHOLIC PARISH
DOR Code:	81 - Resource - Agriculture	**Address1:**	ELTOPIA
Situs:	14181 GLADE NORTH RD, ELTOPIA 99330	**Address2:**	PO BOX 268
Map Number:	SEC01, T11N, R29E	**City, State:**	ELTOPIA WA
Status:	EXEMPT FULL YEAR	**Zip:**	99330-0268
Description:	PTN OF GOVT LOT 2 LY O/S 1-11-29 IRR BLK 16 - 315 X 700		
Comment:	CHANGED TD TO 206 DUE TO ERROR IN MAPPING DISTRICTS.		

2026 Market Value		2026 Taxable Value		2026 Assessment Data	
Land:	$0	Land:	$0	District:	224 - DISTRICT 224
Improvements:	$0	Improvements:	$0	Current Use/DFL:	No
Permanent Crop:	$0	Permanent Crop:	$0		
Total	$0	Total	$0	Total Acres:	5.00000

Ownership

Owner's Name	Ownership %	Owner Type
ST PAUL APOSTLE CATHOLIC PARISH	100%	Owner

Sales History

Sale Date	Sales Document	# Parcels	Excise #	Grantor	Grantee	Price
05/21/07	QD-1702854	2	27773	ST PAULS CATHOLIC CHURCH	ST PAUL APOSTLE CATHOLIC PARISH	$0

Building Permits

Permit No.	Date	Description	Amount
2004-139	2/23/2004	REMODEL/REPAIR WATER DAMAGE & ADD GAS COOKTOP W/HOOD	$28,894.00

Historical Valuation Info

Year	Billed Owner	Land	Impr.	PermCrop Value	Total	Exempt	Taxable
2026	ST PAUL APOSTLE CATHOLIC PARISH	$0	$0	$0	$0	$0	$0
2025	ST PAUL APOSTLE CATHOLIC PARISH	$0	$0	$0	$0	$0	$0
2024	ST PAUL APOSTLE CATHOLIC PARISH	$0	$0	$0	$0	$0	$0
2023	ST PAUL APOSTLE CATHOLIC PARISH	$0	$0	$0	$0	$0	$0
2022	ST PAUL APOSTLE CATHOLIC PARISH	$0	$0	$0	$0	$0	$0

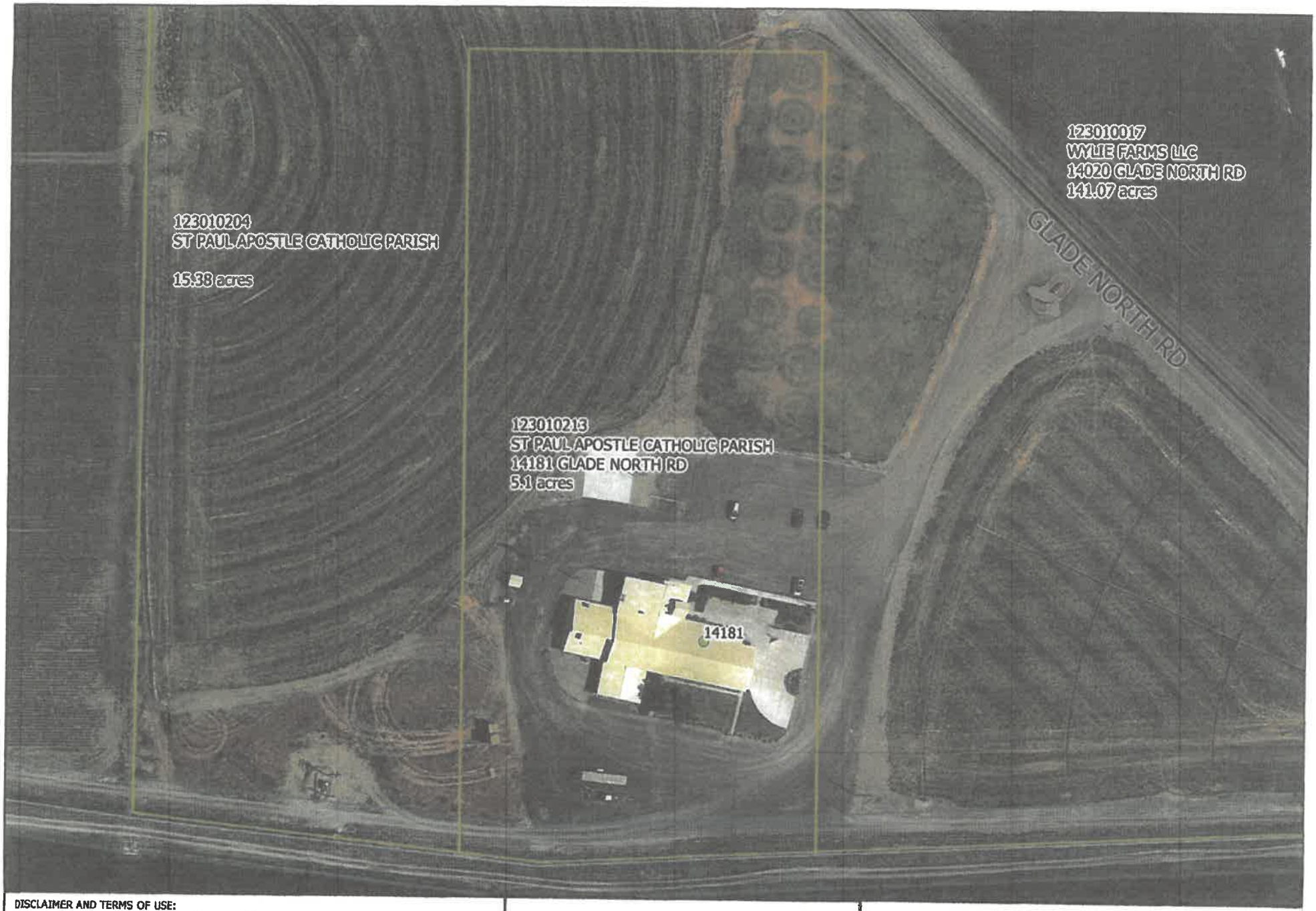
View Taxes

Parcel Comments

Date	Comment
08/29/03	CHANGED TD TO 206 DUE TO ERROR IN MAPPING DISTRICTS.

Property Images

Click on an image to enlarge it.



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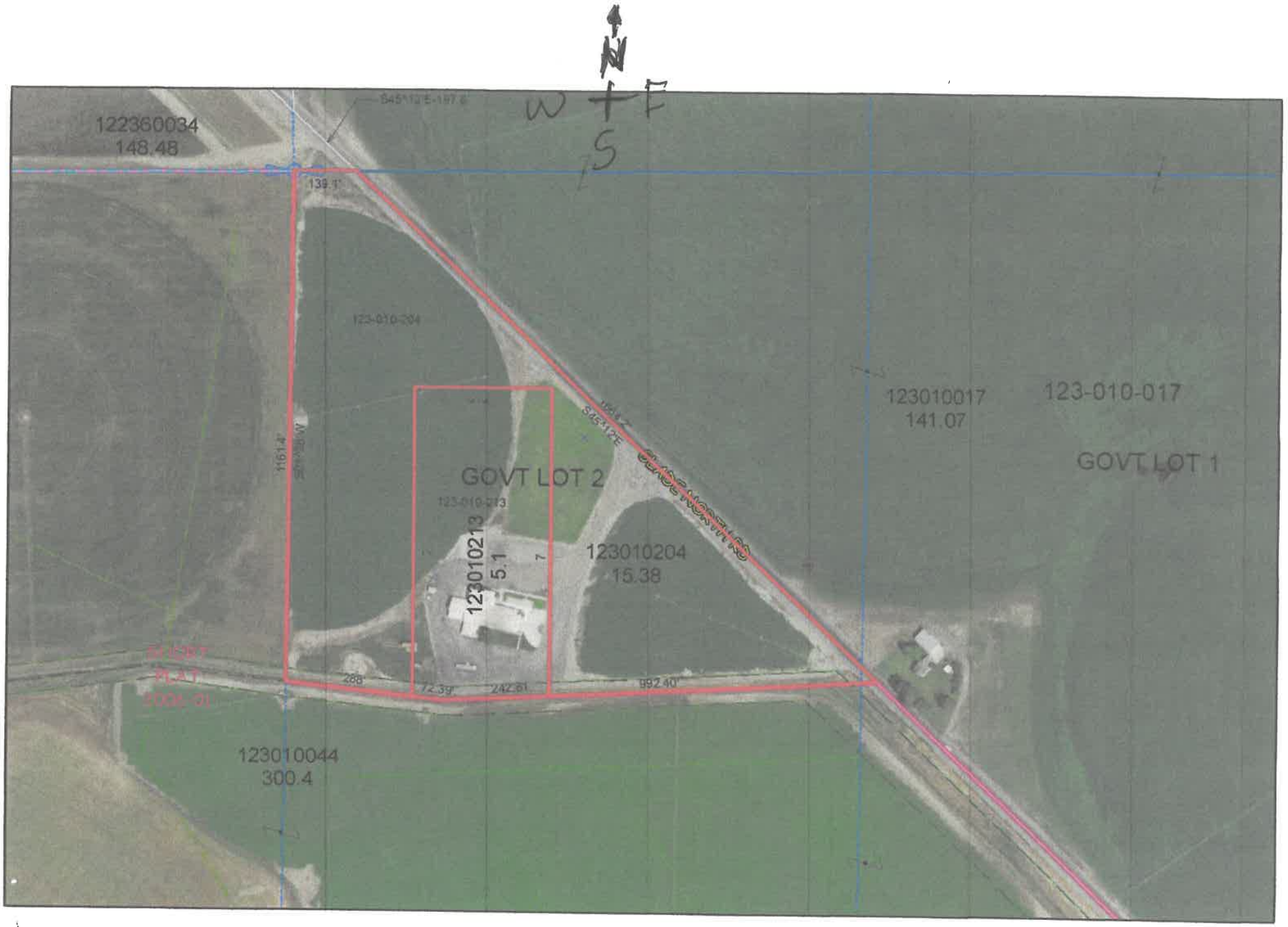
Phone 509-545-3585, Fax 509-546-5871
Email gis@co.franklin.wa.us
Web http://gis.co.franklin.wa.us

Planning


N
W
E
S
122360034
148.48
S45°12'E 187.6
139.1'
123-010-204
1161.4'
S45°12'W
GOVT LOT 2
123-010-213
123010213
5.1
123010204
15.38
123010017
141.07
123-010-017
GOVT LOT 1
S45°12'E
288'
72.39'
242.81'
992.40'
123010044
300.4

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Planning

VOL0402 PG0312

535597

RECORDED AT THE REQUEST OF
Olympic Pipeline
Oct 4 10 19 AM '96
535597
ZONA G. LENHART
FRANKLIN CNTY AUDITOR
DEPUTY Guzman
MAIL TO:

REAL ESTATE EXCISE TAX
Franklin County Ord. under R.C.W. 28.45
Date OCT - 4 1996
Amount $ 8889 Rec. No. 9540
Franklin County Treasurer

EASEMENT

Know All Men by These Presents: That **CATHOLIC BISHOP OF SPOKANE,** hereinafter called "Grantor" (whether one or more), for and in consideration of the sum of **Ten & 0/00 Dollars ($10.00),** cash in hand paid, the receipt of which is hereby acknowledged, and a further sum of **Eighty-three Dollars ($83.00),** per rod for each linear rod of pipeline to be constructed under the terms hereof, to be paid after a survey establishing the route of the line has been completed and before construction is commenced, does hereby grant , convey, and warrant unto **OLYMPIC PIPE LINE COMPANY,** a corporation of Delaware, its successors and assigns, hereafter called "Grantee", the right to lay, construct, operate, maintain, inspect, repair, replace, change the size of and remove (all of the rights and privileges granted hereunder being hereafter referred to collectively for convenience as the right to maintain) a pipeline, in whole or in part, for the transportation of gas, oil, petroleum, or any of its products, water, or any other liquids, gases and other substances, whether similar or dissimilar, which can be transported through pipelines, and such other underground equipment, communication cables and appurtenances incidental to or necessary for such operations, the Grantee selecting the depth and route at and upon which said line is to be laid, upon, over and through the following described land situated in the **County of Franklin,** in the **State of Washington,** to wit:

The Westerly 60 feet of Lot 2 of Section 1, Township 11 North, Range 29 East, W.M. The approximate location is shown on Exhibit "A" attached hereto and by reference made a part hereof.

It is agreed that the width of the easement herein granted shall be **sixty (60) feet** during construction reverting to a permanent width of **thirty (30) feet** upon completion of construction across the above described property.

The Grantee shall have the right of ingress and egress to, from and upon said easement and all other rights and privileges necessary or convenient for the full and free use and enjoyment of the easement herein granted for the purposes herein stated. Grantee shall also have the right to clear all trees, undergrowth and other obstructions from the herein granted easement.

TO HAVE AND TO HOLD the rights and privileges hereunder granted unto the Grantee, its successors and assigns, until commencement of exercise of any right granted hereunder and so long thereafter as such pipelines, underground equipment and appurtenances, or any thereof, or maintained.

Grantor shall have full use of the above described premises and the right to cultivate the same, subject to the rights herein granted to Grantee. Grantor agrees not to construct or permit to be constructed any house, structure or obstruction of any nature whatsoever on or over or that will interfere in any way with the construction, operation or maintenance of said pipeline or appurtenances constructed hereunder.

Grantee agrees to pay to the owners and to any tenant, as their interests may be, any and all damages to crops, timber, fences, drain tile, or other improvements on said premises that may arise from the exercise of the rights herein granted, said damages, if not mutually agreed on, to be ascertained and determined by three disinterested persons, one thereof to be appointed by the Grantor, one by the Grantee, and the third by the two so appointed as aforesaid, and the written award of such three persons shall be final and conclusive. Grantee shall not be liable for damages caused on the easement by keeping said easement clear of trees, undergrowth, and brush in the exercise of the rights herein granted

Except for emergency, no construction or maintenance shall occur during Grantors irrigation season.

Grantee agrees to defend, protect, indemnify and hold harmless Grantor from and against any and all losses, liabilities, claims, demands, including but not limited for damages of an environmental nature and causes of action of every character and kind on account of personal injury, illness, death of persons or damage to or loss of property (including but not limited to damage to any property of Grantor) growing out of, incident to or resulting directly or indirectly from the use, occupancy or maintenance of said pipeline by Grantee, its employees, agents, representatives, contractors or subcontractors unless the personal injury, illness, death of

persons or damage to or loss of property is caused by the sole negligence of Grantor, their agents, servants, employees, representatives or contractors. In the event of a leak in the pipeline or other appurtenances, Grantee will remove all contaminated soil and replace with clean soil of comparable characteristics and vegetation, in accordance with government regulations and to pay damages to the undersigned owners for such leak.

The Grantee agrees to bury all pipe to minimum cover of forty eight inches (48") between the top of the pipe and the surface of the land. It is understood that Grantee shall double ditch across the lands of Grantor and double ditching shall be completed by separating the top-soil from the sub-soil and during the backfill operation, said sub-soil shall be placed in the open ditch in layers and compacted, then said top-soil shall be placed in the open ditch to complete said backfill operations. Grantee agrees to pay for any damage caused by construction, maintenance, operation, repairing, alteration, replacement or removal of said pipeline. It is understood and agreed that the consideration herein paid does not include payment of the initial construction crop damages. Grantee herein agrees to smooth and level the ground disturbed by construction and installations of the pipeline and will construct terraces or water diversions and other such soil conservation devices upon the easement described herein, as may be reasonably necessary to prevent damage to the lands of Grantor from erosion resulting from Grantee's operations hereunder and further, shall, at the request of Granter or his tenant farmer, again fill and pack any of the backfill which is settled to any appreciable extent.

This Agreement shall terminate and a Quit Claim issued to Grantor unless construction has commenced on or before December 31, 1999.

The terms, conditions, and provisions of this contract shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors, and assigns of the parties hereto. The easement and rights herein granted may be leased or assigned in whole or in part.

IN WITNESS WHEREOF, this instrument is executed on this the 15th day of September, 19 96

WITNESS:

Catholic Bishop of Spokane

V.G.

For Bishop of Spokane

ACKNOWLEDGMENT FOR INDIVIDUAL

STATE OF Washington
COUNTY OF Spokane

Before Me, the undersigned, a Notary Public in and for said County and State, on this day personally appeared Rev John M. Steinke - Vicar General - Catholic Bishop of Spokane **to me or satisfactorily proven to me to be the person(s) who executed the within and foregoing instrument, and acknowledged to me that** he **executed the same as** his **free and voluntary act and deed for the purposes and consideration therein expressed.**

Given Under My Hand and Seal of Office, this 15th **day of** September, **19** 96

My Commission Expires: 9-10-98

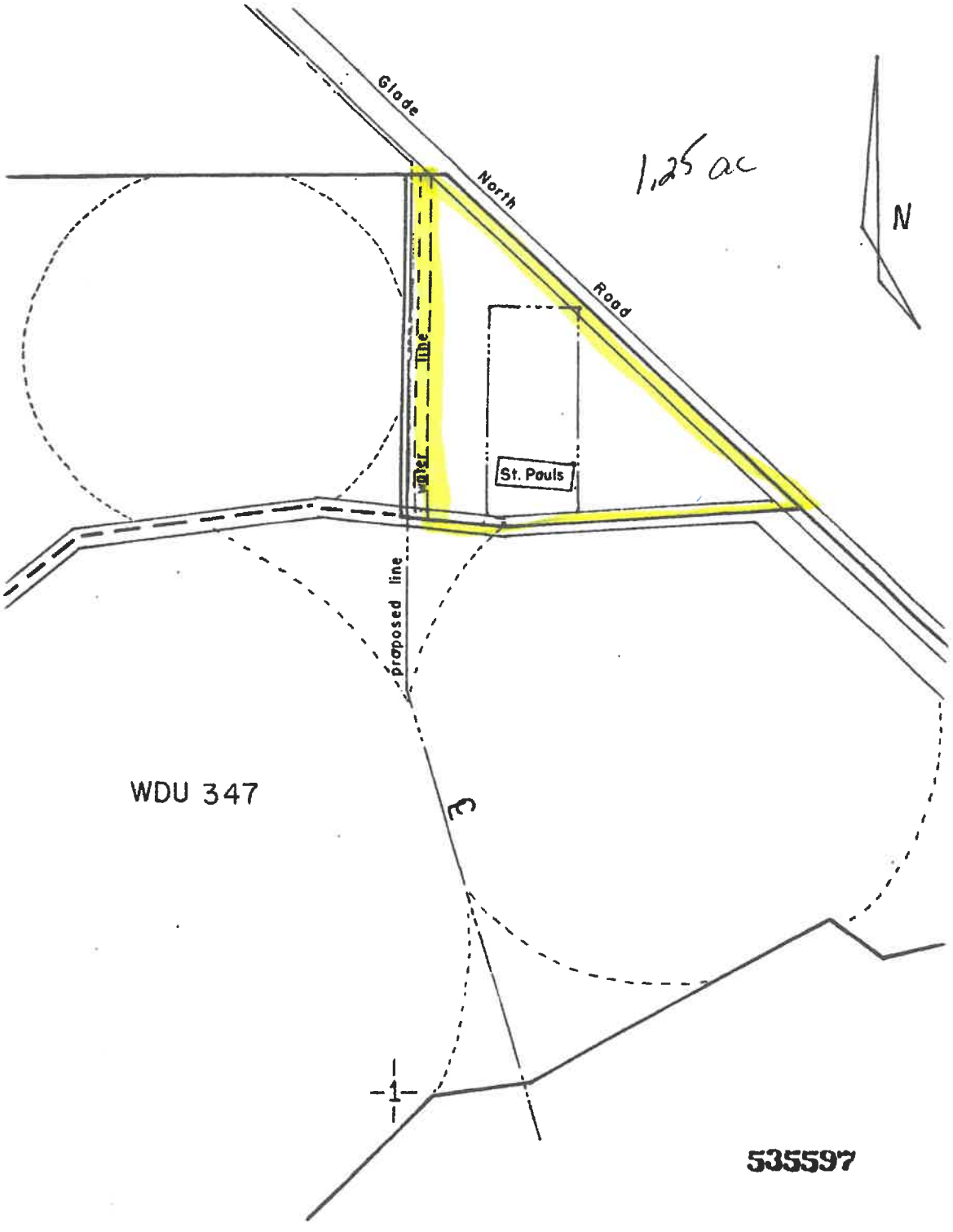
Shirley M. Cox
Notary Public
Residing at Spokane, Wa

SHIRLEY M. COX NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 9-10-98

VOL0402 PG0314

EXHIBIT "A"

535597



535597

CUP 2025-10/
SEPA 2025-18

Applicant: White Bluffs Dairy LLC
ATTN: Fransisca VanderMuelen
650 Hornby Rd,.
Grandview, WA 98930-9202

Owner: GME Land LLC
7090 N Wahluke Rd.,
Othello, WA 99344-9388

CUP 2025-10/
SEPA 2025-18

PC Staff Report

FACT SHEET/STAFF REVIEW

For a Proposed Conditional Use Permit
Franklin County Planning Commission
February 3, 2026

NOTE TO PLANNING COMMISSIONERS:
THIS IS A QUASI-JUDICIAL PUBLIC HEARING
PLEASE AVOID, AND DISCLOSE, ANY EX-PARTE COMMUNICATIONS (CH 42.36 RCW)

Case File: CUP 2025-10/SEPA 2025-18

Hearing Date: February 3, 2026

Applicant: White Bluffs Dairy LLC
ATTN: Fransisca Vander Meulen
650 Hornby Rd.
Grandview, WA, 98930-9202
fransisca@windmillestates.net

Property Owner: GME Land LLC
7090 N Wahluke Rd.,
Othello, WA 99344-9388

Location: 6201 N Wahluke Rd., Mesa, WA 99343

Parcel Number(s): Parcels 121-060-012, 121-060-013, 121-060-075

Legal Descriptions:

Parcel No.: 121-060-012
FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON, EXCEPT THAT PORTION DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID FARM UNIT THENCE NORTH 88°55'24" EAST 1999.66 FEET TO THE TRUE POINT OF BEGINNING. THENCE NORTH 55°20'35" WEST 117.12 FEET; THENCE NORTH 46°01'32" EAST 440.13 FEET; THENCE NORTH 28°59'50" EAST 133.63 FEET; THENCE NORTH 10°57'49" WEST 338.31 FEET; THENCE NORTH 78°50'50" EAST 51.78 FEET; THENCE NORTH 11°24'39" WEST 320.23 FEET; THENCE NORTH 78°26'09" EAST 75.02 FEET; THENCE NORTH 05°40'15" WEST 956.63 FEET; THENCE SOUTH 88°31'25" WEST 64.60 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS SOUTH 49°25'15" WEST 625.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE 355.12 FEET THROUGH A DELTA ANGLE OF 32°33'20"; THENCE NORTH 00°28'07" WEST 23.77 FEET; THENCE NORTH 88°31'25" EAST 613.08 FEET TO THE EASTERLY LINE OF SAID FARM UNIT; THENCE SOUTH 00°28'07" EAST ALONG SAID LINE 276.12 FEET TO THE BEGINNING OF A CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS NORTH 89°31'53" EAST 1432.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID LINE 267.12 FEET THROUGH A DELTA ANGLE OF 10°41'02"; THENCE SOUTH 11°09'09" EAST ALONG SAID LINE 1632.10 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 78°50'51" WEST 954.90 FEET; THENCE SOUTHERLY ALONG SAID CURVE 181.25 FEET THROUGH A DELTA ANGLE OF 10°52'30" TO THE SOUTHEAST CORNER OF SAID FARM UNIT; THENCE SOUTH 88°55'25" WEST ALONG THE SOUTHERLY LINE OF SAID UNIT 997.81 FEET TO THE SAID TRUE POINT OF BEGINNING. PARCEL 1 OF RS-1993547

Parcel No.: 121-060-013
THAT PORTION OF FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID FARM UNIT THENCE NORTH 88°55'24" EAST 1999.66 FEET TO THE TRUE POINT OF BEGINNING. THENCE NORTH 55°20'35" WEST 117.12 FEET; THENCE NORTH 46°01'32" EAST 440.13 FEET; THENCE NORTH 28°59'50" EAST 133.63 FEET; THENCE NORTH 10°57'49" WEST 338.31 FEET;

THENCE NORTH 78°50'50" EAST 51.78 FEET; THENCE NORTH 11°24'39" WEST 320.23 FEET; THENCE NORTH 78°26'09" EAST 75.02 FEET; THENCE NORTH 05°40'15" WEST 956.63 FEET; THENCE SOUTH 88°31'25" WEST 64.60 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS SOUTH 49°25'15" WEST 625.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE 355.12 FEET THROUGH A DELTA ANGLE OF 32°33'20"; THENCE NORTH 00°28'07" WEST 23.77 FEET; THENCE NORTH 88°31'25" EAST 613.08 FEET TO THE EASTERLY LINE OF SAID FARM UNIT; THENCE SOUTH 00°28'07" EAST ALONG SAID LINE 276.12 FEET TO THE BEGINNING OF A CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS NORTH 89°31'53" EAST 1432.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID LINE 267.12 FEET THROUGH A DELTA ANGLE OF 10°41'02"; THENCE SOUTH 11°09'09" EAST ALONG SAID LINE 1632.10 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 78°50'51" WEST 954.90 FEET; THENCE SOUTHERLY ALONG SAID CURVE 181.25 FEET THROUGH A DELTA ANGLE OF 10°52'30" TO THE SOUTHEAST CORNER OF SAID FARM UNIT; THENCE SOUTH 88°55'25" WEST ALONG THE SOUTHERLY LINE OF SAID UNIT 997.81 FEET TO THE SAID TRUE POINT OF BEGINNING. PARCEL 2 OF RS-1993547

Parcel No.: 108-060-042
PTN SHORT PLAT 99-08 LOT 2 LY NLY & ELY OF FDL: COMM AT NW COR SD LOT 2; TH N89D55'E ALG N LN SD LOT 2, 1552.71' TO TPOB SD LN; TH S00D04'E, 100.93' TO BEG OF CUR TO RT, RAD PT BEARS S19D41'W, 1553. 97'; TH SELY THRU CTRL ANG 37D43' ALG SD CUR, 759.93'; TH S00D04'E, 690.36'; TH N89D55'E, 373.88' TO WLY R/W LN OF N WAHLUKE RD & END OF SD LN.

Comp. Plan Use: The Comprehensive Plan designation is Agricultural.

Zoning: The County Zoning is Agricultural Production 20 acres (AP-20).

SEPA Determination: The applicant provided a SEPA checklist. Staff verified the information in the checklist. The County has issued an Optional Mitigated Determination of Non-Significant (ODNS/NOA-M) under WAC 197-11-355. A SEPA threshold determination was issued on November 12, 2025, by the Franklin County responsible official.

Project Description: The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

Suggested Recommendation: **POSITIVE** recommendation with **six (6) suggested findings of fact and thirty (30) conditions of approval**

Suggested Motion: **"**I move to forward CUP 2025-10 / SEPA 2025-18 to the Board of County Commissioners with a **POSITIVE** recommendation based on the six (6) suggested findings of fact and thirty (30) conditions of approval."

Vicinity Map – SUBJECT PROPERTY:

Image 1: Proposed Project Location

PUBLIC NOTICE:

- The Planning staff emailed review requests to agencies for the SEPA ODNS/NOA-M on **November 13, 2025.**

- The Planning staff mailed notices to Property Owners within a one-mile (1 mi) radius for the SEPA ODNS/NOA-M on **November 13, 2025.**

- The Public Notice was published in the *Franklin County Graphic* for the SEPA ODNS/NOA-M on **November 13, 2025.**

- The Planning staff mailed notices to Property Owners within a one-mile (1 mi) radius for the CUP Public Record Hearing on **January 15, 2026.**

- The Public Notice was published in the *Franklin County Graphic* for the CUP Public Record Hearing on **January 15, 2026.**

APPLICABLE STANDARDS/CODES:

1) Title 14 – Development Code Administration

2) Title 17 – Zoning:
    a. Chapter 17.10 – Agricultural Production 20-acres, AP-20
    b. Chapter 17.82 – Special Use Permits

3) Title 18 – Environment:
    a. Chapter 18.04 – State Environmental Policy Act Guidelines

4) 2018-2038 Franklin County Comprehensive Plan

5) Franklin County Ordinance 8-2008 "Right to Farm"

6) Franklin County Resolution 2001-238, Odor and Fly Control Guidelines

STAFF ANALYSIS:

The Planning & Economic Development Department received a Conditional Use Permit (CUP) application from the White Bluffs Dairy LLC for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. The application includes the demolition of some existing structures and construction of other structures and amenities to support the dairy expansion.

Existing Site Operations

The current site operates as a 700-cowhead dairy farm and produces feed crops from the agricultural ground. Existing infrastructures include the following:

- One 5,300 sf herringbone milking parlor
- Five 6,000 sf free-stall barns
- Nine animal pens
    - Four with shades
    - Five without shades
- One 4,000 sf commodity barn
- One 2.5-million-gallon waste storage pond (WSP)
- One 1,500 sf office building
- One 1,200 sf manager's residence

The adjacent 132-acre agricultural field to the west of the existing dairy is used to produce feed crops.

Proposed Project: Demolition

The current milking parlor, animal corrals, cow shades, and some miscellaneous outbuildings will be demolished as part of the proposed project. The existing freestall barns, commodity barn, office building, and manager's residence will be kept.

Proposed Project: Grading & Ground Preparation

Approximately 113 acres of farmland located on Parcel 121-060-012 will be converted to dairy-production ground. The ground will be cleared, grubbed, graded, and compacted prior to construction. Excavation will be performed to accommodate underground piping, utilities, footing excavation, collection sumps, waste storage ponds, and portions of site grading.

Maximum earth movement is approximately 200,000 to 300,000 cubic yards. Fill material will be determined by a WA licensed professional geotechnical engineer. Fill sources are not yet determined at this time, however, all imported fill materials will come from a county-approved material source.

Proposed Project: Construction

The following structures will be constructed:

- An approximately 57,000 sf milk parlor building containing:
  - An 86-stall rotary milking parlor capable of milking 8,000 cows per day
  - Milk cooling and holding area with three 30,000-gal milk storage tanks
  - A special needs "hospital" facility
- Twelve (12) open-lot corrals (pens) holding 700 cows each
- Twenty (20) cow shades
- Six (6) 1,100-foot-long concrete lanes serving each corral's feed alley
- Expansions of the five existing 6,000 square foot freestall barns ranging from 3,680 to 4,480 sf in size. The expansion will bring the total size range of the freestall barns to around 10,180 to 10,980 sf. The barns will be configured to use scrape and vacuum methods for manure collection.
- A 12,800 sf square foot commodity barn with maintenance shop facilities and two 10,000-gal diesel fuel aboveground storage tanks
- A paved driveway/parking area from Wahluke Road with parking space for approximately 20 vehicles.
- A liquid manure processing and storage system consisting of:
  - A manure reception/collection pit
  - A manure solids separation system consisting of four (4) screw press separators
  - Two settling basins for additional solids precipitation from the separated liquid
  - Two synthetically lined 15-million-gal waste storage ponds meeting the WA Department of Ecology CAFO permit requirement
  - A manure solids and compost storage area consisting of a graded and compacted soil pad

A complete summary of proposed buildings is below:

ITEM	DESCRIPTION	DIMMENSIONS (ft × ft)	TOTAL AREA (sf)
1	WASTE WATER STORAGE POND A	300 × 600	180,000
2	WASTE WATER STORAGE POND A	300 × 600	180,000
3	COMPOST STORAGE AREA	300 × 1,250	375,000
4	SEPARATOR BUILDING	40 × 50	2,000
5	COW SHADE	50 × 340	17,000
6	COW SHADE	50 × 340	17,000
7	COW SHADE	50 × 340	17,000
8	COW SHADE	50 × 340	17,000
9	COW SHADE	50 × 340	17,000
10	COW SHADE	50 × 500	17,000

11	COW SHADE	50 × 340	17,000
12	COW SHADE	50 × 340	17,000
13	COW SHADE	50 × 340	17,000
14	COW SHADE	50 × 340	17,000
15	COW SHADE	50 × 240	12,000
16	COW SHADE	50 × 240	12,000
17	COW SHADE	50 × 240	12,000
18	COW SHADE	50 × 150	7,500
19	COW SHADE	50 × 175	8,750
20	COW SHADE	50 × 375	18,500
21	COW SHADE	50 × 375	18,500
22	COW SHADE	50 × 375	18,500
23	COW SHADE	50 × 375	18,500
24	COW SHADE	50 × 375	18,500
25	MILKING BARN	154 × 368	56,672
26	FREESTALL BARN ADDITION [1]	20 × 184	3,680
27	FREESTALL BARN ADDITION [1]	20 × 192	3,840
28	FREESTALL BARN ADDITION [1]	20 × 200	4,000
29	FREESTALL BARN ADDITION [1]	20 × 208	4,160
30	FREESTALL BARN ADDITION [1]	20 × 224	4,480
31	COMMODITY BARN	40 × 320	12,800

1 – Total freestall barn size is the indicated addition length and square footage plus the existing barn length (300 feet) and square footage (6,000 sf)

Table 1: Proposed Buildings for the Dairy Expansion

Proposed Project: Water

Currently two wells supply water to the operating facility:

- A 6-inch well located west of the milking parlor
- A 6-inch well located near the manager's residence

Water for the project will be withdrawn from wells for: (1) domestic water use; (2) industrial uses including non-transient, non-community (NTNC) public water system used; and (3) stockwater purposes. Domestic and industrial uses will not exceed 5,000 gal per day. The applicant estimates that stockwater withdrawals, based on the rough assumption of 25 gal per day per cow of water consumption, will be approximately 0.75 acre-feet per day.

Proposed Project: Sewage and Septic

Two septic systems will be present at the project site:

- The milking parlor system
- The manager's residence system

Only human-generated domestic sewage (blackwater) will be discharged into the parlor system septic tank. "Industrial" wastes and greywaters from milking operations are discharged to the waste storage ponds. The size of the parlor system tank is expected to be 1,500 gallons. The manager's residence system is expected to be 1,000 gal in size.

Proposed Project: Traffic
A Traffic Impact Analysis (TIA) was requested by the Franklin County Public Works Department as part of the CUP/SEPA review process. Public Works indicated in their comment per review of the TIA that the dairy expansion will have a significant impact on the County Roads and are requiring conditions to be met in order to mitigate for the dairy's impacts to the County Road system.

Franklin County Right to Farm Ordinance
Per FCC 5.12, "Franklin County finds that agricultural activities conducted on farmland … are often subjected to nuisance lawsuits … It is therefore the purpose of this chapter to provide that agricultural activities conducted on farmland … be protected from nuisance lawsuits.

"Agricultural activities conducted on farmland, if consistent with good agricultural … practices, are presumed to be reasonable and shall not be found to constitute a nuisance unless the activity or practice has a substantial adverse effect on public health and safety. An agricultural activity that is in conformity with such laws and rules shall not be restricted as to the hours of the day or day or days of the week during which it may be conducted."

FCC 5.12.040 defines "agricultural activity" as "a condition or activity which occurs on a farm in connection with the commercial production of farm products" and "includes, but is not limited to … noise; odors; dust; fumes; operation of machinery … roadway movement of equipment and livestock … and construction and maintenance of buildings, fences, roads … and similar features … The term includes use of new practices and equipment consistent with technological development within the agricultural industry."

As applicable here, the proposed dairy expansion to approximately 9,500 head would involve "noise," "odors," "dust," "fumes," "operation of machinery," "roadway movement of equipment and livestock," and "construction and maintenance of buildings … roads … and similar features," and these activities are "presumed to be reasonable" if "consistent with good agricultural … practices," and "shall not be found to constitute a nuisance unless the activity or practice has a substantial adverse effect on public health and safety."

Franklin County Odor & Fly Control Guidelines
Odor and Fly Control Guidelines adopted by the Board of County Commissioners (County Resolution 2001-238) are applicable to this dairy expansion. The following are important guidelines that were followed in reviewing this application:

i. County Resolution 2001-238 identified as the Franklin County Odor and Fly Control Guidelines for Livestock and Poultry Operations states: "Franklin County understands the importance of managing odor and nuisance issues to a reasonable extent as they relate to Livestock and Poultry Operations" (County Resolution 2001-238);

ii. A Conditional Use Permit is required for dairy operations greater in size than 500 (headcount).

iii. General Philosophy: "No Livestock operation can be 100% odor free." "Zoning should be used to avoid conflict where possible";

iv. Introduction: "Elimination of odor from livestock and associated facilities is not realistic. Odors of some sort will always be produced and are usually released to the environment"; "What can be evaluated and possibly changed is the frequency of odor occurrences, the duration of the odor, the intensity of the odor and negative perceptions by some neighbors";

v. Selection of a Site: "Many operations are already situated close to neighbors and major roads. Such farms should be examined to identify potential problems and ways to avoid them by modifying the collection, processing, storage, and disposal of manure. This is especially important when considering the upgrading or expansion of an existing site."

Nutrient Management Plans

Nutrient Management Plans (NMP) are designed to satisfy the requirements of Washington State's Dairy Nutrient Management Act. The Department of Agriculture approves the plans, has the following objectives as it relates to Nutrient Management Plans: "Preventing discharge of contaminated waste water to streams, drainage ditches, or other surface waters from the facility; Preventing migration of contaminants from the facility to the underlying aquifer; Using facility nutrients to supply crop nutrient needs at rates and times tailored to reach realistic yield goals; Meeting the requirements of the Dairy Nutrient Management Act of 1998, the Clean Water Act and compliance with Federal, State And local laws regarding water quality standards" (Dept. of Agriculture-Livestock Nutrient Management Program Website).

i. Nutrient management plans focus on water quality-related issues as described above. Enforcement of approved Nutrient Management Plans is the responsibility of the Washington State Department of Agriculture.

ii. Requirements of a Dairy Nutrient Management Plan will help address the potential for buildup of nitrates and nutrients in the soil.

iii. The applicant will submit an NMP to the Franklin Conservation District for review as required by the Revised Code of Washington RCW Chapter 90.64. A copy will be submitted to the Franklin County Planning Department.

General Discharge Permit / Concentrated Animal Feeding Operation (CAFO) Permit

The Federal Clean Water Act created a National Pollutant Discharge Elimination System (NPDES) Program to protect and improve water quality by regulating point source dischargers. Point source dischargers are operations that discharge pollutants from discrete conveyances directly into waters of the United States. Point source dischargers are regulated by NPDES permits.

The NPDES permit for livestock operations is called the Concentrated Animal Feeding Operation (CAFO) permit. An NPDES CAFO is a no discharge permit. The permit:

- prohibits discharges except under certain limited conditions
- sets requirements designed to protect water quality such as management practices and recordkeeping requirements

The applicant will prepare and submit to Ecology a Manure Pollution Prevention Plan (MPPP) as required by Special Condition of the CAFO permit. The MPPP provides framework of actions, practices, and guidance to limit potential for discharge of manure, litter, process wastewater, organic by-products, and other possible sources of pollution from a CAFO to waters of the United States and Washington State for purposes of complying with federal and state water quality standards.

A copy of the CAFO permit and the MPPP shall be submitted to the Franklin County Planning Department.

Image 2: Proposed Expansion Layout

SEPA ENVIRONMENTAL REVIEW

On November 11, 2025, a SEPA Notice of Application Optional Determination of Mitigated Non-Significance was issued by the Lead Agency. Comments were due on November 28, 2025. The Washington State Department of Ecology filed the Notice of ODNS/NOA-M under **SEPA #202504758** on the SEPA Register.

PUBLIC COMMENTS:

The Planning & Economic Development Department received **eight (8) comments** from surrounding property owners and residents within the county.

1) **Jeffrey & Angie Hawkins:** *Comment received on November 28, 2025.*

    a. Negative impacts on my sweet cherry orchard:

        i. Birds: dairies bring increased bird populations which hurt fruit production. Starlings and Robins currently cause thousands of dollars of damage in my orchard each year despite efforts to keep them away. Increased bird damage could be catastrophic. The Washington State Fish & Wildlife recommends removing sources of food for birds, but dairies are a 24/7/365 "all you can eat buffet" which will bring more birds.
        ii. Flies: Dairies bring increased flies/insects which are a nuisance and can damage fruit.
        iii. Smell: Hydrogen Sulfide and Ammonia in high amounts inhibit tree growth and stress otherwise healthy trees.

    b. Negative Impacts on my neighborhood:

        i. Smell: Foul odors limit outdoor enjoyment and can even penetrate inside my home if the wind blows from the north. We purchased our home long after the existing dairy was in place, so we knew we would occasionally experience unpleasant odors. We did not anticipate the dairy growing 13.5 times larger and moving to within .6 miles of us.
        ii. Noise: Currently this is not a problem, but I've never lived next to 9,500 cows so I am concerned of what this may become from, cows, machinery and equipment operating 24/7/365.
        iii. Flies: We currently have a very undesirable amount of flies and the idea of 13.5x more cows and manure could make this exponentially worse.
        iv. Manure spread on fields and roads: I want to be able to traverse the public roads without bringing manure back into my garage.
        v. Light pollution: not currently a problem but could be with expansion.
        vi. Decreases value of home and land: Having a large dairy makes all the land around it less desirable for habitation and fruit production.

    c. I have outlined my very real concerns, so White Bluffs Dairy and Franklin County ensure available remedies are implemented to mitigate the negative impacts of this massive proposed expansion. If the negative effects cannot be mitigated and the current status quo maintained, I would ask that White Bluff Dairy find a different location to expand.

2) **Roberto & Hilda Garcilazo:** *Comment received on November 28, 2025.*

a. We have serious concerns that this particular proposal will have a major impact on our existing property and our quality of life. Not only for us but for the residents around the area as well.

b. These are the concerns Mr. & Mrs. Garcilazo laid out regarding environmental impacts of the dairy:

i. Air Quality Impacts
- Odors: Decomposing manure releases strong, persistent odors that can travel long distances and affect daily living.
- Ammonia emissions: Ammonia from manure and urine can irritate eyes, throat, and lungs.
- Particulate matter (dust): Dry manure, feed, bedding, and dirt can become airborne and reduce air quality.

ii. Water Contamination Risks
- Groundwater pollution: Nitrates from manure can seep into groundwater, potentially affecting drinking water wells.
- Surface water runoff: Rain can wash manure, urine, and silage leachate into nearby canals, irrigation systems, and waterways.
- Nutrient loading: Excess nutrients (nitrogen and phosphorus) can contribute to algae growth and lower water quality.

iii. Soil Degradation
- Manure overload: Too much manure applied to land can lead to soil imbalance and nutrient saturation.
- Chemical runoff: Dairy operations often use disinfectants, pesticides, and cleaning agents that can accumulate in soil.

iv. Increased Pest Attraction
- Flies: Manure and feed attract large populations of flies, which become a nuisance and can carry pathogens.
- Rodents: Feed storage areas often draw rodents, posing additional sanitation issues.

v. Noise Pollution
- Heavy machinery: Tractors, loaders, generators, and equipment run daily and often early in the morning or late at night.
- Truck traffic: Feed deliveries, milk trucks, and manure hauling create consistent noise.

vi. Light Pollution
- Bright facility lights: Outdoor dairy lights, especially if operating 24/7, can brighten surrounding residential areas at night.

vii. Increased Traffic & Road Impacts
- Semis, tractors, and farm equipment: Frequent heavy vehicles increase road wear, damage pavement, and create safety hazards.

- Dust from traffic: Dirt roads or busy driveways generate large amounts of fine dust that drift onto nearby properties.

viii. Public Health Concerns
- Bioaerosols: Microorganisms from manure, dust, and animal dander can become airborne and cause respiratory irritation.
- Pathogen transmission: In rare cases, bacteria like E. coli or Salmonella can travel through water or dust.

ix. Visual Impacts
- Unsightly views: Manure piles, feed bins, lagoon ponds, and animal pens can drastically alter the scenery around a home.

x. Property Value Decline
- Perceived risk: Homes near dairies often see lower resale value due to odor, noise, and environmental concerns.
- Reduced desirability: Buyers may avoid homes close to agricultural operations with high environmental impact.

3) **April Alexander:** *Comments received November 28, 2025 & January 26, 2026*

a. Have studies been done about the impact on:

i. Traffic – more construction, moving of cattle, more employees, more milk trucks day and night.

ii. Groundwater – pollution of our wells, scarcity of water. Dairies use a very large amount of water. Their requirements can stress or deplete groundwater tables, shared by neighboring residents. A 9,000 cow dairy can have 5 wells.

iii. Drainage – poor draining soil. One of the current dairy houses kept flooding and a sump pump was installed. Houses and dairy has had problems.

iv. Noise pollution – mooing cows at 2 in the morning, heavy equipment, dump trucks, loaders, feeding equipment. Loud four wheelers for employees to use.

v. Light pollution – many large heavy duty lights, day and night.

vi. Fly control – where there's manure and urine, there's flies. It's a fact of life. They are always around even with fly control measures. Biting flies transmit diseases as well as landing on food with their dirty feet.

vii. Honeybee impact for pollinating other crops.

viii. Air quality – for honeybees as well as people and other animals. Odors can cause serious adverse health effects. People are more sensitive than ever in today's world without deliberately adding more complications. Even with new and improved dairy technology, there are some odors.

ix. Labor- employees. Availability, as well as more housing and traffic. A 9,500 cow dairy requires approximately 100 employees. It will currently create jobs here, but the overall impact is too high for sustainability. And as the dairy market declines further, they'll try adding more cows. But the company won't be able to afford more workers. This will impact the day to day operations as the staff falls further and further behind and the overall cleanliness and quality goes downhill.

x. Property values usually go down. Nobody wants to live near a dairy.

xi. Dairy worker habits – depends upon the owners and how they manage their employees. Trash blows onto my property and others around me. Everything from silage plastic storage tunnels to soda cans, water bottles, chips and snack wrappers, beer cans, and assorted trash. Recently, this summer of 2025, it built up in my drainage pond line and created a gate. It required a full day of cleanout and approximately a $10,000 bill. It greatly impacted our day to day farming operation through no fault of our own. And produced a substantial bill that the clean out companies (more than one) gave to us.

xii. Where are they proposing to build it? By the road again or further out in the field?

4) **Tyler Hawkins:** *Comments received November 28, 2025 & January 26, 2026.*

a. I believe that a dairy of this size/scope is akin to a massive industrial complex. I'd prefer not to live next to a massive industrial complex with 24-hour a day semi-truck traffic, noise from pumps, heavy equipment, and 9,500 cows. I assume that this dairy will also have a massive amount of lighting for operations during the night. I currently quite enjoy living where I live with it getting dark at night and being able to see the stars. I know that I would still be able to see the stars, but probably not as well with the amount of lights this dairy will likely have.

b. A dairy of this size will bring with it an increased amount of unpleasant smell and increased pests like flies, starling birds, and other rodents. This property borders an orchard that I'm sure will see negative effects of being next to a dairy. There are several other orchards in the neighborhood that could also be negatively affected.

c. I am not a water expert, but I am concerned about the potential for contamination of groundwater and the domestic wells that are currently in the surrounding area. Also the potential for some of these wells to become depleted when large wells are drilled for this dairy. Has that been taken into consideration?

d. How will the manure be managed? I am not an expert about manure, but I have observed that how a dairy manages the manure produced can make a big difference in smell and how much of it ends up on N. Wahluke and Filbert rd.

5) **Alan & Cherylin Hawkins:** *Comments received November 28, 2025.*

a. On a personal basis, my concerns are the smell, house flies, noise and light at night. I don't mind smelling a dairy on an occasion. I have come to expected it. Currently on a normal day I do not smell the "dairy smell" and I do not want my house to smell like I'm living in/on a dairy on a daily basis. In our neighborhood, we already a very large house fly

population. I can only assume that with 13 times the cows there will be 13 times the population, but I may be ignorant, and would love to be educated on what steps are taken to manage flys and the smell. Currently, there is already noise from the dairies that I live next to. I do not find it overly obnoxious and most of the time it's just background noise. I am concerned with this larger operation that the noise level will be much greater and noticeable. We currently also get to enjoy a mostly dark sky, and I am concerned that with this larger facility there will always be a halo of light on the horizon.

b. For my livelihood, I own and operate a fruit farm. Some or all (I don't know for sure) of the field drains that run into one of my irrigation ponds begin at the location of this proposed dairy, and I am deeply concerned about water quality. I admit, I am ignorant, and would love to be educated on how steps are being taken or will be taken to make sure the drain water stays clean if this extremely large dairy does go in.
c. Another major concern I have for my business is an increased of bird pest. I already sustained an abundant amount of damage due to birds. I am concerned that with a larger amount of feed the already large and in my opinion out of control bird population will only get worse. I already sustain significant damage due to birds on many of my fruit crops. If this proposed dairy truly does bring in a larger bird population, I will have a larger loss to my crop every year. I addition to the crop damage the birds make a huge mess in and on all of my buildings. I already feel like I'm at war with them trying to keep my facilities, food safe. As bird populations rise they become more desperate for places to nest and more persistent.

6) **Brian Hawkins:** *Comments received November 28, 2025.*

a. Increased population of birds, flies and other pests. These species cause harm and bring disease to orchards. This will negatively affect the quality and quantity of fruit produced, and therefore impact the sales and livelihood of only family's business.

b. Ground water contamination. Our farm irrigates from a field drain that begins in the same location as the proposed expansion. This puts our water source at risk of contamination.

c. Increase in lights, smells, and noise.

d. Increase in truck traffic.

7) **Landon Rowley:** *Comments received December 2, 2025.*

a. The irrigation drains that run through that parcel come feed into our lot. The drain water availability has already been restricted by our neighbors with this additional expansion that usage may be reduced again making it harder to water our own orchards.

b. In addition, there is a lot of (13.5x times more) waste from a project like this. where is that going to go... I'm concerned that it would contaminate that water source. What do they do with all the manure and or dead carcasses.

c. We have some of our current orchards neighboring other dairies and due to the smell, increased pests, and flies directly next to the dairy have always struggled to produce stronger healthier trees... a larger dairy concerns me that those effects might become more widespread and harder to control.

d. 4. Birds! Dairies and feedlots are notorious for having tons of starlings, black birds and other birds. With a larger dairy next to us these pressures will only increase making it more difficult to keep the birds out of our orchards and away from the cherries, apples, and peaches.

e. Labor! There is a fairly evenly balanced labor force in this area. A large dairy will monopolize that force potentially pulling them away from the current businesses. Up until now we have been able to meet our needs by hiring and providing jobs to over 500 people throughout the harvesting season as they rotate from asparagus to sweet cherries, tarts, then apples and peaches. I believe that has been a great blessing to many of the local families over the last 30 years... We have not needed to hire any H2A workers to fill our needs and if this dairy comes to fruition I'm concerned we would need to seriously look at that as labor will not be as readily available. Not to mention the changes to the schools and surrounding areas.

8) **Erika Romjue:** *Comments received December 5, 2025.*

a. Water Availability and Usage
- Basin City and surrounding areas already face limited water resources.
- A large-scale dairy would require significant water for livestock, cleaning, and waste management, potentially straining existing supplies.
- Overuse of groundwater could impact local residents, farms, and long-term sustainability.

b. Odor and Air Quality
- Dairy operations produce strong odors from manure storage and handling.
- Prevailing winds could carry these smells into nearby neighborhoods, reducing residents' quality of life.
- Airborne emissions, including ammonia and methane, may also contribute to environmental and health concerns.

c. Waste Management and Environmental Impact
- Large dairies generate substantial manure and wastewater.
- Improper handling could lead to runoff into canals, rivers, or groundwater, contaminating drinking water and harming ecosystems.
- The risk of spills or leaks from lagoons poses a long-term hazard to soil and water quality.

d. Traffic and Infrastructure
- Increased truck traffic for feed delivery, milk transport, and waste hauling could strain local roads.
- Noise, dust, and safety concerns for residents and schoolchildren should be carefully considered.

e. Community Livability
- The combination of odor, water strain, and traffic may reduce property values and discourage future growth in Basin City.

- Residents deserve assurance that their health, safety, and environment will not be compromised.

AGENCY COMMENTS/CRITERIA FOR FINDINGS OF FACT:

1) **Washington Department of Ecology**: *Comment received on November 26, 2025*

a. Air Quality Program

Depending on the potential emissions from the diesel fuel storage tanks and the composting operations, a Notice of Construction (NOC) application may need to be submitted. Emission permitting thresholds can be found in Washington Administrative Code (WAC) 173-400-110 and 173-460-150. The NOC application form can be found at Ecology's website.

b. Solid Waste Management Program

The applicant proposes to demolish existing structures. Item B.7.a of the checklist asks if there are any environmental health hazards that could occur as a result of the proposal. Improper disposal of solid waste, including demolition waste, can result in environmental health hazards. We encourage the applicant to salvage, reuse, and recycle as much of the waste as possible. Recycling demolition debris is typically less expensive than disposal. Otherwise, the demolition waste must be disposed of at a permitted solid waste facility.

c. Water Quality Program

Operators of construction sites that disturb one acre or more total area and has, or will have a discharge of stormwater to a surface water or to a storm sewer, must apply for coverage under Department of Ecology's Construction Stormwater General Permit.'

If soil or ground water contamination is known at the site, additional information will be required. The applicant will be required to submit additional studies and reports including, but not limited to, temporary erosion and sediment control plans, a stormwater pollution prevention plan, a site map depicting sample locations, a list of known contaminants with concentrations and depths found and other information about the contaminants.

Application should be made at least 60 days prior to commencement of construction activities. A permit application and related documents are available online.

d. Water Resources Program

The Ground Water Permit exemption under RCW 90.44.100 does not apply if one of the below definitions applies to the proposed project.

RCW 90.03.015
The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Department" means the department of ecology.

(2) "Director" means the director of ecology.

(3) "Municipal water supplier" means an entity that supplies water for municipal water supply purposes.

(4) "Municipal water supply purposes" means a beneficial use of water: (a) For residential purposes through fifteen or more residential service connections or for providing residential use of water for a nonresidential population that is, on average, at least twenty-five people for at least sixty days a year; (b) for governmental or governmental proprietary purposes by a city, town, public utility district, county, sewer district, or water district; or (c) indirectly for the purposes in (a) or (b) of this subsection through the delivery of treated or raw water to a public water system for such use. If water is beneficially used under a water right for the purposes listed in (a), (b), or (c) of this subsection, any other beneficial use of water under the right generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes. If a governmental entity holds a water right that is for the purposes listed in (a), (b), or (c) of this subsection, its use of water or its delivery of water for any other beneficial use generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes.

(5) "Person" means any firm, association, water users' association, corporation, irrigation district, or municipal corporation, as well as an individual.

2) **Washington Dept. of Transportation – South Central Region**:

   a. No comments received.

3) **Washington State Dept. of Archaeology and Historic Preservation (DAHP):**

   a. No comments received.

4) **Washington State Dept. of Fish and Wildlife (WDFW)**:

   a. No comments received.

5) **Washington State Dept. of Natural Resources**

   a. No comments received.

6) **Confederated Tribes and Bands of the Yakama Nation**

   a. No comments received.

7) **Confederated Tribes of the Umatilla Indian Reservation**

   a. No comments received.

8) **Confederated Tribes of the Colville Reservation**

   a. No comments received.

9) **Confederated Tribes of the Warm Springs**

   a. No comments received.

10) **Nez Perce Tribe**

   a. No comments received.

11) **Benton-Franklin Health District**

   a. No comments received.

12) **Big Bend Electric**

   a. No comments received.

13) **South Columbia Basin Irrigation District**: *Comments received November 26, 2025.*

   a. There currently exist multiple exposed manholes for the buried drain systems across the project site. These manholes must be protected from impact by equipment or livestock and the also need to be protected from the potential intrusion of waste materials from the dairy operation. These buried drains are not for waste disposal, intentional or unintentional and must be protected.

   b. Please include the South Columbia Basin Irrigation District WB10A lateral in the SEPA section 3.a.1. This canal serves over 800 acres downstream of this site and any operational waste water from this canal system proceeds into the WB10A WW which discharges into the Wahluke Ponds and eventually into the Columbia River to the west.

   c. Given the size of the waste ponds and the compost pile and their proximity to the WB10A lateral, SCBID is very concerned about the potential release of effluent and the blowing of the composted material which could enter the canal. Mitigation measures must be taken to prevent any effluent or solid waste from entering that lateral. SCBID needs to understand how the site will be graded and what the plan for a potential overtopping event of the waste ponds is. Will that effluent be directed into an undeveloped portion of the site or another area and what measures will be in place to confirm such action. One action that would reduce our concerns would be for the applicant to pipe the WB10A lateral near the pond and compost pile location to provide mitigation of such concerns.

   d. Section 3.a.1 of the SEPA indicates that the WB5WW1 drains into the WB5 and ultimately into the Wahluke Branch Canal (WBC). This is backwards from how things work in the field. The WBC flows into the WB5 which then flows into the WB5WW1, and the reservoir noted in the SEPA. The water in the reservoir is released past the dike near Wahluke Road and flows in a general southernly and westerly direction until it discharges into the Columbia River near Savage Island.

e. SCBID believes that if industry standards and typical mitigating measures are employed in relation to this expansion, the risk of impact should be minimal. There is, however, a real risk of detrimental impact to adjacent parcels and the environment if those measures fail and effluent or solid waste is released impacting buried drains or the canal system in the area.

14) **Franklin County Public Works Department**: *Comments received on November 20, 2025 and January 27, 2026.*

a. An Public Works has concluded that the proposed use will increase the impact on the County Road System. Public Works has the following general comments:

i. A head count increase will require a Traffic Impact Analysis (TIA) to be completed together with upgrades and/or mitigation fees for the County Road System. The TIA shall include County Roads impacted by this increase and at a minimum include N Wahluke Road, adjacent to the site, to the State Route.

ii. Approach permits are required for all access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123) and any existing approaches must be brought up to current design standards. Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

iii. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

b. Public Works has reviewed the Traffic Impact Analysis for SEPA 2025-18 and concluded the proposed expansion will have a significant impact and shall be required to abide by all road restrictions in place during freeze / thaw conditions on county roads not meeting an all-weather standard. All truck traffic shall be restricted to all-weather roads for the conditional use permit.

i. The developer is required to upgrade the approximately 0.6-mile section of N. Wahluke Road adjacent to the facility that is categorized as a Rural Local Access Road and not constructed to an all-weather standard unless another route is proposed for truck traffic. For a general estimation, the approximate cost is $1 Million per mile.

ii. For that section of N Wahluke Road, categorized as Rural Minor Collector, the developer has the following options, unless another route is proposed for truck traffic:

(a) Upgrade the approximately 3.1-mile section of N. Wahluke Road from Filbert Road to Sagehill Road to an all-weather standard. Upon

completion, this would allow continued movement during any road restrictions that would be in place for non-all-weather roads.

(b) Abide by all road restrictions in place during freeze / thaw conditions on county roads not meeting an all-weather standard and pay a one-time mitigation fee equal to 50% of an engineer's estimate to upgrade to an all-weather standard. In lieu of actually completing all improvements, the developer may provide the county with a bond, cash or irrevocable line of credit in an amount equal to one hundred twenty-five (125) percent of an engineer's estimate.

Public Works can apply for grant funding for roads categorized as Rural Minor Collector that are on the Six-year Transportation Improvement Program (TIP). Public Works can request that the Board of County Commissioners add N Wahluke Road from Filbert Road to Sagehill Road to the TIP. Once added, Public Works can begin seeking funding for that section categorized as a Rural Minor Collector.

15) **Franklin County Assessor**

a. No comments received.

16) **Franklin County GIS/E-911 Addressing**

a. No comments received.

17) **Franklin County Fire District #4**

a. No comments received.

RECOMMENDATION:

According to the Franklin County Code Chapter 17.82 Special Permits, the Planning Commission shall:

1) Make and enter findings of fact from the record and conclusions thereof;

2) Shall render a recommendation to the Board of County Commissioners as to whether the proposal shall be denied, approved, or approved with modification and/or conditions.

Findings of Fact Criteria by Planning Commission: The Planning Commission shall make and enter findings from the record and conclusions thereof as to whether or not:

1) The proposal is in accordance with the goals, policies, objective, maps, and or narrative text of the comprehensive plan;

2) The proposal will adversely affect public infrastructure;

3) The proposal will be constructed, maintained and operated to be in harmony with the existing or intended character of the general vicinity;

4) The location and height of the proposed structures and the site design will discourage the development of permitted uses on the property in the general vicinity or impair the value thereof;

5) The operation in connection with the proposal will be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district;.

6) The proposal will endanger the public health or safety if located and developed where proposed, or in any way will become a nuisance to uses permitted in the district.

Planning and Economic Development Department Staff Assistance: Planning Staff will assist the Planning Commission with the determination of finding and conditions of CUP 2025-10/SEPA 2025-18.

Recommendation: The Franklin County Planning Department recommends that the Planning Commission forward a **POSITIVE** recommendation to the Franklin County Board of County Commissioners for Application CUP 2025-10/SEPA 2025-18, with the following suggested findings of fact:

Suggested Findings of Fact:

1) The proposal **IS** in accordance with the goals, policies, objective, maps, and or narrative text of the comprehensive plan;

    a. The Franklin County Comprehensive Land Use Designation is Agricultural.

    b. The County Zoning Code is Agricultural Production 20-acres (AP-20).

    c. Pursuant to FCC 17.10.020(b)(5) the approval of a Conditional Use Permit is required for large scale confined animal feeding operations. The codes further set out a Dairy Separation Standard, stating that no more than two operations that are greater in size than one thousand three hundred (1,300) (milking cow head count) shall be located within an operations two-mile buffer. The buffer area shall be a two-mile radius from each operation's center of primary animal confinement as defined by the Franklin Conservation District. The project complies with this standard.

    d. A dairy operation greater in size than 500 head count requires approval of a conditional use permit.

    e. A feedlot operation greater in size than 1,000 requires the approval of a conditional use permit.

    f. The comprehensive plan says that the county will encourage agricultural industries in agricultural areas (Comprehensive Plan, Pg. 94-98).

2) The proposal **WILL NOT** adversely affect public infrastructure, **IF MITIGATED**;

    a. Access to the proposed site will be from N Wahluke Road.

b. ***Mitigation Required:*** The Franklin County Public Works Department has determined that the proposed use will have a significant impact and shall be required to abide by all road restrictions in place during freeze / thaw conditions on county roads not meeting an all-weather standard. All truck traffic shall be restricted to all-weather roads for the conditional use permit. Further conditions are being imposed based on the Traffic Impact Analysis to upgrade roads surrounding the project site into all-weather standards.

3) The proposal **WILL BE** constructed, maintained and operated to be in harmony with the existing or intended character of the general vicinity;

   a. The site location for the animal operation expansion is in an area zoned Agricultural Production 20 (AP-20);

   b. The general area consists of farms and animal operations.

   c. The animal operation expansion is in harmony with and is compatible with the surrounding lands, including the existing and intended character of the agricultural area:

      i. The animal operation and its expansion at this site is a compatible use with the County Comprehensive Plan because the land is classified as Agricultural, with the Agricultural Production 20 (AP-20) Zoning District, and the surrounding areas.

      ii. The farm site is not located near a Rural Settlement Area or a designated Urban Growth Boundary.

      iii. Active farms are located near the proposed dairy expansion site.

4) The location and height of the proposed structures and the site design **WILL NOT** discourage the development of permitted uses on the property in the general vicinity or impair the value thereof;

   a. The dairy site is located in an agricultural area that is not densely populated and the dairy site is not located near a Rural Settlement Area or a designated Urban Growth Boundary.

   b. Agricultural industry and animal operations are consistent with the uses allowed in agricultural areas.

   c. The area is zoned Agricultural Production 20 (AP-20).

   d. The height of future proposed structures and site design (as submitted) is in compliance with the AP-20 development standards. The dairy expansion will not discourage the development of permitted uses in the area.

   e. The implementation of a dairy Nutrient Management Plan will help address the potential for buildup of nitrates and nutrients in the soil.

5) The operation in connection with the proposal **WILL NOT** be more objectionable to nearby properties by reason of noise, fumes, vibrations, dust, traffic, or flashing lights than would be the operation of any permitted uses within the district, **IF MITIGATED**;

a. The area is zoned Agricultural Production 20 (AP-20) which allows for a wide range of agricultural activities and animal agricultural operations to occur.

b. The dairy expansion is in harmony with and is compatible with the surrounding lands, including the existing and intended character of the agricultural area.

c. To further ensure its compatibility with the surrounding agricultural area and reduce potential impacts to neighbors, the dairy operation can implement mitigation measures and comply with a State of Washington Dairy Nutrient Management Plan as enforced by the State of Washington, a State of Washington Concentrated Animal Feeding Operation (CAFO) General Permit, comply with an Odor and Fly Control Plan, develop a Manure Pollution Prevention Plan (MPPP) and shield all lights on the property.

6) The proposal **WILL NOT** endanger the public health or safety if located and developed where proposed, or in any way will become a nuisance to uses permitted in the district, **IF MITIGATED**.

a. To protect water quality and health related issues, the applicant is required to comply with a State of Washington Dairy Nutrient Management Plan. The Nutrient Management Plan, as enforced by the Washington State Department of Agriculture has the following water quality objectives: "Preventing discharge of contaminated waste water to streams, drainage ditches, or other surface waters from the facility; Preventing migration of contaminants from the facility to the underlying aquifer; Using facility nutrients to supply crop nutrient needs at rates and times tailored to reach realistic yield goals; Meeting the requirements of the Dairy Nutrient Management Act of 1998, the Clean Water Act".

b. Completion of an Odor and Fly Control Plan for the operation. This Plan will discuss numerous items including potential sources of odors and flies on the farm including methods to control and reduce odors and flies at the dairy site.

c. A Manure Pollution Prevention Plan (MPPP) shall be developed for the dairy operations.

d. Toxic or hazardous chemicals shall be managed, handled, used, and stored in accordance with applicable Federal and State laws. A Chemical Hazard Communication Plan shall be developed.

e. A Concentrated Animal Feeding Operation (CAFO) General Permit must be submitted to the Washington Department of Ecology.

f. A Spill Prevention, Control, and Countermeasure (SPCC) shall be developed for the dairy operations.

g. An Inadvertent Discover Plan shall be prepared and implemented for the project through all phases.

h. Franklin County's Right to Farm Ordinance states that an agricultural activity if consistent with good agricultural practices is presumed to be reasonable and shall not be found to constitute a nuisance. This proposed operation is being conditioned to develop and comply

with multiple plans, permits, and standards consistent with these types of large-scale operations per Federal, State and local laws and ordinances.

Suggested Conditions of Approval:

SEPA ODNS/NOA-M & MDNS Conditions:

1) Best Management Practices (BMP) to minimize dust during construction shall be used, such as watering the site in accordance with Franklin County's Clean Air and Dust control ordinances.

2) The applicant shall meet and comply with all necessary Air and Water Quality standards required by the Department of Ecology. Compliance with these standards shall occur at all times. Stormwater shall be retained on site during and after construction.

3) The project shall implement a **Stormwater Pollution Prevention Plan (SWPP)** in accordance with the Washington State Department of Ecology stormwater management guidelines.

4) Toxic or hazardous chemicals shall be managed, handled, used, and stored in accordance with applicable Federal and State laws. A **Chemical Hazard Communication Plan** shall be developed and submitted to the Franklin County Planning Department.

5) A head count increase will require a **Traffic Impact Analysis (TIA)** to be completed together with upgrades and/or mitigation fees for the County Road System. The TIA shall include County Roads impacted by this increase.

6) Any infrastructure that will cross those buried drain rights of way, such as piping, electrical wiring, etc., must be permitted by SCBID prior to construction. All applications must be approved by the SCBID Board of Directors prior to that work taking place. SCBID will not require a permit for grading purposes or other operations over the buried drains but will need to be included in the planning to ensure that we maintain cover over our drains.

7) There are exposed manholes for the buried drain systems present around the project site. These manholes need to be protected from impact by equipment or livestock and the also need to be protected from the potential intrusion of waste materials from the dairy operation. These buried drains are not for waste disposal, intentional or unintentional and must be protected. Efforts must be taken so ensure that the waste from the dairy doesn't impact that drain system.

8) The applicant shall work with SCBID to determine measures to prevent any effluent or solid waste from entering the WB10A lateral. SCBID recommends piping the lateral near the effluent pond and compost pile location to address potential impacts.

9) The applicant shall comply with the State of Washington's requirements for Dairy operations including the implementation of the approved **Nutrient Management Plan (NMP)** for the operation. Nutrient management plans focus on water quality related issues. A copy of this plan must be submitted to the Franklin County Planning Department.

10) A **Concentrated Animal Feeding Operation (CAFO) General Permit** must be submitted to the Washington Department of Ecology. A copy of the permit must be submitted to the Franklin County Planning Department.

11) A **Manure Pollution Prevention Plan** shall be developed and submitted to the Franklin County Planning Department.

12) A **Spill Prevention, Control, and Countermeasure (SPCC)** shall be developed and submitted to the Franklin County Planning Department.

13) The applicant shall submit an **Odor and Fly Control Plan** consistent with Franklin County Resolution 2001-238, to be approved by the Franklin Conservation District.

14) An **Inadvertent Discover Plan** shall be prepared and implemented for the project through all phases.

15) A Franklin County Grading Permit must be submitted before any grading, filling, or movement of earth greater than 50 cubic yards.

Conditional Use Permit:

16) Comply with the Requirements of the **Washington Department of Ecology**:

    a. Depending on the potential emissions from the diesel fuel storage tanks and the composting operations, a Notice of Construction (NOC) application may need to be submitted.

    b. The applicant is encouraged to salvage, reuse, and recycle as much of the waste as possible. Recycling demolition debris is typically less expensive than disposal. Otherwise, the demolition waste must be disposed of at a permitted solid waste facility.

    c. Operators of construction sites that disturb one acre or more total area and has or will have a discharge of stormwater to a surface water or to a storm sewer, must apply for coverage under Department of Ecology's Construction Stormwater General Permit.

       If soil or ground water contamination is known at the site, additional information will be required. The applicant will be required to submit additional studies and reports including, but not limited to, temporary erosion and sediment control plans, a stormwater pollution prevention plan, a site map depicting sample locations, a list of known contaminants with concentrations and depths found and other information about the contaminants.

       Application should be made at least 60 days prior to commencement of construction activities.

17) Comply with the requirements of **South Columbia Basin Irrigation District:**

    a. There currently exist multiple exposed manholes for the buried drain systems across the project site. These manholes must be protected from impact by equipment or livestock and the also need to be protected from the potential intrusion of waste materials from the dairy operation. These buried drains are not for waste disposal, intentional or unintentional and must be protected.

    b. SCBID needs to understand how the site will be graded and what the plan for a potential overtopping event of the waste ponds is. Will that effluent be directed into an undeveloped

portion of the site or another area and what measures will be in place to confirm such action. One action that would reduce our concerns would be for the applicant to pipe the WB10A lateral near the pond and compost pile location to provide mitigation of such concerns.

18) Comply with the requirements of the **Franklin County Public Works Department:**

a. An approach permit is required for access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123). Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

b. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

c. The developer is required to upgrade the approximately 0.6-mile section of N. Wahluke Road adjacent to the facility that is categorized as a Rural Local Access Road and not constructed to an all-weather standard unless another route is proposed for truck traffic. For a general estimation, the approximate cost is $1 Million per mile.

d. For that section of N Wahluke Road, categorized as Rural Minor Collector, the developer has the following options, unless another route is proposed for truck traffic:

i. Upgrade the approximately 3.1-mile section of N. Wahluke Road from Filbert Road to Sagehill Road to an all-weather standard. Upon completion, this would allow continued movement during any road restrictions that would be in place for non-all-weather roads.

ii. Abide by all road restrictions in place during freeze / thaw conditions on county roads not meeting an all-weather standard and pay a one-time mitigation fee equal to 50% of an engineer's estimate to upgrade to an all-weather standard. In lieu of actually completing all improvements, the developer may provide the county with a bond, cash or irrevocable line of credit in an amount equal to one hundred twenty-five (125) percent of an engineer's estimate.

19) Comply with the requirements of **Franklin County Planning and Economic Development Department:**

a. Parcels #121-060-012 and 121-060-013 must be consolidated into a single parcel prior to Building Permit submissions to avoid construction of any structure on property lines.

b. **Outdoor lighting at the facility shall be shielded down.** This will assist in ensuring the outdoor lighting will not become a nuisance to neighboring properties and will limit light pollution in the rural area.

c. Before construction of any structures, a Franklin County Building Permit Application shall be submitted to the Franklin County Planning and Economic Development Department.

d. Per Franklin County Ordinance Number 5-2007, as amended, **prohibits the accumulation of irrigation water on County Roads in Franklin County**. Compliance with this Ordinance is required for this operation, if applicable.

e. All structures shall comply with the standards of the **currently adopted International Building Codes.**

f. Any deviations from the submitted plans shall be submitted to the Franklin County Planning and Economic Development Department for review.

20) Any **discontinuance or abandonment** of the approved use for a period of one (1) year shall make this Conditional Use Permit approval null and void.

21) Any use of the proposed development for purposes other than the approved use shall deem this Conditional Use Permit approval null and void.

22) The site shall be maintained at all times as to not let the land become a fire hazard or accumulate with debris and weeds.

23) Shall comply with the **Franklin County Fire Code** as expressed in FCC Chapter 8.40.

24) **RIGHT TO FARM:** Applicant shall be aware that this facility is located in an area where farming and farm operations exist. Further, to assist in preserving the right of farmers to operate utilizing accepted and appropriate practices, the County has adopted a Franklin County Right to Farm Ordinance, as amended. At no time shall a farm operation or accessory farm related enterprise, such as crop-dusting operation or airstrip use, be deemed to be a public or private nuisance as it relates to the activities associated with this land use approval.

25) Should archaeological materials (e.g., bones, shell, beads, ceramics, old bottles, hearths, etc.) or human remains be observed during project activities, all work in the immediate vicinity shall stop. The State Department of Archaeology and Historic Preservation (360-586-3065), the Franklin County Planning and Building Department, the affected Tribe(s) and the County Coroner (if applicable) shall be contacted immediately in order to assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources (RCW 27.53, 27.44 and WAC 25-48) is required.

26) Future expansions and improvements at the site shall comply with the submitted and approved plans. To allow for future flexibility, changes to the plans which are determined to be minor, or incidental may be administratively approved by the Planning Director. Major changes, which do not meet with the intent of, or seriously re-align, the approved plans, shall be reviewed per the current code and a new Conditional Use Permit shall be obtained prior to that change occurring.

27) Nothing in this Conditional Use Permit approval shall be construed as excusing the applicant from compliance with any federal, state, or local statutes, ordinances, or regulations applicable to this project.

28) In accordance with the County's Zoning Code, any special permit may be revoked by the Board of County Commissioners if, after a public hearing, it is found that the conditions upon which the special permit was authorized have not been fulfilled or if the use authorized has changed in size, scope, nature, or intensity so as to become a detriment to the surrounding area. The decision of the Board is final.

29) This permit applies to the lands described and shall be for the above-mentioned individual and/or his heirs and/or assigns. Any transfer of this permit will require that notice be granted to the Franklin County Planning and Economic Development Department, or the permit will be cancelled. Once granted, the permit cannot be transferred to another site.

30) By accepting the issuance of this permit, the Permit Holder(s) agree(s) to accept full responsibility for any and all operations conducted or negligence occurring at this location and any incidents that occur on surrounding properties caused by operations or negligence at this location; Permit Holder(s) further agree(s) to indemnify and hold the County harmless and agree that the County is in no way negligent in relation to granting this permit, or operations or negligence on this property; Permit Holder(s) further agree(s) to accept full responsibility for any future cleanup needed due to activities conducted that this location that impact the surrounding properties, and obtaining and retaining appropriate insurance coverage.

CUP 2025-10/
SEPA 2025-18

Public and Agency Notice
& Comments

Memo

Public Works Department

To: Wesley McCart, Planning & Building Director

From: John Christensen

cc: Craig Erdman, PE, Director / County Engineer

Date: January 27, 2026

Re: SEPA 2025-18 / CUP 2025-10 - White Bluffs Dairy Expansion

Wesley,

Public Works has reviewed the Traffic Impact Analysis for SEPA 2025-18 and concluded the proposed expansion will have a significant impact and shall be required to abide by all road restrictions in place during freeze / thaw conditions on county roads not meeting an all-weather standard. All truck traffic shall be restricted to all-weather roads for the conditional use permit.

1. The developer is required to upgrade the approximately 0.6-mile section of N. Wahluke Road adjacent to the facility that is categorized as a Rural Local Access Road and not constructed to an all-weather standard unless another route is proposed for truck traffic. For a general estimation, the approximate cost is $1 Million per mile.

2. For that section of N Wahluke Road, categorized as Rural Minor Collector, the developer has the following options, unless another route is proposed for truck traffic:
   A. Upgrade the approximately 3.1-mile section of N. Wahluke Road from Filbert Road to Sagehill Road to an all-weather standard. Upon completion, this would allow continued movement during any road restrictions that would be in place for non-all-weather roads.
   B. Abide by all road restrictions in place during freeze / thaw conditions on county roads not meeting an all-weather standard and pay a one-time mitigation fee equal to 50% of an engineer's estimate to upgrade to an all-weather standard. In lieu of actually completing all improvements, the developer may provide the county with a bond, cash or irrevocable line of credit in an amount equal to one hundred twenty-five (125) percent of an engineer's estimate.

Public Works can apply for grant funding for roads categorized as Rural Minor Collector that are on the Six-year Transportation Improvement Program (TIP). Public Works can request that the Board of County Commissioners add N Wahluke Road from Filbert Road to Sagehill Road to the TIP. Once added, Public Works can begin seeking funding for that section categorized as a Rural Minor Collector.

Please let me know if you have any questions.

Outlook

[EXTERNAL] White Bluffs Dairy Proposal

From aprilz159@olypen.com <aprilz159@olypen.com>
Date Mon 1/26/2026 4:14 PM
To planninginquiry <planninginquiry@franklincountywa.gov>
Cc tylerjameshawkins@gmail.com <tylerjameshawkins@gmail.com>

Some people who received this message don't often get email from aprilz159@olypen.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Good afternoon,

Thank you for the opportunity to address this situation.

While I agree Michael Corrales has the right to sell his current dairy (and wish he would), it's the how that I'm questioning.

Everything in my first email still stands, but I would like to add a few more things.

We usually work well as a community, and I would like us to put our heads together to find a good solution for all concerned on this proposed sale.

Theres's a reason new "rules" were written for dairies to be 5 miles apart. Just because this one can be grandfathered in doesn't mean it should be. This is a heavily populated area with farms. Families that live and work on these farms. As I stated earlier in my first email, there were 2 houses on this road when my family moved here. Now, there are houses and families every 1/4 of a mile, or less around this dairy. Rebuilding in the current position would greatly impact a large amount of people.

Laws, ordinances, rules, and proposals can be changed to benefit all involved. This is a rural area and cows are part of that. But we're not talking about a couple of milk cows on the family farm. Or running a heard for sale on some wintertime pasture before planting in the spring.

This proposal is a bigger dairy and more industrial than what is already there. New rules should apply. It's an industrial business. Not a rural farm. This completely takes it out of the farm category. There's cows there, sure. But other than that, Mother Nature wouldn't recognize it. I'm not against new and improved methods. The dairy I toured is impressive. I just don't want more cows, more traffic, more smells, more flies, more mosquitoes, more machinery spraying for those things, more of everything and a small city to be built there. I want to keep my rural landscape. What would normally be considered...the countryside. I want clean air, clean ground water, clean food for humans, and a peaceful landscape for crops and people. Not only smells come on the wind, so do noises - at 3 in the morning. What we surround ourselves with is important. In beekeeping, the hives die if they are surrounded by corn. We should be aware of what we surround ourselves with.

I personally would like to see this dairy torn down and rebuilt in a more appropriate place. Sell it to White Bluffs, that's fine. I'm the most impacted by this property and want to get rid of the current dairy. But don't build another one there.

Businesswise, it would be better for them too if they didn't have to constantly wonder what was coming next from their neighbors. Not only regular daily complaints. but bigger ones too. If their workers interfere with my property and plug up my drain, on my property, again, they will be presented with a $10,000- $15,000 invoice. I won't go down quietly.

Thank you for your consideration,

April Alexander

Outlook

Re: [EXTERNAL] Fwd: White Bluffs Dairy Expansion- Concerns.docx

From Jeffrey Hawkins <jeffrey.edward.hawkins@gmail.com>
Date Mon 1/26/2026 4:12 PM
To PermitSubmittal <permitsubmittal@franklincountywa.gov>; planninginquiry <planninginquiry@franklincountywa.gov>
Cc Angie Hawkins <angpermann@gmail.com>

Some people who received this message don't often get email from jeffrey.edward.hawkins@gmail.com. Learn why this is important

Good afternoon,

I am submitting these comments again to ensure they're included on the public record for the hearing on February 3.

These are the same concerns I had previously as there has been no forum to address any of them. I look forward to attending the meeting on February 3 in person.

> am writing to express my concerns regarding the new "White Bluffs Dairy Expansion SEPA 2025-18."
>
> I'd rather have open farmland as a neighbor than 9,000 additional cows and their manure as open farmland does not negatively affect my ability to grow and harvest fruit or my family's quality of life. I recognize that all people should be able to pursue a livelihood with the land that they own. I do not want to be a contentious neighbor. I know most dairymen are fine people and I like consuming dairy products, but large dairies are objectively undesirable in any neighborhood.
>
> I do not believe I should be able to completely control what someone else does with land that they own, but I have concerns that need to be addressed so the current status quo is preserved:
>
> Negative impacts on my sweet cherry orchard:
>
> A. Birds- dairies bring increased bird populations which hurt fruit production. Starlings and Robins currently cause thousands of dollars of damage in my orchard each year despite efforts to keep them away. Increased bird damage could be catastrophic. The Washington State Fish & Wildlife recommends removing sources of food for birds, but dairies are a 24/7/365 "all you can eat buffet" which will bring more birds.
>
> B. Flies- Dairies bring increased flies/insects which are a nuisance and can damage fruit.
>
> C. Smell- Hydrogen Sulfide and Ammonia in high amounts inhibit tree growth and stress otherwise healthy trees.

Negative Impacts on my neighborhood:

A. Smell- Foul odors limit outdoor enjoyment and can even penetrate inside my home if the wind blows from the north. We purchased our home long after the existing dairy was in place, so we knew we would occasionally experience unpleasant odors. We did not anticipate the dairy growing 13.5 times larger and moving to within .6 miles of us.

B. Noise- Currently this is not a problem, but I've never lived next to 9,500 cows so I am concerned of what this may become from, cows, machinery and equipment operating 24/7/365.

C. Flies- We currently have a very undesirable amount of flies and the idea of 13.5x more cows and manure could make this exponentially worse.

D. Manure spread on fields and roads- I want to be able to traverse the public roads without bringing manure back into my garage.

F. Light pollution- not currently a problem but could be with expansion.

E. Decreases value of home and land- Having a large dairy makes all the land around it less desirable for habitation and fruit production.

I have outlined my very real concerns, so White Bluffs Dairy and Franklin County ensure available remedies are implemented to mitigate the negative impacts of this massive proposed expansion. If the negative effects cannot be mitigated and the current status quo maintained, I would ask that White Bluff Dairy find a different location to expand.

We love where we live and farm and want to stay here for the rest of our lives. If the negative effects of this expansion made it unviable to live here, we would not be able to sell our home and land and replicate our livelihood and lifestyle anywhere else.

I look forward to discussing and receiving more details on this proposed expansion.

Thank you!

Jeff & Angie Hawkins

509-430-0862

2531 Buffalo Road

Othello, WA 99344

Thank you!

-Jeff Hawkins

On Dec 3, 2025, at 4:01 PM, PermitSubmittal <permitsubmittal@franklincountywa.gov> wrote:

Good afternoon,

Yes, you will receive another notice in the mail with additional opportunities to comment and when the next meeting will be held.

Let me know if you have any questions,

Shalie Minielly
Permit Technician
Franklin County Planning & Building Department
502 W. Boeing St.
Pasco, WA 99301
(509) 545-3521

From: Jeffrey Hawkins <jeffrey.edward.hawkins@gmail.com>
Sent: Tuesday, December 2, 2025 9:25 AM
To: PermitSubmittal <permitsubmittal@franklincountywa.gov>
Cc: Angie Hawkins <angpermann@gmail.com>
Subject: Re: [EXTERNAL] Fwd: White Bluffs Dairy Expansion- Concerns.docx

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Thank you Shalie! Will we be notified of any next steps or upcoming meetings?

Jeff & Angie

On Mon, Dec 1, 2025 at 11:48 AM PermitSubmittal <permitsubmittal@franklincountywa.gov> wrote:

> Good morning,
>
> This has been received and saved to the public comments file.
>
> Have a great day,
>
> Shalie Minielly
> *Permit Technician*
> Franklin County Planning & Building Department
> 502 W. Boeing St.
> Pasco, WA 99301
> (509) 545-3521

From: Jeffrey Hawkins <jeffrey.edward.hawkins@gmail.com>
Sent: Friday, November 28, 2025 6:04 AM
To: PermitSubmittal <permitsubmittal@franklincountywa.gov>; planninginquiry <planninginquiry@franklincountywa.gov>
Cc: Angie Hawkins <angpermann@gmail.com>
Subject: [EXTERNAL] Fwd: White Bluffs Dairy Expansion- Concerns.docx

You don't often get email from jeffrey.edward.hawkins@gmail.com. Learn why this is important
CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Good morning,

I am writing to express my concerns regarding the new "White Bluffs Dairy Expansion SEPA 2025-18."

I'd rather have open farmland as a neighbor than 9,000 additional cows and their manure as open farmland does not negatively affect my ability to grow and harvest fruit or my family's quality of life. I recognize that all people should be able to pursue a livelihood with the land that they own. I do not want to be a contentious neighbor. I know most dairymen are fine people and I like consuming dairy products, but large dairies are objectively undesirable in any neighborhood.

I do not believe I should be able to completely control what someone else does with land that they own, but I have concerns that need to be addressed so the current status quo is preserved:

Negative impacts on my sweet cherry orchard:

A. Birds- dairies bring increased bird populations which hurt fruit production. Starlings and Robins currently cause thousands of dollars of damage in my orchard each year despite efforts to keep them away. Increased bird damage could be catastrophic. The Washington State Fish & Wildlife recommends removing sources of food for birds, but dairies are a 24/7/365 "all you can eat buffet" which will bring more birds.

B. Flies- Dairies bring increased flies/insects which are a nuisance and can damage fruit.

C. Smell- Hydrogen Sulfide and Ammonia in high amounts inhibit tree growth and stress otherwise healthy trees.

Negative Impacts on my neighborhood:

A. Smell- Foul odors limit outdoor enjoyment and can even penetrate inside my home if the wind blows from the north. We purchased our home long after the existing dairy was in place, so we knew we would occasionally experience unpleasant odors. We did not anticipate the dairy growing 13.5 times larger and moving to within .6 miles of us.

B. Noise- Currently this is not a problem, but I've never lived next to 9,500 cows so I am concerned of what this may become from, cows, machinery and equipment operating 24/7/365.

C. Flies- We currently have a very undesirable amount of flies and the idea of 13.5x more cows and manure could make this exponentially worse.

D. Manure spread on fields and roads- I want to be able to traverse the public roads without bringing manure back into my garage.

F. Light pollution- not currently a problem but could be with expansion.

E. Decreases value of home and land- Having a large dairy makes all the land around it less desirable for habitation and fruit production.

I have outlined my very real concerns, so White Bluffs Dairy and Franklin County ensure available remedies are implemented to mitigate the negative impacts of this massive proposed expansion. If the negative effects cannot be mitigated and the current status quo maintained, I would ask that White Bluff Dairy find a different location to expand.

We love where we live and farm and want to stay here for the rest of our lives. If the negative effects of this expansion made it unviable to live here, we would not be able to sell our home and land and replicate our livelihood and lifestyle anywhere else.

I look forward to discussing and receiving more details on this proposed expansion.

Thank you!

Jeff & Angie Hawkins

509-430-0862

2531 Buffalo Road

Othello, WA 99344

--
Make it a great day!

Jeff Hawkins

Outlook

[EXTERNAL] Re: SEPA 2025-18 White Bluffs Dairy LLC

From Tyler Hawkins <tylerjameshawkins@gmail.com>
Date Mon 1/26/2026 4:39 PM
To planninginquiry <planninginquiry@franklincountywa.gov>

Some people who received this message don't often get email from tylerjameshawkins@gmail.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Good afternoon. I received another notice about this proposed project and another public comment period.

Everything I stated previously still concerns me and I want to make sure it is reviewed by the committee.

Thank you
Tyler Hawkins
Cell: (509) 439-0244

> On Nov 28, 2025, at 16:14, Tyler Hawkins <tylerjameshawkins@gmail.com> wrote:
>
> Hello,
>
> My name is Tyler Hawkins. I live at 5081 N Wahluke Rd, Mesa, WA 99343, which is approximately 1 mile south of this proposed new dairy.
>
> I would like to comment on the negative environmental impacts of this proposed project. They are as follows:
>
> I believe that a dairy of this size/scope is akin to a massive industrial complex. I'd prefer not to live next to a massive industrial complex with 24-hour a day semi-truck traffic, noise from pumps, heavy equipment, and 9,500 cows. I assume that this dairy will also have a massive amount of lighting for operations during the night. I currently quite enjoy living where I live with it getting dark at night and being able to see the stars. I know that I would still be able to see the stars, but probably not as well with the amount of lights this dairy will likely have.
>
> A dairy of this size will bring with it an increased amount of unpleasant smell and increased pests like flies, starling birds, and other rodents. This property borders an orchard that I'm sure will see negative effects of being next to a dairy. There are several other orchards in the neighborhood that could also be negatively affected.
>
> I am not a water expert, but I am concerned about the potential for contamination of groundwater and the domestic wells that are currently in the surrounding area. Also the potential for some of these wells to become depleted when large wells are drilled for this dairy. Has that been taken into consideration?
>
> How will the manure be managed? I am not an expert about manure, but I have observed that how a dairy manages the manure produced can make a big difference in smell and how much of it ends up on N. Wahluke and Filbert rd.

Thank you for taking my comments into consideration about this proposed project.

--
Tyler Hawkins
509-439-0244

FRANKLIN COUNTY

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

NOTICE OF OPEN RECORD PUBLIC HEARING
BEFORE THE PLANNING COMMISSION ON THE
T. FREEMAN/WHITE BLUFFS DAIRY EXPANSION
CUP2025-10/SEPA 2025-18

NOTICE IS HEREBY GIVEN that there has been proposed to the Franklin County Planning Commission an application by **White Bluffs Dairy LLC,** Fransisca Vander Meulen, 650 Horby Rd., Grandview, WA, 98930-9202, is seeking approval of a Conditional Use Permit (CUP), file #**CUP 2025-10/SEPA 2025-18.**

Proposal: The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground. The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

Public Comment Period: Written project comments must be submitted by **5:00 PM** on **January 26, 2026**, to be included in the Planning Commission Packet. If there are any questions on the proposal, contact the Franklin County Planning Department via email at planninginquiry@franklincountywa.gov.

Public Meeting: An open record public meeting will be held to discuss the project, solicit input from interested citizens, and respond to project questions at the **Planning Commission Meeting**, scheduled for **6:00PM, February 3, 2026**, in the Commissioner's Room at the Franklin County Courthouse at 1016 N. 4th Ave., Pasco, WA 99301.

Environmental Documents and/or Studies Applicable to this Application: Environmental Determination No. **SEPA 2025-28** has been assigned to this proposal.

PROJECT LOCATION:

AFFIDAVIT OF PUBLICATION

STATE OF WASHINGTON

SS:

COUNTY OF FRANKLIN

Katherine Trowbridge being first duly sworn on oath deposes and says that she is the manager of the FRANKLIN COUNTY GRAPHIC, a weekly newspaper. That said newspaper is a legal newspaper approved by the Superior Court of the State of Washington, in and for Franklin County, under order made and entered on the 11th day of January, 1955, and it is now and has been for more than six months prior to the date of the publication hereinafter referred to, published in the English language continually as a weekly newspaper, in Connell, Franklin County, Washington, and that the annexed is a true copy of

FRANKLIN COUNTY PLANNING

CUP 2025-10

HEARING

as it was published in regular issue (and not in supplemental form) of said newspaper, once each week for a period of **one** week to-wit, commencing on the **15th** day of **Jan, 2026**, and that such newspaper was regularly distributed to its subscribers during all of said period, that the full amount of **$74.40** has not been paid in full at the legal rate.

Katherine Trowbridge

Manager

Subscribed and sworn to before me this **15th** day of

January, 2026

EMMA MAUSETH
NOTARY PUBLIC
APPOINTMENT EXPIRES March 21, 2029
COMM # 25013484
STATE OF WASHINGTON

Emma Mauseth

Notary Public in and for the
State of Washington, residing in Connell.

NOTICE OF OPEN RECORD PUBLIC HEARING BEFORE THE PLANNING COMMISSION ON THE T. FREEMAN/WHITE BLUFFS DAIRY EXPANSION CUP2025-10/SEPA 2025-18

NOTICE IS HEREBY GIVEN that there has been proposed to the Franklin County Planning Commission an application by **White Bluffs Dairy LLC**, Fransisca Vander Meulen, 650 Horby Rd., Grandview, WA, 98930-9202, is seeking approval of a Conditional Use Permit (CUP), file **#CUP 2025-10/ SEPA 2025-18.**

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A SEPA ODNS/NOA-M was issued for this proposal on November 12, 2025. A SEPA ODNS-M was issued on January 14, 2026.

Public Comment Period: Written project comments must be submitted by **5:00 PM** on **January 26, 2026**, to be included in the Planning Commission Packet. If there are any questions on the proposal, contact the Franklin County Planning Department via email at planninginquiry@franklincountywa.gov.

Public Meeting: An open record public meeting will be held to discuss the project, solicit input from interested citizens, and respond to project questions at the **Planning Commission Meeting**, scheduled for **6:00PM, February 3, 2026**, in the Commissioner's Room at the Franklin County Courthouse at 1016 N. 4th Ave., Pasco, WA 99301.

Environmental Documents and/or Studies Applicable to this Application: Environmental Determination No. **SEPA 2025-28** has been assigned to this proposal.

DATED AT PASCO, WASHINGTON ON THIS 15th DAY OF JANUARY 2026.

(Published January 15, 2026 in the Franklin County Graphic).

Outlook

[EXTERNAL] [CUP2025-10 / SEPA2025-18] White Bluffs Dairy - ODNS Mitigation Measures

From Kevin Freeman <kfreeman@inlandearth.com>
Date Wed 1/7/2026 12:35 PM
To Gem Belamour <gbelamour@franklincountywa.gov>
Cc Ruurd Veldhuis (rfveld@gmail.com) <rfveld@gmail.com>; Fransisca Vander Meulen <fransisca@windmillestates.net>

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Ms. Belamour –

Per our conversation on Monday, January 5, 2026, Inland Earth Sciences (IES) on behalf of White Bluffs Dairy LLC is requesting that the following Mitigation Measures required by the November 12, 2025 Optional Determination of Nonsignificance (ODNS) issued for the White Bluffs Dairy expansion be made conditions of receiving the Certificate of Occupancy (CO) and not conditions required for issuance of the Conditional Use Permit (CUP):

3. The project shall implement a Stormwater Pollution Prevention Plan (SWPP) in accordance with the Washington State Department of Ecology stormwater management guidelines.
4. Toxic or hazardous chemicals shall be managed, handled, used, and stored in accordance with applicable Federal and State laws. A Chemical Hazard Communication plan shall be developed and submitted to the Franklin County Planning Department.
9. The applicant shall comply with the State of Washington's requirements for Dairy operations including the implementation of the approved Nutrient Management Plan (NMP) for the operation. Nutrient management plans focus on water quality related issues. A copy of this plan must be submitted to the Franklin County Planning Department.
10. A Concentrated Animal Feeding Operation (CAFO) General Permit must be submitted to the Washington Department of Ecology. A copy of the permit must be submitted to the Franklin County Planning Department.
11. A Manure Pollution Prevention Plan shall be developed and submitted to the Franklin County Planning Department.
12. A Spill Prevention, Control, and Countermeasure (SPCC) shall be developed and submitted to the Franklin County Planning Department.
13. The applicant shall submit an Odor and Fly Control Plan consistent with Franklin County Resolution 2001-238, to be approved by the Franklin Conservation District.
14. An Inadvertent Discover Plan shall be prepared and implemented for the project through all phases.

These conditions typically rely on having an approved permit to construct from the County and/or final design plans allowing the plans to address the actual Site configuration. Once approval of the CUP is received from Franklin County, IES and White Bluffs Dairy will move to prepare and submit all documents, plans, and permits required by these conditions.

I appreciate your consideration of this request. Please contact me at this email address or at 509-981-4747 should you have any questions or require additional information regarding this request.

Regards,

Kevin M. Freeman, PG | *Principal Geologist*
Inland Earth Sciences Corporation
8704 E. Dalton Avenue | Spokane, Washington 99212
O: (509) 563-5242 x700 | M: (509) 981-4747
kfreeman@inlandearth.com

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Outlook

[EXTERNAL] Subject: Concerns Regarding Proposed Dairy Facility Near Basin City/Radar hill

From Erika Rattray <erattray@gmail.com>
Date Fri 12/5/2025 10:01 AM
To planninginquiry <planninginquiry@franklincountywa.gov>

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Franklin County Building and Planning Department

1016 N. 4th Avenue

Pasco, WA 99301

Subject: Concerns Regarding Proposed Dairy Facility Near Basin City

Dear Franklin County Building and Planning Department,

I am writing to express my concerns regarding the proposed dairy operation near Basin City. While I understand the importance of supporting agricultural development in our region, I believe this project raises several serious issues that could negatively affect our community's health, environment, and quality of life.

1. Water Availability and Usage

- Basin City and surrounding areas already face limited water resources.
- A large-scale dairy would require significant water for livestock, cleaning, and waste management, potentially straining existing supplies.
- Overuse of groundwater could impact local residents, farms, and long-term sustainability.

2. Odor and Air Quality

- Dairy operations produce strong odors from manure storage and handling.
- Prevailing winds could carry these smells into nearby neighborhoods, reducing residents' quality of life.
- Airborne emissions, including ammonia and methane, may also contribute to environmental and health concerns.

3. Waste Management and Environmental Impact

- Large dairies generate substantial manure and wastewater.
- Improper handling could lead to runoff into canals, rivers, or groundwater, contaminating drinking water and harming ecosystems.
- The risk of spills or leaks from lagoons poses a long-term hazard to soil and water quality.

4. Traffic and Infrastructure

- Increased truck traffic for feed delivery, milk transport, and waste hauling could strain local roads.
- Noise, dust, and safety concerns for residents and schoolchildren should be carefully considered.

5. Community Livability

- The combination of odor, water strain, and traffic may reduce property values and discourage future growth in Basin City.
- Residents deserve assurance that their health, safety, and environment will not be compromised.

Request

I respectfully urge the Franklin County Building and Planning Department to conduct a thorough environmental and community impact review before approving this project. Public hearings and transparent communication with residents should be prioritized to ensure all voices are heard.

Thank you for your attention to these concerns. I appreciate your commitment to protecting the well-being of Franklin County residents and our shared environment.

Sincerely,
Erika Romjue
Basin Farmworks LLC

--

Check Out Ironworks Cafe and Market
Check Out Basin Farmworks

Mailsuite Email tracked with Mailsuite · Opt out

Outlook

[EXTERNAL] Comments for the SEPA ODNS/NOAA-M White Bluffs Dairy Expansion SEPA 2025-18

From Rowley and Hawkins Fruit Farms <rhfruitfarms@gmail.com>
Date Tue 12/2/2025 2:20 PM
To planninginquiry <planninginquiry@franklincountywa.gov>

Some people who received this message don't often get email from rhfruitfarms@gmail.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

To the Franklin County Planning and Economic Development Committee,

This project involves the expansion of the current 700 head cattle dairy/feedlot on parcel 121060075 off of Wahluke Rd in Basin City, WA. The project to take this lot and absorb the field behind it and turn it into a 9500 head dairy is concerning to us as residents of the area, and neighboring landowners and farmers.

1. The irrigation drains that run through that parcel come feed into our lot. The drain water availability has already been restricted by our neighbors with this additional expansion that usage may be reduced again making it harder to water our own orchards...
2. In addition, there is a lot of (13.5x times more) waste from a project like this. where is that going to go... I'm concerned that it would contaminate that water source. What do they do with all the manure and or dead carcasses...
3. We have some of our current orchards neighboring other dairies and due to the smell, increased pests, and flies directly next to the dairy have always struggled to produce stronger healthier trees... a larger dairy concerns me that those effects might become more widespread and harder to control.
4. Birds! Dairies and feedlots are notorious for having tons of starlings, black birds and other birds. With a larger dairy next to us these pressures will only increase making it more difficult to keep the birds out of our orchards and away from the cherries, apples, and peaches...
5. Labor! There is a fairly evenly balanced labor force in this area. A large dairy will monopolize that force potentially pulling them away from the current businesses. Up until now we have been able to meet our needs by hiring and providing jobs to over 500 people throughout the harvesting season as they rotate from asparagus to sweet cherries, tarts, then apples and peaches. I believe that has been a great blessing to many of the local families over the last 30 years... We have not needed to hire any H2A workers to fill our needs and if this dairy comes to fruition I'm concerned we would need to seriously look at that as labor will not be as readily available. Not to mention the changes to the schools and surrounding areas...

As you consider this project please consider these issues

Thanks
Landon Rowley

Outlook

[EXTERNAL] Concerns about WHITE BLUFFS DAIRY EXPANSION SEPA 2025-18

From Alan Hawkins <alan.n.hawkins@gmail.com>
Date Fri 11/28/2025 4:29 PM
To planninginquiry <planninginquiry@franklincountywa.gov>

Some people who received this message don't often get email from alan.n.hawkins@gmail.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Dear Planning Committee and County Commissioners,

I have major concerns over the WHITE BLUFFS DAIRY EXPANSION SEPA 2025-18. I want to be a good neighbor and in general, I have no opposition to living next to a dairy/ cattle feed lot. Within a mile and a half of my house, currently there are three such operations. This proposal is increasing the number of cows by 13 times at the location of one of those three operations.

On a personal basis, my concerns are the smell, house flies, noise and light at night. I don't mind smelling a dairy on an occasion. I have come to expected it. Currently on a normal day I do not smell the "dairy smell" and I do not want my house to smell like I'm living in/on a dairy on a daily basis. In our neighborhood, we already a very large house fly population. I can only assume that with 13 times the cows there will be 13 times the population, but I may be ignorant, and would love to be educated on what steps are taken to manage flys and the smell. Currently, there is already noise from the dairies that I live next to. I do not find it overly obnoxious and most of the time it's just background noise. I am concerned with this larger operation that the noise level will be much greater and noticeable. We currently also get to enjoy a mostly dark sky, and I am concerned that with this larger facility there will always be a halo of light on the horizon.

For my livelihood, I own and operate a fruit farm. Some or all (I don't know for sure) of the field drains that run into one of my irrigation ponds begin at the location of this proposed dairy, and I am deeply concerned about water quality. I admit, I am ignorant, and would love to be educated on how steps are being taken or will be taken to make sure the drain water stays clean if this extremely large dairy does go in.

Another major concern I have for my business is an increased of bird pest. I already sustained an abundant amount of damage due to birds. I am concerned that with a larger amount of feed the already large and in my opinion out of control bird population will only get worse. I already sustain significant damage due to birds on many of my fruit crops. If this proposed dairy truly does bring in a larger bird population, I will have a larger loss to my crop every year. I addition to the crop damage the birds make a huge mess in and on all of my buildings. I already feel like I'm at war with them trying to keep my facilities, food safe. As bird populations rise they become more desperate for places to nest and more persistent.

Thank you for your time and service to our greater community as you consider these concerns.

Sincerely
Alan & Cherilyn Hawkins

Outlook

[EXTERNAL] White Bluffs Dairy Expansion

From aprilz159@olypen.com <aprilz159@olypen.com>
Date Fri 11/28/2025 3:39 PM
To planninginquiry <planninginquiry@franklincountywa.gov>

1 attachment (24 KB)
Planning Commission Letter.docx;

Some people who received this message don't often get email from aprilz159@olypen.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Hello,

Please read my attached letter.

Thank you,

April Jo Alexander

11-25-25

NOTICE OF SEPA ODNS/NOA-M

WHITE BLUFFS DAIRY EXPANSION

SEPA 2025-18

Hello and thank you for this opportunity to address this proposal.

For those of you that don't know me, my name is April Jo Alexander. I'm giving you my middle name because there's another April Alexander in the area that our family isn't related to. Quite the coincidence, I've never met her, but evidently, it's true.

I live at 6540 N. Wahluke Rd. My family broke this farm out when I was a 7-year-old girl. When we came here there was only 2 houses on N. Wahluke Rd. And No trees! We were the 3rd house to be built. My land is directly across the road from the proposed new development. My family came here in the summer of 1963. As the only original settler left on N. Wahluke Rd, I feel I'm the "senior of seniors" on what should or should not be grandfathered in.

Not only has my family lived on this road the longest, but I am the closest and most impacted by this new proposal. My house is approximately ¼ mile from the current dairy, AND I'm downwind too. The wind usually comes from the Southwest, sometimes the south. This puts my house directly "in the line of fire".

I believe the new dairy as proposed wouldn't fit the community. I live here for the fresh air, the peace and quiet, the sunrises and sunsets, the mountain view, the wildlife, the atmosphere of a "rural" lifestyle. I like living with Nature and following the seasons. I like the good quality of the well-water. While I understand this is a working farming community and it's not just here for it's good looks (!), this new proposal is an industrial complex. I can handle the tractors and planting season, the fertilizing and watering, the harvest busyness, the bailing hay at 3 in the morning, the Harobeds… you get the picture.

What I can't handle is an industrial park. This new diary will be a big factory. A complex that's open 24 hours a day, every single day of the year. And every single night. There's not ever a day off taking care of livestock, but an artificial day has been created with lights and more cows to milk with another working shift and traffic with employees going to work, with big milk trucks arriving and loading and leaving. Even more traffic as cows will be moved around with pickup trucks and cattle trailers. Lots of cows being

born (30-40) a day, to be moved out. There's a reason cities have their designated areas for industrial businesses. They aren't sprinkled among the residential homes and houses.

The cows don't get to rest at night either. I hear moos all night long with the current smaller dairy, along with loud clanks of the feeding stalls and loud heavy equipment machinery. The current dairymen want to move out of Grandview because of problems with the community. Do we want to accept them? Why would we? What benefit would we receive? My guess is none since the Grandview community doesn't want them. All we would get is bigger, louder and additional problems than are already here.

The new dairy shouldn't be grandfathered in at it's current location. As I used to tell my kids when they were growing up, "Just because you can, doesn't mean you should". People need to learn responsibility, to think about consequences and to consider other people.

Let's think about the future, statistics say the dairy business is in decline. So what will the owners do? They'll want to expand and add more cows at some point. They'll try to not lose money. I don't blame them, but that's really going to strain the land's resources. More cows, more employees, more traffic, more groundwater, more wells dug, more lights, more above ground holding ponds. More houses added for more dairy employees and their traffic.

This area was opened up, developed and meant to be family farms by the Bureau of Reclamation. Are we going to have a divided highway here on N. Wahluke Rd?

Michael Corrales wants to sell the dairy. I understand that. And he should have the right to do that, but not at the expense of all the people that have their homes and livelihood here. This dairy is surrounded by residential homes and family farms.

When I had a real estate investing company I bought and sold single family homes and apartment buildings. This was long before it was popular and the TV shows came along. I don't know the zoning laws here in this county, but this isn't just agriculture, this proposal is Big Business and Industrial. It should be considered carefully. When I first began my business, I had to decide how to run it. I knew I didn't want to be a "used car salesman", or a ruthless businessman. I decided I would like to be a decent member of the community and create a "win-win" situation for everyone involved. I stand by that in this situation too. Currently as it stands, I don't think this proposal fits in that category. It needs some work.

And now a little background for clarity, when we came here, McClain's owned that property. Bill had a bad back and couldn't do the manual labor required for farming. So when I was in high school-ish he put in a little gravel road off to the side of the main road , a little shed with a scale, and started a fertilizer business. Minimal impact. It didn't go well. There was a Sheriff's sale in 1973 and Glenn Warr put a small dairy there. Then it changed hands to Shinstra's. They made it bigger with more cows and more land involved. It was nasty. We had to give up back yard BBQ's, swimming in the pool, sitting and playing in the back yard, drinking iced tea in the shade b/c we didn't have air conditioning. We enjoyed our back yard. We lived there in the summer. We grilled and had other farm family guests ask us if they could go inside because of the smell. They couldn't eat outside without wanting to throw up. The flocks of flies on the food were an added bonus. Thank God Michael bought it. Progress was made. Quality of life was better.

This property doesn't drain well. It shouldn't be a dairy. When Shinstra's had this dairy and even they couldn't stand it anymore, they used to come to my Dad and ask him to cut a ditch to drain all of the waste water runoff. The lagoons were overflowing and flooding the whole dairy. I believe Michael did put in a nicer drain, but a bigger dairy will mean more drains, more construction, more traffic. I'm not sure White Bluffs Dairy understands the drainage issue.

Progress has arrived to farming and things have definitely changed. Progress is good. But it's our responsibility to use it well. We are stewards of the land, and progress has also been made in healthcare too. We as people learned not to throw the slop bucket contents out the window into the city gutter. Not only can we not rape and pillage the land and water any more like the wild, wild, west, but we have a responsibility to care for it as we feed the world and care for the crops and animals that provide for us.

We have learned a lot. From Nuclear impacts at Hanford to land, water, animal impacts and health consequences for all involved. Including humans. It's not just about making the most money now and making a living. This area has been settled and we're not scrambling to hold on. It's about sustainability. Not making ourselves sick while we make a good living. We can't airhead our way through this. There's always consequences, - good or bad. Let's make good ones. Work smarter, not harder.

I recently toured a 9,000 cow- dairy farm. It's impressive. I was really impressed. From robots, to computer monitoring, to happy cows. Progress is good. However they are in the middle of nowhere (basically) and there's not any houses close by. There's neighbors around me that will be impacted at ¼ of a mile or less, ½ mile, and a mile. The toured dairy's nearest house for living that's not on dairy ground is a mile away. I was

told they don't usually smell it, but occasionally they do. That should be tolerable, because that's the cleanest, least smelly dairy that I've ever seen! But many of us aren't that far away here. Even if we discount the smell, there are other concerns.

Have studies been done about the impact on:

1. Traffic – more construction, moving of cattle, more employees, more milk trucks day and night.
2. Groundwater – pollution of our wells, scarcity of water. Dairies use a very large amount of water. Their requirements can stress or deplete groundwater tables, shared by neighboring residents. A 9,000 cow dairy can have 5 wells.
3. Drainage – poor draining soil. One of the current dairy houses kept flooding and a sump pump was installed. Houses and dairy has had problems.
4. Noise pollution – mooing cows at 2 in the morning, heavy equipment, dump trucks, loaders, feeding equipment. Loud four wheelers for employees to use.
5. Light pollution – many large heavy duty lights, day and night.
6. Fly control – where there's manure and urine, there's flies. It's a fact of life. They are always around even with fly control measures. Biting flies transmit diseases as well as landing on food with their dirty feet.
7. Honeybee impact for pollinating other crops.
8. Air quality – for honeybees as well as people and other animals. Odors can cause serious adverse health effects. People are more sensitive than ever in today's world without deliberately adding more complications. Even with new and improved dairy technology, there are some odors.
9. Labor- employees. Availability, as well as more housing and traffic. A 9,500 cow dairy requires approximately 100 employees. It will currently create jobs here, but the overall impact is too high for sustainability. And as the dairy market declines further, they'll try adding more cows. But the company won't be able to afford more workers. This will impact the day to day operations as the staff falls further and further behind and the overall cleanliness and quality goes downhill.
10. Property values usually go down. Nobody wants to live near a dairy.
11. Dairy worker habits – depends upon the owners and how they manage their employees. Trash blows onto my property and others around me. Everything from silage plastic storage tunnels to soda cans, water bottles, chips and snack wrappers, beer cans, and assorted trash. Recently, this summer of 2025, it built up in my drainage pond line and created a gate. It required a full day of cleanout and approximately a $10,000 bill. It greatly impacted our day to day farming

operation through no fault of our own. And produced a substantial bill that the clean out companies (more than one) gave to us.

12. Where are they proposing to build it? By the road again or further out in the field?

For a Win-win I suggest building on the North side of another unit that is owned by Michael straight up the road, instead of where it currently is. There aren't any houses in that direction for quite a ways. It's Bureau land around his tract of land, and the air flow and quality wouldn't have such an impact on residential houses or crop farming.

Yes I want out of the south-southwest air flow pattern. Not only does it bring raw sewage smells of manure and urine, compost, smoke from burning dead cows but noise as well. Flies and insects ride air currents.

Yes, as usual, it's about location, location, location in real estate! I prefer to not have a dairy anywhere near me. But Michael does have a right to sell his dairy business. He's keeping his farming business, and make no mistake, they are different. This dairy is turning into a big industrial business and will only continue to grow. This isn't crops outside our window.

I propose the current dairy will be torn down as suggested in the original proposal, and Michael can farm that land instead. It'll be swapped out with the land to the North that he is currently farming. Or one of his other farms where there's more room and less people. The new owners can build there.

Minimal impact. Happy cows, happy people.

Thank you.

Outlook

[EXTERNAL] Proposed new dairy

From Brian Hawkins <brianhawk32@gmail.com>
Date Fri 11/28/2025 4:58 PM
To planninginquiry <planninginquiry@franklincountywa.gov>

[Some people who received this message don't often get email from brianhawk32@gmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

To whom it may concern,

My name is Brian Hawkins and I'm a neighbor and third generation farmer on my families fruit farm. Thank you for the opportunity to share my thoughts on the proposed expansion of the dairy. After reviewing the proposed plan, I am opposed to the expansion of this dairy due to the environmental risk factors that would accompany it, including:

Increased population of birds, flies and other pests. These species cause harm and bring disease to orchards. This will negatively affect the quality and quantity of fruit produced, and therefore impact the sales and livelihood of only family's business.

Ground water contamination. Our farm irrigates from a field drain that begins in the same location as the proposed expansion. This puts our water source at risk of contamination.

Increase in lights, smells, and noise.

Increase in truck traffic.

These are just a few of the reasons I feel the need to oppose the proposed expansion to the dairy. This is an important matter of great consequence to my family. Thanks you for considering my comments.

Best,

Brian Hawkins

Outlook

[EXTERNAL] Fwd: White Bluffs Dairy Expansion- Concerns.docx

From Jeffrey Hawkins <jeffrey.edward.hawkins@gmail.com>
Date Fri 11/28/2025 6:04 AM
To PermitSubmittal <permitsubmittal@franklincountywa.gov>; planninginquiry <planninginquiry@franklincountywa.gov>
Cc Angie Hawkins <angpermann@gmail.com>

1 attachment (18 KB)
White Bluffs Dairy Expansion- Concerns.docx;

Some people who received this message don't often get email from jeffrey.edward.hawkins@gmail.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Good morning,

I am writing to express my concerns regarding the new “White Bluffs Dairy Expansion SEPA 2025-18.”

I’d rather have open farmland as a neighbor than 9,000 additional cows and their manure as open farmland does not negatively affect my ability to grow and harvest fruit or my family’s quality of life. I recognize that all people should be able to pursue a livelihood with the land that they own. I do not want to be a contentious neighbor. I know most dairymen are fine people and I like consuming dairy products, but large dairies are objectively undesirable in any neighborhood.

I do not believe I should be able to completely control what someone else does with land that they own, but I have concerns that need to be addressed so the current status quo is preserved:

Negative impacts on my sweet cherry orchard:

A. Birds- dairies bring increased bird populations which hurt fruit production. Starlings and Robins currently cause thousands of dollars of damage in my orchard each year despite efforts to keep them away. Increased bird damage could be catastrophic. The Washington State Fish & Wildlife recommends removing sources of food for birds, but dairies are a 24/7/365 “all you can eat buffet” which will bring more birds.

B. Flies- Dairies bring increased flies/insects which are a nuisance and can damage fruit.

C. Smell- Hydrogen Sulfide and Ammonia in high amounts inhibit tree growth and stress otherwise healthy trees.

Negative Impacts on my neighborhood:

A. Smell- Foul odors limit outdoor enjoyment and can even penetrate inside my home if the wind blows from the north. We purchased our home long after the existing dairy was in place, so we knew we would occasionally experience unpleasant odors. We did not anticipate the dairy growing 13.5 times larger and moving to within .6 miles of us.

B. Noise- Currently this is not a problem, but I've never lived next to 9,500 cows so I am concerned of what this may become from, cows, machinery and equipment operating 24/7/365.

C. Flies- We currently have a very undesirable amount of flies and the idea of 13.5x more cows and manure could make this exponentially worse.

D. Manure spread on fields and roads- I want to be able to traverse the public roads without bringing manure back into my garage.

F. Light pollution- not currently a problem but could be with expansion.

E. Decreases value of home and land- Having a large dairy makes all the land around it less desirable for habitation and fruit production.

I have outlined my very real concerns, so White Bluffs Dairy and Franklin County ensure available remedies are implemented to mitigate the negative impacts of this massive proposed expansion. If the negative effects cannot be mitigated and the current status quo maintained, I would ask that White Bluff Dairy find a different location to expand.

We love where we live and farm and want to stay here for the rest of our lives. If the negative effects of this expansion made it unviable to live here, we would not be able to sell our home and land and replicate our livelihood and lifestyle anywhere else.

I look forward to discussing and receiving more details on this proposed expansion.

Thank you!

Jeff & Angie Hawkins

509-430-0862

2531 Buffalo Road

Othello, WA 99344

Good morning,

I am writing to express my concerns regarding the new “White Bluffs Dairy Expansion SEPA 2025-18.”

I’d rather have open farmland as a neighbor than 9,000 additional cows and their manure as open farmland does not negatively affect my ability to grow and harvest fruit or my family’s quality of life. I recognize that all people should be able to pursue a livelihood with the land that they own. I do not want to be a contentious neighbor. I know most dairymen are fine people and I like consuming dairy products, but large dairies are objectively undesirable in any neighborhood.

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I look forward to discussing and receiving more details on this proposed expansion.

Thank you!

Jeff & Angie Hawkins

2531 Buffalo Road

Othello, WA 99344

Outlook

[EXTERNAL] SEPA 2025-18 White Bluffs Dairy LLC

From Tyler Hawkins <tylerjameshawkins@gmail.com>
Date Fri 11/28/2025 4:14 PM
To planninginquiry <planninginquiry@franklincountywa.gov>

Some people who received this message don't often get email from tylerjameshawkins@gmail.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Hello,

My name is Tyler Hawkins. I live at 5081 N Wahluke Rd, Mesa, WA 99343, which is approximately 1 mile south of this proposed new dairy.

I would like to comment on the negative environmental impacts of this proposed project. They are as follows:

I believe that a dairy of this size/scope is akin to a massive industrial complex. I'd prefer not to live next to a massive industrial complex with 24-hour a day semi-truck traffic, noise from pumps, heavy equipment, and 9,500 cows. I assume that this dairy will also have a massive amount of lighting for operations during the night. I currently quite enjoy living where I live with it getting dark at night and being able to see the stars. I know that I would still be able to see the starts, but probably not as well with the amount of lights this dairy will likely have.

A dairy of this size will bring with it an increased amount of unpleasant smell and increased pests like flies, starling birds, and other rodents. This property borders an orchard that I'm sure will see negative effects of being next to a dairy. There are several other orchards in the neighborhood that could also be negative affected.

I am not a water expert, but I am concerned about the potential for contamination of groundwater and the domestic wells that are currently in the surrounding area. Also the potential for some of these wells to become depleted when large wells are drilled for this dairy. Has that been taken into consideration?

How will the manure be managed? I am not an expert about manure, but I have observed that how a dairy manages the manure produced can make a big difference in smell and how much of it ends up on N. Wahluke and Filbert rd.

Thank you for taking my comments into consideration about this proposed project.

--
Tyler Hawkins

509-439-0244

Outlook

[EXTERNAL] Objection to Proposed Development

From Roberto Garcilazo <robert.garcilazo22@gmail.com>
Date Fri 11/28/2025 11:45 AM
To planninginquiry <planninginquiry@franklincountywa.gov>; Comprehensive Plan 2026 <plan2026@franklincountywa.gov>

2 attachments (145 KB)
Appeal Letter. Objection to Dairy Expansion Proposal .pdf; Environmental Impacts Associated with Homes Near Dairy.pdf;

Some people who received this message don't often get email from robert.garcilazo22@gmail.com. Learn why this is important

CAUTION: This email originated from outside of Franklin County. Be careful when following links or opening attachments.

Good morning,
Attached is our objection to the proposed development for the expansion and reconfiguration of the existing dairy in Mesa, WA near Othello. We would like to take this opportunity to provide comments regarding the environmental impacts and our personal concerns about the proposed project. Thank you for your time and consideration.

We appreciate your attention to this matter,
Roberto & Hilda Garcilazo

ROBERTO & HILDA GARCILAZO

5841 N. Wahluke Rd.
Mesa,WA, 99343
T: 509-378-4235
E: rob22lazo@gmail.com

Dear Franklin County Planning and Economic Development Department,

We are writing to formally object to the proposed development for the expansion and reconfiguration of the existing dairy at Parcels 121-060-012, 121-060-013, & 121-060-075, which is located directly adjacent to my property at 5841 N. Wahluke Rd, Mesa, WA.

We have serious concerns that this particular proposal will have a major impact on our existing property and our quality of life. Not only for us but for the residents around the area as well.

Living next to a dairy farm can expose residents to several significant health and environmental risks. Air quality is a primary concern, as dairy operations—particularly those with large numbers of cattle—release methane and other pollutants that may contribute to respiratory issues and related health problems. In addition, dust generated from manure, animal feed, and daily farm activity can be easily inhaled, further increasing respiratory concerns. The waste produced by dairy operations, including manure and runoff, can also have serious environmental impacts, such as water contamination, soil degradation, and broader ecosystem harm. Collectively, these factors pose substantial potential risks to individuals living near dairy facilities. Our home is the only lot that would be completely surrounded, and the close proximity of feed, animals, and feedlot operations raises additional concerns about odors. The odor from the existing operation is already extremely strong—at times worse than sewer water—and any expansion would intensify these impacts, particularly from cow manure, cattle urine, dust, and other contaminants. These effects are especially significant during windy conditions, when fecal matter already travels easily and affects air quality.

In addition to these concerns, the noise from the large amount of cattle, semis, diesel vehicles, and tractors are already significant, and any expansion would increase traffic and noise pollution dramatically, especially if truck and equipment activity multiplies. A new driveway or entrance should not be placed next to our lot, as trucks frequently get stuck and create potholes that are never repaired, and the current commodity tarps have caused runoff that washes away our driveway.

Along with noise pollution, the increased traffic raises serious concern. The scale of the development is likely to generate additional traffic on Wahluke Rd and on our driveway. Our driveway is directly connected to the adjacent property of the existing dairy. The number of trucks already passing through makes the road quite busy. This raises safety

concerns, particularly for our younger children and others in the area. This year alone, we were forced to close part of our driveway due to numerous truck drivers and workers engaging in inappropriate and unsafe behavior, including speeding, littering, urinating on our property, conducting suspicious meetings after dark, and running excessively loud mufflers purposely revving the engine in front of our home. We are concerned that the proposed expansion will only increase this activity.

The proposed expansion of the dairy would likely lower our property value, reducing privacy, obstructing and diminishing the aesthetic quality of our surroundings. When we first considered purchasing the property, we paid full asking price, and at that time it was surrounded by an orchard. We purchased the property with the understanding that the feedlot would not be expanded. If there's a possibility of the cherry trees being removed, we are deeply concerned that the feedlot and animal pens will extend up to our property line on all three sides. If the expansion of the new dairy proceeds and the new owner does not address our concerns, we risk being completely surrounded by pens, losing property value, and facing major challenges when selling our home at market rate.

We respectfully request that the planning department take these concerns into account and reject the current proposal. We believe that any development on this site should take into consideration all environmental impacts.

Thank you for your time and consideration. We would appreciate confirmation that my objection has been recorded and that we will be kept informed of any updates regarding this appeal.

Kind regards,
Roberto & Hilda Garcilazo
5841 N. Wahluke Rd
Mesa, WA 99343
(509) 378-4235

Environmental Impacts Associated with Homes Near Dairy

Here are some well-known environmental impacts found online that are associated with having a dairy operation located close to residential homes. These points are based on established environmental science and common regulatory concerns:

1. Air Quality Impacts

- **Odors:** Decomposing manure releases strong, persistent odors that can travel long distances and affect daily living.
- **Ammonia emissions:** Ammonia from manure and urine can irritate eyes, throat, and lungs.
- **Particulate matter (dust):** Dry manure, feed, bedding, and dirt can become airborne and reduce air quality.

2. Water Contamination Risks

- **Groundwater pollution:** Nitrates from manure can seep into groundwater, potentially affecting drinking water wells.
- **Surface water runoff:** Rain can wash manure, urine, and silage leachate into nearby canals, irrigation systems, and waterways.
- **Nutrient loading:** Excess nutrients (nitrogen and phosphorus) can contribute to algae growth and lower water quality.

3. Soil Degradation

- **Manure overload:** Too much manure applied to land can lead to soil imbalance and nutrient saturation.
- **Chemical runoff:** Dairy operations often use disinfectants, pesticides, and cleaning agents that can accumulate in soil.

4. Increased Pest Attraction

- **Flies:** Manure and feed attract large populations of flies, which become a nuisance and can carry pathogens.
- **Rodents:** Feed storage areas often draw rodents, posing additional sanitation issues.

5. Noise Pollution

- **Heavy machinery:** Tractors, loaders, generators, and equipment run daily and often early in the morning or late at night.
- **Truck traffic:** Feed deliveries, milk trucks, and manure hauling create consistent noise.

6. Light Pollution

- **Bright facility lights:** Outdoor dairy lights, especially if operating 24/7, can brighten surrounding residential areas at night.

7. Increased Traffic & Road Impacts

- **Semis, tractors, and farm equipment:** Frequent heavy vehicles increase road wear, damage pavement, and create safety hazards.
- **Dust from traffic:** Dirt roads or busy driveways generate large amounts of fine dust that drift onto nearby properties.

8. Public Health Concerns

- **Bioaerosols:** Microorganisms from manure, dust, and animal dander can become airborne and cause respiratory irritation.
- **Pathogen transmission:** In rare cases, bacteria like E. coli or Salmonella can travel through water or dust.

9. Visual Impacts

- **Unsightly views:** Manure piles, feed bins, lagoon ponds, and animal pens can drastically alter the scenery around a home.

10. Property Value Decline

- **Perceived risk:** Homes near dairies often see lower resale value due to odor, noise, and environmental concerns.
- **Reduced desirability:** Buyers may avoid homes close to agricultural operations with high environmental impact.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

November 26, 2025

Wes McCart
Franklin County Planning and Building Department
502 W Boeing Street
Pasco, WA 99301

Re: White Bluffs Dairy Expansion
File# CUP 2025-10, SEPA 2025-18, Ecology SEPA# 202504758

Dear Wes McCart:

Thank you for the opportunity to provide comments on the State Environmental Policy Act (SEPA) Mitigated Notice of Application for the **White Bluffs Dairy Expansion** proposal. Based on review of the checklist associated with this project, the Department of Ecology (Ecology) has the following comments:

Air Quality Program
David Finley, (509) 342-5917, david.finley@ecy.wa.gov

Depending on the potential emissions from the diesel fuel storage tanks and the composting operations, a Notice of Construction (NOC) application may need to be submitted. Emission permitting thresholds can be found in Washington Administrative Code (WAC) 173-400-110 and 173-460-150. The NOC application form can be found at Ecology's website here: Notice of construction permit.

Solid Waste Management Program
Martyn Quinn, (509) 904-9857, martyn.quinn@ecy.wa.gov

The applicant proposes to demolish existing structures. Item B.7.a of the checklist asks if there are any environmental health hazards that could occur as a result of the proposal. Improper disposal of solid waste, including demolition waste, can result in environmental health hazards. We encourage the applicant to salvage, reuse, and recycle as much of the waste as possible. Recycling demolition debris is typically less expensive than disposal. Otherwise, the demolition waste must be disposed of at a permitted solid waste facility.

Water Quality Program
Chad Sauve, (509) 934-6202, chad.sauve@ecy.wa.gov

Operators of construction sites that disturb one acre or more total area and has, or will have a discharge of stormwater to a surface water or to a storm sewer, must apply for coverage under Department of Ecology's Construction Stormwater General Permit.

If soil or ground water contamination is known at the site, additional information will be required. The applicant will be required to submit additional studies and reports including, but not limited to, temporary erosion and sediment control plans, a stormwater pollution prevention plan, a site map depicting sample locations, a list of known contaminants with concentrations and depths found and other information about the contaminants.

Application should be made at least 60 days prior to commencement of construction activities. A permit application and related documents are available online.

Water Resources Program
Herm Spangle, (509) 329-3610, herm.spangle@ecy.wa.gov

The Ground Water Permit exemption under RCW 90.44.100 does not apply if one of the below definitions applies to the proposed project.

RCW 90.03.015

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Department" means the department of ecology.

(2) "Director" means the director of ecology.

(3) "Municipal water supplier" means an entity that supplies water for municipal water supply purposes.

(4) "Municipal water supply purposes" means a beneficial use of water: (a) For residential purposes through fifteen or more residential service connections or for providing residential use of water for a nonresidential population that is, on average, at least twenty-five people for at least sixty days a year; (b) for governmental or governmental proprietary purposes by a city, town, public utility district, county, sewer district, or water district; or (c) indirectly for the purposes in (a) or (b) of this subsection through the delivery of treated or raw water to a public water system for such use. If water is beneficially used under a water right for the purposes listed in (a), (b), or (c) of this subsection, any other beneficial use of water under the right generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes. If a governmental entity holds a water right that

is for the purposes listed in (a), (b), or (c) of this subsection, its use of water or its delivery of water for any other beneficial use generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes.

(5) "Person" means any firm, association, water users' association, corporation, irrigation district, or municipal corporation, as well as an individual.

If you have any questions or would like to respond to these comments, please contact the appropriate program staff listed above. If you have questions about SEPA, please reach out to **sepahelp@ecy.wa.gov.**

Sincerely,

Amanda Hiebert
SEPA Coordinator
Eastern Region Office

FRANKLIN COUNTY

REVIEW

PLANNING AND ECONOMIC DEVELOPMENT

AGENCY REVIEW NOTICE
(SEPA ODNS/NOA-M)

DATE: November 13, 2025

RE: SEPA 2025-18

TO:

County Engineer
County Assessor/GIS
County E-911
Fire District # _4_
Irrigation District: SCBID _X_ FCID ___
Electric Utility: BBEC _X_ FPUD ___
Benton-Franklin Health District
Franklin County Conservation District
U.S. Bureau of Reclamation
Washington State Dept. of Ecology – SEPA Register
Washington State Dept. of Transportation – South Central Region
Washington State Dept. of Archaeology and Historic Preservation (DAHP)
Washington State Dept. of Fish and Wildlife (WDFW)
Washington State Dept. of Natural Resources
Washington State Dept. of Health
Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of the Colville Reservation
Confederated Tribes of the Warm Springs
Nez Perce Tribe

FROM: Gem Belamour, Planner II

CC: Franklin County Planning Department

Agency Representative:

Enclosed is a copy of Planning file #SEPA 2025-18. This review and comment period shall focus solely on environmental impacts and mitigation measures of such impacts. A second notice will be sent out in the future associated with the Conditional Use Permit.

Franklin County has reviewed the proposed project for probable adverse environmental impacts and expects to issue a Mitigated Determination of Nonsignificance (MDNS). The optional MDNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed project.

The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

The property has a Zoning Designation of Agricultural Production 20-acres and a Comprehensive Plan Designation of Agricultural.

The proposed project is in portions of Sections 6, Township 13 North, Range 29 East, Franklin County, WA. The property is generally located South of Filbert Rd., West of N Wahluke Rd., East of Buffalo Rd., in unincorporated Franklin County. (Parcels #121-060-012, 121-060-013, 121-060-075).

We would appreciate your review and comments by **November 28, 2025 at 5:00PM**.

See attachments for additional information.

REPLY:
NO Comments

Signed: _____ **Title:** GIS **Date:** 11/26/25

"The Green Spot of the Columbia Basin"

South Columbia Basin Irrigation District

OFFICE: 1135 E. HILLSBORO, SUITE A

TELEPHONE 509/547-1735, FAX 509/547-8669 • P.O. BOX 1006 • PASCO, WASHINGTON 99301

26 November 2025

ATTN: Ms. Gem Belamour
Planner II
Franklin County, WA Planning & Economic Development
502 W. Boeing St
Pasco, WA 99301

Re: SEPA 2025-18, White Bluffs Dairy LLC Expansion Project.

Dear Ms. Belamour,

The District has reviewed SEPA 2025-18 for White Bluffs Dairy and has the following comment(s):

- There currently exist multiple exposed manholes for the buried drain systems across the project site. These manholes must be protected from impact by equipment or livestock and the also need to be protected from the potential intrusion of waste materials from the dairy operation. These buried drains are not for waste disposal, intentional or unintentional and must be protected.
- Please include the South Columbia Basin Irrigation District WB10A lateral in the SEPA section 3.a.1. This canal serves over 800 acres downstream of this site and any operational waste water from this canal system proceeds into the WB10A WW which discharges into the Wahluke Ponds and eventually into the Columbia River to the west.
- Given the size of the waste ponds and the compost pile and their proximity to the WB10A lateral, SCBID is very concerned about the potential release of effluent and the blowing of the composted material which could enter the canal. Mitigation measures must be taken to prevent any effluent or solid waste from entering that lateral. SCBID needs to understand how the site will be graded and what the plan for a potential overtopping event of the waste ponds is. Will that effluent be directed into an undeveloped portion of the site or another area and what measures will be in place to confirm such action. One action that would reduce our concerns would be for the applicant to pipe the WB10A lateral near the pond and compost pile location to provide mitigation of such concerns.
- Section 3.a.1 of the SEPA indicates that the WB5WW1 drains into the WB5 and ultimately into the Wahluke Branch Canal (WBC). This is backwards from how things work in the field. The WBC flows into the WB5 which then flows into the WB5WW1, and the reservoir noted in the SEPA. The water in the reservoir is released past the dike near Wahluke Road and flows in a general southernly and westerly direction until it discharges into the Columbia River near Savage Island.

- SCBID believes that if industry standards and typical mitigating measures are employed in relation to this expansion, the risk of impact should be minimal. There is, however, a real risk of detrimental impact to adjacent parcels and the environment if those measures fail and effluent or solid waste is released impacting buried drains or the canal system in the area.

If you have any questions, please do not hesitate to contact me at 509-547-1735 or by email at bscott@scbid.org.

Thank you,

Brian Scott, P.E.
Chief Engineer
South Columbia Basin Irrigation District

File: Block 201 Farm Unit 16

Memo

Public Works Department

To: Wesley McCart, Planning & Building Director

From: John Christensen

cc: Craig Erdman, PE, Director / County Engineer

Date: November 20, 2025

Re: SEPA 2025-18 White Bluffs Dairy Expansion

Wesley,

We have reviewed the application for the proposed expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. The parcels affected by this proposal are 121-060-012, 121-060-013, & 121-060-075 with an address of 6201 N Wahluke Rd, Mesa, WA 99343.

N Wahluke Road is an existing hard surface road, not built to an all-weather standard, with access to Sagehill Road and R-170 both built to an all-weather standard. N Wahluke Road was not designed to support heavy loads especially during freeze / thaw periods and is subject to road restrictions during these times to prevent damage to the roadway. N Wahluke Road could deteriorate at an accelerated rate with the proposed expansion. Public Works has concern for any increase on this stretch of roadway.

Public Works has concluded that the proposed use will increase the impact on the County Road System. Public Works has the following general comments:

1. A head count increase will require a Traffic Impact Analysis (TIA) to be completed together with upgrades and/or mitigation fees for the County Road System. The TIA shall include County Roads impacted by this increase and at a minimum include N Wahluke Road, adjacent to the site, to the State Route.

2. Approach permits are required for all access to Franklin County roads per the County Road Approach Policy (Resolution No. 2014-123) and any existing approaches must be brought up to current design standards. Requirements include required permits, approach construction, minimum design standards, etc. per Franklin County Design Standards for the Construction of Roads and Bridges (Resolution 2002-270).

3. Any utility extension crossing Franklin County roads will be addressed at the time of application. See Accommodation of Utilities on County Road Right-of-Way for more information (Resolution #2000-330).

Please let me know if you have any questions.

FRANKLIN COUNTY

PLANNING AND ECONOMIC DEVELOPMENT

NOTICE OF SEPA ODNS/NOA-M
WHITE BLUFFS DAIRY EXPANSION
SEPA 2025-18

NOTICE IS HEREBY GIVEN that the Franklin County Planning and Economic Development Department, determined to be the Lead Agency pursuant to the State Environmental Policy Act (SEPA) of 1971, as amended, and Washington Administrative Code (WAC) 197-11-355, has issued an Optional Determination of Non-Significance / Notice of Application with Mitigation Measures (ODNS/NOA-M) concerning the following proposed project:

Proponent: White Bluffs Dairy LLC, Fransisca Vander Meulen, 650 Horby Rd., Grandview, WA, 98930-9202

Proposal: The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground. The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

Project/Location: Parcels 121-060-012, 121-060-013, 121-060-075

NOTICE IS FURTHER GIVEN that in accordance with the State Environmental Policy Act and WAC 197-11-355, the ODNS/NOA-M, site plan, the Environmental Checklist, and other materials pertinent to the proposed project have been sent to agencies with jurisdiction, the Washington State Department of Ecology, and others having an interest in the proposal.

The ODNS/NOA-M was issued on November 12, 2025, by the Franklin County Planning and Economic Development Department. The County may issue a Mitigated Determination of NonSignificance (MDNS) for this proposal under the optional DNS SEPA process, provided in WAC 197-11-355. This may be your only opportunity to comment on the environmental impacts of the proposed project. Comments regarding this determination must be received by 5:00 p.m., Friday, November 28, 2025, at which time the MDNS will become final. For more information, please contact Franklin County Planning and Economic Development at planninginquiry@franklincountywa.gov.

DATED AT PASCO, WASHINGTON ON THIS 13th DAY OF NOVEMBER 2025.

FRANKLIN COUNTY

PLANNING AND ECONOMIC DEVELOPMENT

SITE LOCATION:

FRANKLIN COUNTY

PLANNING AND ECONOMIC DEVELOPMENT

AGENCY REVIEW NOTICE
(SEPA ODNS/NOA-M)

DATE: November 13, 2025

RE: SEPA 2025-18

TO:

County Engineer	Irrigation District:	SCBID _X_	FCID ___
County Assessor/GIS	Electric Utility:	BBEC _X_	FPUD ___
County E-911	Benton-Franklin Health District		
Fire District # _4_	Franklin County Conservation District		

U.S. Bureau of Reclamation
Washington State Dept. of Ecology – SEPA Register
Washington State Dept. of Transportation – South Central Region
Washington State Dept. of Archaeology and Historic Preservation (DAHP)
Washington State Dept. of Fish and Wildlife (WDFW)
Washington State Dept. of Natural Resources
Washington State Dept. of Health
Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of the Colville Reservation
Confederated Tribes of the Warm Springs
Nez Perce Tribe

FROM: Gem Belamour, Planner II

CC: Franklin County Planning Department

Agency Representative:

Enclosed is a copy of Planning file #SEPA 2025-18. This review and comment period shall focus solely on environmental impacts and mitigation measures of such impacts. A second notice will be sent out in the future associated with the Conditional Use Permit.

Franklin County has reviewed the proposed project for probable adverse environmental impacts and expects to issue a Mitigated Determination of Nonsignificance (MDNS). The optional MDNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed project.

The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

The property has a Zoning Designation of Agricultural Production 20-acres and a Comprehensive Plan Designation of Agricultural.

The proposed project is in portions of Sections 6, Township 13 North, Range 29 East, Franklin County, WA. The property is generally located South of Filbert Rd., West of N Wahluke Rd., East of Buffalo Rd., in unincorporated Franklin County. (Parcels #121-060-012, 121-060-013, 121-060-075).

We would appreciate your review and comments by **November 28, 2025 at 5:00PM**.

See attachments for additional information.

REPLY:

Signed: _____ **Title:** _____ **Date:** _____

CUP 2025-10/
SEPA 2025-18

Traffic Impact Analysis

INLAND EARTH SCIENCES

CONSULTANTS IN THE ENVIRONMENTAL AND APPLIED EARTH SCIENCES

TRAFFIC IMPACT ANALYSIS

FRANKLIN COUNTY SEPA 2025-18
Proposed T. Freeman Dairy Expansion
White Bluffs Dairy
6201 N Wahluke Road
Mesa, Washington

January 9, 2026

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Prepared For:

WHITE BLUFFS DAIRY LLC
650 Hornby Road
Grandview, WA 98930

TRAFFIC IMPACT ANALYSIS
FRANKLIN COUNTY SEPA 2025-18
Proposed T. Freeman Dairy Expansion
White Bluffs Dairy
6201 N Wahluke Road
Mesa, Washington

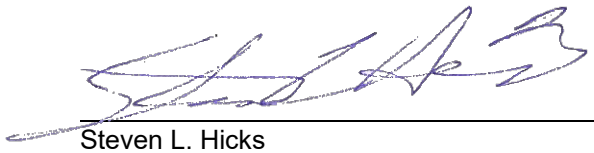
Reference:

IES Project No. FRH-2510.002

Date:

January 9, 2026

Prepared By:



Steven L. Hicks
Principal Engineer
Washington State Professional Engineer (PE) No. 49749

INLAND EARTH SCIENCES CORPORATION
8704 E. DALTON AVENUE
SPOKANE, WASHINGTON 99212
(509) 563-5242 | www.inlandearth.com

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A BFCOG 2024 TRAFFIC COUNT DATA

ac	acre
ac-ft	acre-feet
AMSL	Above Mean Sea Level
ASTM	American Society for Testing and Materials
BFCOG	Benton-Franklin Council of Governments
bgs	below ground surface
°C	degrees Celsius
CAFO	Concentrated Animal Feeding Operation
cf	cubic feet
cfs	cubic feet per second
cm	centimeter
cm/s	centimeters per second
CPS	Conservation Practice Standard
cy	cubic yard
DTW	depth to water
Ecology	Washington State Department of Ecology
eFOTG	electronic Field Office Technical Guide
EPA	United States Environmental Protection Agency
°F	degrees Fahrenheit
ft	feet
ft/d	feet per day
FSA	Farm Services Administration
gal	gallon
GCL	Geosynthetic Clay Liner
GP	General Permit
GVWR	Gross Vehicle Weight Raiting
gpd	gallons per day
HDPE	High Density Polyethylene
HSP	Health and Safety Plan
IES	Inland Earth Sciences Corporation
in	inch
in/hr	inches per hour
kg	kilogram
L	liter
lb	pound
lbs/ac	pounds per acre

lbs/t	pounds per ton
IWMP	Irrigation Water Management Plan
MPPP	Manure Pollution Prevention Plan
m	meter
meq/L	milliequivalents per liter
mS/cm	millisiemens per centimeter
µg	microgram
µg/L	micrograms per liter
µm	micrometer
mph	miles per hour
mg	milligram
mg/L	milligrams per liter
mgd	million gallons per day
mil	thousandths of an inch (e.g., “60 mil” is equal to 60 thousandths of an inch, or 0.060-inch)
mL	milliliter
mm	millimeter
MPa	Megapascal
mV	millivolt
NAIP	National Agriculture Imagery Program
NAVD88	North American Vertical Datum 1988
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
MSDS	Material Safety Data Sheets
OHWM	Ordinary High Water Mark
pcf	pounds per cubic foot
PE	Polyethylene
PS	Polystyrene
psi	pounds per square inch
PVC	Polyvinyl Chloride
QCBID	Quincy Columbia Basin Irrigation District
RCW	Revised Code of Washington
RTPO	Regional Transportation Planning Organization
SCBID	South Columbia Basin Irrigation District
sf	square feet
SH	State Highway

SPCC	Spill Prevention, Control, and Countermeasures
SVID	Sunnyside Valley Irrigation District
SWD	State Waste Discharge
TIA	Traffic Impact Analysis
TIP	Traffic Improvement Plan
USAF	United States Air Force
USBR	United States Bureau of Reclamation
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WA	Washington State
WAC	Washington Administrative Code
WBZ	Water-bearing zone
WGS84	World Geodetic System 1984
WWR	Water Well Report
WSDA	Washington State Department of Agriculture
WSDOT	Washington State Department of Transportation
WSP	Waste Storage Pond
yd	yard
yr	year

1 INTRODUCTION

Inland Earth Sciences Corporation (IES), on behalf of White Bluffs Dairy LLC, presents the following Traffic Impact Analysis (TIA) related to expansion of the current T. Freeman Dairy, located at 6201 N Wahluke Road in Mesa, Washington. This TIA is intended to address Mitigation Measure 5 of the Franklin County State Environmental Policy Act (SEPA) 2025-18 Notice of Application (NOA) Optional Determination of Nonsignificance (ODNS/NOA-M) dated November 12, 2025. This TIA is designed to analyze potential impacts to traffic volumes on the Franklin County road system segments between the Facility and Washington State Highway (SH) 17 that will be utilized by operation-related traffic. The following sections of this TIA present the existing traffic conditions along the operation-related travel route and an analysis of anticipated traffic conditions as a consequence of Facility expansion.

2 SITE LOCATION

The Facility is located at 6201 N Wahluke Road, Mesa, Washington, (**Figure 1**) approximately 1½ miles north of the intersection of N. Wahluke Road and Hollingsworth Road in northern Franklin County (**Figure 2**). The Facility is situated within the northeast quarter (NE¼) and the northeast quarter of the southeast quarter (NE¼, SE¼) of Section 6 (S. 6), Township 13 North, Range 29 East, Willamette Meridian (T. 13N, R 29E, W.M.), Franklin County. The approximate geographic coordinates of the Facility centroid are 46.645060°N, 119.222943°W (WGS84).

3 EXISTING TRAFFIC CONDITIONS

The intended primary access route between the Facility and SH 17 is depicted in **Figure 3**. An inventory of Franklin County Road System roads included in the access route is presented in **Table 1**. A discussion of current traffic conditions is provided below.

3.1 North Wahluke Road – Facility Frontage

The frontage of the Facility along N. Wahluke Road extends approximately 0.6 miles south from the intersection of Filbert Road and N. Wahluke Road. This section of N. Wahluke Road has a functional classification of a rural local access road and is not constructed to all-weather standards. There are currently three semi-defined gravel approaches from the Facility to N. Wahluke Road, one located near the milking parlor in the northern area and two located in the southern portion near the commodity staging area. In addition, several areas are present where access to N. Wahluke Road from the Facility occurs outside of the gravel approaches.

The section of N. Wahluke Road located along the Facility's frontage is a two-lane asphalt surfaced road, approximately 20 feet wide with no shoulders and a posted speed limit of 50 miles per hour (mph). The surface condition of the road is good and minimal cracks or other surface damage is visible. Spalling of the asphalt surface is visible along the east side of N. Wahluke Road adjacent to the Facility where agricultural fields are accessed from the road.

Manual turning movement traffic counts were collected for N. Wahluke Road from 7:00 AM to 5:00 PM on November 14, 2025. Traffic was observed and counted from a location on the east side of N. Wahluke

Road directly east of the Facility's current commodity storage area. All traffic entering and exiting the Facility and traffic on N. Wahluke Road could be observed from this location.

This observation time period was selected to provide a baseline of traffic volumes at the Facility and provide a baseline for the development of estimates of post-expansion traffic conditions. While additional traffic would be expected outside of the period selected for traffic counts, the time period selected represents the peak hours of operation of the current and expanded Facility. Outside of peak hours of operation, employee numbers and shipping and receiving are greatly reduced. The results of the manual traffic counts are presented in **Table 1**.

As presented in **Table 1**, the total number of vehicle trips counted was 267. Of the 267 trips, 35 trips were trucks (21 northbound and 14 southbound). Of the 35 truck trips, 18 were either entering or exiting the Facility. The total number of car trips counted was 229 (125 northbound and 104 southbound). Of the 229 car trips, 24 were either entering or exiting the Facility. Based on the manual traffic counts conducted on November 14, 2025, approximately 50 percent of the truck traffic and 10 percent of the car traffic on this section of N. Wahluke Road is associated with the Facility.

3.2 N. Wahluke Road – Filbert Road to Sagehill Road

The approximately 3.1-mile section of N. Wahluke Road located between its intersection with Filbert Road north of the Facility and its intersection with Sagehill Road is a two-lane asphalt surface road, approximately 20 feet wide with minimal shoulders and a posted speed limit of 50 mph. The surface condition of the road is good with minimal longitudinal or transverse cracking. In the sections of the road where sharp horizontal curves are present spalling of the ashpahlt road surface is present on the inside of the curves, likely from overtacking in these areas. Some surface spalling is also present in areas where field access occurs. This section of N. Wahluke Road has a functional classification of Rural Minor Collector and is not constructed as an all-weather road.

No traffic count data for this section of N. Wahluke Road is available. It is assumed that traffic density on this section of N. Wahluke Road is greater than that along the section of North Wahluke Road adjacent to the Facility because of additional traffic moving between Filbert Road and Sagehill Road. However, traffic volumes were not verified as part of this analysis.

3.3 Sagehill Road – N. Wahluke Road to Road 170

The approximately 5.2 miles of Sagehill Road between its intersection with N. Wahluke Road and Road 170 is included in the primary truck travel route for the Facility. This section of Sagehill Road is a two-lane asphalt road constructed to all-weather standards and is classified as a Rural Major Collector.

Traffic counts collected in 2024 are available in ArcGIS format for Sagehill Road through the Benton-Franklin Council of Governments (BFCOG) Open Data Portal online at https://bfcog-open-data-portal-bfcog.hub.arcgis.com/datasets/8c12ef4d458340d2a53cf68cc5a15a24_0/explore?location=46.334175%2C-119.207903%2C10.00. The counts were collected during August 2024 at three locations: Sagehill Road north of Hollingsworth Road, Sagehill Road south of Hollingsworth Road, and Sagehill Road north of Road 170. At all three locations, traffic counts were collected over a three-day period. **Table 2** presents the single day average of the traffic counts and the percentage of heavy vehicles (Federal Highway Administration [FHWA] Schedule F Class 4-13) recorded at the three locations. A summary of the information provided by the BFCOG dataset for Sagehill Road is included in **Appendix A**. Using the traffic

counts and percentage of heavy vehicles, car and truck trips were calculated and are also presented in **Table 2**.

In general, the number of car and truck trips through this section of Sagehill Road remains consistent within a range of 428 to 493 car and 83 to 112 truck trips per day in the northbound direction and 398 to 434 car and 111 to 122 truck trips per day in the southbound direction.

3.4 Road 170 – Sagehill Road to State Highway 17

The approximately 8.4 miles of Road 170 between Sagehill Road and its intersection with SH 17 is included in the primary truck travel route for the Facility. This section of Road 170 is a 2-lane asphalt road constructed to all weather standards and is classified as a Rural Major Collector.

Traffic counts collected in 2024 are available in ArcGIS format for Road 170 through the Benton-Franklin BFCOG Open Data Portal online at https://bfcog-open-data-portal-bfcog.hub.arcgis.com/datasets/8c12ef4d458340d2a53cf68cc5a15a24_0/explore?location=46.334175%2C-119.207903%2C10.00. The counts were collected at seven locations along Road 170 over a three-day period in August 2024. A summary of the information provided by the BFCOG dataset for Sagehill Road is included in **Appendix A**. **Table 2** presents the single day average of the traffic counts and the percentage of heavy vehicles (FHWA Schedule F Class 4 through 13) recorded at the seven locations. Using the traffic counts and percentage of heavy vehicles, car and truck trips were calculated and are also presented in **Table 2**.

Generally, car traffic counts on Road 170 range from 86 to 373 in the eastbound direction and from 88 to 378 in the westbound direction. Car traffic counts in both directions are greatest in the Basin City area and decrease east and west of Basin City, with the lowest car traffic counts near the intersection of Road 170 and SH 17. Truck traffic counts on Road 170 peak in the vicinity of Glade Road and are the least near the intersection of Road 170 and SH 17.

4 PROJECTED TRAFFIC ANALYSIS

4.1 Facility Generated Traffic

Expansion of the Facility is anticipated to result in increased traffic in the vicinity of the Facility and along the county roads identified on the primary truck travel route depicted in **Figure 3**. At this time, it is anticipated that the number of employees at the Facility will include two shifts of 25 employees. This will result in an additional 100 car trips per day (50 in each travel direction) at the Facility. The additional car trips have been included in the TIA for analysis of traffic impacts on the primary truck travel route. However, it should be noted that alternate car travel routes may be taken by employees that do not reside along the primary truck travel route. The expanded Facility is expected to have approximately 20 truck trips per day. These will consist of six to seven liquid milk transport trucks with the remaining truck trips associated with commodity and other delivery trucks. For the purposes of this TIA, it is assumed that 20 trucks will access the Facility per day resulting in an additional 40 truck trips (20 in each travel direction) along the primary travel route.

4.2 Post-Expansion Traffic Analysis

The addition of post-expansion Facility-generated traffic to available current traffic counts is presented in **Table 3** and discussed in the following subsections.

4.2.1 North Wahluke Road

For the section N. Wahluke Road that serves as Facility frontage, manual traffic counts conducted in November 2025 indicated a total of 115 car and 10 truck trips not associated with the existing Facility in the northbound direction. The addition of 50 car and 20 truck trips in the northbound direction increases the projected post-expansion traffic counts to 165 cars and 30 trucks in the northbound direction, an increase of 43 and 200 percent, respectively. In the southbound direction, November 2025 traffic counts showed 90 car and seven truck trips not associated with the existing Facility. The addition of 50 car and 20 truck trips in the southbound direction increases the projected post-expansion traffic counts to 140 cars and 27 trucks, an increase of 56 and 286 percent, respectively.

For the section of N. Wahluke Road between Filbert Road and Sagehill Road, no current traffic counts are available. The increase and car and truck trips associated with the Facility would be expected to increase traffic on this road at a smaller percentage of trips than those for the section of N. Wahluke Road fronting the Facility given additional traffic associated with Filbert Road and Sagehill Road.

4.2.2 Sagehill Road

Changes to projected traffic counts on the section of Sagehill Road between N. Wahluke Road and Road 170 are presented in **Table 3** for the three locations where traffic count data from August 2024 was available. Car traffic is expected to increase between 10 to 14 percent in both directions. Truck traffic is expected to increase between 18 and 24 percent in the northbound direction and 17 to 18 percent in the southbound direction.

4.2.3 Road 170

Changes to projected traffic counts on the section of Road 170 between Sagehill Road and SH 17 are presented in **Table 3** for the seven locations where traffic count data from August 2024 was available. In the section of Road 170 between Sagehill Road and N. Glade Road, car traffic is expected to increase between 13 and 17 percent. East of Glade Road, car traffic is expected to increase between 33 and 59 percent. As noted earlier, the August 2024 traffic count data showed a significant decrease in car traffic counts in this area of Road 170, likely due to most car trips terminating in the Basin City area. Truck traffic showed similarly lower numbers in the eastern portion of Road 170 between N. Glade Road and SH 17. This is likely due to the large number of trucks exiting Road 170 in the Glade Road area. Because the post-expansion truck traffic to and from the Facility will be routed through this section of Road 170, the greatest percent increases to occur in this section of Road 170. Between Sagehill Road and N. Glade Road, increases in truck trips after expansion of the Facility range between 26 and 40 percent. Between N. Glade Road and SH 17, increases in truck trips after expansion of the Facility range between 36 and 70 percent.

5 SUMMARY

Expansion of the T. Freeman Dairy from a 700-cow Facility to a 9,500 cow operation with 7,000 milking cows and 2,500 dry cows will increase the volume of traffic on county roads located in the Franklin County Road System along the primary truck travel route depicted in **Figure 3**. The increases in truck

traffic associated with the Facility expansion would be minimal (17 to 20 percent) on the section of Sagehill Road included in the primary truck travel route. Greater impacts would occur on Road 170, particularly in the section between N. Glade Road and SH 17. It should be noted that Road 170 is identified for pavement rehabilitation projects in the Franklin County Six-Year Transportation Improvement Plan (TIP), with the section of Road 170 between N. Glade Road and SH 17 slated for implementation in 2029 and the other sections following thereafter.

The greatest impact to the Franklin County Road System along the primary truck travel route is expected to occur on the section of N. Wahluke Road adjacent to the Facility and between the Filbert Road and Sagehill Road. The approximately 0.6-mile section of N. Wahluke Road that is adjacent to the Facility is currently categorized as a local rural access road and is not constructed to all weather standards. The approximately 3.1-mile section of N. Wahluke Road between Filbert Road and Sagehill Road is currently categorized as a Rural Minor Collector and is also not constructed to all weather standards. Both sections are currently observed to be in “good” condition and do not exhibit significant transverse, longitudinal, or alligator cracking or rutting. Spalling of the asphalt road edge is present in both sections of roadway in areas where unimproved approaches to fields are present and sharp curves result in truck over tracking. Because neither sections of road are constructed to all weather standards, increased truck traffic could prove detrimental to the road surface under freeze/thaw conditions. However, significant reductions in truck traffic associated with the Facility would be expected during these conditions, as most feed stocks and commodities for the Facility are sourced during warmer weather months and truck traffic would be limited to liquid milk bulk transport trucks and other equipment deliveries.

Current Facility operations enter and exit N. Wahluke Road from unimproved access points and Facility equipment uses N. Wahluke Road to transport Facility equipment and feed trucks. As part of the Facility expansion, two hardened approaches will be designed and permitted with Franklin County to service the Facility, one to access the milking parlor and the other to access the feed area. No other points of ingress or egress to the Facility from N. Wahluke Road would be permitted. Additionally, all Facility equipment and other vehicle traffic will be routed on internal Facility roadways and will not use N. Wahluke Road.

Given the current condition of N. Wahluke Road and that it was not designed to all-weather standards, increased truck traffic to and from the Facility will likely cause some impact to the existing pavement over time. However, the condition and construction of the underlying road base is unknown and could not be ascertained by visual inspection of the roadway. The existing roadway prism may be sufficient to support the anticipated increased truck traffic, as the current level of truck traffic does not appear to cause a significant impact on the road surface since any previous maintenance and preservation activities. As noted in Section 2, minimal pavement cracking (longitudinal, transverse, or alligator) was observed and overall the road surface appeared to be in good condition. Additional investigation of the road prism or review of the design and construction materials associated with the construction of N. Wahluke Road could provide information necessary to determine if additional pavement preservation actions are required.

One observed area of concern for N. Wahluke Road is the spalling of the asphalt surface along the interior radius of sharp curves due to truck over-tracking and in other limited areas along the road. Shoulder widening in the areas where spalling is observed could be used to prevent the spread of spalling and pavement deterioration further into the roadway.

TABLES

TABLE 1 - MANUAL TRAFFIC COUNTS
TRAFFIC IMPACT ANALYSIS
FRANKLIN COUNTY SEPA 2025-18
WHITE BLUFFS DAIRY LLC
MESA, WASHINGTON

A.M. COUNTS

	7 to 8 a.m.		8 to 9 a.m.		9 to 10 a.m.		10 to 11 a.m.		11 a.m. to Noon	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
Wahluke Southbound (thru-trip)	13	3	10	1	5	0	7	0	7	1
Wahluke Northbound (thru-trip)	16	1	16	1	4	0	12	3	8	1
Dairy Inbound (from North)	2	1	0	0	1	0	2	0	1	1
Dairy Inbound (from South)	0	1	1	1	1	1	0	1	0	0
Dairy Outbound North	1	4	0	0	0	1	1	0	0	0
Dairy Outbound South	0	0	0	0	2	1	0	1	2	1
Total Trips	**32**	**10**	**27**	**3**	**13**	**3**	**22**	**5**	**18**	**4**

P.M. COUNTS

	Noon to 1 p.m.		1 to 2 p.m.		2 to 3 p.m.		3 to 4 p.m.		4 to 5 p.m.	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
Wahluke Southbound (thru-trip)	6	0	6	1	10	0	9	2	17	1
Wahluke Northbound (thru-trip)	10	2	10	0	11	2	17	0	11	0
Dairy Inbound (from North)	0	0	0	1	1	0	0	0	1	0
Dairy Inbound (from South)	0	0	0	1	0	0	1	0	0	0
Dairy Outbound North	1	0	0	0	0	1	1	0	3	0
Dairy Outbound South	0	0	1	1	1	0	0	1	0	0
Total Trips	**17**	**2**	**17**	**4**	**23**	**3**	**28**	**3**	**32**	**1**

TOTALS

	Total Cars	Total Trucks	Total Vehicles
Wahluke Southbound (thru-trip)	**90**	**7**	**99**
Wahluke Northbound (thru-trip)	**115**	**10**	**125**
Dairy Inbound (from North)	**8**	**3**	**11**
Dairy Inbound (from South)	**3**	**5**	**8**
Dairy Outbound North	**7**	**6**	**13**
Dairy Outbound South	6	4	11
Total Trips	**229**	**35**	**267**

TABLE 2 - AUGUST 2024 TRAFFIC COUNTS
TRAFFIC IMPACT ANALYSIS
FRANKLIN COUNTY SEPA 2025-18
WHITE BLUFFS DAIRY LLC
MESA, WASHINGTON

SAGEHILL ROAD

Station	Description	1-day Average Traffic Count [1]		Precent Heavy Vehicles [2]		Northbound [3]		Southbound [3]	
		Northbound	Southbound	Northbound	Southbound	Cars	Trucks	Cars	Trucks
626	Sagehill Rd N of Hollingsworth Rd	529	509	19.1	21.9	428	101	398	111
625	Sagehill Rd S of Hollingworth Rd	576	541	14.4	22.5	493	83	419	122
621	Sagehill Rd N of Road 170	576	547	19.4	20.7	464	112	434	113

ROAD 170

Station	Description	1-day Average Traffic Count		Precent Heavy Vehicles		Eastbound		Westbound	
		Eastbound	Westbound	Eastbound	Westbound	Cars	Trucks	Cars	Trucks
622	Rd 170 E of Fairway Ct	379	403	16.3	12.8	317	62	351	52
623	Rd 170 E of Price Rd	363	401	16.3	15.1	304	59	340	61
624	Rd 170 W of Loen Dr	423	442	11.8	14.6	373	50	378	65
640	Rd 170 W of N Glade Rd	400	417	19.2	18.9	323	77	338	79
642	Rd 170 E of N Glade Rd	199	203	22.4	27.9	155	45	146	57
643	Rd 170 W of Colonial Rd	175	181	23.3	26.2	134	41	134	48
665	Rd 170 W of WA Hwy 17	114	127	25.2	31.1	86	29	88	39

NOTES

1 - 1-day Average Traffic Count obtained from three day traffic study total

2 - Percent Heavy Vehicles: Vehicles within FHWA Scheme F Classes 4 through 13

3 - Car and truck counts derived from percent of truck trips and total trips reported

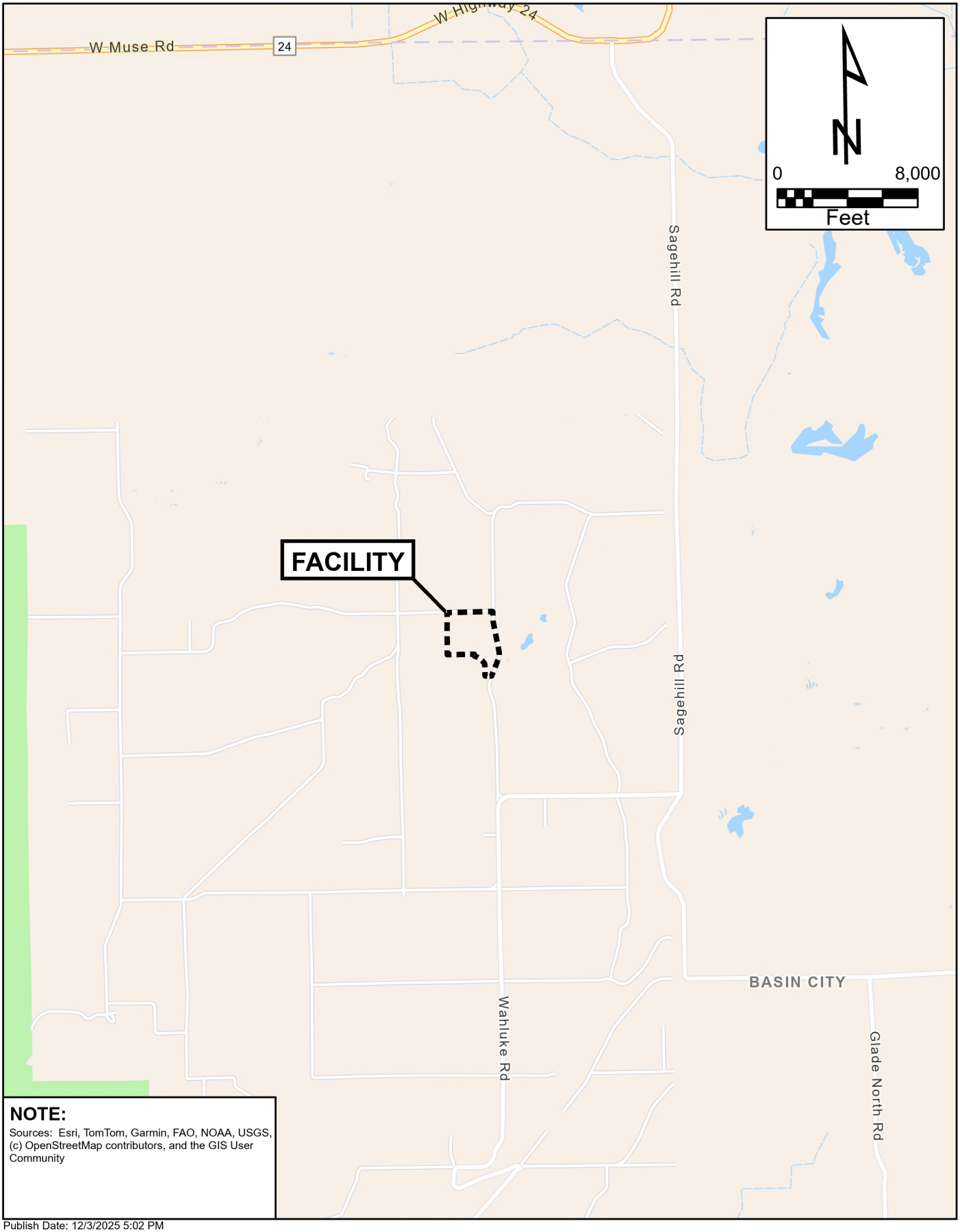
TABLE 3 - POST-EXPANSION IMPACT ANALYSIS
TRAFFIC IMPACT ANALYSIS
FRANKLIN COUNTY SEPA 2025-18
WHITE BLUFFS DAIRY LLC
MESA, WASHINGTON

N. WAHLUKE ROAD	November 2025 Manual Traffic Counts				Post-Expansion Projected Counts				Post-Expansion Percent Change			
	Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
Dairy Frontage	115	10	90	7	165	30	140	27	43%	200%	56%	286%

SAGEHILL ROAD	August 2024 Traffic Counts				Post-Expansion Projected Counts				Post-Expansion Percent Change			
	Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
N of Hollingsworth Rd	428	101	398	111	478	121	448	131	12%	20%	13%	18%
S of Hollingworth Rd	493	83	419	122	543	103	469	142	10%	24%	12%	17%
N of Road 170	464	112	434	113	514	132	494	133	11%	18%	14%	17%

ROAD 170	August 2024 Traffic Counts				Post-Expansion Projected Counts				Post-Expansion Percent Change			
	Eastbound		Westbound		Eastbound		Westbound		Eastbound		Westbound	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
E of Fairway Ct	317	62	351	52	367	82	401	72	16%	33%	14%	40%
E of Price Rd	304	59	340	61	354	79	390	81	17%	34%	15%	34%
W of Loen Dr	373	50	378	65	423	70	428	85	13%	40%	13%	32%
W of N Glade Rd	323	77	338	79	373	97	388	99	16%	26%	15%	26%
E of N Glade Rd	155	45	146	57	205	65	196	77	33%	46%	34%	36%
W of Colonial Rd	134	41	134	48	184	61	184	68	37%	50%	37%	43%
W of WA Hwy 17	86	29	88	39	136	49	138	59	59%	70%	58%	49%

FIGURES



NOTE:

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Publish Date: 12/3/2025 5:02 PM

Path: C:\Users\nfree\OneDrive\Documents\ArcGIS\Projects\FranklinCountyTraffic\FranklinCountyTraffic.aprx

INLAND EARTH SCIENCES

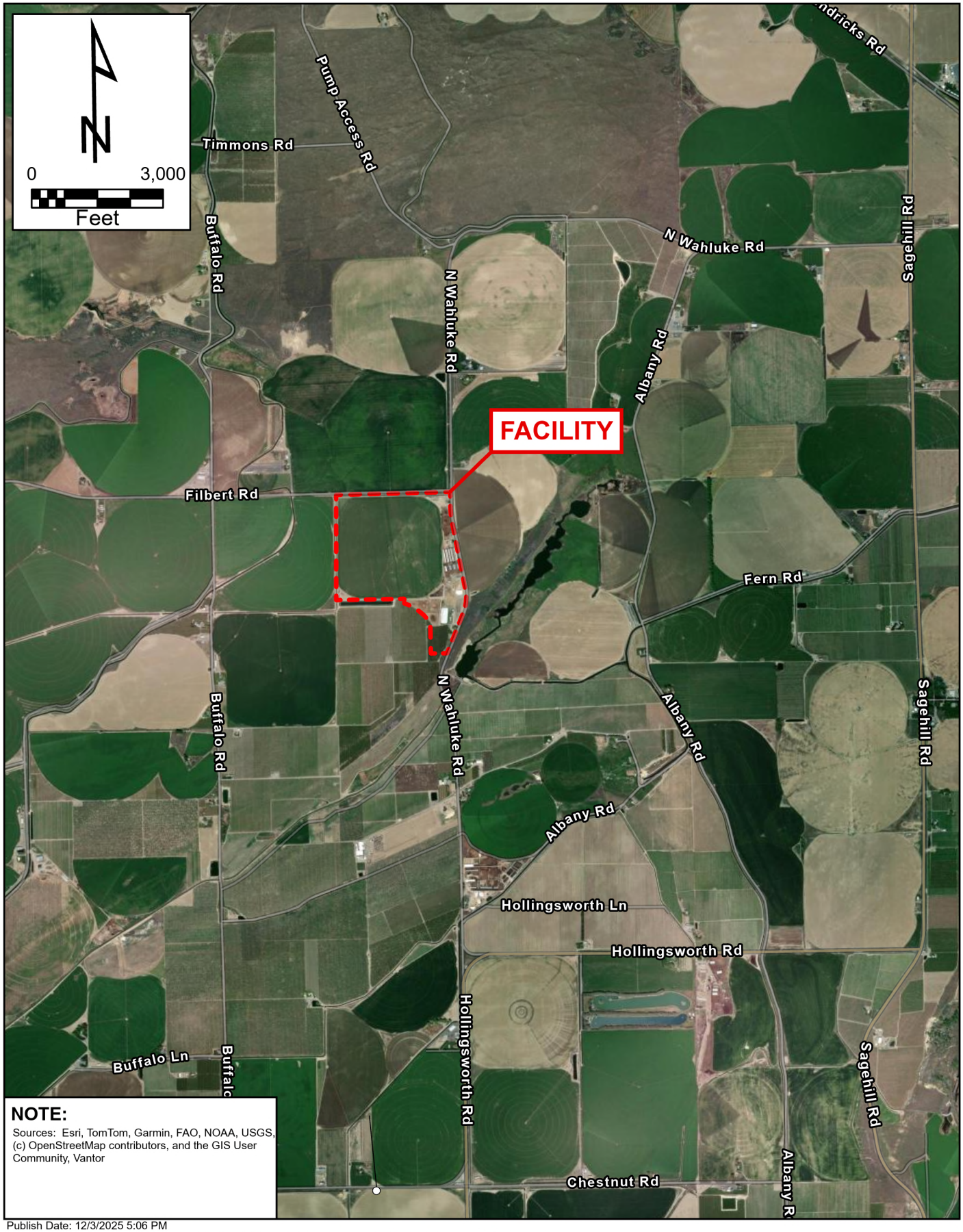
LOCATION MAP

Traffic Impact Analysis

SEPA 2015-18, White Bluffs Dairy Expansion

3201 N Wahluke Road, Othello, WA

FIGURE 1



NOTE:

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Vantor

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Path: C:\Users\nfree\OneDrive\Documents\ArcGIS\Projects\FranklinCountyTraffic\FranklinCountyTraffic.aprx

INLAND EARTH SCIENCES

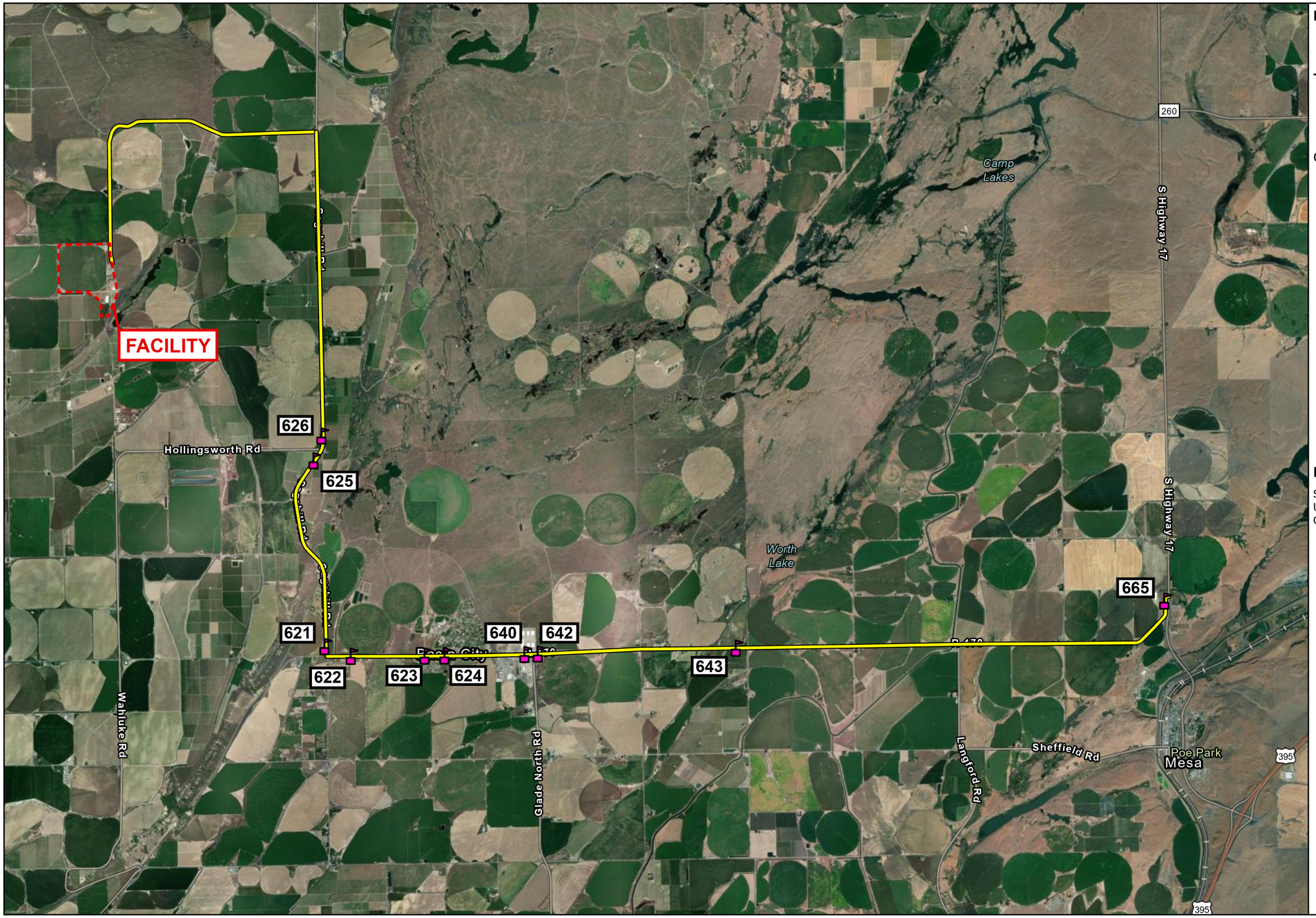
VICINITY MAP

Traffic Impact Analysis

SEPA 2015-18, White Bluffs Expansion

3201 N Wahluke Road, Othello, WA

FIGURE 2



LEGEND:

FACILITY BOUNDARY

TRAFFIC

TRAVEL ROUTE

2024 BFCOG TRAFFIC COUNT DATA SITE

NOTE:

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Vantor

N

0 10,000

Feet

Scale: 1:60,000

0 0.5 1

Miles

Publish Date: 12/3/2025 5:26 PM

Path: C:\Users\nfree\OneDrive\Documents\ArcGIS\Projects\FranklinCountyTraffic\FranklinCountyTraffic.aprx

INLAND EARTH SCIENCES

VICINITY TRAFFIC FEATURES

Traffic Impact Analysis

SEPA 2025-18, White Bluffs Dairy Expansion

6201 N Wahluke Road, Othello, WA

FIGURE 3

APPENDIX A

BFCOG 2024 TRAFFIC COUNT DATA

Site_ID	626	625	621	622	623	624	640	642	643	665
FID	215	214	210	211	212	213	229	231	232	254
Location	**Sagehill Rd / N-O Hollingsworth Rd**	**Sagehill Rd / S-O Hollingsworth Rd**	**Sagehill Rd N-O Rd 170**	**Rd 170 / E-O Fairway Ct**	**Rd 170 / E-O Price Rd**	**Rd 170 / W-O Loen Dr**	**Rd 170 / W-O N Glade Rd**	**Rd 170 / E-O N Glade Rd**	**Rd 170 / W-O Colonial Rd**	**Rd 170 W-O SR 17**
Direction	NB/SB	NB/SB	NB/SB	EB/WB	EB/WB	EB/WB	EB/WB	EB/WB	EB/WB	EB/WB
Count_Type	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS	VOL,SPD,CLS
Count_Dur	72HR	72HR	72HR	72HR	72HR	72HR	72HR	72HR	72HR	72HR
Start_Date	8/6/2024	8/6/2024	8/6/2024	8/6/2024	8/6/2024	8/6/2024	8/6/2024	8/6/2024	8/6/2024	8/6/2024
Start_Time	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
Total_Volu	3115	3352	3369	2345	2292	2595	2451	1206	1069	724
Avg_Vol_1	1586	1729	1728	1136	1089	1269	1199	598	525	343
Avg_Vol_2	1528	1623	1641	1208	1203	1327	1252	608	544	381
AM_PkHr_1	7:00:00	5:00:00	5:00:00	11:00:00	11:00:00	11:00:00	5:00:00	9:00:00	11:00:00	6:00:00
AM_PkHr_2	5:00:00	10:00:00	10:00:00	5:00:00	5:00:00	11:00:00	11:00:00	9:00:00	11:00:00	11:00:00
AM_PkVol_1	108	149	142	84	79	84	86	42	36	26
AM_PkVol_2	102	110	109	101	82	77	82	44	38	26
AM_PHF_1	0.96	0.73	0.63	0.70	0.76	0.72	0.81	0.86	0.77	0.88
AM_PHF_2	0.74	0.80	0.85	0.54	0.62	0.88	0.78	0.82	0.72	0.64
PM_PkHr_1	14:00:00	14:00:00	14:00:00	14:00:00	12:00:00	12:00:00	12:00:00	12:00:00	13:00:00	14:00:00
PM_PkHr_2	12:00:00	13:00:00	12:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00
PM_PkVol_1	143	138	150	99	97	108	97	48	40	28
PM_PkVol_2	131	144	148	101	110	135	117	50	46	35
PM_PHF_1	0.78	0.88	0.78	0.89	0.95	0.95	0.89	0.86	0.73	0.90
PM_PHF_2	0.94	0.90	0.94	0.88	0.83	0.85	0.85	0.80	0.70	0.83
Dir_Split_	0.51	0.52	0.51	0.48	0.48	0.49	0.49	0.50	0.49	0.47
Dir_Spli_1	0.49	0.48	0.49	0.52	0.52	0.51	0.51	0.50	0.51	0.53
pctSU_1	11.70%	8.60%	13.20%	12.70%	12.00%	8.10%	14.60%	15.10%	14.40%	14.80%
pctSU_2	13.90%	16.00%	13.90%	9.40%	11.40%	11.40%	14.40%	18.10%	13.40%	15.00%
pctCB_1	7.40%	5.90%	6.20%	3.60%	4.30%	3.80%	4.60%	7.30%	8.90%	10.40%
pctCB_2	8.00%	6.50%	6.70%	3.30%	3.70%	3.20%	4.40%	9.80%	12.70%	16.00%
pctHV_1	19.10%	14.40%	19.40%	16.30%	16.30%	11.80%	19.20%	22.40%	23.30%	25.20%
pctHV_2	21.90%	22.50%	20.70%	12.80%	15.10%	14.60%	18.90%	27.90%	26.20%	31.10%

TABLE LEGEND

Row	Abbreviation/Description
1	GIS_ID – Site ID
2	
3	Location – Count location
4	Direction – Orientation of corridor
5	Count_Type – Data Type Collected
6	Count_Dur – Duration of Count
7	Start_Date – Start date of collection
8	Start_Time – Start time of collection
9	Tot_Vol_1 - [Primary] Total Volume in the northbound or eastbound direction (Depending on roadway orientation
10	Tot_Vol_2 - [Secondary] Total Volume in the southbound or westbound direction (Depending on roadway orientation
11	Tot_Vol - Total Volume of [Primary] and [Secondary] Directions for entire length of study
12	Avg_Vol_1 - [Primary] – Average volume for the duration of the study in the northbound or eastbound direction (Depending on roadway orientation)
13	Avg_Vol_2 - [Secondary] – Average volume for the duration of the study in the southbound or westbound direction (Depending on roadway orientation)
14	AM_PkHr_1 - [Primary] – Morning Peak Hour in the northbound or eastbound direction (Depending on roadway orientation)
15	AM_PkHr_2 - [Secondary] – Morning Peak Hour in the southbound or westbound direction (Depending on roadway orientation)
16	AM_PkVol_1 - [Primary] – Morning Peak Hour Volumes in the northbound or eastbound direction (Depending on roadway orientation)
17	AM_PkVol_2 - [Secondary] – Morning Peak Hour Volumes in the southbound or westbound direction (Depending on roadway orientation)
18	AM_PHF_1 - [Primary] – Morning Peak Hour Factor (PHF) in the northbound or eastbound direction (Depending on roadway orientation)
19	AM_PHF_2 - [Secondary] – Morning Peak Hour Factor (PHF) in the southbound or westbound direction (Depending on roadway orientation)
20	PM_PkHr_1 - [Primary] – Afternoon Peak Hour in the northbound or eastbound direction (Depending on roadway orientation)
21	PM_PkHr_2 - [Secondary] – Afternoon Peak Hour in the southbound or westbound direction (Depending on roadway orientation)
22	PM_PkVol_1 - [Primary] – Afternoon Peak Hour Volumes in the northbound or eastbound direction (Depending on roadway orientation)
23	PM_PkVol_2 - [Secondary] – Afternoon Peak Hour Volumes in the southbound or westbound direction (Depending on roadway orientation)
24	PM_PHF_1 - [Primary] – Afternoon Peak Hour Factor (PHF) in the northbound or eastbound direction (Depending on roadway orientation)
25	PM_PHF_2 - [Secondary] – Afternoon Peak Hour Factor (PHF) in the southbound or westbound direction (Depending on roadway orientation)
26	Dir_Split_1 - [Primary] Percent of total volume in northbound or eastbound direction of travel (Depending on roadway orientation) compared to total volume in both directions
27	Dir_Split_2 - [Secondary] Percent of total volume in southbound or westbound direction of travel (Depending on roadway orientation) compared to total volume in both directions
28	pctSU_1 - [Primary] Percent of FHWA Scheme F – Classes 4-7 Single Unit (SU) Trucks in the northbound or eastbound direction (Depending on roadway orientation)
29	pctSU_2 - [Secondary] Percent of FHWA Scheme F – Classes 4-7 Single Unit (SU) Trucks in the southbound or westbound direction (Depending on roadway orientation)
30	pctCB_1 - [Primary] Percent of FHWA Scheme F – Classes 8-13 in the northbound or eastbound direction (Depending on roadway orientation)
31	pctCB_2 - [Secondary] Percent of FHWA Scheme F – Classes 8-13 in the southbound or westbound direction (Depending on roadway orientation)
32	pctHV_1 - [Primary] Percent of Heavy Vehicles (HV) [FHWA Scheme F – Classes 4-13] in the northbound or eastbound direction of travel when compared to total volumes in the northbound or eastbound direction
33	pctHV_2 - [Secondary] Percent of Heavy Vehicles (HV) [FHWA Scheme F – Classes 4-13] in the southbound or westbound direction of travel when compared to total volumes in the southbound or westbound direction

Class 1 Motorcycles		**Class 7** Four or more axle, single unit	
Class 2 Passenger cars			
		Class 8 Four or less axle, single trailer	
Class 3 Four tire, single unit			
		Class 9 5-Axle tractor semitrailer	
Class 4 Buses		**Class 10** Six or more axle, single trailer	
		Class 11 Five or less axle, multi trailer	
Class 5 Two axle, six tire, single unit		**Class 12** Six axle, multi-trailer	
		Class 13 Seven or more axle, multi-trailer	
Class 6 Three axle, single unit			

CUP 2025-10/
SEPA 2025-18

SEPA ODNS-M,
SEPA ODNS/NOA-M,
Checklist

STATE ENVIRONMENTAL POLICY ACT (SEPA)
FINAL DECISION - MITIGATED DETERMINATION OF NON-SIGNIFICANCE (ODNS-M)

Name of Proposal: White Bluffs Dairy Expansion

Description of Proposal: The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

Proponent: White Bluffs Dairy LLC
ATTN: Fransisca Vander Meulen
650 Horby Rd.
Grandview, WA, 98930-9202
fransisca@windmillestates.net

File Number: CUP 2025-10 / SEPA 2025-18

Location of Proposal: 6201 N Wahluke Rd., Mesa, WA 99343; Parcels 121-060-012, 121-060-013, 121-060-075

Legal Descriptions: Parcel No.: 121-060-012
FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON, EXCEPT THAT PORTION DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID FARM UNIT THENCE NORTH 88°55'24" EAST 1999.66 FEET TO THE TRUE POINT OF BEGINNING. THENCE NORTH 55°20'35" WEST 117.12 FEET; THENCE NORTH 46°01'32" EAST 440.13 FEET; THENCE NORTH 28°59'50" EAST 133.63 FEET; THENCE NORTH 10°57'49" WEST 338.31 FEET; THENCE NORTH 78°50'50" EAST 51.78 FEET; THENCE NORTH 11°24'39" WEST 320.23 FEET; THENCE NORTH 78°26'09" EAST 75.02 FEET; THENCE NORTH 05°40'15" WEST 956.63 FEET; THENCE SOUTH 88°31'25" WEST 64.60 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS SOUTH 49°25'15" WEST 625.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE 355.12 FEET THROUGH A DELTA ANGLE OF 32°33'20";

THENCE NORTH 00°28'07" WEST 23.77 FEET; THENCE NORTH 88°31'25" EAST 613.08 FEET TO THE EASTERLY LINE OF SAID FARM UNIT; THENCE SOUTH 00°28'07" EAST ALONG SAID LINE 276.12 FEET TO THE BEGINNING OF A CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS NORTH 89°31'53" EAST 1432.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID LINE 267.12 FEET THROUGH A DELTA ANGLE OF 10°41'02"; THENCE SOUTH 11°09'09" EAST ALONG SAID LINE 1632.10 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 78°50'51" WEST 954.90 FEET; THENCE SOUTHERLY ALONG SAID CURVE 181.25 FEET THROUGH A DELTA ANGLE OF 10°52'30" TO THE SOUTHEAST CORNER OF SAID FARM UNIT; THENCE SOUTH 88°55'25" WEST ALONG THE SOUTHERLY LINE OF SAID UNIT 997.81 FEET TO THE SAID TRUE POINT OF BEGINNING. PARCEL 1 OF RS-1993547

Parcel No.: 121-060-013
THAT PORTION OF FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID FARM UNIT THENCE NORTH 88°55'24" EAST 1999.66 FEET TO THE TRUE POINT OF BEGINNING. THENCE NORTH 55°20'35" WEST 117.12 FEET; THENCE NORTH 46°01'32" EAST 440.13 FEET; THENCE NORTH 28°59'50" EAST 133.63 FEET; THENCE NORTH 10°57'49" WEST 338.31 FEET; THENCE NORTH 78°50'50" EAST 51.78 FEET; THENCE NORTH 11°24'39" WEST 320.23 FEET; THENCE NORTH 78°26'09" EAST 75.02 FEET; THENCE NORTH 05°40'15" WEST 956.63 FEET; THENCE SOUTH 88°31'25" WEST 64.60 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS SOUTH 49°25'15" WEST 625.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE 355.12 FEET THROUGH A DELTA ANGLE OF 32°33'20"; THENCE NORTH 00°28'07" WEST 23.77 FEET; THENCE NORTH 88°31'25" EAST 613.08 FEET TO THE EASTERLY LINE OF SAID FARM UNIT; THENCE SOUTH 00°28'07" EAST ALONG SAID LINE 276.12 FEET TO THE BEGINNING OF A CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS NORTH 89°31'53" EAST 1432.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID LINE 267.12 FEET THROUGH A DELTA ANGLE OF 10°41'02"; THENCE SOUTH 11°09'09" EAST ALONG SAID LINE 1632.10 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 78°50'51" WEST 954.90 FEET; THENCE SOUTHERLY ALONG SAID CURVE 181.25 FEET THROUGH A DELTA ANGLE OF 10°52'30" TO THE SOUTHEAST CORNER OF SAID FARM UNIT; THENCE SOUTH 88°55'25" WEST ALONG THE SOUTHERLY LINE OF SAID UNIT 997.81 FEET TO THE SAID TRUE POINT OF BEGINNING. PARCEL 2 OF RS-1993547

Parcel No.: 108-060-042
PTN SHORT PLAT 99-08 LOT 2 LY NLY & ELY OF FDL: COMM AT NW COR SD LOT 2; TH N89D55'E ALG N LN SD LOT 2, 1552.71' TO TPOB SD LN; TH S00D04'E, 100.93' TO BEG OF CUR TO RT, RAD PT BEARS S19D41'W, 1553. 97'; TH SELY THRU CTRL ANG 37D43' ALG SD CUR, 759.93'; TH S00D04'E, 690.36'; TH N89D55'E, 373.88' TO WLY R/W LN OF N WAHLUKE RD & END OF SD LN.

Lead Agency: Franklin County

LAND USE – ZONING CODE – BUILDING CODE – FIRE CODE – CODE ENFORCEMENT – BUSINESS REGISTRATION
502 W. BOEING ST. - PASCO, WA 99301 - [509] 545-3521 - FAX [509] 546-3367 - BURN LINE [509] 545-3586 - BLDG. INSP. LINE [509] 545-3522 WWW.FRANKLINCOUNTYWA.GOV

FINDINGS:

1. **Earth:**
   a. This proposal area consists of flat terrain with the steepest slope being 5%.
   b. The site has the following soils: Hezel loamy fine sand and soils of the Quincy-Hezel complex.
   c. There is no surface indication of unstable soils.
   d. Approximately 103 acres of feed crop ground will be graded and mechanically compacted. Maximum earth movement of approximately 200,000 to 300,000 cubic yards is anticipated. Imported fill is anticipated for this project.
   e. Approximately 8% of the project site is currently designated to be covered by impervious surfaces.

2. **Air:**
   a. Temporary increase in emissions will occur during grading, earthmoving activities and construction.
   b. Once in operation, the facility is estimated to have air emissions consistent with an operational cow milk dairy facility, primarily dust and odors.

3. **Water:**
   a. Approximately 650 feet to the east of the project is the SCBID WB5WW1 Reservoir Canal.
   b. Multiple SCBID drainlines are present on-site.
   c. The closest wetland is approximately 620 ft to the east of the proposed site's property line. Water will be drawn from wells for domestic use, industrial use and stock water uses.
   d. Two septic systems will be present on the project site. Only human-generated domestic waste will be discharged into the parlor system septic tank and is expected to be 1,500 gallons. The manager's residence system will have human-generated domestic sewage from one residence and is expected to be 1,000 gallons in size.
   e. Industrial waste and greywater from milking operations will be discharged to the waste storage ponds.

4. **Plants:**
   a. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.
   b. There are no known noxious weeds on-site.

5. **Animals:**
   a. There are no threatened species on site per the WDFW PHS mapping.

6. **Energy and Natural Resources:**
   a. Electricity for heating.

7. **Environmental Health:**
   a. Potential hazardous chemicals may be stored or used on-site including diesel and gasoline motor fuels, detergents, teat disinfectants, dairy sanitizers, anti-parasitic, antibiotics, herbicides, pesticides, and fungicides.

b. Toxic or hazardous chemicals will be managed, handled, used, and stored in accordance with applicable Federal and State laws. A Chemical Hazard Communication plan will be developed.
c. Workers will receive training in Hazard Communication, Environmental Awareness, Spill Prevention and Spill Response.

8. Land and Shoreline Use:

a. The parcels are zoned Agricultural Production 20-acres (AP-20).
b. The proposal will not affect surrounding farms and agricultural practices.
c. Increase in cattlehead count of over 500 requires a Franklin County Conditional Use Permit.
d. A Dairy Separation Standard of no more than two operations that are greater in size than one thousand three hundred milking cow head count shall be located within an operations two-mile buffer. Davidson Brothers Dairy Inc. located approximately 1.45 miles south from the facility is the only facility with more than 1,300 cows located within two miles of the proposed development.
e. Only one individual will reside in the manager's residence.
f. Multiple structures are being proposed on-site (see project description).
g. The current milking parlor, commodity barn, and cow shades will be demolished. The current WSP will be decommissioned.
h. No one will be displaced by this project.

9. Housing:

a. No new housing plans for this project. A manager's residence is already existing prior to the proposed expansion.

10. Aesthetics:

a. Buildings are not expected to exceed 35 feet in height and are typically not taller than 20 feet.

11. Light and Glare:

a. Light will be produced from site lighting operated from dusk to dawn.

12. Recreation:

a. No recreation anticipated with this proposal.

13. Historic and Cultural Preservation:

a. Two sites located near the project site are listed as "eligible" in the Washington DAHP WISAARD database: Wahluke Branch-10 Lateral, Filbert Road Canal Bridge. Both sites located approximately 3/4-milewest of Wahluke Road on Filbert Road. They are located 1,000 feet west of the northwest comer of the project site.
b. The proposal will not directly affect these sites eligible for state preservation.

14. Transportation:

a. Primary access to the proposed development will be from Wahluke Road, Hollingsworth Road, and Sagehill Road. Closest regional roads to the property are WA Highway 17 located 10 miles east and WA Highway 240 located six miles north.
b. The proposed facility will have 20 to 25 workers per shift for two shifts per day, seven days a week. This predicts up to 100 total trips per day to and from the facility.

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c. The facility will likely receive a total of up to 20 trips by heavy truck (greater than 26,000 lbs. GVWR). Trips will be distributed throughout the day.

15. Public Services:

a. The development would not result in an increased need for public services.

16. Utilities:

a. Electricity, water, refuse service, and septic systems will be required for the development.

MITIGATION MEASURES:

1. Best Management Practices (BMP) to minimize dust during construction shall be used, such as watering the site in accordance with Franklin County's Clean Air and Dust control ordinances.

2. The applicant shall meet and comply with all necessary Air and Water Quality standards required by the Department of Ecology. Compliance with these standards shall occur at all times. Stormwater shall be retained on site during and after construction.

3. The project shall implement a Stormwater Pollution Prevention Plan (SWPP) in accordance with the Washington State Department of Ecology stormwater management guidelines.

4. Toxic or hazardous chemicals shall be managed, handled, used, and stored in accordance with applicable Federal and State laws. A Chemical Hazard Communication plan shall be developed and submitted to the Franklin County Planning Department.

5. A head count increase will require a Traffic Impact Analysis (TIA) to be completed together with upgrades and/or mitigation fees for the County Road System. The TIA shall include County Roads impacted by this increase.

6. Any infrastructure that will cross those buried drain rights of way, such as piping, electrical wiring, etc., must be permitted by SCBID prior to construction. All applications must be approved by the SCBID Board of Directors prior to that work taking place. SCBID will not require a permit for grading purposes or other operations over the buried drains but will need to be included in the planning to ensure that we maintain cover over our drains.

7. There are exposed manholes for the buried drain systems present around the project site. These manholes need to be protected from impact by equipment or livestock and the also need to be protected from the potential intrusion of waste materials from the dairy operation. These buried drains are not for waste disposal, intentional or unintentional and must be protected. Efforts must be taken so ensure that the waste from the dairy doesn't impact that drain system.

8. The applicant shall work with SCBID to determine measures to prevent any effluent or solid waste from entering the WB10A lateral. SCBID recommends piping the lateral near the effluent pond and compost pile location to address potential impacts.

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9. The applicant shall comply with the State of Washington's requirements for Dairy operations including the implementation of the approved Nutrient Management Plan (NMP) for the operation. Nutrient management plans focus on water quality related issues. A copy of this plan must be submitted to the Franklin County Planning Department.

10. A Concentrated Animal Feeding Operation (CAFO) General Permit must be submitted to the Washington Department of Ecology. A copy of the permit must be submitted to the Franklin County Planning Department.

11. A Manure Pollution Prevention Plan shall be developed and submitted to the Franklin County Planning Department.

12. A Spill Prevention, Control, and Countermeasure (SPCC) shall be developed and submitted to the Franklin County Planning Department.

13. The applicant shall submit an Odor and Fly Control Plan consistent with Franklin County Resolution 2001-238, to be approved by the Franklin Conservation District.

14. An Inadvertent Discover Plan shall be prepared and implemented for the project through all phases.

15. A Franklin County Grading Permit must be submitted before any grading, filling, or movement of earth greater than 50 cubic yards.

This MDNS is being issued as a final determination after the Optional Determination of Nonsignificance/Notice of Application process under WAC 197-11-355.

There is no comment period for this MDNS.

Responsible official: ***Wes McCart***

Position/Phone: ***Franklin Planning and Economic Development Director – (509) 545-3521***

Address: ***502 W Boeing St, Pasco, Washington 99301***

Date/Signature: ***01/26/26 -***

STATE ENVIRONMENTAL POLICY ACT (SEPA)
NOTICE OF APPLICATION
OPTIONAL DETERMINATION OF NONSIGNIFICANCE (ODNS/NOA-M)

Franklin County has reviewed the proposed project for probable adverse environmental impacts and expects to issue a Mitigated Determination of Nonsignificance (MDNS). The optional MDNS process in WAC 197-11-355 is being used. ***This may be your only opportunity to comment on the environmental impacts of the proposed project.***

The comment period for this ODNS/NOA-M is until November 28, 2025, at 5:00PM.

Name of Proposal: White Bluffs Dairy Expansion

Description of Proposal: The proposed development is for the expansion and reconfiguration of the existing 700-cow milk dairy to accommodate a 9,500-cow herd size. Demolition of the current milking parlor, animal corrals, cow shade and other miscellaneous outbuildings will be part of this project. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.

The following structures are also proposed in this project: approximately 57,000 sq. ft. milk parlor building, twelve (12) open-lot corrals, six (6) 1,100 ft. long concrete lanes for each corral's feed alley, expansion of five (5) existing 6,000 sq. ft. free stall barns, a 12,800 sq. ft. commodity barn with maintenance shop facilities, two (2) 10,000-gal diesel fuel above ground storage tanks, a paved driveway/parking area with approximately 20 parking spaces, a liquid manure processing and storage system, and a manure solids and compost storage area.

Proponent: White Bluffs Dairy LLC
ATTN: Fransisca Vander Meulen
650 Horby Rd.
Grandview, WA, 98930-9202
fransisca@windmillestates.net

File Number: CUP 2025-10 / SEPA 2025-18

Location of Proposal: 6201 N Wahluke Rd., Mesa, WA 99343; Parcels 121-060-012, 121-060-013, 121-060-075

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Legal Descriptions:

Parcel No.: 121-060-012

FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON, EXCEPT THAT PORTION DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID FARM UNIT THENCE NORTH 88°55'24" EAST 1999.66 FEET TO THE TRUE POINT OF BEGINNING. THENCE NORTH 55°20'35" WEST 117.12 FEET; THENCE NORTH 46°01'32" EAST 440.13 FEET; THENCE NORTH 28°59'50" EAST 133.63 FEET; THENCE NORTH 10°57'49" WEST 338.31 FEET; THENCE NORTH 78°50'50" EAST 51.78 FEET; THENCE NORTH 11°24'39" WEST 320.23 FEET; THENCE NORTH 78°26'09" EAST 75.02 FEET; THENCE NORTH 05°40'15" WEST 956.63 FEET; THENCE SOUTH 88°31'25" WEST 64.60 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS SOUTH 49°25'15" WEST 625.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE 355.12 FEET THROUGH A DELTA ANGLE OF 32°33'20"; THENCE NORTH 00°28'07" WEST 23.77 FEET; THENCE NORTH 88°31'25" EAST 613.08 FEET TO THE EASTERLY LINE OF SAID FARM UNIT; THENCE SOUTH 00°28'07" EAST ALONG SAID LINE 276.12 FEET TO THE BEGINNING OF A CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS NORTH 89°31'53" EAST 1432.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID LINE 267.12 FEET THROUGH A DELTA ANGLE OF 10°41'02"; THENCE SOUTH 11°09'09" EAST ALONG SAID LINE 1632.10 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 78°50'51" WEST 954.90 FEET; THENCE SOUTHERLY ALONG SAID CURVE 181.25 FEET THROUGH A DELTA ANGLE OF 10°52'30" TO THE SOUTHEAST CORNER OF SAID FARM UNIT; THENCE SOUTH 88°55'25" WEST ALONG THE SOUTHERLY LINE OF SAID UNIT 997.81 FEET TO THE SAID TRUE POINT OF BEGINNING. PARCEL 1 OF RS-1993547

Parcel No.: 121-060-013

THAT PORTION OF FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID FARM UNIT THENCE NORTH 88°55'24" EAST 1999.66 FEET TO THE TRUE POINT OF BEGINNING. THENCE NORTH 55°20'35" WEST 117.12 FEET; THENCE NORTH 46°01'32" EAST 440.13 FEET; THENCE NORTH 28°59'50" EAST 133.63 FEET; THENCE NORTH 10°57'49" WEST 338.31 FEET; THENCE NORTH 78°50'50" EAST 51.78 FEET; THENCE NORTH 11°24'39" WEST 320.23 FEET; THENCE NORTH 78°26'09" EAST 75.02 FEET; THENCE NORTH 05°40'15" WEST 956.63 FEET; THENCE SOUTH 88°31'25" WEST 64.60 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS SOUTH 49°25'15" WEST 625.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE 355.12 FEET THROUGH A DELTA ANGLE OF 32°33'20"; THENCE NORTH 00°28'07" WEST 23.77 FEET; THENCE NORTH 88°31'25" EAST 613.08 FEET TO THE EASTERLY LINE OF SAID FARM UNIT; THENCE SOUTH 00°28'07" EAST ALONG SAID LINE 276.12 FEET TO THE BEGINNING OF A CURVE TO THE LEFT THE RADIUS POINT OF WHICH BEARS NORTH 89°31'53" EAST 1432.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE AND SAID LINE 267.12 FEET THROUGH A DELTA ANGLE OF 10°41'02"; THENCE SOUTH 11°09'09" EAST ALONG SAID LINE 1632.10 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 78°50'51" WEST 954.90 FEET; THENCE SOUTHERLY ALONG SAID CURVE 181.25 FEET THROUGH A DELTA ANGLE OF 10°52'30" TO THE SOUTHEAST CORNER OF SAID FARM UNIT; THENCE SOUTH 88°55'25" WEST ALONG THE SOUTHERLY LINE OF SAID UNIT 997.81 FEET TO THE SAID TRUE POINT OF BEGINNING. PARCEL 2 OF RS-1993547

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Parcel No.: 108-060-042
PTN SHORT PLAT 99-08 LOT 2 LY NLY & ELY OF FDL: COMM AT NW COR SD LOT 2; TH N89D55'E ALG N LN SD LOT 2, 1552.71' TO TPOB SD LN; TH S00D04'E, 100.93' TO BEG OF CUR TO RT, RAD PT BEARS S19D41'W, 1553. 97'; TH SELY THRU CTRL ANG 37D43' ALG SD CUR, 759.93'; TH S00D04'E, 690.36'; TH N89D55'E, 373.88' TO WLY R/W LN OF N WAHLUKE RD & END OF SD LN.

Lead Agency: Franklin County

FINDINGS:

1. **Earth:**
   a. This proposal area consists of flat terrain with the steepest slope being 5%.
   b. The site has the following soils: Hezel loamy fine sand and soils of the Quincy-Hezel complex.
   c. There is no surface indication of unstable soils.
   d. Approximately 103 acres of feed crop ground will be graded and mechanically compacted. Maximum earth movement of approximately 200,000 to 300,000 cubic yards is anticipated. Imported fill is anticipated for this project.
   e. Approximately 8% of the project site is currently designated to be covered by impervious surfaces.

2. **Air:**
   a. Temporary increase in emissions will occur during grading, earthmoving activities and construction.
   b. Once in operation, the facility is estimated to have air emissions consistent with an operational cow milk dairy facility, primarily dust and odors.

3. **Water:**
   a. Approximately 650 feet to the east of the project is the SCBID WB5WW1 Reservoir Canal.
   b. Multiple SCBID drainlines are present on-site.
   c. The closest wetland is approximately 620 ft to the east of the proposed site's property line. Water will be drawn from wells for domestic use, industrial use and stock water uses.
   d. Two septic systems will be present on the project site. Only human-generated domestic waste will be discharged into the parlor system septic tank and is expected to be 1,500 gallons. The manager's residence system will have human-generated domestic sewage from one residence and is expected to be 1,000 gallons in size.
   e. Industrial waste and greywater from milking operations will be discharged to the waste storage ponds.

4. **Plants:**
   a. Approximately 113 acres of feed crop production ground will be converted to dairy-production ground.
   b. There are no known noxious weeds on-site.

5. **Animals:**
   a. There are no threatened species on site per the WDFW PHS mapping.

6. **Energy and Natural Resources:**
    a. Electricity for heating.

7. **Environmental Health:**
    a. Potential hazardous chemicals may be stored or used on-site including diesel and gasoline motor fuels, detergents, teat disinfectants, dairy sanitizers, anti-parasitic, antibiotics, herbicides, pesticides, and fungicides.
    b. Toxic or hazardous chemicals will be managed, handled, used, and stored in accordance with applicable Federal and State laws. A Chemical Hazard Communication plan will be developed.
    c. Workers will receive training in Hazard Communication, Environmental Awareness, Spill Prevention and Spill Response.

8. **Land and Shoreline Use:**
    a. The parcels are zoned Agricultural Production 20-acres (AP-20).
    b. The proposal will not affect surrounding farms and agricultural practices.
    c. Increase in cattlehead count of over 500 requires a Franklin County Conditional Use Permit.
    d. A Dairy Separation Standard of no more than two operations that are greater in size than one thousand three hundred milking cow head count shall be located within an operations two-mile buffer. Davidson Brothers Dairy Inc. located approximately 1.45 miles south from the facility is the only facility with more than 1,300 cows located within two miles of the proposed development.
    e. Only one individual will reside in the manager's residence.
    f. Multiple structures are being proposed on-site (see project description).
    g. The current milking parlor, commodity barn, and cow shades will be demolished. The current WSP will be decommissioned.
    h. No one will be displaced by this project.

9. **Housing:**
    a. No new housing plans for this project. A manager's residence is already existing prior to the proposed expansion.

10. **Aesthetics:**
    a. Buildings are not expected to exceed 35 feet in height and are typically not taller than 20 feet.

11. **Light and Glare:**
    a. Light will be produced from site lighting operated from dusk to dawn.

12. **Recreation:**
    a. No recreation anticipated with this proposal.

13. **Historic and Cultural Preservation:**
    a. Two sites located near the project site are listed as "eligible" in the Washington DAHP WISAARD database: Wahluke Branch-10 Lateral, Filbert Road Canal Bridge. Both sites located approximately 3/4-milewest of Wahluke Road on Filbert Road. They are located 1,000 feet west of the northwest comer of the project site.

b. The proposal will not directly affect these sites eligible for state preservation.

14. Transportation:

a. Primary access to the proposed development will be from Wahluke Road, Hollingsworth Road, and Sagehill Road. Closest regional roads to the property are WA Highway 17 located 10 miles east and WA Highway 240 located six miles north.
b. The proposed facility will have 20 to 25 workers per shift for two shifts per day, seven days a week. This predicts up to 100 total trips per day to and from the facility.
c. The facility will likely receive a total of up to 20 trips by heavy truck (greater than 26,000 lbs. GVWR). Trips will be distributed throughout the day.

15. Public Services:

a. The development would not result in an increased need for public services.

16. Utilities:

a. Electricity, water, refuse service, and septic systems will be required for the development.

MITIGATION MEASURES:

1. Best Management Practices (BMP) to minimize dust during construction shall be used, such as watering the site in accordance with Franklin County's Clean Air and Dust control ordinances.

2. The applicant shall meet and comply with all necessary Air and Water Quality standards required by the Department of Ecology. Compliance with these standards shall occur at all times. Stormwater shall be retained on site during and after construction.

3. The project shall implement a Stormwater Pollution Prevention Plan (SWPP) in accordance with the Washington State Department of Ecology stormwater management guidelines.

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5. A head count increase will require a Traffic Impact Analysis (TIA) to be completed together with upgrades and/or mitigation fees for the County Road System. The TIA shall include County Roads impacted by this increase.

6. Any infrastructure that will cross those buried drain rights of way, such as piping, electrical wiring, etc., must be permitted by SCBID prior to construction. All applications must be approved by the SCBID Board of Directors prior to that work taking place. SCBID will not require a permit for grading purposes or other operations over the buried drains but will need to be included in the planning to ensure that we maintain cover over our drains.

7. There are exposed manholes for the buried drain systems present around the project site. These manholes need to be protected from impact by equipment or livestock and the also need to be protected from the potential intrusion of waste materials from the dairy operation. These buried

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drains are not for waste disposal, intentional or unintentional and must be protected. Efforts must be taken so ensure that the waste from the dairy doesn't impact that drain system.

8. The applicant shall work with SCBID to determine measures to prevent any effluent or solid waste from entering the WB10A lateral. SCBID recommends piping the lateral near the effluent pond and compost pile location to address potential impacts.

9. The applicant shall comply with the State of Washington's requirements for Dairy operations including the implementation of the approved Nutrient Management Plan (NMP) for the operation. Nutrient management plans focus on water quality related issues. A copy of this plan must be submitted to the Franklin County Planning Department.

10. A Concentrated Animal Feeding Operation (CAFO) General Permit must be submitted to the Washington Department of Ecology. A copy of the permit must be submitted to the Franklin County Planning Department.

11. A Manure Pollution Prevention Plan shall be developed and submitted to the Franklin County Planning Department.

12. A Spill Prevention, Control, and Countermeasure (SPCC) shall be developed and submitted to the Franklin County Planning Department.

13. The applicant shall submit an Odor and Fly Control Plan consistent with Franklin County Resolution 2001-238, to be approved by the Franklin Conservation District.

14. An Inadvertent Discover Plan shall be prepared and implemented for the project through all phases.

15. A Franklin County Grading Permit must be submitted before any grading, filling, or movement of earth greater than 50 cubic yards.

Franklin County has reviewed the proposed project for probable adverse environmental impacts and expects to issue a Mitigated Determination of Nonsignificance (MDNS). The optional MDNS process in WAC 197-11-355 is being used. **This may be your only opportunity to comment on the environmental impacts of the proposed project.**

The comment period for this ODNS/NOA-M is until November 28, 2025, at 5:00PM.

Responsible official: ***Wes McCart***

Position/Phone: ***Franklin Planning and Economic Development Director – (509) 545-3521***

Address: ***502 W Boeing St, Pasco, Washington 99301***

Date/Signature: ***11/12/2025 -*** _____

SEPA[1] Environmental Checklist

SEPA 2025-18

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A. Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   White Bluffs Dairy

2. **Name of applicant:**

   White Bluffs Dairy LLC (WA UBI 605 975 172)

3. **Address and phone number of applicant and contact person:**

   650 Hornby Rd, Grandview, WA, 98930-9202 | 509-837-3275 | Fransisca A. Vander Meulen

4. **Date checklist prepared:**

   October 1, 2025

5. **Agency requesting checklist:**

   Franklin County Planning and Building Department

6. **Proposed timing of schedule (including phasing, if applicable):**

   Construction is planned to begin in Q2 2026, after the required project permits are received, and is expected to be completed in Q2 2027. Expansion of existing freestall barns and construction of one waste storage pond may occur in 2027-2028 based on economics.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No plans for expansion are currently envisioned. Additional commodity structures may be necessary based on feed storage requirements.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   NONE

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   None known.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

    Franklin County Business Registration; Franklin County Permits – Grading & Excavation, Demolition, Commercial Building, Addition Building, Mechanical, Electrical, Plumbing, Fire System, Water Availability; Benton Franklin Health District – On-Site Sewage System (Application or Evaluation); Washington DOH - Public Water System.

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[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Project proposes to expand the and reconfigure the existing 700 cow milk dairy to accommodate a 9,500-cow herd size.

The current milking parlor, animal corrals, cow shades, and some miscellaneous outbuildings will be demolished as part of the Project. The existing freestall barns, commodity barn, office building, and manager's residence will be preserved.

Approximately 113 acres of feed crop production ground will be converted to dairy-production ground. The ground will be cleared, grubbed, graded, and compacted prior to construction

Following demolition and ground preparation, the following structures will be constructed:

- An approximately 57,000-square foot milk parlor building containing an 86-stall rotary milking parlor capable of milking 8,000 cows per day, a milk cooling and holding area with three 30,000-gallon milk storage tanks, and a special needs ("hospital") facility.
- Twelve (12) open-lot corrals ("pens") holding 700 cows each with 20 cow shades and six 1,100-foot long concrete lanes serving each corral's feed alley.
- Expansions of the five existing 6,000 square foot freestall barns ranging from 3,680 to 4,480 square feet in size. These expansions will bring the total size range of the freestall barns to between 10,180 and 10,980 square feet.
- A 12,800 square foot commodity barn with maintenance shop facilities and two 10,000-gallon diesel fuel aboveground storage tanks.
- A paved driveway/parking area from Wahluke Road to the milking parlor of sufficient area to allow for unrestricted movement of milk shipping trucks. The parking area will have parking space for approximately 20 vehicles.
- A liquid manure processing and storage system consisting of a manure reception/collection pit, a manure solids separation system consisting of four screw press separators, two settling basins for additional solids precipitation from the separated liquid, and two synthetically-lined 15-million gallon waste storage ponds.
- A manure solids and compost storage area consisting of a graded and compacted soil pad.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The project site is located at 6201 N Wahluke Road, Mesa, Washington, approximately 1½ miles north of the intersection of N. Wahluke Road and Hollingsworth Road in northern Franklin County. The project site's legal description is "FARM UNIT 16, IRRIGATION BLOCK 201, FRANKLIN COUNTY, WAHSINGTON" and consists of Parcels 1210060012, 1210060013, and 1210060075. The project site is situated within the northeast quarter (NE¼) and the northeast quarter of the southeast quarter (NE¼, SE¼) of Section 6 (S. 6), Township 13 North, Range 29 East, Willamette Meridian (T. 13N, R 29E, W.M.). The approximate geographic coordinates of the Facility centroid are 46.645060°N, 119.222943°W (WGS84). The site is bounded to the north by Filbert Road and SCBID Waterway WB10A, to the west by SCBID Waterway WB10A, to the east by N. Wahluke Road, and to the south by adjoining agricultural properties.

B. Environmental Elements

1. Earth

Find help answering earth questions[3]

a. General description of the site:

The project site is agricultural and currently used for feed crop production and a 700-head milk cow dairy farm. Topographic relief of the project site trends from north to south, from Paradise Flats to the north toward the Othello Channels just south of the project site, at gradients ranging from nearly level to gently sloping. The project site elevation ranges from 1,035 feet AMSL in the north to 1,025 feet AMSL in the south. Land uses in the immediate vicinity are primarily agricultural crop production sporadically interspersed with single-family residential housing units.

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

b. What is the steepest slope on the site (approximate percent slope)?

Five (5) percent.

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

Project site soils are evenly divided between Hezel loamy fine sand and soils of the Quincy-Hezel complex consisting of 50 percent Quincy loamy fine sand, 25 percent Hezel loamy fine sand, with the remainder minor soil components.

d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

No surface indications or history of unstable soils on the project site or in the immediate vicinity.

e. **Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

Approximately 103 acres of feed crop ground would be grubbed off, graded, and mechanically compacted. Excavation will be performed to accommodate underground piping, utilities, footing excavation, collection sumps, waste storage ponds, and portions of site grading. Maximum earth movement of approximately 200,000 to 300,000 cubic yards is anticipated. Fill material will be determined by a Washington licensed professional geotechnical engineer. Fill sources are not determined at this time, however all imported fill materials (common borrow, 5/8" gravel, 1¼" gravel, 2" minus) will come from a county-approved material source.

f. **Could erosion occur because of clearing, construction, or use? If so, generally describe.**

Erosion is not anticipated at this site.

g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

Approximately eight percent of the project site is currently designed to be covered by impervious surfaces.

h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any.**

Best management practices will be used to reduce and control erosion. Local and state laws will be followed. Silt fence, construction entrance, and inlet protection are planned during construction.

2. Air

Find help answering air questions[4]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Soil-disturbing activities and use of diesel construction equipment may temporarily affect air quality in the immediate vicinity of the facility during construction. Once in operation, the facility is estimated to have air emissions consistent with an operational cow milk dairy facility primarily fugitive emissions (dust) and odors.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

NONE ARE KNOWN

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Use Best Management Practices (BMPs) to control fugitive emissions and odor such as Natural Resources Conservation Service (NRCS) Conservation Practice Standard (CPS) 375 - *Dust Management for Pen Surfaces* and University of Idaho Extension Publication CIS 1148 - *Odor Control Practices for Northwest Dairies*.

3. Water

Find help answering water questions[5]

a. Surface:

Find help answering surface water questions[6]

1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Approximately 650 feet to the east of the project site is the South Columbia Basin Irrigation District (SCBID) Waterway WB5 Wasteway 1 (WB5WW1) Reservoir Canal (the "Reservoir"). The Reservoir, situated within a coulee trending north-northeast to south-southwest, is approximately 1-mile long by 300 feet wide and 23 acres in size. An earthen dam is present at the Reservoir's southern terminus. The Reservoir is mapped by the U.S. Fish and Wildlife Service (USFWS) National Wetlands

Multiple SCBID drainlines on-site. - FCP&ED

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air
[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water
[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water

Inventory (NWI) as a lake (L2ABHh) with freshwater emergent wetlands (PEM1F) along most of its shoreline.

The Reservoir drains into Waterway WB5WW1. Waterway WB5WW1 drains into Waterway WB5, which ultimately drains into the SCBID Wahluke Branch Canal.

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   NO

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   NONE The closest wetland is approximately 620 ft to the east of the proposed site's property line. - FCP&ED

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   NO

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   NO

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   NO

b. **Ground:**
Find help answering ground water questions[7]

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

   Water will be withdrawn from wells for: (1) domestic use; (2) industrial uses including non-transient, non-community (NTNC) public water system uses; and (3) stockwater purposes. These uses are exempt from requiring a groundwater permit for the supplying well per RCW 90.44.050. Domestic and industrial uses will not exceed 5,000 gallons per day. Stockwater withdrawls are unlimited; based on a rough assumption of 25 gallons per day per cow of water consumption, at 9,500 cows the daily water consumption would be approximately 237,500 gallons or 0.75 acre-feet per day.

[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   Two systems will be present at the project site: (1) the milking parlor system and (2) the "manager's residence" system. Only human-generated domestic sewage (blackwater) will be discharged into parlor system septic tank; "Industrial" wastes and greywaters from milking operations are discharged to the waste storage ponds. The size of the parlor system tank is expected to be 1,500 gallons. The "manager's residence" system will human-generated domestic sewage (blackwater and greywater) from one residence and is expected to be 1,000 gallons in size.

c. Water Runoff (including stormwater):

1. **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

   The facility is designed to completely contain and store ("zero-discharge facility") all stormwater, generated wastewater, and animal-generated liquids on premises for later agricultural use (land application as a crop nutrient source). Runoff and animal liquids from the pens and the compost storage area are collected and conveyed to the waste storage ponds. Roof runoff, milking parlor wastewater, and discard milk is collected and conveyed to the waste storage ponds. General stormwater runoff from parking areas, commodity storage, and other impervious areas is contained and conveyed to the waste storage ponds.

   Currently, an analysis of water generation is not complete; this is typically performed during generation of the facility's Manure Pollution Prevention Plan and/or Dairy Nutrient Management Plan. These documents have not yet been created for the facility.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

   The facility is specifically designed to eliminate any surface water discharge. A possibility exists for meteoric water or surface liquids to infiltrate through pervious ground surfaces and percolate to groundwater; these waters could potentially transport facility-specific waste materials (i.e. nitrogen compounds) to groundwater. However, the proposed project will be designed with source control measures, such as synthetically lined waste storage ponds and a sloped and compacted compost storage pad, designed to reduce infiltration to *de minimus* amounts.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   NO

4. **Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

   Facilities (buildings and impervious ground surfaces) are designed to drain water to collection structures (sumps or tanks) for conveyance to the waste storage ponds. Animal pens and the compost storage area are graded and groomed to route runoff and animal liquids to collection points for transport to the waste storage ponds.

4. Plants

Find help answering plants questions

a. **Check the types of vegetation found on the site:**

- ☐ **deciduous tree: alder, maple, aspen, other**
- ☐ **evergreen tree: fir, cedar, pine, other**
- ☐ **shrubs**
- ☐ **grass**
- ☐ **pasture**
- ☒ **crop or grain**
- ☐ **orchards, vineyards, or other permanent crops.**
- ☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**
- ☐ **water plants: water lily, eelgrass, milfoil, other**
- ☐ **other types of vegetation**

b. **What kind and amount of vegetation will be removed or altered?**

Removal of feed crops totaling 133 acres.

c. **List threatened and endangered species known to be on or near the site.**

NONE per the Washington State Department of Fish & Wildlife (WDFW) Priority Habitats and Species (PHS) map (https://geodataservices.wdfw.wa.gov/hp/phs/).

d. **Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.**

NONE PROPOSED

e. **List all noxious weeds and invasive species known to be on or near the site.**

NONE KNOWN

5. Animals

Find help answering animal questions[8]

a. **List any birds and other animals that have been observed on or near the site or are known to be on or near the site.**

   Examples include:

   - **Birds: hawk, heron, eagle, songbirds, other:**
   - **Mammals: deer, bear, elk, beaver, other:**
   - **Fish: bass, salmon, trout, herring, shellfish, other:**

   Hawks, game birds (geese, ducks), songbirds, deer, rodents.

b. **List any threatened and endangered species known to be on or near the site.**

c. NONE per the Washington State Department of Fish & Wildlife (WDFW) Priority Habitats and Species (PHS) map (https://geodataservices.wdfw.wa.gov/hp/phs/).

d. **Is the site part of a migration route? If so, explain.**

   NO

e. **Proposed measures to preserve or enhance wildlife, if any.**

   NONE PROPOSED

f. **List any invasive animal species known to be on or near the site.**

   NONE KNOWN

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

   Electric (Big Bend Electric Coop)

b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

   NO

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals
[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou

c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

NONE PLANNED

7. Environmental health

Health Find help with answering environmental health questions[10]

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

- Animal contact
- Equipment with dangerous moving mechanical parts
- Confined spaces (e.g., feed bins, tanks)
- Fueling of equipment
- Hazardous chemicals used for cleaning or sanitizing facilities and animals
- Manure pits (e.g., low oxygen, toxic gases, drowning)
- Electrocution (e.g., contact with energized power lines)
- Uneven or unstable ground that can cause farm vehicle roll-overs
- Lifting, awkward postures, repetitive motion, and other physical stressors
- Equipment noise

1. **Describe any known or possible contamination at the site from present or past uses.**

   NONE KNOWN OR IDENTIFIED

2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

   NONE KNOWN OR OBSERVED

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   Diesel and gasoline motor fuels, detergents, teat disinfectants, dairy sanitizers, anti-parasitics, antibiotics, herbicides, pesticides and fungicides.

[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

4. **Describe special emergency services that might be required.**

   NONE ENVISIONED

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   Toxic or hazardous chemicals will be managed, handled, used, and stored in accordance with applicable state and federal laws. **A Chemical Hazard Communication Plan will be developed for the facility in English and Spanish**. Workers will receive training in Hazard Communication, Environmental Awareness, Spill Prevention, and Spill Response.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   Traffic, heavy equipment (farming-related).

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   Short-Term: Traffic (passenger and heavy truck) noise; demolition and construction noise (including heavy equipment) related to site development activities. During allowed daylight working hours.

   Long-Term: Traffic (passenger and heavy truck) noise, heavy equipment noise related to facility maintenance and operation; animal noise. All hours all days.

3. **Proposed measures to reduce or control noise impacts, if any:**

   Operational deliveries and milk pickup will be limited to daylight hours to reduce traffic noise at night for thew surrounding area.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Site properties are currently used as a milk cow dairy (33 acres) and for crop (7 acres for food and 132 acres for feed) production. Surrounding properties are used food and feed crop production. Proposal will not affect current or surrounding land uses.

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

Yes. Currently, approximately 33 acres of the site is utilized for dairy-related purposes and 150 acres is used for feed and food crop production purposes. As part of this project, approximately 113 acres of feed crop production ground will be converted to dairy-production ground. However, no ground will be converted to non-agricultural use.

1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

   NO

c. **Describe any structures on the site.**

One 5,300 ft^2 milking parlor; five 6,500 ft^2 free-stall barns; nine animal pens (four with shades); one 4,000 ft^2 commodity barn; one 2.5M gal waste storage pond (WSP), a 1,500 ft^2 office, and; a 1,200 ft^2 manager's residence.

d. **Will any structures be demolished? If so, what?**

Yes. The current milking parlor, commodity barn, and cow shades will be demolished. The current WSP will be decommissioned.

e. **What is the current zoning classification of the site?**

Franklin County AP-20

f. **What is the current comprehensive plan designation of the site?**

Agricultural (Franklin County Comprehensive Plan 2018 – 2038, June 2021)

g. **If applicable, what is the current shoreline master program designation of the site?**

NONE

h. **Has any part of the site been classified as a critical area by the city or county? If so, specify.**

NO

i. **Approximately how many people would reside or work in the completed project?**

One individual (with or without family) would live in the "manager's residence"

j. **Approximately how many people would the completed project displace?**

ZERO

k. **Proposed measures to avoid or reduce displacement impacts, if any.**

N/A

l. **Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.**

Proposed project is innately compatible with the existing and projected land uses.

m. **Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:**

Project is agricultural in nature.

9. Housing

Find help answering housing questions[12]

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

NONE

b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

NONE

c. **Proposed measures to reduce or control housing impacts, if any:**

N/A

10. Aesthetics

Find help answering aesthetics questions[13]

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

Buildings are not expected to exceed 35 feet in height and are typically not taller than 20 feet. Building materials consist of concrete floors with either concrete (cast-in-place or tilt-up) or steel siding walls (or a combination of steel and concrete) with steel roofs.

b. **What views in the immediate vicinity would be altered or obstructed?**

NONE

c. **Proposed measures to reduce or control aesthetic impacts, if any:**

NONE CONSIDERED

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing
[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics

11. Light and glare

Find help answering light and glare questions[14]

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

   Light will be produced from site lighting operated from dusk to dawn. Building materials are typically of a non- or low-glare type (not gloss or reflective surface coatings).

b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

   NO. Other facilities in the property vicinity currently operate with the lighting to be used as part of the project.

c. **What existing off-site sources of light or glare may affect your proposal?**

   NONE

d. **Proposed measures to reduce or control light and glare impacts, if any:**

   Facility lights will be focused to shine within the property and equipped with light shields and/or glare guards to reduce nighttime glare, light trespass, and skyglow.

12. Recreation

Find help answering recreation questions

a. **What designated and informal recreational opportunities are in the immediate vicinity?**

   NONE

b. **Would the proposed project displace any existing recreational uses? If so, describe.**

   NO

c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

   NONE CONSIDERED

[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

Two sites located near the project site are listed as "eligible" in the Washington DAHP WISSARD database.

Property ID: 586384
Common Name: Lateral WB-10
Address: Filbert Rd, Basin City, WA
Historic Name: Wahluke Branch-10 Lateral

Property ID: 395777
Common Name: Filbert Road WB 10 Canal Bridge
Address: Filbert Rd, Basin City, WA
Historic Name: Filbert Road Canal Bridge

These sites are both located approximately ¾-mile west of Wahluke Road on Filbert Road. They are located 1,000 feet west of the northwest corner of the project site.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

NONE NOTED OR DISCOVERED. NO CULTURAL RESOURCE INVESTIGATIONS PERFROMED AT THE PROJECT SITE.

Review of the Washington DAHP's Archeological Risk Assessment Model contained within the WISSARD repository (https://wisaard.dahp.wa.gov/Map) depicts the Risk Level as primarily "High" in the northern portion of the property and "Moderate" in the southern portion of the property.

Review of historic aerial photographs from the Central Washington Historical Aerial Photograph Project repository (https://www.gis.cwu.edu/historical_airphotos/) shows that in 1961 USDA Farm Service Agency aerial photograph (AAU-4BB-028; 1:20,000) the majority of the property land surface was disturbed, possibly in conjunction with construction of the South Columbia Basin Irrigation Project.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The Washington Department of Archeology and Historic Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Data

[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

(WISSARD) digital repository was searched for the project site and surrounding properties.

The Central Washington Historical Aerial Photograph Project digital repository was searched for the project site and surrounding properties.

d. **Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

An Inadvertent Discovery Plan (IDP) conforming to Washington State Department of Ecology Publication 070-560 will be prepared for the project by a qualified archeologist prior to grading and construction activities. The archaeologist will provide training and instruction to site workers prior to initiation of construction activities. The archaeologist will be available for consultation during construction activities. Should a discovery occur, the archeologist will document the discovery site and materials.

14. Transportation

Find help with answering transportation questions[16]

a. **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

Wahluke Road, Hollingsworth Road, and Sagehill Road. Closest regional roads to the property are WA Highway 17 located 10 miles east and WA Highway 24 located six miles north.

b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

NO

c. **Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

NO

d. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

NO

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation

e. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

The proposed facility will have 20 to 25 workers per shift for two shifts per day, seven days a week. This predicts up to 100 total trips per day to and from the facility by workers in passenger vehicles; however, many workers carpool, likely cutting the number of trips by 25 percent. Peek trip times are anticipated to be 5:30 to 6:30 a.m. and 5:30 to 6:30 p.m.

The facility will likely receive between five and eight deliveries of dry commodities (primarily feed but can be other bulk supplies) per day and transfer liquid milk twice per day for a total of up to 20 trips by heavy truck (greater than 26,000 lbs GVWR). Trips are distributed throughout the day.

The facility will also export solid and liquid manure via spreader and tanker truck (greater than 26,000 lbs GVWR), respectively. These shipments typically begin in the spring and continue through summer. Trips are during daylight hours.

These trip calculations are TOTAL trips for the proposed facility; the actual impact by the facility would be in ADDITION to the trips already related to the current facility's operations.

f. **Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

NO

g. **Proposed measures to reduce or control transportation impacts, if any:**

Stagger commodity deliveries throughout the day. Insure that manure exports are made at vehicle carrying capacity to limit the amount of trips from the facility to surrounding farms.

15. Public services

Find help answering public service questions[17]

a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

NO

b. **Proposed measures to reduce or control direct impacts on public services, if any.**

NONE CONSIDERED

[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services

16. Utilities

Find help answering utilities questions[18]

a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:**

b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

Electricity – Big Bend Electric; Water – On-site well; Refuse – Basin Disposal; Sewer – On-Site Septic System

C.Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

X _____

Type name of signee: Kevin M. Freeman

Position and agency/organization: Agent, Inland Earth Sciences

Date submitted: 10/6/2025

[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature

CUP 2025-10/
SEPA 2025-18

Application & Attachments

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

CONDITIONAL USE PERMIT (CUP) APPLICATION PACKET

FREQUENTLY ASKED QUESTIONS:

What is a Conditional Use Permit?
A Conditional Use Permit (also known as a special use permit) is a zoning exception, which allows the property owner use of his or her land in a way not otherwise approved within the particular zoning district.

The Conditional Use Permit process is designed to allow flexibility within the zoning laws. A zoning ordinance cannot account for every situation, and exceptions such as the conditional use permit gives the County discretion to allow uses otherwise prohibited in the specific district for the benefit of the neighborhood or area.

Who can apply for a Conditional Use Permit?
Anyone can apply for a Conditional Use Permit. However, a property owner should only apply for a Conditional Use Permit regarding to uses such as large-scale accessory buildings, accessory buildings in front yard areas, churches, schools, daycare centers, cell towers, large animal operations, and other non-permitted primary or accessory uses.

It is highly recommended that you call the Planning and Building Department at 509-545-3521, visit our office at 502 W. Boeing Street, Pasco, WA 99301 or view Title 17 (Zoning) of the Franklin County Code on our website (https://library.municode.com/wa/franklin_county/codes/code) to determine if what you are proposing requires a CUP.

How do I apply for a Conditional Use Permit?
A pre-application meeting with the Planning and Building Department staff is encouraged for all Conditional Use Permit applications. Applications are submitted to the Planning and Building Department. The following minimum requirements shall be submitted:

1) Completed Conditional Use Permit Application Form;
2) Completed General Land Use Development Application;
3) Completed & Signed SEPA Checklist;
4) Site Plan;
5) Detailed Narrative, including the following:
    a. Written description explaining the present use of the land/structures,
    b. Detailed description of the proposed conditional use,
    c. Description of any zoning violations, including home occupation violations, and
    d. Other pertinent information as deemed necessary by Staff.
6) Any recorded Covenants, Conditions, or Restriction (CC&R) or latecomers agreements attached to the property;

7) If directed by Staff, the following will need to be submitted:
    a. Written approval letter from the Benton-Franklin Health District.
    b. Building plans detailing the proposed structure(s).

What happens after I apply?
During the time prior to the public hearing, the Planning and Building Department staff will notify in writing (copy of public hearing notice) all the property owners of record within 500 feet of your property (if within an Urban Growth Boundary) or 1 mile of your property (if located outside an Urban Growth Boundary).

Additionally, the staff will conduct a review of your request and will do the following:

1) Establish a hearing date for the request;
2) Send notification of the hearing to local newspapers;
3) Send notification of the request to applicable local, state, and/or federal agencies, including affected Tribes for comments;
4) Send notification of the request to neighboring property owners for comments; and
5) Compile public and agency comments to help develop a Staff report for the hearing.

What happens at the public hearing?
The applicant or representative is strongly encouraged to be present to discuss and answer any questions the Planning Commission or public may have. Anyone who wants to testify for, against, or is neutral about the request will be allowed to do so.

When do I find out if my permit was approved or denied?
At conclusion of this public hearing, the Planning Commission will make a recommendation to the Board of County Commissioners to approve, approve with conditions, or deny the CUP request.

This recommendation can be appealed within ten (10) calendar days prior to the closed-record hearing before the Board of County Commissioners for a final decision.

For additional information regarding the timely filing of an appeal, closed record hearings, and Commissioner review and decision, please refer to Chapter 17.82 of the Franklin County Code or contact the Planning and Building Department for details and specifications.

- Keep this section for your records –
- Return the following completed pages with your application -

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

CONDITIONAL USE PERMIT (CUP) APPLICATION REQUIREMENTS

Submittal Checklist:

☑ **Completed Conditional Use Permit Application Information Form**

☑ **Completed General Land Use Development Application**

☑ **Completed & Signed SEPA Checklist**

Provided by the Planning Department or visit https://www.franklincountywa.gov/263/Application-Forms to download. *Part D does not need to be completed for this application.*

☑ **Detailed Narrative of Proposed Conditional Use**

Please provide the following on a separate sheet(s) of paper:

- Written description explaining the present use of the land/structures.
- Detailed description of the proposed use or request.
- Description of any zoning violations, including violations of home occupations.
- Other pertinent information as deemed necessary by Planning Staff.

☑ **Site Plan**

Shall be drawn neatly and to scale, that includes:

- North arrow
- Tax parcel number
- Scale
- Exterior property lines
- Distance from existing and/or proposed use to the following:
  - Exterior property lines
  - Existing structures
  - Proposed structures
  - Existing or proposed septic system
- Any adjacent public street or alley rights-of-way
- Existing easements, including utility and/or access
- Existing and/or proposed buildings and other structures
- Existing and/or proposed retaining walls or fences, please indicate:
  - Location of fence or retaining wall
  - Type of material
  - The height of the fence, including any barbed wire
  - If the fencing provides visual screening
- Existing and/or proposed points of ingress and egress, driveways, and circulation pattern.
- The location of existing and/or proposed parking areas with each parking space shown and surface type indicated and lighting noted.
- Existing and/or proposed open spaces and landscape areas.
- Location of well or any public water systems within 100 feet of the subject property or within a 100-foot well protection zone.

- The distance from any existing and/or proposed structures within the well protection zone and sewerage facilities.
- Location of any existing and/or proposed drain field area, reserve area, and septic tank area and distances to structures and property lines
- Existing or proposed storm water drainage system
- Existing or proposed sidewalks and streetlights
- Existing or proposed fire protection devices, with sufficient water storage and flows.
- Facilities or improvements to address compatibility with adjacent dissimilar land uses.
- Location of structures on the adjoining lots, which may cause compatibility issues.
- All major man-made and natural physical features on or adjacent to the site, such as:
  - Streets
  - Railroads
  - Irrigation canals and/or ponds
  - Buried irrigation lines
  - Streams, creeks, drainage ditches
  - Hills, depressions, steep slopes
  - Lakes, floodplains, floodways, the 100-year base flood elevations
  - Shoreline area
- Any proposed grading, and the new contours as they affect lot layout, streets, and drainage ways

☐ **Attach Property Information** *(i.e. recorded deed)*
If any *recorded* Covenants, Conditions and Restrictions (CC&R), latecomers agreements, or deed restrictions pertaining to or affecting the property.

☐ *If Directed by Staff*
Obtain a written approval letter from the Benton-Franklin Health District
Located at 7102 W. Okanogan Place, Kennewick, WA – (509) 460-4200

☑ *If Directed by Staff*
One (1) set of building plans
The construction/building plans can be a preliminary set and do not have to be official.
- Minor changes can be made to the plans after approval of the Conditional Use Permit.
- Major changes may require a new/amended Conditional Use Permit.

Application Fee:	$ 400.00
SEPA Checklist Fee:	$ 150.00
Variance Report Fee:	$ 80.00
Total Fees:	$ 630.00

All fees do not include a 3% processing fee if paying by debit or credit card.
Payment shall be made to the Franklin County Planning & Building Dept.

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Conditional Use Permit Application Information

(all items in **bold** shall be completed)

Parent Parcel Number: (Ex: 000-000-000 or 000000000) 121060013	**Parent Parcel Size:** (Ex: 24.92 acres) 20.70	**Current Zoning:** (Ex: RS-20, AP-20) AP-20

What are you purposing: (ex. Accessory Dwelling Unit, Bed and Breakfast, Commercial Agriculture, Church, Diary, Wireless Communications Facility, Accessory Building deviating from standards, etc.)

Expansion of a currently operating 700-cow dairy farm to a 7,000-cow dairy farm (average 9,500 total animals on-site)

Size of the area to be used for the proposed use or building: 173.03 acres (Parcels 121060012, 121060013, 121060075)

Irrigation Source: ☑ SCBID ☐ FCID ☐ Private ☐ None

Domestic Water Supply: ☑ On-Site Well ☐ City Water ☐ Farm Exempt Well (provide documentation)
☐ Community Well (Well ID # and location):

Sewage Disposal: ☑ On-Site Septic ☐ City Sewer ☐ Other (specify):

List Existing of Proposed Utility Providers:

Electric Provider:	Big Bend Electric Co-Op	Cable/Broadband:	NONE
Natural Gas:	NONE	Landline Phone (if applicable):	NONE
Sanitary Waste Disposal:	BDI	Other (if not listed):	

Describe any existing zoning ordinance violation(s):

NONE

Present use of the land and structures, if any:

Facility is currently operating as the T. Freeman Dairy, a 700-cow Washington Licensed Cow Milk Dairy Farm (WSDA AG ID 31148). Existing structures consist of: one 5,300 ft² milking parlor; five 6,500 ft² free-stall barns; nine animal pens, four with shades; one 4,000 ft² commodity barn; one 2.5M gal waste storage pond (WSP), a 1,500 ft² office; and a 1,200 ft² manager's residence.

Detailed description of the proposed use/development proposal: (attach additional sheets if needed)

A detailed narrative of the proposed conditional use and associated site plans are attached to this application.

Proposed Structures and Use: (size, height, etc.)

Proposed structures consist of: one 56,672 ft² rotary milking parlor, three 30k gal vertical milk storage tanks; expansions of the five existing 6,000 ft² free-stall barns ranging from 3,700 to 4,500 ft²; 20 animal pens with shades; one 12,800 ft² commodity barn with shop; two 15M gal WSPs, and two 10k gal ASTs. Existing office and manager's residence will remain. Existing milking parlor, commodity barn, and WSP will be demolished. Structure heights not > 35 ft.

How will the proposed development be compatible with the uses permitted in the surrounding zone(s)?

Surrounding zone is AP-20. AP-20 allows for a dairy operation of up to 500 milking cows on a lot. This head count number may be exceeded upon approval of a conditional use permit, but no more than two operations greater than 1,300 milking cows can be located within an operation's two-mile buffer. Davidson Brothers Dairy Inc. (AG ID 9938), approximately 1.45 miles SbE from the present facility at 4680 N Wahluke Rd, is the only dairy milking in excess of 1,300 cows located within two miles of the proposed development.

Describe how the subject property is physically suitable for the type, density and/or intensity of the use being proposed?

Subject property is located in the AP-20 zone and is currently used for the proposed purpose (cow milk dairy). The expansion of the facility and the dairy herd size will not interfere with current surrounding land uses (agricultural crop production ground). Additionally, sufficient crop ground is available in the property vicinity to allow for agronomic use of the manure solids and liquids generated by the proposed herd size.

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Will the project be conducted entirely within a structure? ☐ Yes ☑ No

1) If no, describe the outdoor activities (i.e. outdoor eating, playground, park)

   Housing and feeding of 7,000 milking dairy cows and 2,500 dry dairy cows. Receipt, storage, and distribution of animal feed. Storage of solid and liquid cow manure.

2) What is the approximate square footage, or seating capacity of your outdoor use area(s)?

   Approximately 170 acres

3) What type of noises will the outdoor use generate? (i.e. music, machinery, vehicles)

   Animal, machinery, vehicles (truck and farm equipment)

Proposed hours of operation/days of the week: (indicate months, if seasonal)

Year-round operation, 24 hours per day, seven days per week

Proposed measures to ensure compatibility with permitted uses in the surrounding zone?

(Ex. fences, landscape buffers, berms, etc.)

Current use is compatible with permitted uses in surrounding area. Proposed use is an expansion of the current use. Applicant will operate and maintain the facility in accordance with (1) applicable USDA Natural Resources Conservation Service (NRCS) Washington State Conservation Practice Standards (CPS), (2) the required Washington State Dairy Nutrient Management Plan, and (3) a Washington State Concentrated Animal Feeding Operation (CAFO) General Discharge Permit.

I, the undersigned, hereby authorize the filing of this application and certify under penalty of perjury that the information contained in this application is complete and correct to the best of my knowledge. Further, I hereby grant Franklin County staff or representatives to enter my property during the course of this review to inspect my property as needed.

☑ **This authorizes the designated Applicant's representative (if applicable) to act on behalf of the applicant for the processing of this request.**

_____	_____
Property Owner (Signature)	Applicant/Representative (Signature)
MICHAEL CORRALES	KEVIN FREEMAN
Property Owner (Print Name)	Applicant/Representative (Print Name)
_____	_____
Date signed	Date signed

FRANKLIN COUNTY

PLANNING AND BUILDING DEPARTMENT

GENERAL LAND USE DEVELOPMENT APPLICATION

FOR STAFF USE ONLY		
	FILE #:	STAMP HERE:
	Total Fees:	Date deemed complete:
	Receipt #:	Pre-App Meeting Date:
	Reviewed By:	Hearing Date:

CHECK ALL THAT APPLY AND ATTACH SUPPLEMNETAL FORM(S):

- ☐ Appeal (File # of item appealed: _____)
- ☐ Binding Site Plan (BSP)
- ☐ Boundary Line Adjustment (BLA)
- ☐ Comprehensive Plan Amendment (CPA)
- ☑ Conditional Use Permit (CUP)
- ☐ Determination – Administrative
- ☐ Determination – Critical Areas
- ☐ Determination – Non-Conforming Use
- ☐ Determination – Reasonable Use
- ☐ Determination – Zoning Interpretation
- ☐ Home Occupation
- ☐ H2A Farm Worker Housing (Zoning Review)
- ☐ Planned Unit Development (PUD)
- ☐ Other:
- ☑ SEPA – Environmental Checklist
- ☐ Shoreline (SH) – Conditional Use Permit
- ☐ Shoreline (SH) – Exemption
- ☐ Shoreline (SH) – Non-Conforming
- ☐ Shoreline (SH) – Substantial Development
- ☐ Shoreline (SH) – Variance
- ☐ Short Plat (SP)
- ☐ Subdivision/Preliminary Long Plat (SUB)
- ☐ Tax Parcel Separation (TPS)
- ☐ Temporary Use Permit
- ☐ Vacation of Easement (VOE) / Alteration
- ☐ Variance
- ☐ Zone Change/Rezone (ZC)

CONTACT INFORMATION (Please provide all necessary information and checkmark the primary contact)

☐ **Property Owner**

Name: GME LAND LLC

Phone Number: (509) 269-4016

E-mail Address: CORRALESAGINC@GMAIL.COM

Mailing Address:

7090 N WAHLUKE RD

OTHELLO WA 99344-9388

☐ **Applicant/Agent/Contractor** (if different)

Business Name: WHITE BLUFFS DAIRY LLC

Contact Name: FRANSISCA A. VANDER MEULEN

E-mail Address: fransisca@windmillestates.net

Phone Number: 509-837-3275

Mailing Address: 650 HORNBY RD

GRANDVIEW WA 98930

☑ **Surveyor / Engineer**

Business Name: INLAND EARTH SCIENCES

Contact Name: KEVIN FREEMAN

E-mail Address: kfreeman@inlandearth.com

Phone Number: 509-981-4747

Mailing Address: 8704 E DALTON AVE

SPOKANE WA 99212-2005

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PLANNING AND BUILDING DEPARTMENT

PROPERTY INFORMATION

Parcel Number(s) (9-digit tax number): 12106012, 12106013, 121060075
Legal Description of Property: FARM UNIT 16, IRRIGATION BLOCK 201, RECORDS OF FRANKLIN COUNTY, WASHINGTON
Site Address: (describe location if no address is assigned) 6201 N WAHLUKE RD, MESA WA 99343

BRIEF DESCRIPTION OF PROJECT OR REQUEST

Expansion of a currently operating 700 milk cow dairy farm to a 7,000 milk cow dairy farm (average 9,500 total animals on-site).

- All appropriate fees must accompany this application. Fees are non-refundable and subject to change. Please contact the Planning Department for current pricing of fees.
- This application, including attachments, must be completed in its entirety for all items applicable to your project.
- Supplemental information is generally required for land use approvals. Please ensure that all required information is submitted along with this application form.
- If the property is owned by a trust, corporation, or LLC, please attach documentation showing that the person signing as the "owner" has the authority to sign on behalf of the trust, corporation, or LLC. If there are multiple owners, provide an attachment in the same format and with the same declarations.

I, the undersigned, hereby authorize the filing of this application and certify under penalty of perjury that the information contained in this application is complete and correct to the best of my knowledge. Further, I hereby grant Franklin County staff or representatives to enter my property during the course of this review to inspect my property as needed.

I understand that any information submitted to the Franklin County Planning and Building Department is subject to public records disclosure laws for the State of Washington (RCW Chapter 42.17) and all other applicable laws that may require the release of the documents to the public.

☑ **This authorizes the designated Applicant's representative (if applicable) to act on behalf of the applicant for the processing of this request.**

_____	_____	_____	_____
Property Owner (Signature)	Date	Applicant/Representative (Signature)	Date
MICHAEL CORRALES	_____	KEVIN FREEMAN	_____
Property Owner (Print Name)	Date	Applicant/Representative (Print Name)	Date

CUP 2025-10/
SEPA 2025-18

Project Narrative

INLAND EARTH SCIENCES

CONSULTANTS IN THE ENVIRONMENTAL AND APPLIED EARTH SCIENCES

PROJECT NARRATIVE

DAIRY AND HERD EXPANSION PROJECT
White Bluffs Dairy LLC / GME Land LLC
6201 N Wahluke Road
Mesa, Washington

October 6, 2025

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ac	acre
ac-ft	acre-feet
AMSL	Above Mean Sea Level
ASTM	American Society for Testing and Materials
bgs	below ground surface
°C	degrees Celsius
CAFO	Concentrated Animal Feeding Operation
cf	cubic feet
cfs	cubic feet per second
cm	centimeter
cm/s	centimeters per second
CPS	Conservation Practice Standard
cy	cubic yard
DTW	depth to water
Ecology	Washington State Department of Ecology
eFOTG	electronic Field Office Technical Guide
EPA	United States Environmental Protection Agency
°F	degrees Fahrenheit
ft	feet
ft/d	feet per day
FSA	Farm Services Administration
gal	gallon
GCL	Geosynthetic Clay Liner
GP	General Permit
GVWR	Gross Vehicle Weight Raiting
gpd	gallons per day
HDPE	High Density Polyethylene
HSP	Health and Safety Plan
IES	Inland Earth Sciences Corporation
in	inch
in/hr	inches per hour
kg	kilogram
L	liter
lb	pound
lbs/ac	pounds per acre
lbs/t	pounds per ton

IWMP	Irrigation Water Management Plan
MPPP	Manure Pollution Prevention Plan
m	meter
meq/L	milliequivalents per liter
mS/cm	millisiemens per centimeter
µg	microgram
µg/L	micrograms per liter
µm	micrometer
mg	milligram
mg/L	milligrams per liter
mgd	million gallons per day
mil	thousandths of an inch (e.g., “60 mil” is equal to 60 thousandths of an inch, or 0.060-inch)
mL	milliliter
mm	millimeter
MPa	Megapascal
mV	millivolt
NAIP	National Agriculture Imagery Program
NAVD88	North American Vertical Datum 1988
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
MSDS	Material Safety Data Sheets
OHWM	Ordinary High Water Mark
pcf	pounds per cubic foot
PE	Polyethylene
PS	Polystyrene
PVC	Polyvinyl Chloride
psi	pounds per square inch
QCBID	Quincy Columbia Basin Irrigation District
RCW	Revised Code of Washington
SCBID	South Columbia Basin Irrigation District
sf	square feet
SPCC	Spill Prevention, Control, and Countermeasures
SVID	Sunnyside Valley Irrigation District
SWD	State Waste Discharge
USAF	United States Air Force

USBR	United States Bureau of Reclamation
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WA	Washington State
WAC	Washington Administrative Code
WBZ	Water-bearing zone
WGS84	World Geodetic System 1984
WWR	Water Well Report
WSDA	Washington State Department of Agriculture
WSP	Waste Storage Pond
yd	yard
yr	year

1 INTRODUCTION

This project (the "Project") proposes to convert the current T. Freeman Dairy, a 700-cow Washington Licensed Cow Milk Dairy Farm (WSDA AG ID 31148) operated by T. Freeman Dairy, LLC [UBI 605 279 429] to a 9,500 cow operation with 7,000 milking cows and 2,500 dry cows to be owned and operated by White Bluffs Dairy, LLC [UBI 605 975 172], 650 Hornby Road, Grandview, Washington.

2 SITE LOCATION

The Project site is located at 6201 N Wahluke Road, Mesa, Washington, approximately 1½ miles north of the intersection of N. Wahluke Road and Hollingsworth Road in northern Franklin County (**Figure 1**). The Project site is situated within the northeast quarter (NE¼) and the northeast quarter of the southeast quarter (NE¼, SE¼) of Section 6 (S. 6), Township 13 North, Range 29 East, Willamette Meridian (T. 13N, R 29E, W.M.), Franklin County (**Figure 2**). The approximate geographic coordinates of the Facility centroid are 46.645060°N, 119.222943°W (WGS84).

The site is bounded to the north by Filbert Road and South Columbia Basin Irrigation District (SCBID) Waterway WB10A, to the west by SCBID Waterway WB10A, to the east by N. Wahluke Road, and to the south by adjoining agricultural properties (**Figure 3**).

3 SITE SETTING

3.1 Legal Description and Zoning

The Project site consists of three parcels: Parcel Nos. 1210060012, 1210060013, and 1210060075. Parcel 1210060012 is approximately 132 acres in size, Parcel 1210060013 is approximately 20.4 acres in size, and 1210060075 is approximately 20.6 acres in size. The Project site's legal description is "FARM UNIT 16, IRRIGATION BLOCK 201, FRANKLIN COUNTY, WAHSINGTON". The parcels are currently owned by GME Land, LLC [UBI 603 196 466], 7090 N Wahluke Road, Othello, Washington.

The parcels are zoned "AP-20", per Franklin County Municipal Code Chapter 17.10 "AP-20 Agricultural Zone." The Agricultural Production 20 zone is designed to maintain the agricultural economy of the county by reserving the farmlands that are used for farming and that are suited to such use. Most of the land in this zoning district has access to irrigation water or is surrounded by lands with access to irrigation water. Parcels in the AP-20 zone are required to have a minimum lot size of no less than 20 acres. Dairies ae allowed within the AP-20 zone. Dairies within the AP-20 zone must obtain a Conditional Use Permit for any herd size more than 500 cows. Daires in the AP-20 zone cannot exceed 1,300 cows must obtain a Conditional Use Permit and meet the requirements of the Franklin County Dairy Separation Standard: "*No more than two operations that are greater in size than one thousand three hundred (1,300) (milking cow head count) shall be located within an operations two-mile buffer. The buffer area shall be a two-mile radius from each operation's center of primary animal confinement as defined by the Franklin Conservation District*."

Davidson Brothers Dairy Inc. (AG ID 9938), located approximately 1.45 miles south-by-east from the present facility at 4680 N Wahluke Rd, is the only dairy milking more than 1,300 cows located within two miles of the proposed development.

3.2 Topography

Topographic relief of the Project site trends from north to south, from Paradise Flats to the north toward the Othello Channels just south of the Project site, at gradients ranging from nearly level to gently sloping. The Project site elevation ranges from 1,035 feet AMSL in the north to 1,025 feet AMSL in the south. Site slopes range from approximately zero to five (5) percent.

3.3 Climate

The climate of Project area is characterized by cool, cloudy winters and hot, dry summers. The mean annual temperature is approximately 53°F, ranging from a low average temperature of 33°F in December to a high average temperature of 75°F in July. The low temperatures in December average 28°F with high temperatures in July averaging 92°F. The Cascade Range to the west causes a distinct rain shadow effect that results in the Pasco Basin occupying some of the driest portions of Washington state; total precipitation averages approximately seven (7) inches/year. Much of the precipitation occurs in December and January. However, large variations in annual precipitation, including drought, characterize the area. Hot and windy conditions in the Basin cause potential evapotranspiration to range from 58 to 65 inches/year. The dominant wind direction is from the west in spring, summer and fall and from the south in winter.

3.4 Geology and Soils

3.4.1 Geology

The Project site is situated within the Pasco Basin (the “Basin”) of the Columbia Plateau (the “Plateau”) geologic province. The Plateau lies within the Columbia intermontaine physiographic province and is bordered by the Cascade Range on the west, the Okanogan Highlands on the north, and the Rocky Mountains on the east. The southern edge of the Plateau is defined by the extent of the Columbia River Basalt Group (CRBG) more than by any physiographic feature. The Plateau is both a structural and topographic basin, with its low point situated near Pasco. The Plateau is underlain entirely by massive Cenozoic-era basalt flows with an estimated composite thickness of approximately 15,000 feet near the Pasco low point. Sedimentary deposits overlie the basalt over large areas of the plateau.

The Basin is a distinct subprovince of the Plateau; a synclinal trough contained within the tectonically formed ridges of the Saddle Mountains to the north and the Rattlesnake Hills to the south. The Missoula Floods, cataclysmic Pleistocene-epoch glacial floods derived from repeated outbursts of Glacial Lake Missoula, significantly shaped the Basin's surface with extensive glacial flood deposits, including Touchet Beds, and leaving behind dry flood channels, coulees, and cataracts.

Three major stratigraphic units underlie Pasco Basin; in ascending (oldest to youngest) order the units are: (1) the Yakima Basalt Subgroup of the CRBG; (2) the Ringold Formation, and; (3) the informally-named Hanford formation. During the Tertiary, CRBG flood basalts flowed intermittently into the Pasco Basin, resulting in a total basalt thickness of more than 15,000 feet in the area. The Yakima Basalt Subgroup is composed of three distinct formations based on stratigraphy and chemistry, in ascending order the units are: the Grande Ronde Basalt, the Wanapum Basalt, and the Saddle Mountains Basalt. Each of these units is composed of multiple lava flows. Between eruptions, particularly those producing the younger flows, thin to thick soils layers (such as the Mabton and Vantage Members of the Ellensburg Formation) that formed during periods of eruption hiatus were interbedded with the basalt.

The surficial geology of the Project site (**Figure 4**) consists of Holocene- to Pleistocene-epoch eolian (wind-deposited) medium to fine sand and silt present in active and stabilized dune. Sand and silt grains are composed of quartz, basalt, or feldspar; volcanic ash common.

Underlying the surficial deposits is Pliocene-epoch Ringold Formation, a sedimentary deposit composed dominantly of coarse sands, gravels, and cobbles with significant amounts of clays, silts, and fine sands. Stratigraphically, the Ringold Formation is divided into four textural units, (1) the basal Ringold Formation composed of sand and gravel; (2) the lower Ringold Formation composed of silt and clay; (3) the middle Ringold Formation, composed of sand, gravel and silt; and (4) the upper Ringold Formation composed of silt and sand. The total Ringold Formation thickness in the Pasco area exceeds 600 feet in some places These sediments formed from folding and subsidence in the Late Cenozoic that allowed for the deposition of fluvial sediments in the Pasco Basin by ancestral rivers flowing into and through the basin.

3.4.2 Soils

Soil types for the Facility are described using the Natural Resources Conservation Service (NRCS) Web Soil Survey), accessed at: https://websoilsurvey.sc.egov.usda.gov/. The information provided by the custom soils resource report (**Appendix A**) describes the Project site (**Figure 5**) as underlain by two types: (1) the Hezel loamy fine sand and (2) the soils of the Quincy-Hezel complex consisting of 50 percent Quincy loamy fine sand, 25 percent Hezel loamy fine sand, with the remainder minor soil components.

The Hezel loamy fine sand develops on terraces. The parent material consists of eolian deposits over lacustrine deposits. The soil is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. There is no zone of water saturation within a depth of 72 inches.

The Kennewick fine sandy loam develops on terraces. The parent material consists of lacustrine deposits. The soil is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. There is no zone of water saturation within a depth of 72 inches.

3.5 Surface Water

Approximately 650 feet to the east of the Project site (**Figure 6**) is the South Columbia Basin Irrigation District (SCBID) Waterway WB5 Wasteway 1 (WB5WW1) Reservoir Canal (the “Reservoir”). The Reservoir, situated within a coulee trending north-northeast to south-southwest, is approximately 1-mile long by 300 feet wide and 23 acres in size. An earthen dam is present at the Reservoir’s southern terminus. The Reservoir is mapped by the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) as a lake (L2ABHh) with freshwater emergent wetlands (PEM1F) along most of its shoreline. The Reservoir drains into Waterway WB5WW1. Waterway WB5WW1 drains into Waterway WB5, which ultimately drains into the SCBID Wahluke Branch Canal. Associated with the Project site are several buried field drain lines and their corresponding right-of way easements (**Figure 7**). The field drains are operated and maintained by SCBID. The buried field drain lines associated with the Project site appear to discharge to the Reservoir.

3.6 Cultural Resources

The Washington Department of Archeology and Historic Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISSARD) digital repository was searched for the Project site and surrounding properties. Review of the Washington DAHP's Archeological Risk Assessment Model contained within the WISSARD repository (https://wisaard.dahp.wa.gov/Map) depicts the Risk Level as primarily "High" in the northern portion of the property and "Moderate" in the southern portion of the property (**Figure 8**).

Two sites located near the Project site are listed as "eligible" in the Washington DAHP WISSARD database. These sites are both located approximately ¾-mile west of Wahluke Road on Filbert Road. They are located 1,000 feet west of the northwest corner of the Project site.

Property ID: 586384
Common Name: Lateral WB-10
Address: Filbert Rd, Basin City, WA
Historic Name: Wahluke Branch-10 Lateral

Property ID: 395777
Common Name: Filbert Road WB 10 Canal Bridge
Address: Filbert Rd, Basin City, WA
Historic Name: Filbert Road Canal Bridge

3.7 Habitats and Species

The Washington State Department of Fish & Wildlife (WDFW) Priority Habitats and Species (PHS) map (https://geodataservices.wdfw.wa.gov/hp/phs/) was searched for the Project site and surrounding properties (**Figure 9**). The search returned no animals or plants listed as "threatened or endangered" species.

Several polygons representing Shrub-steppe (or "Shrubsteppe") habitat are mapped on the Project site (**Figure 9**). Shrubsteppe is identified as a "Priority" habitat by WDFW. Shrubsteppe landscapes are dominated by rolling, grassy plains or "steppe," with an overstory of sagebrush and other woody shrubs. Microscopic organisms form a cryptobiotic crust that conserves moisture and aids in preventing erosion. Within a large shrubsteppe habitat, features such as streams, wetlands, rocky talus slopes, and canyons can support a variety of plants and animals unique to the shrubsteppe ecosystem.

Wyoming big sagebrush is the main shrub found in this ecosystem; other common shrubs include antelope bitterbrush, three-tip sagebrush, and stiff sagebrush. Common grasses include Idaho fescue, bluebunch wheatgrass, Sandberg bluegrass, Thurber's needlegrass, and needle-and-thread. Some shrubsteppe areas have a layer of algae, moss, or lichens which are part of the cryptobiotic crust. In areas with greater precipitation or on soils with higher moisture-holding capacity, shrubsteppe can also support a dense canopy of flowering plants. Common shrubsteppe plant groups include balsamroot, buckwheats, and lupines

Currently, the shrubsteppe habitat mapped on the Project site is identified as "Franklin County Presumptive Shrubsteppe" habitat. The identification notes state "*General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale and use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map*." Given the

actual use of the underlying areas presumptively identified as shrubbsteppe, it is likely that these polygons were mis-characterized and would be refuted identified during a site-scale habitat evaluation.

4 CURRENT PROJECT SITE OPERATIONS

The Project site currently (**Figure 10**) operates as a dairy farm and producing feed crops from agricultural ground. The T. Freeman Dairy, a 700-cow Washington Licensed Cow Milk Dairy Farm (WSDA AG ID 31148) consisting of: one 5,300 sf herringbone milking parlor; five 6,000 sf free-stall barns; nine animal pens, four with shades; one 4,000 sf commodity barn; one 2.5 million gallon waste storage pond (WSP), a 1,500 sf office building located north of the milking parlor; and a 1,200 sf manager's residence located in the northeast corner of the Project site. The adjacent 132-acre agricultural field to the west of the dairy is used to produce feed crops.

5 PROPOSED PROJECT

The Project proposes to expand the and reconfigure the existing dairy (**Figure 11**) to accommodate the proposed herd size.

5.1 Demolition

The current milking parlor, animal corrals, cow shades, and some miscellaneous outbuildings will be demolished as part of the Project. The existing freestall barns, commodity barn, office building, and manager's residence will be preserved.

5.2 Ground Preparation

Approximately 113 acres of feed crop production ground located on Parcel 1210060012 will be converted to dairy-production ground. The ground will be cleared, grubbed, graded, and compacted prior to construction. Excavation will be performed to accommodate underground piping, utilities, footing excavation, collection sumps, waste storage ponds, and portions of site grading. Maximum earth movement of approximately 200,000 to 300,000 cubic yards is anticipated. Fill material will be determined by a Washington licensed professional geotechnical engineer. Fill sources are not determined at this time, however all imported fill materials (common borrow, 5/8” gravel, 1¼” gravel, 2” minus) will come from a county-approved material source

5.3 Construction

Following demolition and ground preparation, the following structures will be constructed:

- An approximately 57,000-square foot milk parlor building containing:
    - An 86-stall rotary milking parlor capable of milking 8,000 cows per day
    - Milk cooling and holding area with three 30,000-gallon milk storage tanks
    - A special needs (“hospital”) facility
- Twelve (12) open-lot corrals (“pens”) holding 700 cows each

- Twenty (20) cow shades
- Six (6) 1,100-foot long concrete lanes serving each corral's feed alley
- Expansions of the five existing 6,000 square foot freestall barns ranging from 3,680 to 4,480 square feet in size. These expansions will bring the total size range of the freestall barns to between 10,180 and 10,980 square feet. The barns will be configured to use scrape and vacuum methods for manure collection.
- A 12,800 square foot commodity barn with maintenance shop facilities and two 10,000-gallon diesel fuel aboveground storage tanks
- A paved driveway/parking area from Wahluke Road to the milking parlor of sufficient area to allow for unrestricted movement of milk shipping trucks. The parking area will have parking space for approximately 20 vehicles.
- A liquid manure processing and storage system consisting of:
    - A manure reception/collection pit
    - A manure solids separation system consisting of four (4) screw press separators
    - Two settling basins for additional solids precipitation from the separated liquid
    - Two synthetically-lined 15-million gallon waste storage ponds (WSPs) meeting the Washington State Department of Ecology (Ecology) Concentrated Animal Feeding Operation (CAFO) Combined General Discharge Permit (the "CAFO Permit") requirement for maximum specific discharge from a liquid waste storage structure. The WSPs will be designed and constructed in accordance with NRCS WA CPS 313 - *Waste Storage Facility*, NRCS WA CPS 521 - *Pond Sealing or Lining, Geomembrane or Geosynthetic Clay Liner*, and other standards as applicable and necessary.
- A manure solids and compost storage area consisting of a graded and compacted soil pad

A complete summary of proposed buildings is presented below.

ITEM	DESCRIPTION	DIMMENSIONS (ft × ft)	TOTAL AREA (sf)
1	WASTE WATER STORAGE POND A	300 × 600	180,000
2	WASTE WATER STORAGE POND A	300 × 600	180,000
3	COMPOST STORAGE AREA	300 × 1,250	375,000
4	SEPARATOR BUILDING	40 × 50	2,000
5	COW SHADE	50 × 340	17,000
6	COW SHADE	50 × 340	17,000
7	COW SHADE	50 × 340	17,000
8	COW SHADE	50 × 340	17,000
9	COW SHADE	50 × 340	17,000
10	COW SHADE	50 × 500	17,000

ITEM	DESCRIPTION	DIMMENSIONS (ft × ft)	TOTAL AREA (sf)
11	COW SHADE	50 × 340	17,000
12	COW SHADE	50 × 340	17,000
13	COW SHADE	50 × 340	17,000
14	COW SHADE	50 × 340	17,000
15	COW SHADE	50 × 240	12,000
16	COW SHADE	50 × 240	12,000
17	COW SHADE	50 × 240	12,000
18	COW SHADE	50 × 150	7,500
19	COW SHADE	50 × 175	8,750
20	COW SHADE	50 × 375	18,500
21	COW SHADE	50 × 375	18,500
22	COW SHADE	50 × 375	18,500
23	COW SHADE	50 × 375	18,500
24	COW SHADE	50 × 375	18,500
25	MILKING BARN	154 × 368	56,672
26	FREESTALL BARN ADDITION [1]	20 × 184	3,680
27	FREESTALL BARN ADDITION [1]	20 × 192	3,840
28	FREESTALL BARN ADDITION [1]	20 × 200	4,000
29	FREESTALL BARN ADDITION [1]	20 × 208	4,160
30	FREESTALL BARN ADDITION [1]	20 × 224	4,480
31	COMMODITY BARN	40 × 320	12,800

1 – Total freestall barn size is the indicated addition length and square footage plus the existing barn length (300 feet) and square footage (6,000 sf)

The proposed Project design and site layout considers and avoids construction of “permanent” structures over the SCBID buried drain lines or within the SCBID buried drain lines rights-of-way. Corrals, fences, and feed lanes and alleys do extend over and across the drain lines and rights-of-way. The Project applicant assumes that construction of the existing freestall barns was approved by Franklin County and SCBID.

5.4 Utilities

Electric power is supplied to the Project site by Big Bend Electric Cooperative of Ritzville. Solid waste services are provided by Basin Disposal of Pasco.

5.4.1 Water

Currently two wells supply water to the operating facility: (1) a 6-inch well located west of the milking parlor and (2) a 6-inch well located near the Managers Residence. No Water Well Reports for either of these wells can be located in the Washington State Well Report Viewer (https://appswr.ecology.wa.gov/wellconstruction/map/WCLSWebMap/default.aspx). Depth to groundwater at the Project site has not been measured in either of these wells.

Water for the Project will be withdrawn from wells for: (1) domestic use; (2) industrial uses including non-transient, non-community (NTNC) public water system uses; and (3) stockwater purposes. These uses are exempt from requiring a groundwater permit for the supplying well per RCW 90.44.050. Domestic and

industrial uses will not exceed 5,000 gallons per day. Stockwater withdrawls are unlimited; based on a rough assumption of 25 gallons per day per cow of water consumption, at 9,500 cows the daily water consumption would be approximately 237,500 gallons or 0.75 acre-feet per day.

5.4.2 Sewage and Septic

Two septic systems will be present at the project site: (1) the milking parlor system and (2) the "manager's residence" system. Only human-generated domestic sewage (blackwater) will be discharged into parlor system septic tank; "Industrial" wastes and greywaters from milking operations are discharged to the waste storage ponds. The size of the parlor system tank is expected to be 1,500 gallons. The "manager's residence" system will human-generated domestic sewage (blackwater and greywater) from one residence and is expected to be 1,000 gallons in size.

5.5 Traffic

Vehicle traffic accesses the Project from Wahluke Road, via Hollingsworth Road and Sagehill Road. The closest regional roads to the Project site are Washington Highway 17 located 10 miles east and Washington Highway 24 located six miles north.

The Project will employ up to 25 workers per shift for two shifts per day, seven days a week. This predicts up to 100 total trips per day to and from the facility by workers in passenger vehicles; however, many workers carpool, likely cutting the number of trips by 25 percent. Peek trip times are anticipated to be 5:30 to 6:30 a.m. and 5:30 to 6:30 p.m.

The Project will likely receive between five and eight deliveries of dry commodities (primarily feed but can be other bulk supplies) per day and transfer liquid milk twice per day for a total of up to 20 trips by heavy truck (greater than 26,000 lbs GVWR). Trips are distributed throughout the day.

The Project will also export solid and liquid manure via spreader and tanker truck (greater than 26,000 lbs GVWR), respectively. These shipments typically begin in the spring and continue through summer. Trips are during daylight hours.

These trip calculations are for total trips to and from the Project; the actual impact by the Project would be in addition to the trips already related to the current facility's operations.

5.6 Other Project Requirements

5.6.1 Dairy Nutrient Management Plan

The Project will prepare, submit to the Franklin County Conservation District for review, and operate under a Dairy Nutrient Management Plan (DNMP) as required by Revised Code of Washington (RCW) Chapter 90.64, Dairy Nutrient Management. The DNMP provides the dairy CAFO manager with specific methodology for the production, collection, storage, transfer, treatment, and agronomic utilization of the solid and liquid manure nutrients in such a manner that will prevent the pollution or degradation of state surface and ground waters. Nutrient management practices for Washington State are described in United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Conservation Practice Standard (CPS) *590 – Nutrient Management* as current. Current Washington NRCS CPS are available at the Washington NRCS electronic Field Office Technical Guide (eFOTG) at https://efotg.sc.egov.usda.gov/#/state/WA/documents under Section 4 - Practice Standards and Supporting Documents.

5.6.2 General Discharge Permit

The Project will obtain a Washington State Department of Ecology (Ecology) Concentrated Animal Feeding Operation (CAFO) National Pollutant Discharge Elimination System (NPDES) And State Waste Discharge (SWD) General Permit (the "Permit") for the facility. The Project will prepare and submit to Ecology a Manure Pollution Prevention Plan (MPPP) as required by Special Condition S4.A of the Permit. The MPPP provides a framework of actions, practices, and guidance to limit the potential for discharge of manure, litter, process wastewater, organic by-products, and other possible sources of pollution from a CAFO to waters of the United States and Washington State for purposes of complying with federal and state water quality standards. The facilities, practices, and procedures described in the MPPP must be sufficient to address Permit Special Conditions S4.B through S4.Q, S.5, S.6 and S.7.

FIGURES

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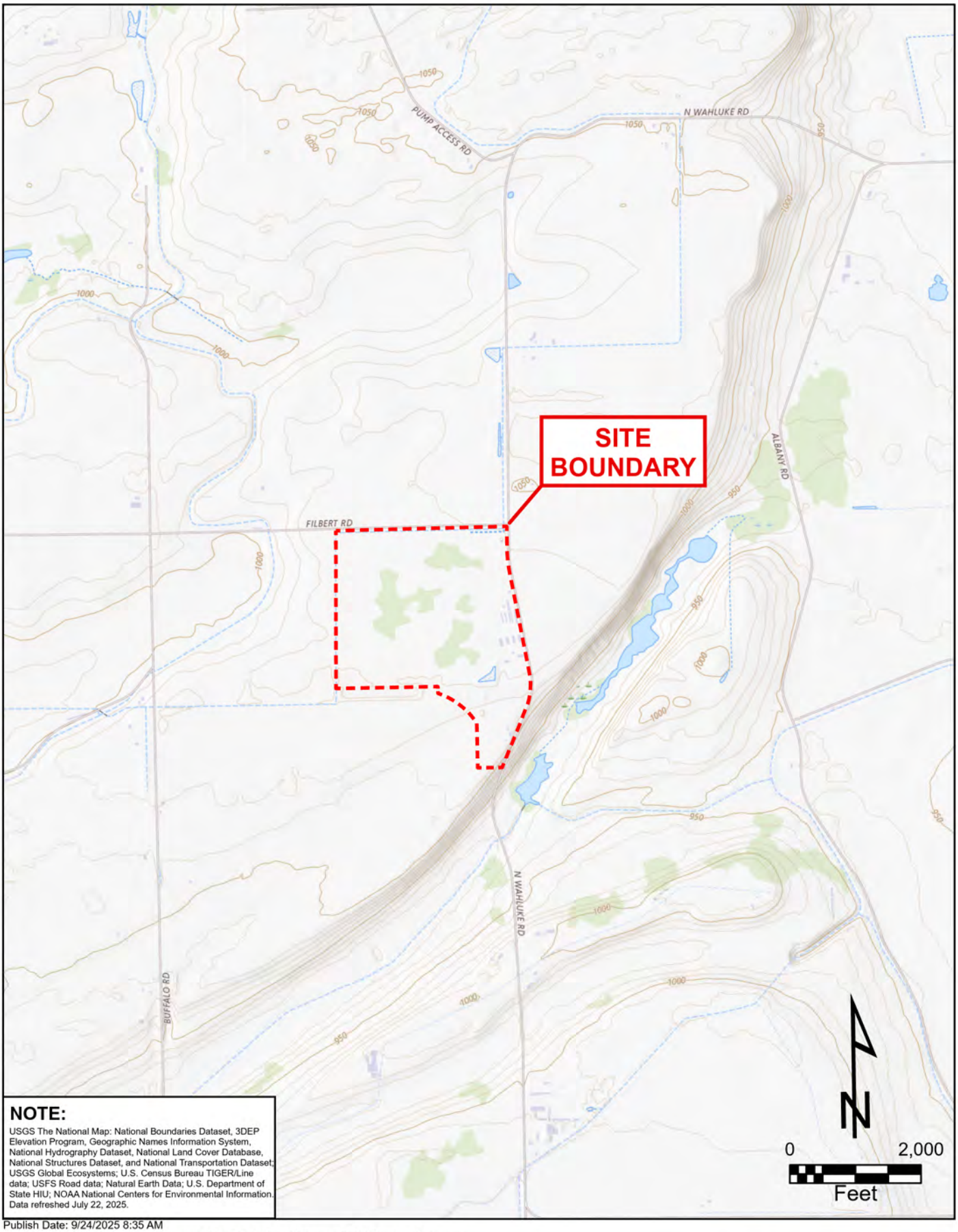
INLAND EARTH SCIENCES

LOCATION MAP
Conditional Use Permit Application
T. Freeman Dairy Expansion
3201 N Wahluke Road, Othello, WA

FIGURE 1



NOTE:

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information. Data refreshed July 22, 2025.

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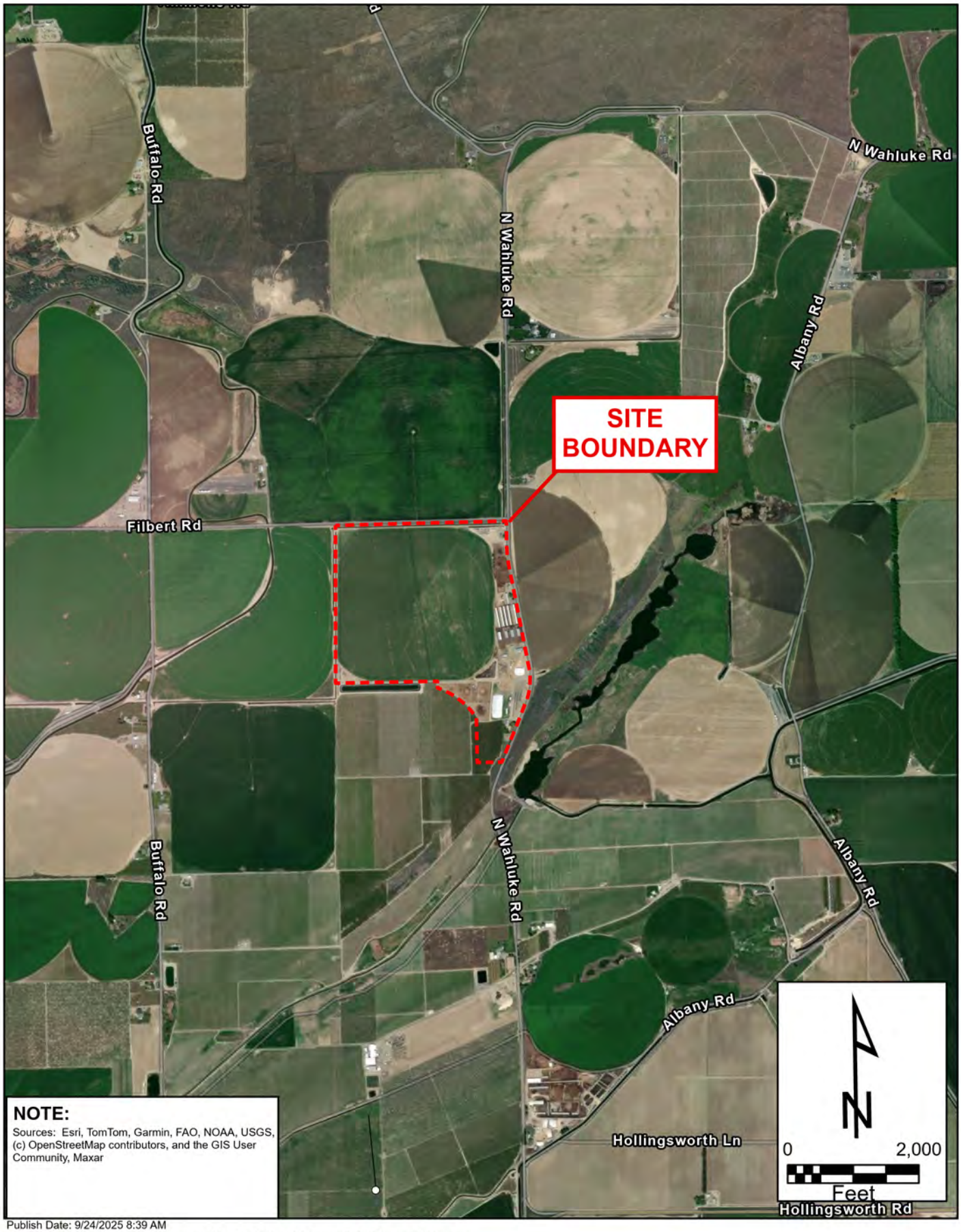
INLAND EARTH SCIENCES

VICINITY MAP

Conditional Use Permit Application
T. Freeman Dairy Expansion
3201 N Wahluke Road, Othello, WA

FIGURE 2



NOTE:

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar

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INLAND EARTH SCIENCES

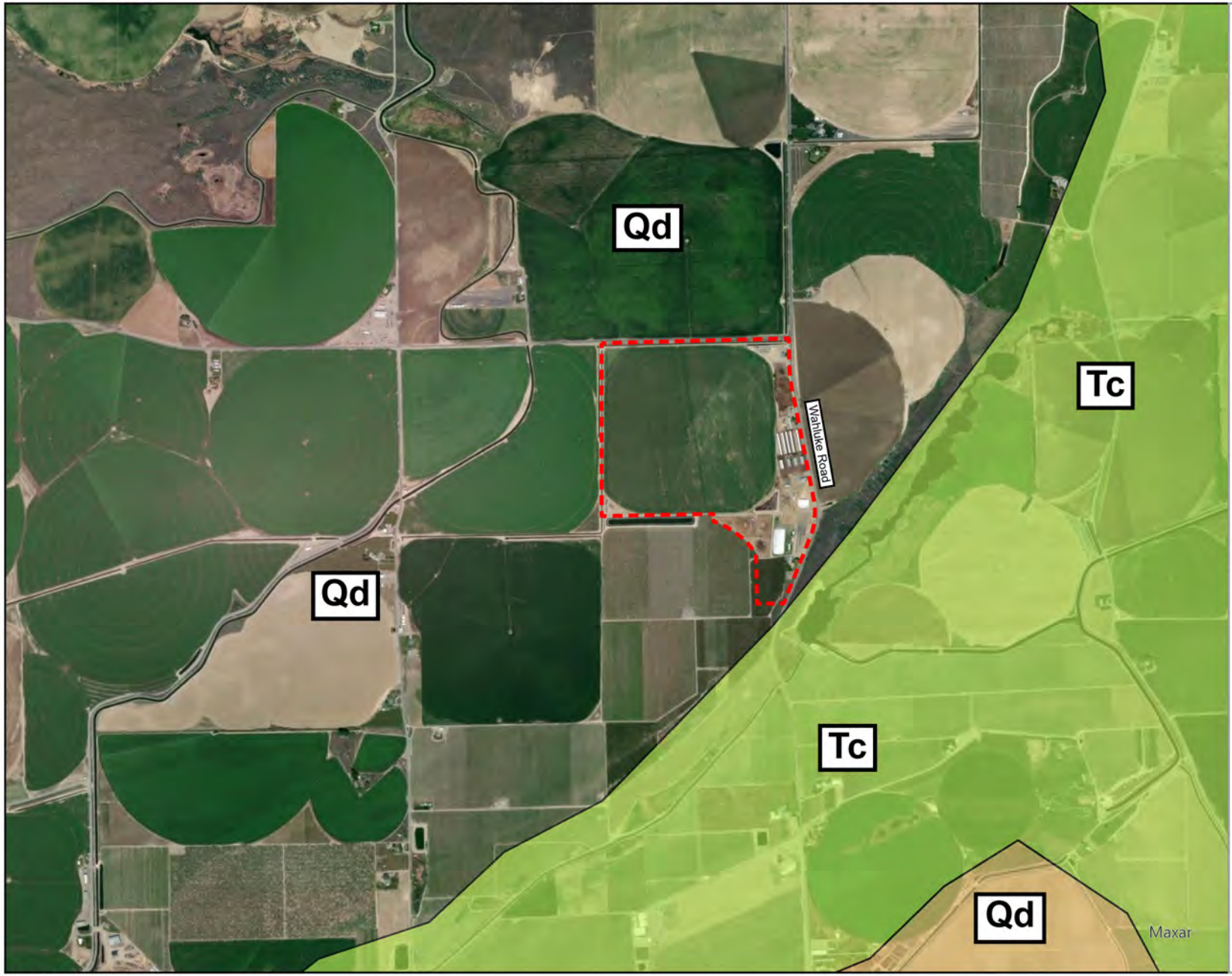
VICINITY AERIAL VIEW

Conditional Use Permit Application

T. Freeman Dairy Expansion

3201 N Wahluke Road, Othello, WA

FIGURE 3



LEGEND

SITE BOUNDARY

SOILS

Ab SOIL IDENTIFICATION

Qd - HOLOCENE DUNE SAND

Tc - TERTIARY CONTINENTIAL SEDIMENTARY ROCKS

NOTE:

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database

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INLAND EARTH SCIENCES

VICINITY SURFICIAL GEOLOGY
Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 4

LEGEND

SITE BOUNDARY

111 SOIL UNIT ID

29 - HEZEL LOAMY FINE SAND, 0 TO 15 PERCENT SLOPES

50 - KOEHLER FINE SAND, 0 TO 15 PERCENT SLOPES

89 - QUINCY LOAMY FINE SAND, 0 TO 15 PERCENT SLOPES

91 - QUINCY LOAMY FINE SAND, 30 TO 55 PERCENT SLOPES

97 - QUINCY-HEZEL COMPLEX, 0 TO 15 PERCENT SLOPES

133 - SAGEHILL VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

183 - TIMMERMAN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

NOTE:

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed [09/11/2025].

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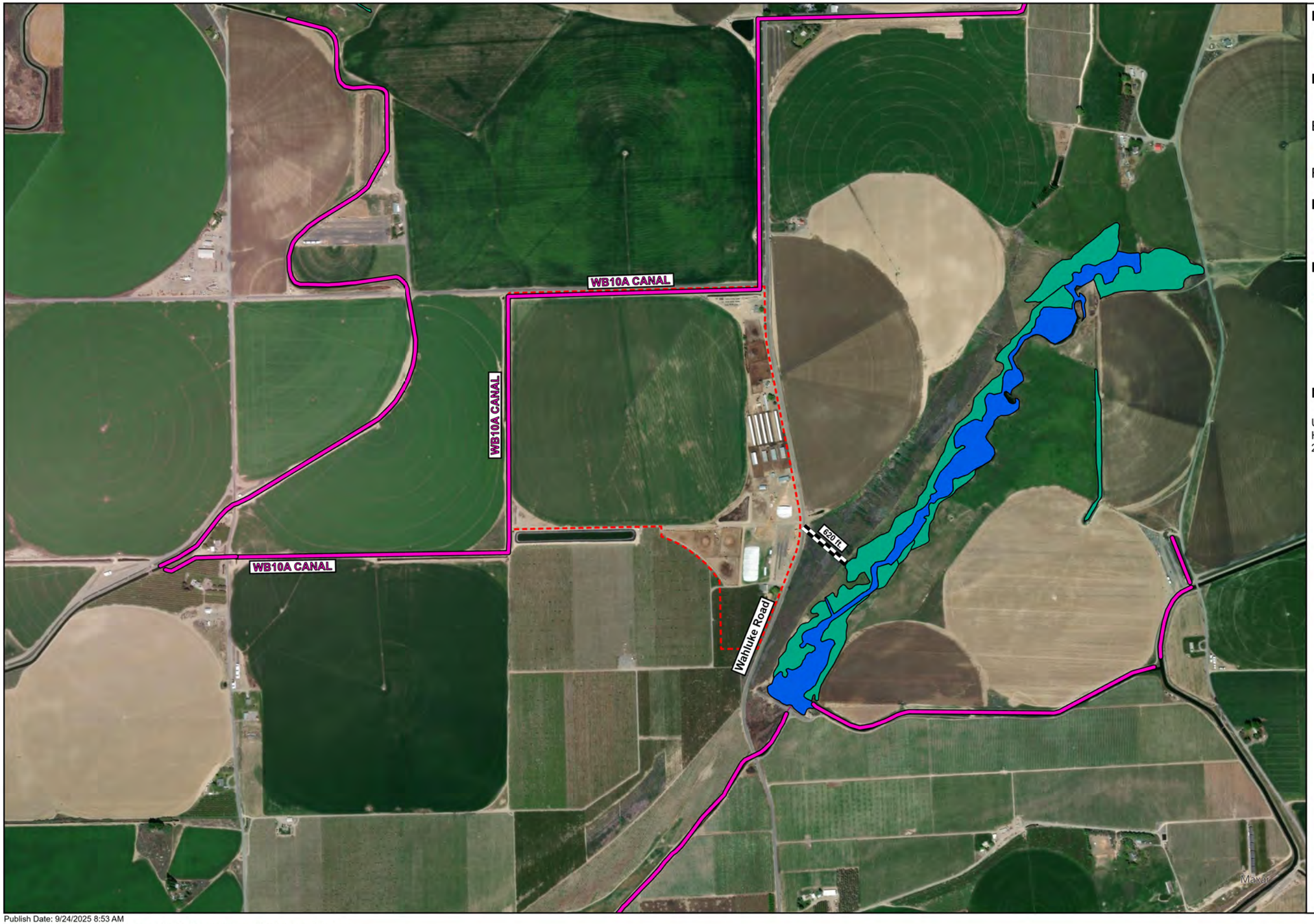
INLAND EARTH SCIENCES

VICINITY SOILS
Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 5



LEGEND:

SITE BOUNDARY

HU8

PEM1F - FRESHWATER EMERGENT WETLAND

L2ANHh - SCBID WB5WW1 RESERVOIR/CANAL

HYDRO WATERWAY CENTERLINES

SCBID CANALS

HYDRO BURIED DRAIN LINES

SCBID BURIED DRAIN LINES

NOTE:

U.S. Geological Survey, 2025, USGS TNM Hydrography (NHD), accessed September 16, 2025

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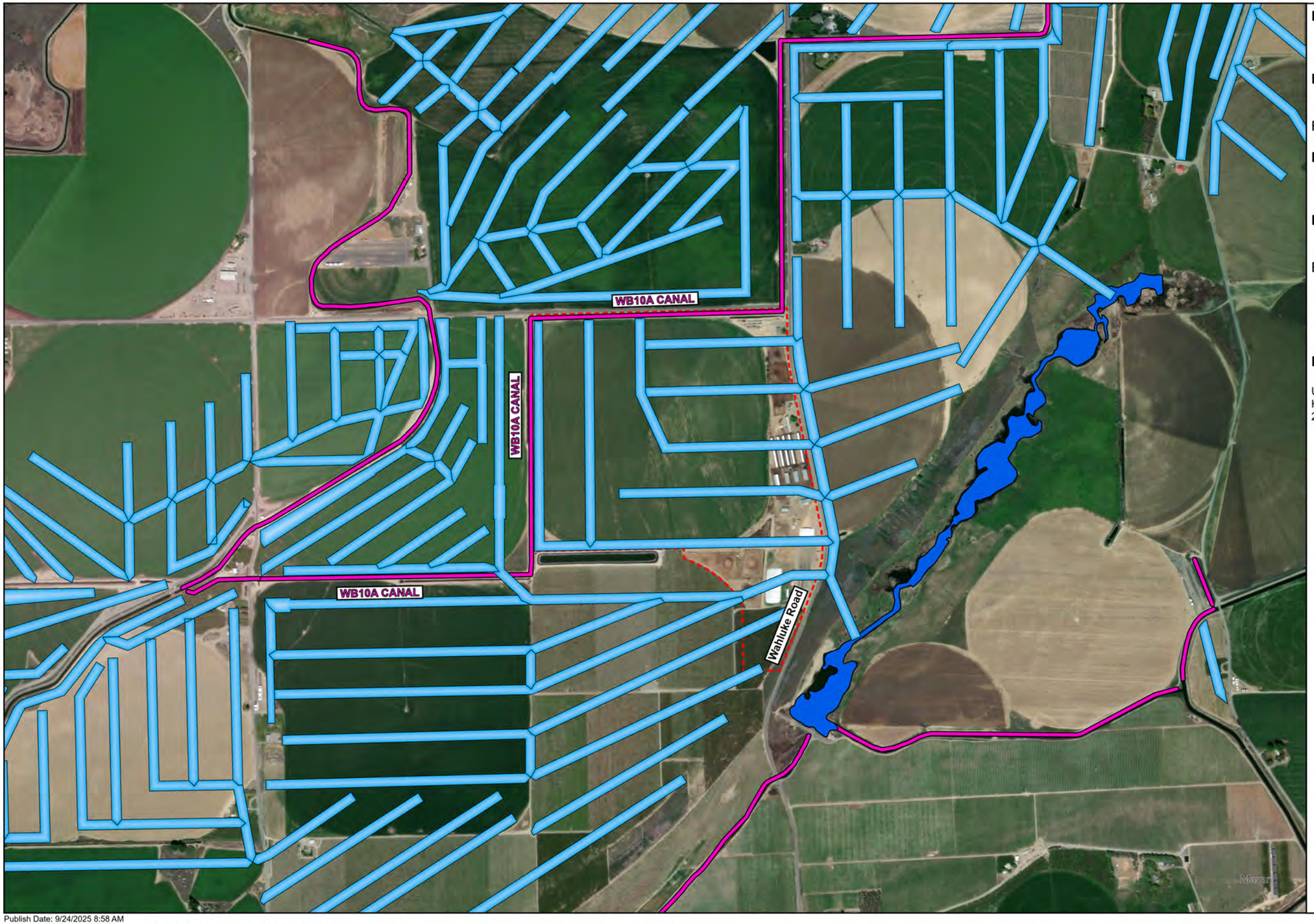
INLAND EARTH SCIENCES

VICINITY HYDRAULIC FEATURES

Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 6



LEGEND:

SITE BOUNDARY

HU8

L2ANHh - SCBID WB5WW1 RESERVOIR/CANAL

HYDRO WATERWAY CENTERLINES

SCBID CANALS

HYDRO DRAIN LINE EASEMENTS

SCBID DRAIN LINE EASEMENTS

NOTE:

U.S. Geological Survey, 2025, USGS TNM Hydrography (NHD), accessed September 16, 2025

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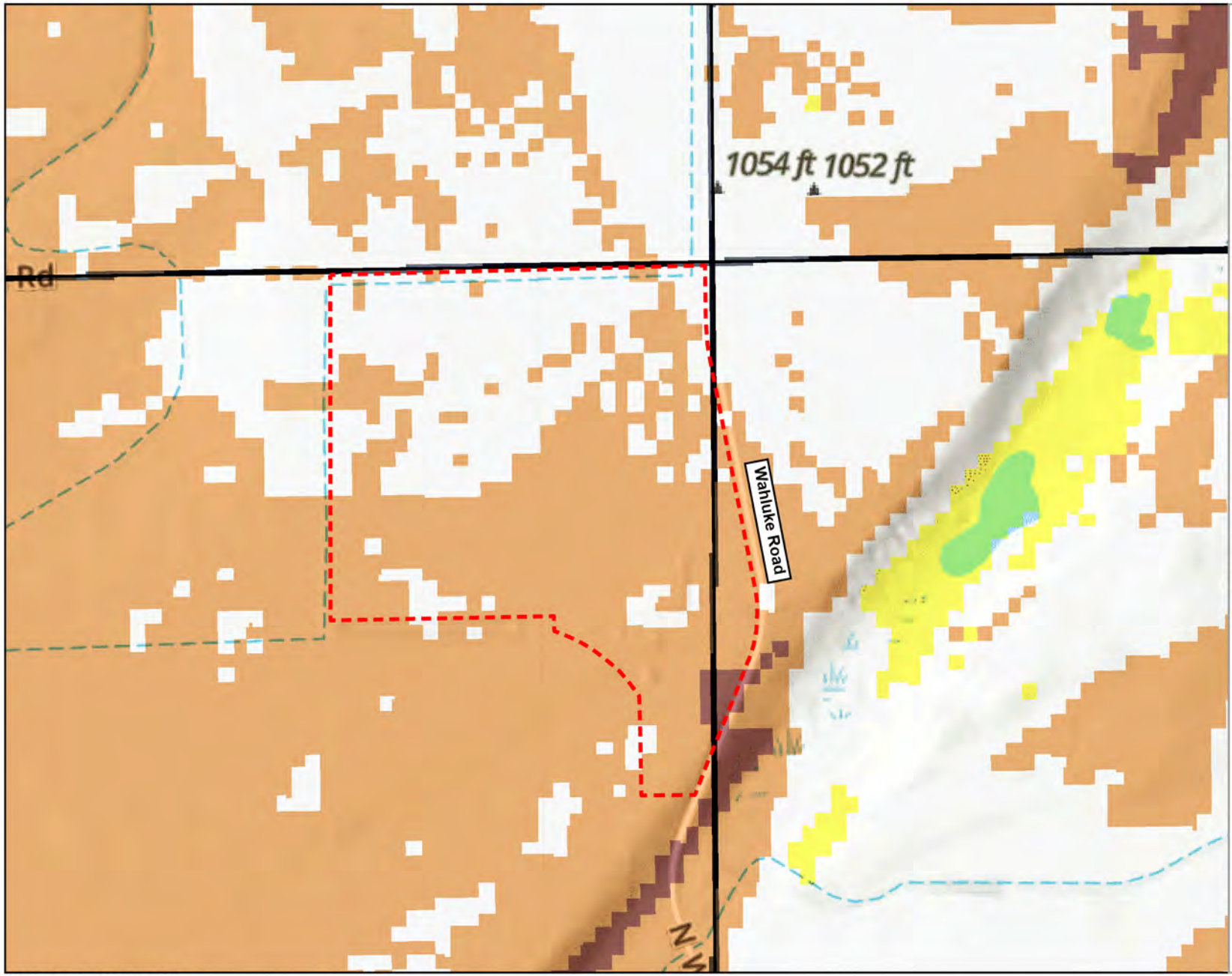
INLAND EARTH SCIENCES

VICINITY RIGHT-OF-WAYS & EASEMENTS
Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 7



LEGEND

- SITE BOUNDARY

ARCHAEOLOGICAL RISK ASSESSMENT

- SURVEY HIGHLY ADVISED, VERY HIGH RISK
- SURVEY HIGHLY ADVISED, HIGH RISK
- SURVEY RECOMMENDED, MODERATE RISK
- SURVEY CONTINGENT UPON PROJECT PARAMETERS, MODERATELY LOW RISK
- WATER

NOTE:

Wisaard.dahp.wa.gov.

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

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INLAND EARTH SCIENCES

ARCHAEOLOGICAL RISK ASSESSMENT MAP

Conditional Use Permit Application

T. Freeman Dairy Expansion

6201 N Wahluke Road, Othello, WA

FIGURE 8

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INLAND EARTH SCIENCES

PRIORITY HABITAT AND SPECIES
Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 9

LEGEND:

- PARCEL 121060012
- PARCEL 121060013
- PARCEL 121060075

EXISTING BUILDINGS

- ANIMAL PENS
- COMMODITY STORAGE
- WASTE STORAGE POND
- MATERIAL STORAGE
- FREESTALL BARNS

HYDRAULIC FEATURES

- SCBID WB10A CANAL
- SCBID BURIED DRAIN EASEMENTS
- SEPTIC DRAINFIELD
- EXISTING WELLS

NOTE:

U.S. Geological Survey, 2019, USGS TNM Hydrography (NHD), accessed September 16, 2025

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INLAND EARTH SCIENCES

CURRENT SITE LAYOUT
Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 10

LEGEND:

- PARCEL 121060012
- PARCEL 121060013
- PARCEL 121060075

NEW BUILDINGS

- ANIMAL PENS
- COMMODITY
- WASTE STORAGE POND
- COMPOST
- COMPOST BUILDING
- COW SHADES
- FEED LANES
- PARKING & LOADING
- ROTARY BUILDING
- DAIRY BUILDINGS

HYDRAULIC FEATURES

- SCBID WB10A CANAL
- SCBID BURIED DRAIN LINES

NOTE:

U.S. Geological Survey, 2019, USGS TNM Hydrography (NHD), accessed September 16, 2025

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Feet

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INLAND EARTH SCIENCES

PROPOSED EXPANSION LAYOUT

Conditional Use Permit Application
T. Freeman Dairy Expansion
6201 N Wahluke Road, Othello, WA

FIGURE 11

APPENDIX A

NRCS SOILS REPORT

United States Department of Agriculture

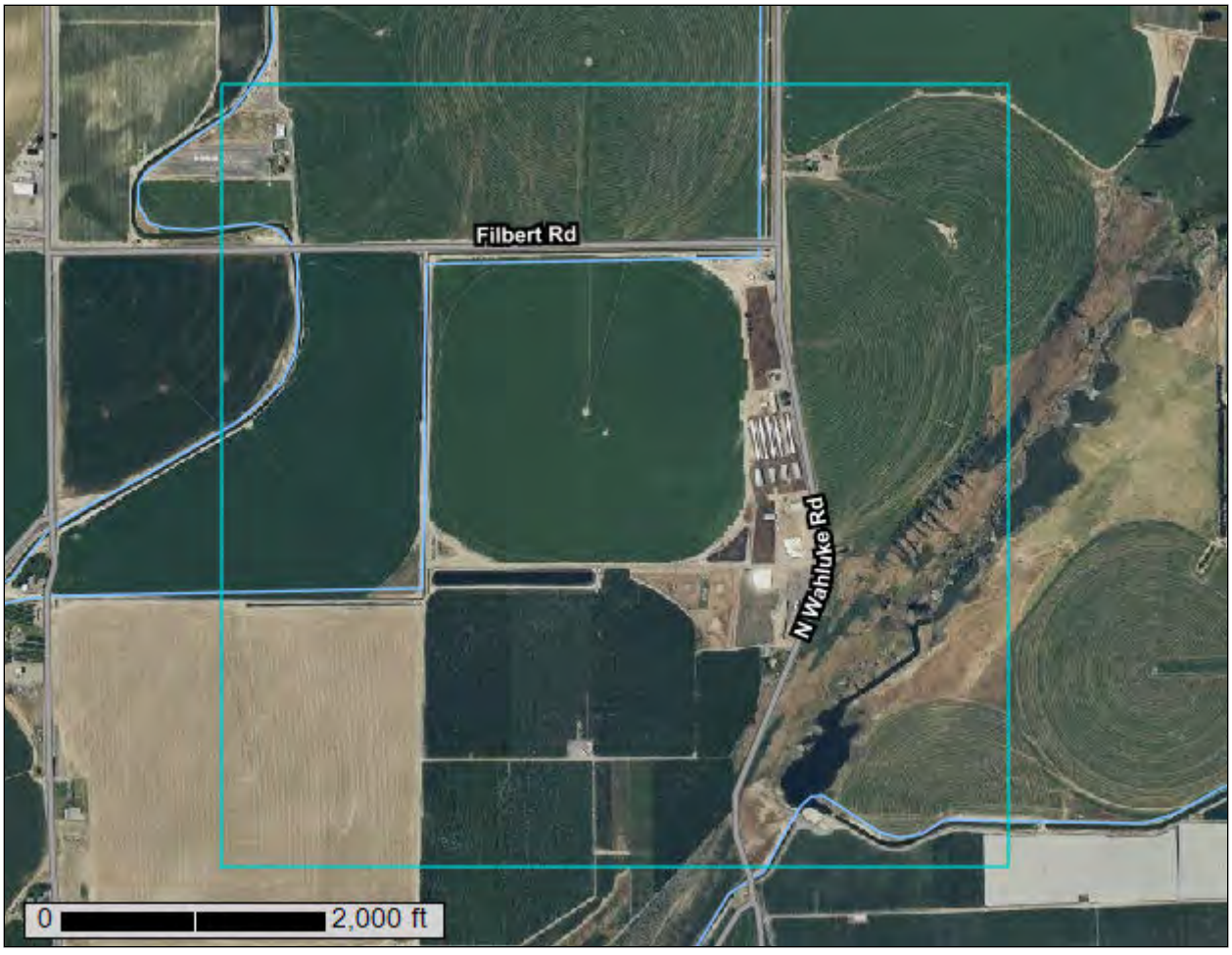
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Franklin County, Washington

T. Freeman Dairy



September 24, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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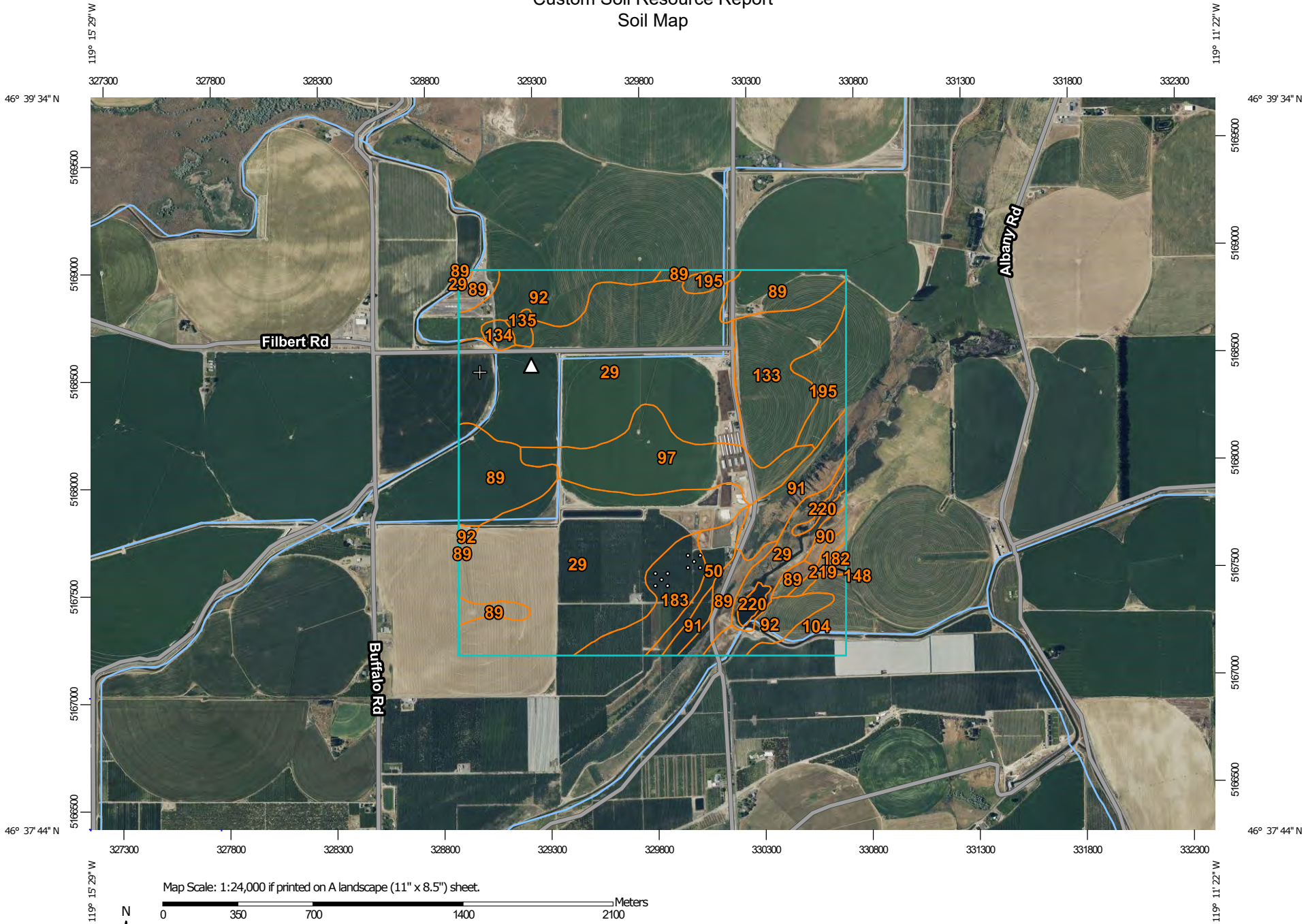
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Washington
Survey Area Data: Version 22, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 26, 2022—Jun 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
29	Hezel loamy fine sand, 0 to 15 percent slopes	379.7	47.1%
50	Koehler fine sand, 0 to 15 percent slopes	14.4	1.8%
89	Quincy loamy fine sand, 0 to 15 percent slopes	92.0	11.4%
90	Quincy loamy fine sand, 15 to 30 percent slopes	4.8	0.6%
91	Quincy loamy fine sand, 30 to 55 percent slopes	32.9	4.1%
92	Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes	55.4	6.9%
97	Quincy-Hezel complex, 0 to 15 percent slopes	67.5	8.4%
104	Rinquin loamy fine sand, 0 to 10 percent slopes	20.0	2.5%
133	Sagehill very fine sandy loam, 0 to 2 percent slopes	61.9	7.7%
134	Sagehill very fine sandy loam, 2 to 5 percent slopes	4.0	0.5%
135	Sagehill very fine sandy loam, 5 to 10 percent slopes	3.6	0.4%
148	Schlomer silt loam, 2 to 5 percent slopes	1.1	0.1%
182	Taunton very fine sandy loam, 2 to 5 percent slopes	1.6	0.2%
183	Timmerman fine sandy loam, 0 to 2 percent slopes	29.8	3.7%
195	Warden very fine sandy loam, 0 to 2 percent slopes	25.7	3.2%
219	Xeric Torriorthents, very steep	4.2	0.5%
220	Water	6.9	0.9%
Totals for Area of Interest		**805.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named

according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Franklin County, Washington

29—Hezel loamy fine sand, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2dm1
Elevation: 400 to 2,500 feet
Mean annual precipitation: 6 to 10 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hezel and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hezel

Setting

Landform: Terraces
Parent material: Glaciofluvial deposits with a mantle of eolian sands

Typical profile

H1 - 0 to 7 inches: loamy fine sand
H2 - 7 to 18 inches: loamy sand
H3 - 18 to 27 inches: fine sandy loam
H4 - 27 to 60 inches: stratified fine sandy loam to silt loam

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Minor Components

Quincy

Percent of map unit: 10 percent
Landform: Terraces
Hydric soil rating: No

Sagehill
Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

50—Koehler fine sand, 0 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2dp4
Elevation: 300 to 2,200 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 150 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition
Koehler and similar soils: 75 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Koehler

Setting
Landform: Terraces
Parent material: Eolian sands

Typical profile
H1 - 0 to 4 inches: fine sand
H2 - 4 to 35 inches: fine sand
H3 - 35 to 45 inches: cemented material
H4 - 45 to 60 inches: stratified cemented material to very gravelly sandy loam

Properties and qualities
Slope: 0 to 15 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups
Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Minor Components

Sagehill

Percent of map unit: 10 percent
Landform: Terraces
Hydric soil rating: No

89—Quincy loamy fine sand, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2dtt
Elevation: 350 to 1,200 feet
Mean annual precipitation: 6 to 12 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Quincy and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quincy

Setting

Landform: Terraces
Parent material: Mixed eolian sands

Typical profile

H1 - 0 to 4 inches: loamy fine sand
H2 - 4 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Minor Components

Sagehill
Percent of map unit: 15 percent
Landform: Dunes, terraces
Hydric soil rating: No

90—Quincy loamy fine sand, 15 to 30 percent slopes

Map Unit Setting
National map unit symbol: 2dv0
Elevation: 350 to 1,200 feet
Mean annual precipitation: 6 to 12 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Quincy and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quincy

Setting
Landform: Terraces
Parent material: Mixed eolian sands

Typical profile
H1 - 0 to 4 inches: loamy fine sand
H2 - 4 to 60 inches: fine sand

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups
Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Minor Components

Sagehill
Percent of map unit: 10 percent
Landform: Dunes, terraces
Hydric soil rating: No

Royal
Percent of map unit: 5 percent
Landform: Terraces, dunes
Hydric soil rating: No

91—Quincy loamy fine sand, 30 to 55 percent slopes

Map Unit Setting
National map unit symbol: 2dv3
Elevation: 350 to 1,200 feet
Mean annual precipitation: 6 to 12 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Quincy and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quincy

Setting
Landform: Terraces
Parent material: Mixed eolian sands

Typical profile
H1 - 0 to 4 inches: loamy fine sand
H2 - 4 to 60 inches: fine sand

Properties and qualities
Slope: 30 to 55 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups
Land capability classification (irrigated): 7e

Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Minor Components

Sagehill
Percent of map unit: 10 percent
Landform: Dunes, terraces
Hydric soil rating: No

Royal
Percent of map unit: 5 percent
Landform: Dunes, terraces
Hydric soil rating: No

92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes

Map Unit Setting
National map unit symbol: 2dv6
Elevation: 350 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Quincy and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quincy

Setting
Landform: Terraces
Parent material: Mixed eolian sands

Typical profile
H1 - 0 to 3 inches: loamy fine sand
H2 - 3 to 52 inches: loamy fine sand
H3 - 52 to 60 inches: silt loam

Properties and qualities
Slope: 0 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

97—Quincy-Hezel complex, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2dvt
Elevation: 350 to 2,500 feet
Mean annual precipitation: 6 to 12 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Quincy and similar soils: 50 percent
Hezel and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quincy

Setting

Landform: Terraces
Parent material: Mixed eolian sands

Typical profile

H1 - 0 to 4 inches: loamy fine sand
H2 - 4 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Description of Hezel

Setting

Landform: Terraces
Parent material: Glaciofluvial deposits with a mantle of eolian sands

Typical profile

H1 - 0 to 7 inches: loamy fine sand
H2 - 7 to 18 inches: loamy sand
H3 - 18 to 27 inches: fine sandy loam
H4 - 27 to 60 inches: stratified fine sandy loam to silt loam

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R007XY140WA - Sands
Hydric soil rating: No

Minor Components

Kennewick

Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

Sagehill

Percent of map unit: 5 percent
Landform: Dunes, terraces
Hydric soil rating: No

Warden

Percent of map unit: 5 percent
Landform: Terraces, dunes
Hydric soil rating: No

104—Rinquin loamy fine sand, 0 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2dd4
Elevation: 800 to 1,100 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Rinquin and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rinquin

Setting

Landform: Terraces
Parent material: Outwash and eolian sands over semiconsolidated siltstone

Typical profile

H1 - 0 to 7 inches: loamy fine sand
H2 - 7 to 21 inches: loamy fine sand
H3 - 21 to 26 inches: loamy fine sand
H4 - 26 to 36 inches: weathered bedrock

Properties and qualities

Slope: 0 to 10 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R007XY449WA - Sandy
Hydric soil rating: No

Minor Components

Sagehill
Percent of map unit: 15 percent
Landform: Terraces
Hydric soil rating: No

Wiehl
Percent of map unit: 10 percent
Landform: Terraces
Hydric soil rating: No

133—Sagehill very fine sandy loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 2dfs
Elevation: 500 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Sagehill and similar soils: 75 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sagehill

Setting
Landform: Terraces
Parent material: Lacustrine deposits with a mantle of loess or eolian deposits

Typical profile
H1 - 0 to 6 inches: very fine sandy loam
H2 - 6 to 25 inches: very fine sandy loam
H3 - 25 to 60 inches: silt loam

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: R007XY130WA - Loamy
Hydric soil rating: No

Minor Components

Kennewick

Percent of map unit: 15 percent
Landform: Terraces
Hydric soil rating: No

134—Sagehill very fine sandy loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2dfv
Elevation: 500 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Sagehill and similar soils: 75 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sagehill

Setting

Landform: Terraces
Parent material: Lacustrine deposits with a mantle of loess or eolian deposits

Typical profile

H1 - 0 to 6 inches: very fine sandy loam
H2 - 6 to 25 inches: very fine sandy loam
H3 - 25 to 60 inches: silt loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R007XY130WA - Loamy
Hydric soil rating: No

Minor Components

Kennewick

Percent of map unit: 15 percent
Landform: Terraces
Hydric soil rating: No

135—Sagehill very fine sandy loam, 5 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2dfx
Elevation: 500 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Sagehill and similar soils: 75 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sagehill

Setting

Landform: Terraces
Parent material: Lacustrine deposits with a mantle of loess or eolian deposits

Typical profile

H1 - 0 to 6 inches: very fine sandy loam
H2 - 6 to 25 inches: very fine sandy loam
H3 - 25 to 60 inches: silt loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R007XY130WA - Loamy
Hydric soil rating: No

Minor Components

Kennewick

Percent of map unit: 15 percent
Landform: Terraces
Hydric soil rating: No

148—Schlomer silt loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2dgq
Elevation: 750 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Schlomer and similar soils: 75 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Schlomer

Setting

Landform: Terraces
Parent material: Loess over semiconsolidated residuum weathered from shale and siltstone

Typical profile

H1 - 0 to 4 inches: silt loam
H2 - 4 to 16 inches: silt loam
H3 - 16 to 22 inches: silt loam
H4 - 22 to 34 inches: silty clay loam
H5 - 34 to 44 inches: weathered bedrock

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R007XY130WA - Loamy
Hydric soil rating: No

Minor Components

Quincy

Percent of map unit: 10 percent
Landform: Terraces
Hydric soil rating: No

182—Taunton very fine sandy loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2djl
Elevation: 200 to 2,200 feet
Mean annual precipitation: 6 to 12 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 140 to 210 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Taunton and similar soils: 85 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Taunton

Setting

Landform: Plains, terraces
Parent material: Alluvium

Typical profile

H1 - 0 to 6 inches: very fine sandy loam
H2 - 6 to 25 inches: very fine sandy loam
H3 - 25 to 38 inches: very fine sandy loam
H4 - 38 to 48 inches: cemented material
H5 - 48 to 60 inches: stratified cemented material to very gravelly sandy loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R007XY130WA - Loamy
Hydric soil rating: No

Minor Components

Koehler

Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

Tauncal

Percent of map unit: 5 percent
Landform: Plains, terraces
Hydric soil rating: No

183—Timmerman fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2djn
Elevation: 350 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Timmerman and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Timmerman

Setting

Landform: Terraces
Parent material: Glacial outwash and alluvium mixed with loess in the upper part

Typical profile

H1 - 0 to 5 inches: fine sandy loam
H2 - 5 to 19 inches: sandy loam
H3 - 19 to 60 inches: loamy coarse sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 13 to 30 inches to strongly contrasting textural stratification
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R007XY143WA - Sandy Loam
Hydric soil rating: No

Minor Components

Royal

Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

Winchester

Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

Sagehill

Percent of map unit: 5 percent
Landform: Terraces
Hydric soil rating: No

195—Warden very fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2dkb
Elevation: 500 to 1,150 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Warden and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Warden

Setting

Landform: Terraces
Parent material: Lacustrine deposits with a thin mantle of loess

Typical profile

H1 - 0 to 6 inches: very fine sandy loam
H2 - 6 to 19 inches: silt loam
H3 - 19 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 8 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: R007XY130WA - Loamy
Hydric soil rating: No

Minor Components

Kennewick

Percent of map unit: 10 percent

Landform: Terraces
Hydric soil rating: No

219—Xeric Torriorthents, very steep

Map Unit Setting

National map unit symbol: 2dld
Elevation: 350 to 1,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 180 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Xeric torriorthents and similar soils: 75 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Xeric Torriorthents

Setting

Landform: Terraces
Parent material: Loess and residuum weathered from sandstone and siltstone

Typical profile

H1 - 0 to 3 inches: silt loam
H2 - 3 to 60 inches: silt loam

Properties and qualities

Slope: 40 to 90 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R007XY120WA - Stony
Hydric soil rating: No

Minor Components

Quincy

Percent of map unit: 10 percent

Landform: Escarpments
Hydric soil rating: No

Rock outcrop
Percent of map unit: 5 percent
Hydric soil rating: No

220—Water

Map Unit Composition
Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting
Landform: Alluvial cones

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: Unranked

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Management

Land management interpretations are tools designed to guide the user in evaluating existing conditions in planning and predicting the soil response to various land management practices, for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture, and rangeland. Example interpretations include suitability for a variety of irrigation practices, log landings, haul roads and major skid trails, equipment operability, site preparation, suitability for hand and mechanical planting, potential erosion hazard associated with various practices, and ratings for fencing and waterline installation.

Nitrate Leaching Potential, Nonirrigated

This interpretation is designed to evaluate the potential for nitrate-nitrogen to be transmitted through the soil profile below the root zone by percolating water under nonirrigated conditions. Leaching nitrates have the potential to contaminate shallow and deep aquifers used for drinking water. The ratings are based on inherent soil and climate properties that affect nitrate leaching and do not account for management practices, such as crop rotation and rates and timing of nitrogen fertilizer applications.

The following soil and climate factors are used in the interpretation criteria:

1. Mean annual precipitation minus potential evapotranspiration - This factor provides an estimate of the amount of water that is available to move through the soil profile on an annual basis. Potential evaporation is estimated from mean annual air temperature using an algorithm (developed by the National Soil Survey Center) that employs the Hamon potential evapotranspiration method.

2. Water travel time through the entire soil profile - This factor uses the saturated hydraulic conductivity (Ksat) and thickness of each soil horizon to estimate the number of hours that would be required for a given volume of water to move through the entire soil profile. One advantage of this method for estimating the rate of water movement is that the properties and thickness of each soil horizon are accounted for instead of using an average saturated hydraulic conductivity for the entire profile. This method accounts for subtle differences between soils in texture, structure, horizon thickness, and depth to water-restricting layers.

3. Available water capacity - This factor accounts for the cumulative amount of water available to plants that the entire soil profile can hold at field capacity to a depth of 150 cm. The more water the soil profile can hold, the less water is available for deep leaching.

4. Depth to and duration of a water table - This factor uses a water table index based on the minimum average depth to a water table and the number of months that the water table is present during the period from April through October. The factor is used to account for the loss of nitrates to the atmosphere as nitrous oxide or nitrogen gas due to denitrification under anaerobic conditions caused by water saturation. The higher the water table and the longer its duration, the larger the quantity of nitrates that would potentially be lost to the atmosphere and therefore would not be available for deep leaching.

5. Slope gradient adjusted for hydrologic soil group - The steeper the slope gradient, the higher the potential for surface runoff and the lower the amount of water available to move through the soil profile. The following adjustments are made to the slope gradient by hydrologic group to account for differences in potential for surface runoff:

Hydrologic group A-slope % x 0.75

Hydrologic group B-slope % x 0.85

Hydrologic group C-slope % x 0.95

Hydrologic group D-no adjustment

The ratings are both verbal and numerical. The ratings for Nitrate Leaching Potential, Nonirrigated Areas, are calculated as follows:

1. The Mean Annual Precipitation minus Potential Evapotranspiration subrule is weighted by multiplying by 0.60.

2. The Water Travel Time subrule is weighted by multiplying by 0.25.

3. The Available Water Capacity subrule is weighted by multiplying by 0.15.

4. The sum of these three weighted subrules results in a value between 0.00 and 1.00.

5. Adjustments are then made for water table depth and duration and for slope gradient adjusted for hydrologic group. The sum of the values from these subrules

is subtracted from the sum in step 4 above. The maximum reduction is 0.50 for the water table index subrule and 0.30 for the slope gradient subrule.

The following rating classes for Nitrate Leaching Potential, Nonirrigated Areas, are assigned based on the final calculation from the factors above:

Low: 0.00 to 0.25

Moderate: 0.26 to 0.50

Moderately high: 0.51 to 0.75

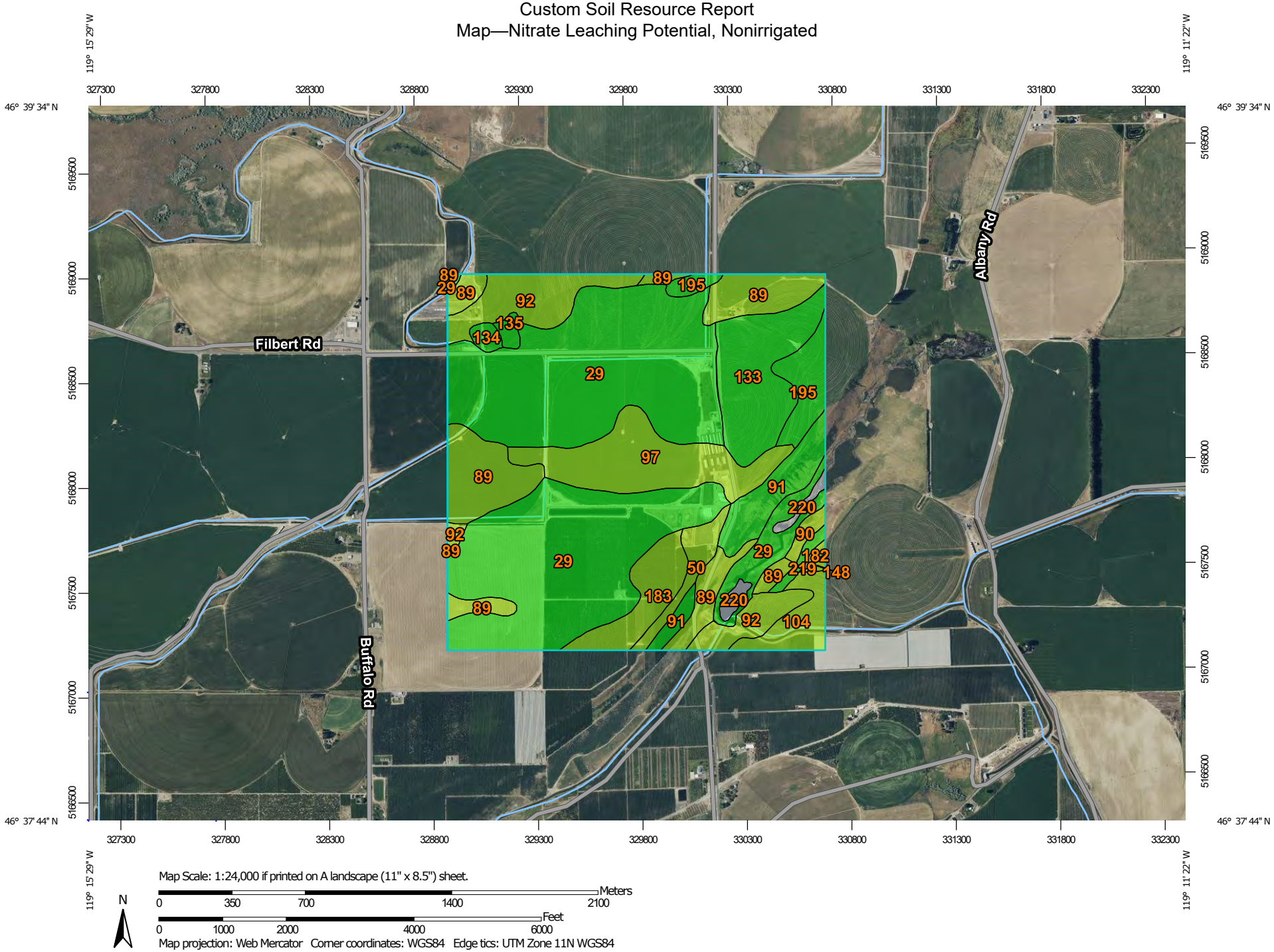
High: 0.76 to 1.00

The ratings indicate the potential for nitrate leaching below the root zone, based on inherent soil and climate properties. A "low" rating indicates a low potential for leaching of nitrates below the root zone. A "high" rating indicates a high potential for leaching of nitrates below the root zone. The "moderate" and "moderately high" ratings indicate intermediate potential.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Map—Nitrate Leaching Potential, Nonirrigated



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- High
- Moderately high
- Moderate
- Low
- Not rated or not available

Soil Rating Lines
- High
- Moderately high
- Moderate
- Low
- Not rated or not available

Soil Rating Points
- High
- Moderately high
- Moderate
- Low
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Washington
Survey Area Data: Version 22, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 26, 2022—Jun 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Nitrate Leaching Potential, Nonirrigated

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
29	Hezel loamy fine sand, 0 to 15 percent slopes	Low	Hezel (85%)	Water travel time (0.49)	379.7	47.1%
				Water holding capacity (0.25)		
50	Koehler fine sand, 0 to 15 percent slopes	Moderate	Koehler (75%)	Water travel time (1.00)	14.4	1.8%
				Water holding capacity (0.98)		
89	Quincy loamy fine sand, 0 to 15 percent slopes	Moderate	Quincy (85%)	Water travel time (1.00)	92.0	11.4%
				Water holding capacity (0.97)		
90	Quincy loamy fine sand, 15 to 30 percent slopes	Moderate	Quincy (85%)	Water travel time (1.00)	4.8	0.6%
				Water holding capacity (0.97)		
				Slope (0.07)		
91	Quincy loamy fine sand, 30 to 55 percent slopes	Low	Quincy (85%)	Water travel time (1.00)	32.9	4.1%
				Water holding capacity (0.97)		
				Slope (0.22)		
92	Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes	Moderate	Quincy (85%)	Water travel time (1.00)	55.4	6.9%
				Water holding capacity (0.87)		
97	Quincy-Hezel complex, 0 to 15 percent slopes	Moderate	Quincy (50%)	Water travel time (1.00)	67.5	8.4%
				Water holding capacity (0.97)		
104	Rinquin loamy fine sand, 0 to 10 percent slopes	Moderate	Rinquin (75%)	Water travel time (1.00)	20.0	2.5%
				Water holding capacity (0.98)		
133	Sagehill very fine sandy loam, 0 to 2 percent slopes	Low	Sagehill (75%)	Water travel time (0.93)	61.9	7.7%
134	Sagehill very fine sandy loam, 2 to 5 percent slopes	Low	Sagehill (75%)	Water travel time (0.93)	4.0	0.5%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
135	Sagehill very fine sandy loam, 5 to 10 percent slopes	Low	Sagehill (75%)	Water travel time (0.93)	3.6	0.4%
148	Schlomer silt loam, 2 to 5 percent slopes	Moderate	Schlomer (75%)	Water holding capacity (0.86)	1.1	0.1%
				Water travel time (0.83)		
182	Taunton very fine sandy loam, 2 to 5 percent slopes	Moderate	Taunton (85%)	Water travel time (0.99)	1.6	0.2%
				Water holding capacity (0.95)		
183	Timmerman fine sandy loam, 0 to 2 percent slopes	Moderate	Timmerman (85%)	Water travel time (1.00)	29.8	3.7%
				Water holding capacity (0.98)		
195	Warden very fine sandy loam, 0 to 2 percent slopes	Low	Warden (90%)	Water travel time (0.82)	25.7	3.2%
219	Xeric Torriorthents, very steep	Low	Xeric Torriorthents (75%)	Water travel time (0.82)	4.2	0.5%
				Slope (0.30)		
220	Water	Not rated	Water (100%)		6.9	0.9%
Totals for Area of Interest					**805.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Low	511.9	63.6%
Moderate	286.6	35.6%
Null or Not Rated	6.9	0.9%
Totals for Area of Interest	**805.5**	**100.0%**

Rating Options—Nitrate Leaching Potential, Nonirrigated

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Physical Properties

Soil Physical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

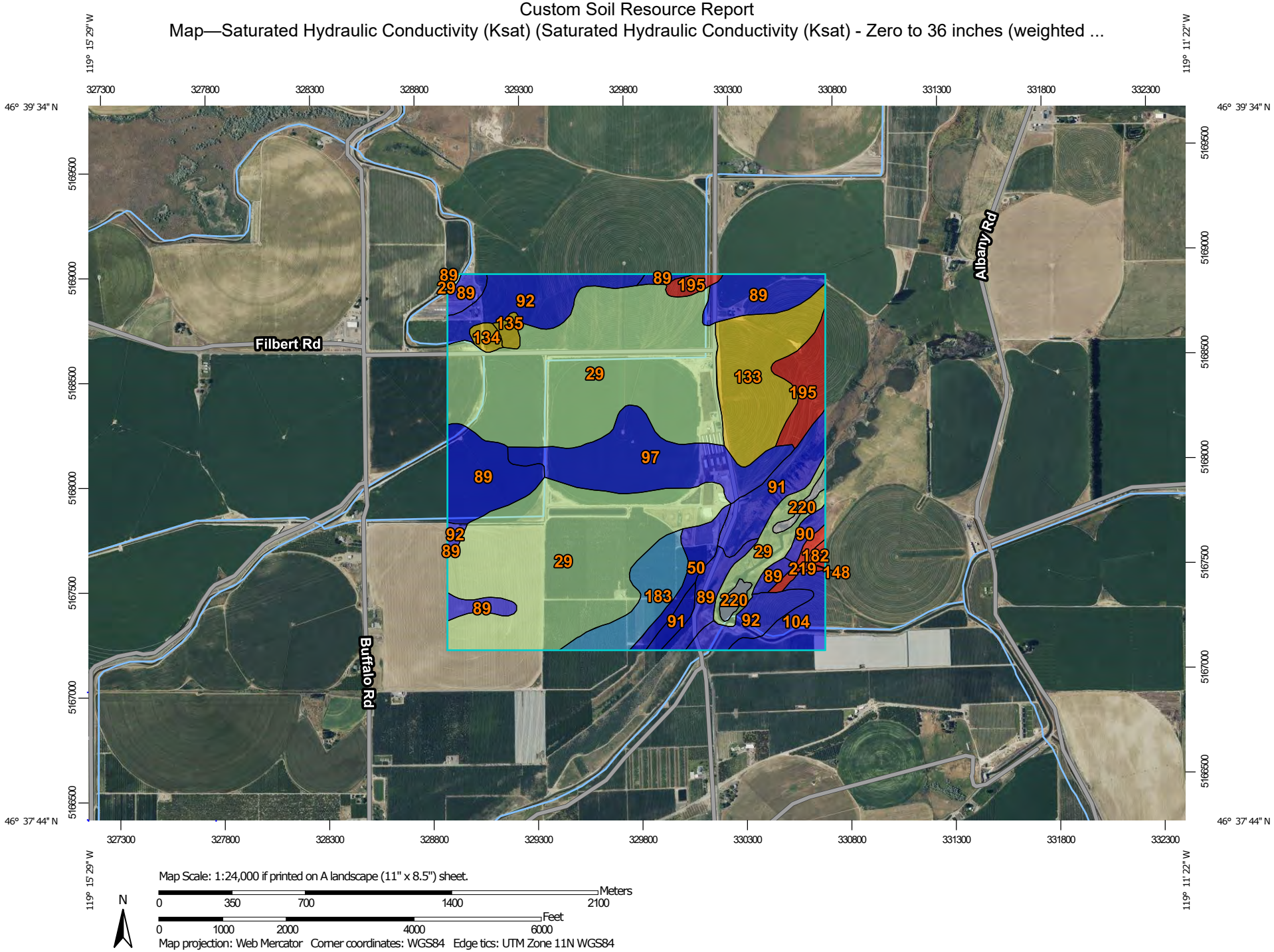
Saturated Hydraulic Conductivity (Ksat) (Saturated Hydraulic Conductivity (Ksat) - Zero to 36 inches (weighted average))

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

Map—Saturated Hydraulic Conductivity (Ksat) (Saturated Hydraulic Conductivity (Ksat) - Zero to 36 inches (weighted ...



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- <= 12.1319
- > 12.1319 and <= 22.3626
- > 22.3626 and <= 49.4396
- > 49.4396 and <= 58.2418
- > 58.2418 and <= 92.0000
- Not rated or not available

Soil Rating Lines

- <= 12.1319
- > 12.1319 and <= 22.3626
- > 22.3626 and <= 49.4396
- > 49.4396 and <= 58.2418
- > 58.2418 and <= 92.0000
- Not rated or not available

Soil Rating Points

- <= 12.1319
- > 12.1319 and <= 22.3626
- > 22.3626 and <= 49.4396
- > 49.4396 and <= 58.2418
- > 58.2418 and <= 92.0000
- Not rated or not available

Water Features

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Washington
Survey Area Data: Version 22, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 26, 2022—Jun 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

MAP LEGEND

Streams and Canals

MAP INFORMATION

Table—Saturated Hydraulic Conductivity (Ksat) (Saturated Hydraulic Conductivity (Ksat) - Zero to 36 inches (weighted average))

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
29	Hezel loamy fine sand, 0 to 15 percent slopes	49.4396	379.7	47.1%
50	Koehler fine sand, 0 to 15 percent slopes	89.9827	14.4	1.8%
89	Quincy loamy fine sand, 0 to 15 percent slopes	92.0000	92.0	11.4%
90	Quincy loamy fine sand, 15 to 30 percent slopes	92.0000	4.8	0.6%
91	Quincy loamy fine sand, 30 to 55 percent slopes	92.0000	32.9	4.1%
92	Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes	92.0000	55.4	6.9%
97	Quincy-Hezel complex, 0 to 15 percent slopes	92.0000	67.5	8.4%
104	Rinquin loamy fine sand, 0 to 10 percent slopes	92.0000	20.0	2.5%
133	Sagehill very fine sandy loam, 0 to 2 percent slopes	22.3626	61.9	7.7%
134	Sagehill very fine sandy loam, 2 to 5 percent slopes	22.3626	4.0	0.5%
135	Sagehill very fine sandy loam, 5 to 10 percent slopes	22.3626	3.6	0.4%
148	Schlomer silt loam, 2 to 5 percent slopes	6.9070	1.1	0.1%
182	Taunton very fine sandy loam, 2 to 5 percent slopes	12.1319	1.6	0.2%
183	Timmerman fine sandy loam, 0 to 2 percent slopes	58.2418	29.8	3.7%
195	Warden very fine sandy loam, 0 to 2 percent slopes	9.0000	25.7	3.2%
219	Xeric Torriorthents, very steep	9.0000	4.2	0.5%
220	Water		6.9	0.9%
Totals for Area of Interest			**805.5**	**100.0%**

Rating Options—Saturated Hydraulic Conductivity (Ksat) (Saturated Hydraulic Conductivity (Ksat) - Zero to 36 inches (weighted average))

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 36

Units of Measure: Inches

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

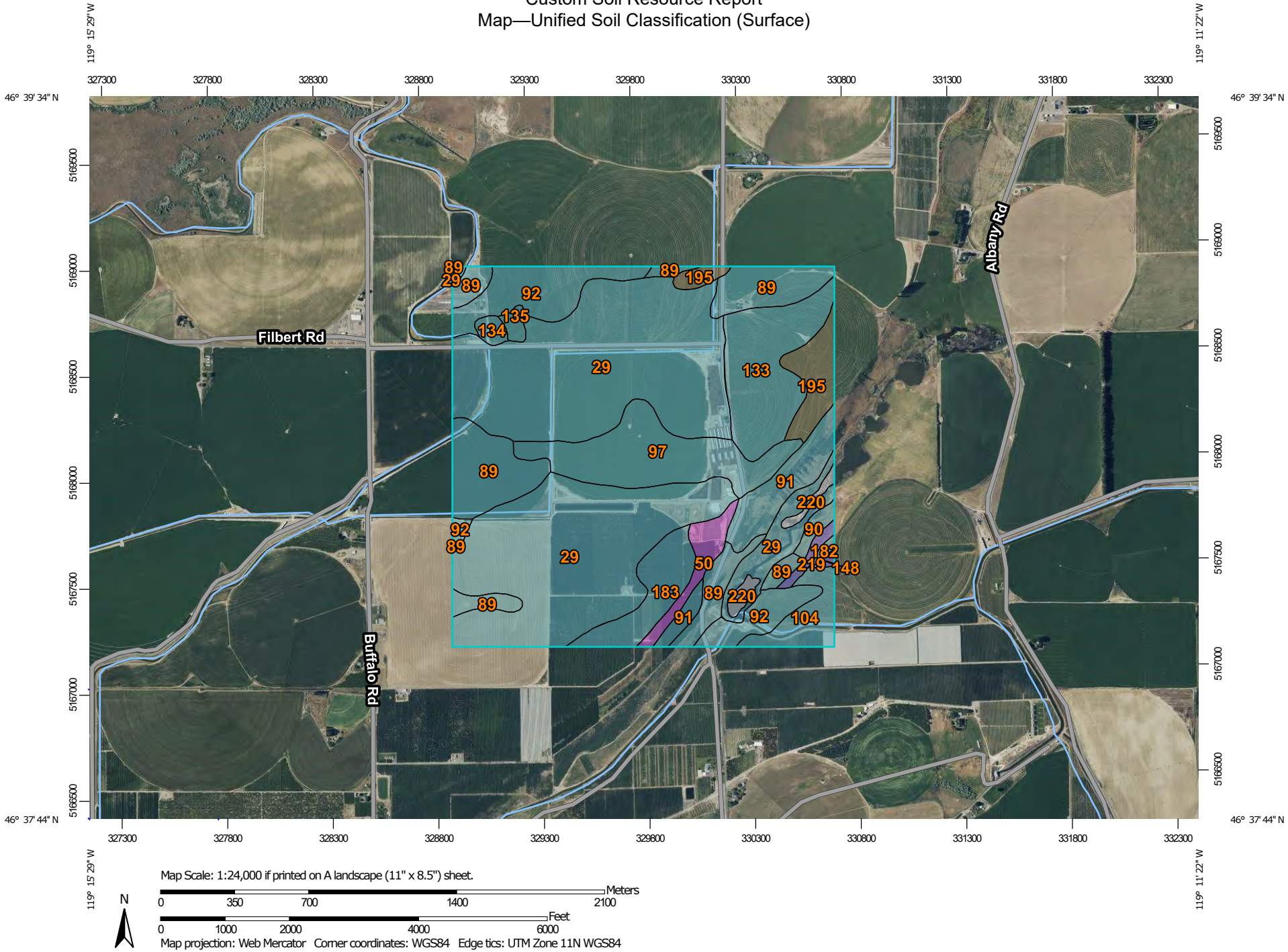
Unified Soil Classification (Surface)

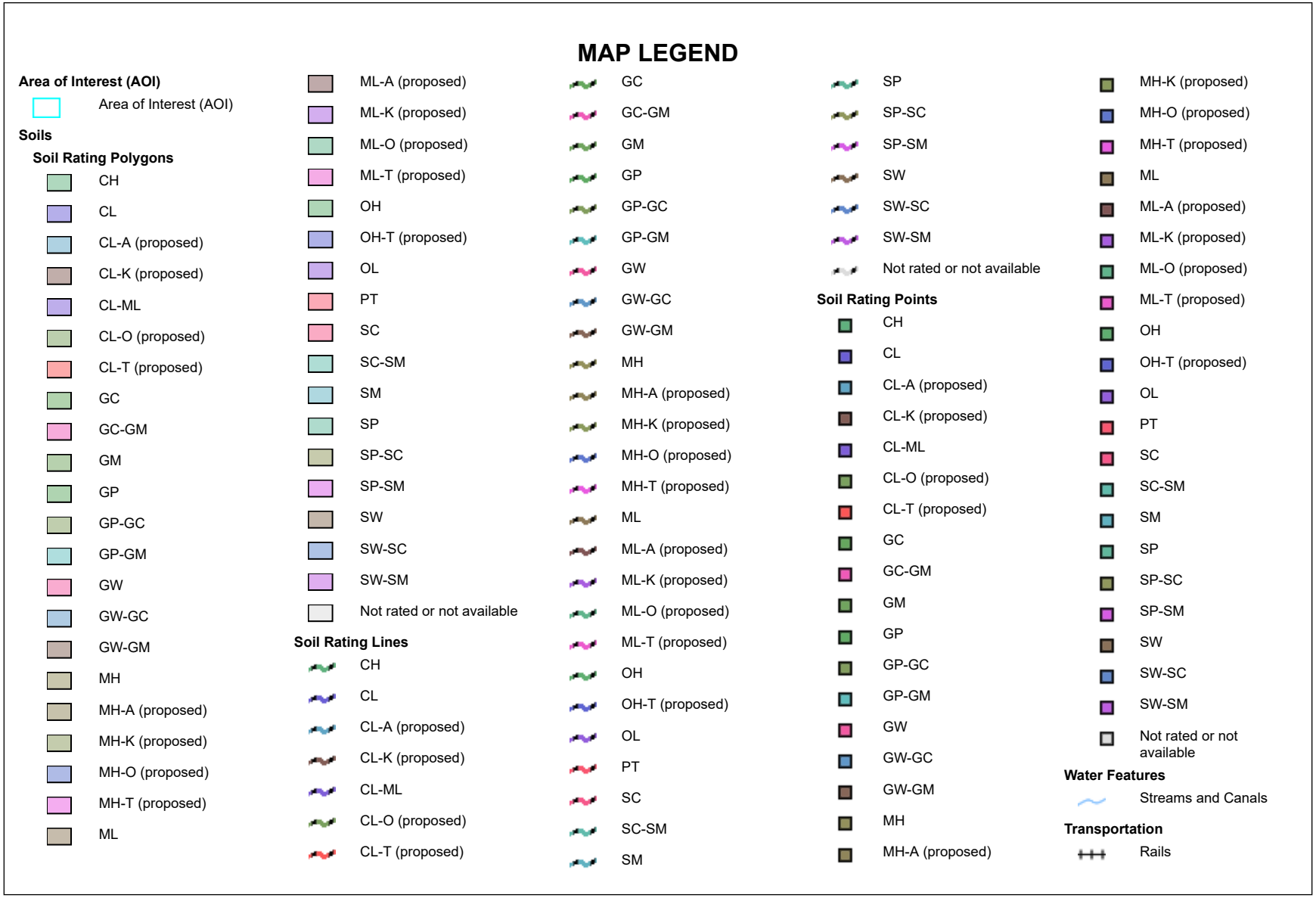
The Unified soil classification system classifies mineral and organic mineral soils for engineering purposes on the basis of particle-size characteristics, liquid limit, and plasticity index. It identifies three major soil divisions: (i) coarse-grained soils having less than 50 percent, by weight, particles smaller than 0.074 mm in diameter; (ii) fine-grained soils having 50 percent or more, by weight, particles smaller than 0.074 mm in diameter; and (iii) highly organic soils that demonstrate certain organic characteristics. These divisions are further subdivided into a total of 15 basic soil groups. The major soil divisions and basic soil groups are determined on the basis of estimated or measured values for grain-size distribution and Atterberg limits. ASTM D 2487 shows the criteria chart used for classifying soil in the Unified system and the 15 basic soil groups of the system and the plasticity chart for the Unified system.

The various groupings of this classification correlate in a general way with the engineering behavior of soils. This correlation provides a useful first step in any field or laboratory investigation for engineering purposes. It can serve to make some general interpretations relating to probable performance of the soil for engineering uses.

For each soil horizon in the database one or more Unified soil classifications may be listed. One is marked as the representative or most commonly occurring. The representative classification is shown here for the surface layer of the soil.

Custom Soil Resource Report
Map—Unified Soil Classification (Surface)




MAP LEGEND
Area of Interest (AOI)
Area of Interest (AOI)
Soils
Soil Rating Polygons
CH
CL
CL-A (proposed)
CL-K (proposed)
CL-ML
CL-O (proposed)
CL-T (proposed)
GC
GC-GM
GM
GP
GP-GC
GP-GM
GW
GW-GC
GW-GM
MH
MH-A (proposed)
MH-K (proposed)
MH-O (proposed)
MH-T (proposed)
ML
ML-A (proposed)
ML-K (proposed)
ML-O (proposed)
ML-T (proposed)
OH
OH-T (proposed)
OL
PT
SC
SC-SM
SM
SP
SP-SC
SP-SM
SW
SW-SC
SW-SM
Not rated or not available
Soil Rating Lines
CH
CL
CL-A (proposed)
CL-K (proposed)
CL-ML
CL-O (proposed)
CL-T (proposed)
GC
GC-GM
GM
GP
GP-GC
GP-GM
GW
GW-GC
GW-GM
MH
MH-A (proposed)
MH-K (proposed)
MH-O (proposed)
MH-T (proposed)
ML
ML-A (proposed)
ML-K (proposed)
ML-O (proposed)
ML-T (proposed)
OH
OH-T (proposed)
OL
PT
SC
SC-SM
SM
SP
SP-SC
SP-SM
SW
SW-SC
SW-SM
Not rated or not available
Soil Rating Points
CH
CL
CL-A (proposed)
CL-K (proposed)
CL-ML
CL-O (proposed)
CL-T (proposed)
GC
GC-GM
GM
GP
GP-GC
GP-GM
GW
GW-GC
GW-GM
MH
MH-A (proposed)
MH-K (proposed)
MH-O (proposed)
MH-T (proposed)
ML
ML-A (proposed)
ML-K (proposed)
ML-O (proposed)
ML-T (proposed)
OH
OH-T (proposed)
OL
PT
SC
SC-SM
SM
SP
SP-SC
SP-SM
SW
SW-SC
SW-SM
Not rated or not available
Water Features
Streams and Canals
Transportation
Rails

MAP INFORMATION

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Washington
Survey Area Data: Version 22, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 26, 2022—Jun 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Unified Soil Classification (Surface)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
29	Hezel loamy fine sand, 0 to 15 percent slopes	SM	379.7	47.1%
50	Koehler fine sand, 0 to 15 percent slopes	SP-SM	14.4	1.8%
89	Quincy loamy fine sand, 0 to 15 percent slopes	SM	92.0	11.4%
90	Quincy loamy fine sand, 15 to 30 percent slopes	SM	4.8	0.6%
91	Quincy loamy fine sand, 30 to 55 percent slopes	SM	32.9	4.1%
92	Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes	SM	55.4	6.9%
97	Quincy-Hezel complex, 0 to 15 percent slopes	SM	67.5	8.4%
104	Rinquin loamy fine sand, 0 to 10 percent slopes	SM	20.0	2.5%
133	Sagehill very fine sandy loam, 0 to 2 percent slopes	SM	61.9	7.7%
134	Sagehill very fine sandy loam, 2 to 5 percent slopes	SM	4.0	0.5%
135	Sagehill very fine sandy loam, 5 to 10 percent slopes	SM	3.6	0.4%
148	Schlomer silt loam, 2 to 5 percent slopes	CL	1.1	0.1%
182	Taunton very fine sandy loam, 2 to 5 percent slopes	SM	1.6	0.2%
183	Timmerman fine sandy loam, 0 to 2 percent slopes	SM	29.8	3.7%
195	Warden very fine sandy loam, 0 to 2 percent slopes	ML	25.7	3.2%
219	Xeric Torriorthents, very steep	CL	4.2	0.5%
220	Water		6.9	0.9%
Totals for Area of Interest			**805.5**	**100.0%**

Rating Options—Unified Soil Classification (Surface)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

AOI Inventory

This folder contains a collection of tabular reports that present a variety of soil information. Included are various map unit description reports, special soil interpretation reports, and data summary reports.

Component Text Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the selected area. The component descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit. A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the associated soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas (components) for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The "Map Unit Component Nontechnical Descriptions" report gives a brief, general description of the soil components that occur in a map unit. Descriptions of nonsoil (miscellaneous areas) and minor map unit components may or may not be included. This description is written by the local soil scientists responsible for the respective soil survey area data. A more detailed description can be generated by the "Map Unit Description" report.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Component Text Descriptions

Franklin County, Washington

Map Unit: 29—Hezel loamy fine sand, 0 to 15 percent slopes

Description Category: GENSOIL

Hezel: 85 percent

The Hezel component makes up 85 percent of the map unit. Slopes are 0 to 15 percent. This component is on dissected terraces. The parent material consists of glaciofluvial deposits with a mantle of eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Quincy: 10 percent

Generated brief soil descriptions are created for major soil components. The Quincy soil is a minor component.

Description Category: GENSOIL

Sagehill: 5 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Map Unit: 50—Koehler fine sand, 0 to 15 percent slopes

Description Category: GENSOIL

Koehler: 75 percent

The Koehler component makes up 75 percent of the map unit. Slopes are 0 to 15 percent. This component is on terraces. The parent material consists of eolian sands. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter

content in the surface horizon is about 1 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5 percent.

Description Category: GENSOIL

Sagehill: 10 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Map Unit: 89—Quincy loamy fine sand, 0 to 15 percent slopes

Description Category: GENSOIL

Quincy: 85 percent

The Quincy component makes up 85 percent of the map unit. Slopes are 0 to 15 percent. This component is on terraces. The parent material consists of mixed eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent.

Description Category: GENSOIL

Sagehill: 15 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Map Unit: 90—Quincy loamy fine sand, 15 to 30 percent slopes

Description Category: GENSOIL

Quincy: 85 percent

The Quincy component makes up 85 percent of the map unit. Slopes are 15 to 30 percent. This component is on terraces. The parent material consists of mixed eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY140WA Sands

ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent.

Description Category: GENSOIL

Sagehill: 10 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Description Category: GENSOIL

Royal: 5 percent

Generated brief soil descriptions are created for major soil components. The Royal soil is a minor component.

Map Unit: 91—Quincy loamy fine sand, 30 to 55 percent slopes

Description Category: GENSOIL

Quincy: 85 percent

The Quincy component makes up 85 percent of the map unit. Slopes are 30 to 55 percent. This component is on terraces. The parent material consists of mixed eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent.

Description Category: GENSOIL

Sagehill: 10 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Description Category: GENSOIL

Royal: 5 percent

Generated brief soil descriptions are created for major soil components. The Royal soil is a minor component.

Map Unit: 92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes

Description Category: GENSOIL

Quincy: 85 percent

The Quincy component makes up 85 percent of the map unit. Slopes are 0 to 10 percent. This component is on terraces. The parent material consists of mixed eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

Map Unit: 97—Quincy-Hezel complex, 0 to 15 percent slopes

Description Category: GENSOIL

Quincy: 50 percent

The Quincy component makes up 50 percent of the map unit. Slopes are 0 to 15 percent. This component is on terraces. The parent material consists of mixed eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent.

Description Category: GENSOIL

Hezel: 25 percent

The Hezel component makes up 25 percent of the map unit. Slopes are 0 to 15 percent. This component is on dissected terraces. The parent material consists of glaciofluvial deposits with a mantle of eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R007XY140WA Sands ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Warden: 5 percent

Generated brief soil descriptions are created for major soil components. The Warden soil is a minor component.

Description Category: GENSOIL

Sagehill: 5 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Description Category: GENSOIL

Kennewick: 5 percent

Generated brief soil descriptions are created for major soil components. The Kennewick soil is a minor component.

Map Unit: 104—Rinquin loamy fine sand, 0 to 10 percent slopes

Description Category: GENSOIL

Rinquin: 75 percent

The Rinquin component makes up 75 percent of the map unit. Slopes are 0 to 10 percent. This component is on terraces. The parent material consists of outwash and eolian sands over semiconsolidated siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R007XY449WA Sandy ecological site. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 6 percent.

Description Category: GENSOIL

Sagehill: 15 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Description Category: GENSOIL

Wiehl: 10 percent

Generated brief soil descriptions are created for major soil components. The Wiehl soil is a minor component.

Map Unit: 133—Sagehill very fine sandy loam, 0 to 2 percent slopes

Description Category: GENSOIL

Sagehill: 75 percent

The Sagehill component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of lacustrine deposits with a mantle of loess or eolian deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY130WA Loamy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 1 This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 11 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Kennewick: 15 percent

Generated brief soil descriptions are created for major soil components. The Kennewick soil is a minor component.

Map Unit: 134—Sagehill very fine sandy loam, 2 to 5 percent slopes

Description Category: GENSOIL

Sagehill: 75 percent

The Sagehill component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on terraces. The parent material consists of lacustrine deposits with a mantle of loess or eolian deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY130WA Loamy ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 11 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Kennewick: 15 percent

Generated brief soil descriptions are created for major soil components. The Kennewick soil is a minor component.

Map Unit: 135—Sagehill very fine sandy loam, 5 to 10 percent slopes

Description Category: GENSOIL

Sagehill: 75 percent

The Sagehill component makes up 75 percent of the map unit. Slopes are 5 to 10 percent. This component is on terraces. The parent material consists of lacustrine deposits with a mantle of loess or eolian deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY130WA Loamy ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 11 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Kennewick: 15 percent

Generated brief soil descriptions are created for major soil components. The Kennewick soil is a minor component.

Map Unit: 148—Schlomer silt loam, 2 to 5 percent slopes

Description Category: GENSOIL

Schlomer: 75 percent

The Schlomer component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on terraces. The parent material consists of loess over semiconsolidated residuum weathered from shale and siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY130WA Loamy ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

Description Category: GENSOIL

Quincy: 10 percent

Generated brief soil descriptions are created for major soil components. The Quincy soil is a minor component.

Map Unit: 182—Taunton very fine sandy loam, 2 to 5 percent slopes

Description Category: GENSOIL

Taunton: 85 percent

The Taunton component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on terraces. The parent material consists of alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY130WA Loamy ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 18 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Tauncal: 5 percent

Generated brief soil descriptions are created for major soil components. The Tauncal soil is a minor component.

Description Category: GENSOIL

Koehler: 5 percent

Generated brief soil descriptions are created for major soil components. The Koehler soil is a minor component.

Map Unit: 183—Timmerman fine sandy loam, 0 to 2 percent slopes

Description Category: GENSOIL

Timmerman: 85 percent

The Timmerman component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of glacial outwash and alluvium mixed with loess in the upper part. Depth to a root restrictive layer, strongly contrasting textural stratification, is 13 to 30 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY143WA Sandy Loam ecological site. Nonirrigated land capability classification is 6e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically,

does not exceed 8 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Royal: 5 percent

Generated brief soil descriptions are created for major soil components. The Royal soil is a minor component.

Description Category: GENSOIL

Winchester: 5 percent

Generated brief soil descriptions are created for major soil components. The Winchester soil is a minor component.

Description Category: GENSOIL

Sagehill: 5 percent

Generated brief soil descriptions are created for major soil components. The Sagehill soil is a minor component.

Map Unit: 195—Warden very fine sandy loam, 0 to 2 percent slopes

Description Category: GENSOIL

Warden: 90 percent

The Warden component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of lacustrine deposits with a thin mantle of loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R007XY130WA Loamy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 1 This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 6 percent. There are no saline horizons within 30 inches of the soil surface.

Description Category: GENSOIL

Kennewick: 10 percent

Generated brief soil descriptions are created for major soil components. The Kennewick soil is a minor component.

Map Unit: 219—Xeric Torriorthents, very steep

Description Category: GENSOIL

Xeric torriorthents: 75 percent

The Xeric Torriorthents component makes up 75 percent of the map unit. Slopes are 40 to 90 percent. This component is on terraces. The parent material consists of loess and residuum weathered from sandstone and siltstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R007XY120WA Stony ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent.

Description Category: GENSOIL

Quincy: 10 percent

Generated brief soil descriptions are created for major soil components. The Quincy soil is a minor component.

Description Category: GENSOIL

Rock outcrop: 5 percent

Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Map Unit: 220—Water

Description Category: GENSOIL

Water: 100 percent

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Water Quality Index (WQIag) Soil Factors

This table shows the soil factors used in the *Water Quality Index for Runoff Water from Agricultural Fields (WQIag)*. The WQIag web interface is at http://wqiag.sc.egov.usda.gov/.

Slope gradient is the difference in elevation between two points and is expressed as a percentage of the distance between those points. For example, a difference in elevation of 1 meter over a horizontal distance of 100 meters is a slope of 1 percent.

Hydrologic group is a group of soils having similar runoff potential under similar storm and cover conditions. Soil properties that influence runoff potential are those

that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate.

Kw factor is an erosion factor for the surface mineral horizon that indicates the susceptibility of the soil to sheet and rill erosion by water. Factor Kw is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity. Values of Kw range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter in the surface mineral horizon.

Water Quality Index (WQIag) Soil Factors–Franklin County, Washington					
Map symbol and soil name	**Pct. of map unit**	**Slope gradient**	**Hydrologic group**	**Kw factor (surface horizon)**	**Organic matter (surface horizon)**
		Pct			*Pct*
29—Hezel loamy fine sand, 0 to 15 percent slopes					
Hezel	85	0 - 8 - 15	C	.28	0.0 - 0.3 - 0.5
50—Koehler fine sand, 0 to 15 percent slopes					
Koehler	75	0 - 8 - 15	A	.02	0.5 - 0.8 - 1.0
89—Quincy loamy fine sand, 0 to 15 percent slopes					
Quincy	85	0 - 8 - 15	A	.24	0.5 - 0.8 - 1.0
90—Quincy loamy fine sand, 15 to 30 percent slopes					
Quincy	85	15 - 23 - 30	A	.24	0.5 - 0.8 - 1.0
91—Quincy loamy fine sand, 30 to 55 percent slopes					
Quincy	85	30 - 43 - 55	A	.24	0.5 - 0.8 - 1.0
92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes					
Quincy	85	0 - 5 - 10	A	.24	1.0 - 1.5 - 2.0
97—Quincy-Hezel complex, 0 to 15 percent slopes					
Quincy	50	0 - 8 - 15	A	.24	0.5 - 0.8 - 1.0
Hezel	25	0 - 8 - 15	C	.28	0.0 - 0.3 - 0.5
104—Rinquin loamy fine sand, 0 to 10 percent slopes					
Rinquin	75	0 - 5 - 10	A	.28	0.2 - 0.3 - 0.5
133—Sagehill very fine sandy loam, 0 to 2 percent slopes					
Sagehill	75	0 - 1 - 2	B	.49	0.8 - 1.4 - 2.0
134—Sagehill very fine sandy loam, 2 to 5 percent slopes					
Sagehill	75	2 - 4 - 5	B	.49	0.8 - 1.4 - 2.0

Water Quality Index (WQIag) Soil Factors–Franklin County, Washington					
Map symbol and soil name	**Pct. of map unit**	**Slope gradient**	**Hydrologic group**	**Kw factor (surface horizon)**	**Organic matter (surface horizon)**
		Pct			*Pct*
135—Sagehill very fine sandy loam, 5 to 10 percent slopes					
Sagehill	75	5 - 8 - 10	B	.49	0.8 - 1.4 - 2.0
148—Schlomer silt loam, 2 to 5 percent slopes					
Schlomer	75	2 - 4 - 5	C	.55	0.5 - 0.8 - 1.0
182—Taunton very fine sandy loam, 2 to 5 percent slopes					
Taunton	85	2 - 4 - 5	C	.49	0.5 - 1.3 - 2.0
183—Timmerman fine sandy loam, 0 to 2 percent slopes					
Timmerman	85	0 - 1 - 2	A	.43	0.5 - 0.8 - 1.0
195—Warden very fine sandy loam, 0 to 2 percent slopes					
Warden	90	0 - 1 - 2	B	.43	1.0 - 2.0 - 3.0
219—Xeric Torriorthents, very steep					
Xeric torriorthents	75	40 - 65 - 90	B	.43	0.0 - 0.5 - 1.0

Soil Chemical Properties

This folder contains a collection of tabular reports that present soil chemical properties. The reports (tables) include all selected map units and components for each map unit. Soil chemical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil chemical properties include pH, cation exchange capacity, calcium carbonate, gypsum, and electrical conductivity.

Chemical Soil Properties

This table shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. It is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste.

It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced saturated hydraulic conductivity and aeration, and a general degradation of soil structure.

Chemical Soil Properties–Franklin County, Washington								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
29—Hezel loamy fine sand, 0 to 15 percent slopes								
Hezel	0-7	1.0-5.0	—	6.6-8.4	0	0	0	0
	7-18	1.0-5.0	—	6.6-8.4	0	0	0	0
	18-27	1.0-5.0	—	7.4-9.0	1-5	0	0.0-2.0	0
	27-60	1.0-5.0	—	7.4-9.0	5-15	0	0.0-2.0	0
50—Koehler fine sand, 0 to 15 percent slopes								
Koehler	0-4	5.0-15	—	7.4-8.4	0	0	0	0
	4-35	5.0-15	—	7.4-8.4	0-10	0	0	0
	35-45	—	—	—	—	—	—	—
	45-60	—	—	—	—	—	—	—
89—Quincy loamy fine sand, 0 to 15 percent slopes								
Quincy	0-4	1.0-3.0	—	6.6-8.4	0	0	0	0
	4-60	1.0-3.0	—	6.6-8.4	0-3	0	0	0
90—Quincy loamy fine sand, 15 to 30 percent slopes								
Quincy	0-4	1.0-3.0	—	6.6-8.4	0	0	0	0
	4-60	1.0-3.0	—	6.6-8.4	0-3	0	0	0
91—Quincy loamy fine sand, 30 to 55 percent slopes								
Quincy	0-4	1.0-3.0	—	6.6-8.4	0	0	0	0
	4-60	1.0-3.0	—	6.6-8.4	0-3	0	0	0

Chemical Soil Properties–Franklin County, Washington								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes								
Quincy	0-3	1.0-4.0	—	6.6-8.4	0	0	0	0
	3-52	1.0-4.0	—	6.6-8.4	0-5	0	0	0
	52-60	3.0-8.0	—	7.4-9.0	5-15	0	0.0-2.0	0-5
97—Quincy-Hezel complex, 0 to 15 percent slopes								
Quincy	0-4	1.0-3.0	—	6.6-8.4	0	0	0	0
	4-60	1.0-3.0	—	6.6-8.4	0-3	0	0	0
Hezel	0-7	1.0-5.0	—	6.6-8.4	0	0	0	0
	7-18	1.0-5.0	—	6.6-8.4	0	0	0	0
	18-27	1.0-5.0	—	7.4-9.0	1-5	0	0.0-2.0	0
	27-60	1.0-5.0	—	7.4-9.0	5-15	0	0.0-2.0	0
104—Rinquin loamy fine sand, 0 to 10 percent slopes								
Rinquin	0-7	2.0-7.0	—	6.6-7.8	0	0	0	0
	7-21	2.0-7.0	—	6.6-7.8	0	0	0	0
	21-26	2.0-7.0	—	7.4-8.4	2-10	0	0	0
	26-36	—	—	—	—	—	—	—
133—Sagehill very fine sandy loam, 0 to 2 percent slopes								
Sagehill	0-6	5.0-10	—	6.6-8.4	0	0	0	0
	6-25	5.0-10	—	6.6-8.4	0	0	0	0
	25-60	5.0-10	—	7.9-9.0	2-20	0	0.0-2.0	0

Chemical Soil Properties–Franklin County, Washington								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
134—Sagehill very fine sandy loam, 2 to 5 percent slopes								
Sagehill	0-6	5.0-10	—	6.6-8.4	0	0	0	0
	6-25	5.0-10	—	6.6-8.4	0	0	0	0
	25-60	5.0-10	—	7.9-9.0	2-20	0	0.0-2.0	0
135—Sagehill very fine sandy loam, 5 to 10 percent slopes								
Sagehill	0-6	5.0-10	—	6.6-8.4	0	0	0	0
	6-25	5.0-10	—	6.6-8.4	0	0	0	0
	25-60	5.0-10	—	7.9-9.0	2-20	0	0.0-2.0	0
148—Schlomer silt loam, 2 to 5 percent slopes								
Schlomer	0-4	8.0-14	—	7.4-7.8	0	0	0	0
	4-16	8.0-14	—	7.4-7.8	0	0	0	0
	16-22	8.0-14	—	7.4-7.8	0	0	0	0
	22-34	25-40	—	7.4-8.4	1-5	0	0	0
	34-44	—	—	—	—	—	—	—
182—Taunton very fine sandy loam, 2 to 5 percent slopes								
Taunton	0-6	10-20	—	7.4-8.4	0	0	0	0
	6-25	10-20	—	7.4-9.0	0	0	0.0-2.0	0
	25-38	10-20	—	7.4-9.0	10-25	0	0.0-2.0	0
	38-48	—	—	—	—	—	—	—
	48-60	—	—	—	—	—	—	—

Chemical Soil Properties–Franklin County, Washington								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
183—Timmerman fine sandy loam, 0 to 2 percent slopes								
Timmerman	0-5	5.0-10	—	6.6-7.8	0	0	0	0
	5-19	5.0-10	—	6.6-7.8	0	0	0	0
	19-60	0.0-5.0	—	7.4-9.0	2-15	0	0.0-2.0	0
195—Warden very fine sandy loam, 0 to 2 percent slopes								
Warden	0-6	2.0-9.0	—	6.6-7.8	0	0	0	0
	6-19	4.0-8.0	—	6.6-7.8	0	0	0	0
	19-60	4.0-8.0	—	7.9-9.0	3-8	0	0.0-2.0	0
219—Xeric Torriorthents, very steep								
Xeric torriorthents	0-3	6.0-14	—	7.4-8.4	1-5	0	0	0
	3-60	4.0-12	—	7.4-8.4	1-15	0	0	0
220—Water								
Water	—	—	—	—	—	—	—	—

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Particle Size and Coarse Fragments

This table shows estimates of particle size distribution and coarse fragment content of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Total fragments is the content of fragments of rock and other materials larger than 2 millimeters in diameter on volumetric basis of the whole soil.

Fragments 2-74 mm refers to the content of coarse fragments in the 2 to 74 millimeter size fraction.

Fragments 75-249 mm refers to the content of coarse fragments in teh 75 to 249 millimeter size fraction.

Fragments 250-599 mm refers to the content of coarse fragments in the 250 to 599 millimeter size fraction.

Fragments >=600 mm refers to the content of coarse fragments in the greater than or equal to 600 millimeter size fraction.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Particle Size and Coarse Fragments–Franklin County, Washington										
Map symbol and soil name	**Horizon**	**Depth**	**Sand**	**Silt**	**Clay**	**Total fragments**	**Fragments 2-74 mm**	**Fragments 75-249 mm**	**Fragments 250-599 mm**	**Fragments >=600 mm**
		In	*L-RV-H Pct*	*L-RV-H Pct*	*L-RV-H Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*
29—Hezel loamy fine sand, 0 to 15 percent slopes										
Hezel	H1	0-7	-80-	-17-	2- 4- 5	—	—	—	—	—
	H2	7-18	-81-	-17-	0- 3- 5	—	—	—	—	—
	H3	18-27	-66-	-28-	5- 7- 8	—	—	—	—	—
	H4	27-60	-71-	-22-	5- 7- 8	—	—	—	—	—
50—Koehler fine sand, 0 to 15 percent slopes										
Koehler	H1	0-4	-97-	- 1-	0- 3- 5	12	10	2	—	—
	H2	4-35	-81-	-17-	0- 3- 5	14	12	2	—	—
	H3	35-45	—	—	—	57	57	—	—	—
	H4	45-60	—	—	—	57	57	—	—	—
89—Quincy loamy fine sand, 0 to 15 percent slopes										
Quincy	H1	0-4	-80-	-17-	1- 4- 6	—	—	—	—	—
	H2	4-60	-79-	-17-	1- 4- 7	—	—	—	—	—
90—Quincy loamy fine sand, 15 to 30 percent slopes										
Quincy	H1	0-4	-80-	-17-	1- 4- 6	—	—	—	—	—
	H2	4-60	-79-	-17-	1- 4- 7	—	—	—	—	—
91—Quincy loamy fine sand, 30 to 55 percent slopes										
Quincy	H1	0-4	-80-	-17-	1- 4- 6	—	—	—	—	—
	H2	4-60	-79-	-17-	1- 4- 7	—	—	—	—	—

Particle Size and Coarse Fragments–Franklin County, Washington										
Map symbol and soil name	**Horizon**	**Depth**	**Sand**	**Silt**	**Clay**	**Total fragments**	**Fragments 2-74 mm**	**Fragments 75-249 mm**	**Fragments 250-599 mm**	**Fragments >=600 mm**
		In	*L-RV-H Pct*	*L-RV-H Pct*	*L-RV-H Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*
92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes										
Quincy	H1	0-3	-80-	-17-	0- 4- 7	4	4	—	—	—
	H2	3-52	-79-	-17-	1- 4- 7	4	4	—	—	—
	H3	52-60	-34-	-59-	5- 8- 10	4	4	—	—	—
97—Quincy-Hezel complex, 0 to 15 percent slopes										
Quincy	H1	0-4	-80-	-17-	1- 4- 6	—	—	—	—	—
	H2	4-60	-79-	-17-	1- 4- 7	—	—	—	—	—
Hezel	H1	0-7	-80-	-17-	2- 4- 5	—	—	—	—	—
	H2	7-18	-81-	-17-	0- 3- 5	—	—	—	—	—
	H3	18-27	-66-	-28-	5- 7- 8	—	—	—	—	—
	H4	27-60	-34-	-59-	5- 7- 8	—	—	—	—	—
104—Rinquin loamy fine sand, 0 to 10 percent slopes										
Rinquin	H1	0-7	-81-	-17-	1- 2- 3	5	5	—	—	—
	H2	7-21	-81-	-17-	1- 2- 3	5	5	—	—	—
	H3	21-26	-81-	-17-	1- 2- 3	5	5	—	—	—
	H4	26-36	—	—	—	57	57	—	—	—

Particle Size and Coarse Fragments–Franklin County, Washington										
Map symbol and soil name	**Horizon**	**Depth**	**Sand**	**Silt**	**Clay**	**Total fragments**	**Fragments 2-74 mm**	**Fragments 75-249 mm**	**Fragments 250-599 mm**	**Fragments >=600 mm**
		In	*L-RV-H Pct*	*L-RV-H Pct*	*L-RV-H Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*
133—Sagehill very fine sandy loam, 0 to 2 percent slopes										
Sagehill	H1	0-6	-60-	-35-	2- 5- 8	6	4	2	—	—
	H2	6-25	-60-	-35-	2- 5- 8	6	4	2	—	—
	H3	25-60	-37-	-58-	2- 5- 8	6	4	2	—	—
134—Sagehill very fine sandy loam, 2 to 5 percent slopes										
Sagehill	H1	0-6	-60-	-35-	2- 5- 8	6	4	2	—	—
	H2	6-25	-60-	-35-	2- 5- 8	6	4	2	—	—
	H3	25-60	-37-	-58-	2- 5- 8	6	4	2	—	—
135—Sagehill very fine sandy loam, 5 to 10 percent slopes										
Sagehill	H1	0-6	-60-	-35-	2- 5- 8	6	4	2	—	—
	H2	6-25	-60-	-35-	2- 5- 8	6	4	2	—	—
	H3	25-60	-37-	-58-	2- 5- 8	6	4	2	—	—
148—Schlomer silt loam, 2 to 5 percent slopes										
Schlomer	H1	0-4	-14-	-73-	10-13- 15	—	—	—	—	—
	H2	4-16	-14-	-73-	10-13- 15	—	—	—	—	—
	H3	16-22	-14-	-73-	10-13- 15	—	—	—	—	—
	H4	22-34	- 8-	-56-	27-36- 45	—	—	—	—	—
	H5	34-44	—	—	—	57	57	—	—	—

Particle Size and Coarse Fragments–Franklin County, Washington										
Map symbol and soil name	**Horizon**	**Depth**	**Sand**	**Silt**	**Clay**	**Total fragments**	**Fragments 2-74 mm**	**Fragments 75-249 mm**	**Fragments 250-599 mm**	**Fragments >=600 mm**
		In	*L-RV-H Pct*	*L-RV-H Pct*	*L-RV-H Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*	*RV Pct*
182—Taunton very fine sandy loam, 2 to 5 percent slopes										
Taunton	H1	0-6	-67-	-27-	5- 7- 8	5	5	—	—	—
	H2	6-25	-65-	-27-	5- 9- 12	5	5	—	—	—
	H3	25-38	-65-	-27-	5- 9- 12	36	33	3	—	—
	H4	38-48	—	—	—	57	57	—	—	—
	H5	48-60	—	—	0- 5- 10	57	57	—	—	—
183—Timmerman fine sandy loam, 0 to 2 percent slopes										
Timmerman	H1	0-5	-62-	-35-	0- 3- 5	—	—	—	—	—
	H2	5-19	-66-	-31-	0- 3- 5	2	2	—	—	—
	H3	19-60	-80-	-17-	0- 3- 5	18	14	4	—	—
195—Warden very fine sandy loam, 0 to 2 percent slopes										
Warden	H1	0-6	-63-	-29-	5- 8- 10	4	4	—	—	—
	H2	6-19	-62-	-28-	8-10- 12	4	4	—	—	—
	H3	19-60	-21-	-69-	8-10- 12	4	4	—	—	—
219—Xeric Torriorthents, very steep										
Xeric Torriorthents	H1	0-3	-26-	-53-	15-21- 27	5	5	—	—	—
	H2	3-60	-62-	-21-	8-18- 27	5	5	—	—	—
220—Water										
Water	—	—	—	—	—	—	—	—	—	—

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Physical Soil Properties–Franklin County, Washington														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
29—Hezel loamy fine sand, 0 to 15 percent slopes														
Hezel	0-7	-80-	-17-	2- 4- 5	1.25-1.45	42.34-141.14	0.09-0.13	0.0-2.9	0.0-0.5	.28	.28	5	2	134
	7-18	-81-	-17-	0- 3- 5	1.40-1.60	42.34-141.14	0.08-0.12	0.0-2.9	0.0-0.5	.32	.32			
	18-27	-66-	-28-	5- 7- 8	1.30-1.50	4.23-14.11	0.13-0.21	0.0-2.9	0.0-0.5	.43	.43			
	27-60	-71-	-22-	5- 7- 8	1.30-1.50	1.40-4.23	0.13-0.21	0.0-2.9	0.0-0.5	.37	.37			
50—Koehler fine sand, 0 to 15 percent slopes														
Koehler	0-4	-97-	- 1-	0- 3- 5	1.40-1.60	42.34-141.14	0.07-0.11	0.0-2.9	0.5-1.0	.02	.02	2	1	250
	4-35	-81-	-17-	0- 3- 5	1.40-1.60	42.34-141.14	0.08-0.10	0.0-2.9	0.0-0.5	.24	.24			
	35-45	—	—	—	1.60-1.80	0.00-0.42	—	—	—					
	45-60	—	—	—	1.40-1.60	0.42-1.41	—	—	—					
89—Quincy loamy fine sand, 0 to 15 percent slopes														
Quincy	0-4	-80-	-17-	1- 4- 6	1.50-1.65	42.34-141.14	0.09-0.11	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	4-60	-79-	-17-	1- 4- 7	1.50-1.65	42.34-141.14	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			

Physical Soil Properties–Franklin County, Washington														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
90—Quincy loamy fine sand, 15 to 30 percent slopes														
Quincy	0-4	-80-	-17-	1- 4- 6	1.50-1.65	42.34-141.14	0.09-0.11	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	4-60	-79-	-17-	1- 4- 7	1.50-1.65	42.34-141.14	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
91—Quincy loamy fine sand, 30 to 55 percent slopes														
Quincy	0-4	-80-	-17-	1- 4- 6	1.50-1.65	42.34-141.14	0.09-0.11	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	4-60	-79-	-17-	1- 4- 7	1.50-1.65	42.34-141.14	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes														
Quincy	0-3	-80-	-17-	0- 4- 7	1.25-1.45	42.34-141.14	0.08-0.11	0.0-2.9	1.0-2.0	.24	.24	5	2	134
	3-52	-79-	-17-	1- 4- 7	1.30-1.50	42.34-141.14	0.08-0.11	0.0-2.9	0.0-0.5	.32	.32			
	52-60	-34-	-59-	5- 8- 10	1.50-1.70	4.23-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.64	.64			

Physical Soil Properties–Franklin County, Washington														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
97—Quincy-Hezel complex, 0 to 15 percent slopes														
Quincy	0-4	-80-	-17-	1- 4- 6	1.50-1.65	42.34-141.14	0.09-0.11	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	4-60	-79-	-17-	1- 4- 7	1.50-1.65	42.34-141.14	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
Hezel	0-7	-80-	-17-	2- 4- 5	1.25-1.45	42.34-141.14	0.09-0.13	0.0-2.9	0.0-0.5	.28	.28	5	2	134
	7-18	-81-	-17-	0- 3- 5	1.40-1.60	42.34-141.14	0.08-0.12	0.0-2.9	0.0-0.5	.32	.32			
	18-27	-66-	-28-	5- 7- 8	1.30-1.50	4.23-14.11	0.13-0.21	0.0-2.9	0.0-0.5	.43	.43			
	27-60	-34-	-59-	5- 7- 8	1.30-1.50	1.40-4.23	0.13-0.21	0.0-2.9	0.0-0.5	.64	.64			
104—Rinquin loamy fine sand, 0 to 10 percent slopes														
Rinquin	0-7	-81-	-17-	1- 2- 3	1.50-1.65	42.34-141.14	0.10-0.12	0.0-2.9	0.2-0.5	.28	.28	3	2	134
	7-21	-81-	-17-	1- 2- 3	1.50-1.70	42.34-141.14	0.09-0.11	0.0-2.9	0.0-0.5	.49	.49			
	21-26	-81-	-17-	1- 2- 3	1.50-1.70	42.34-141.14	0.09-0.11	0.0-2.9	0.0-0.5	.49	.49			
	26-36	—	—	—	1.70-2.00	—	—	—	—					
133—Sagehill very fine sandy loam, 0 to 2 percent slopes														
Sagehill	0-6	-60-	-35-	2- 5- 8	1.30-1.60	14.00-42.34	0.15-0.17	0.0-2.9	0.8-2.0	.49	.49	5	3	86
	6-25	-60-	-35-	2- 5- 8	1.30-1.60	14.00-42.34	0.14-0.16	0.0-2.9	0.0-0.5	.64	.64			
	25-60	-37-	-58-	2- 5- 8	1.30-1.60	4.23-14.11	0.18-0.20	0.0-2.9	0.0-0.5	.64	.64			

Physical Soil Properties–Franklin County, Washington														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
134—Sagehill very fine sandy loam, 2 to 5 percent slopes														
Sagehill	0-6	-60-	-35-	2- 5- 8	1.30-1.60	14.00-42.34	0.15-0.17	0.0-2.9	0.8-2.0	.49	.49	5	3	86
	6-25	-60-	-35-	2- 5- 8	1.30-1.60	14.00-42.34	0.14-0.16	0.0-2.9	0.0-0.5	.64	.64			
	25-60	-37-	-58-	2- 5- 8	1.30-1.60	4.23-14.11	0.18-0.20	0.0-2.9	0.0-0.5	.64	.64			
135—Sagehill very fine sandy loam, 5 to 10 percent slopes														
Sagehill	0-6	-60-	-35-	2- 5- 8	1.30-1.60	14.00-42.34	0.15-0.17	0.0-2.9	0.8-2.0	.49	.49	5	3	86
	6-25	-60-	-35-	2- 5- 8	1.30-1.60	14.00-42.34	0.14-0.16	0.0-2.9	0.0-0.5	.64	.64			
	25-60	-37-	-58-	2- 5- 8	1.30-1.60	4.23-14.11	0.18-0.20	0.0-2.9	0.0-0.5	.64	.64			
148—Schlomer silt loam, 2 to 5 percent slopes														
Schlomer	0-4	-14-	-73-	10-13- 15	1.20-1.40	4.23-14.11	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	3	5	56
	4-16	-14-	-73-	10-13- 15	1.30-1.50	4.23-14.11	0.17-0.21	0.0-2.9	0.5-1.0	.64	.64			
	16-22	-14-	-73-	10-13- 15	1.20-1.40	4.23-14.11	0.17-0.21	0.0-2.9	0.0-0.5	.64	.64			
	22-34	- 8-	-56-	27-36- 45	1.20-1.40	1.40-4.23	0.17-0.21	3.0-5.9	0.0-0.5	.43	.43			
	34-44	—	—	—	—	—	—	—	—					

Physical Soil Properties–Franklin County, Washington														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
182—Taunton very fine sandy loam, 2 to 5 percent slopes														
Taunton	0-6	-67-	-27-	5- 7- 8	1.15-1.40	14.00-42.34	0.16-0.20	0.0-2.9	0.5-2.0	.49	.49	2	3	86
	6-25	-65-	-27-	5- 9- 12	1.30-1.50	4.23-14.11	0.15-0.18	0.0-2.9	0.0-0.5	.55	.55			
	25-38	-65-	-27-	5- 9- 12	1.30-1.50	4.23-14.11	0.10-0.14	0.0-2.9	0.0-0.5	.28	.64			
	38-48	—	—	—	—	0.00-0.42	—	—	—					
	48-60	—	—	0- 5- 10	—	0.42-1.41	—	—	—					
183—Timmerman fine sandy loam, 0 to 2 percent slopes														
Timmerman	0-5	-62-	-35-	0- 3- 5	1.20-1.40	14.00-42.34	0.13-0.15	0.0-2.9	0.5-1.0	.43	.43	2	3	86
	5-19	-66-	-31-	0- 3- 5	1.35-1.55	14.00-42.34	0.12-0.15	0.0-2.9	0.0-0.5	.37	.37			
	19-60	-80-	-17-	0- 3- 5	1.40-1.60	42.34-141.14	0.03-0.06	0.0-2.9	0.0-0.5	.15	.20			
195—Warden very fine sandy loam, 0 to 2 percent slopes														
Warden	0-6	-63-	-29-	5- 8- 10	1.20-1.30	4.23-14.11	0.15-0.17	0.0-2.9	1.0-3.0	.43	.43	5	3	86
	6-19	-62-	-28-	8-10- 12	1.30-1.45	4.23-14.11	0.16-0.20	0.0-2.9	0.0-0.5	.55	.55			
	19-60	-21-	-69-	8-10- 12	1.35-1.50	4.23-14.11	0.19-0.21	0.0-2.9	0.0-0.5	.64	.64			

Physical Soil Properties–Franklin County, Washington														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
219—Xeric Torriorthents, very steep														
Xeric torriorthents	0-3	-26-	-53-	15-21- 27	1.15-1.35	4.23-14.11	0.16-0.21	3.0-5.9	0.0-1.0	.43	.43	5	6	48
	3-60	-62-	-21-	8-18- 27	1.20-1.40	4.23-14.11	0.16-0.18	3.0-5.9	0.0-0.5	.32	.32			
220—Water														
Water	—	—	—	—	—	—	—	—	—					

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
29—Hezel loamy fine sand, 0 to 15 percent slopes														
Hezel	85	C	0-7	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	80-90-100	15-25-35	0-5 -10	NP
			7-18	Loamy fine sand, loamy sand, fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	50-63-75	15-25-35	0-5 -10	NP
			18-27	Fine sandy loam, very fine sandy loam, silt loam	ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-83-95	50-65-80	15-20-25	NP-3 -5
			27-60	Stratified fine sandy loam to silt loam	ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	80-90-100	50-65-80	15-20-25	NP-3 -5
50—Koehler fine sand, 0 to 15 percent slopes														
Koehler	75	A	0-4	Fine sand	SP-SM	A-3	0- 0- 0	0- 3- 5	85-90-95	80-85-90	60-65-70	5- 8- 10	0-5 -10	NP
			4-35	Loamy fine sand, loamy sand, fine sand	SM	A-2	0- 0- 0	0- 3- 5	80-85-90	75-80-85	65-73-80	15-20-25	0-5 -10	NP
			35-45	Cemented material	—	—	—	—	—	—	—	—	—	—
			45-60	Stratified cemented material to very gravelly sandy loam	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
89—Quincy loamy fine sand, 0 to 15 percent slopes														
Quincy	85	A	0-4	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	75-88-100	15-23-30	0-5 -10	NP
			4-60	Loamy fine sand, fine sand	SP-SM, SM	A-2	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	75-88-100	10-20-30	0-5 -10	NP
90—Quincy loamy fine sand, 15 to 30 percent slopes														
Quincy	85	A	0-4	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	75-88-100	15-23-30	0-5 -10	NP
			4-60	Loamy fine sand, fine sand	SP-SM, SM	A-2	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	75-88-100	10-20-30	0-5 -10	NP
91—Quincy loamy fine sand, 30 to 55 percent slopes														
Quincy	85	A	0-4	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	75-88-100	15-23-30	0-5 -10	NP
			4-60	Loamy fine sand, fine sand	SP-SM, SM	A-2	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	75-88-100	10-20-30	0-5 -10	NP
92—Quincy loamy fine sand, loamy substratum, 0 to 10 percent slopes														
Quincy	85	A	0-3	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-88-95	10-20-30	0-5 -10	NP
			3-52	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-88-95	20-25-30	0-5 -10	NP
			52-60	Silt loam, very fine sandy loam, fine sandy loam	SM, ML	A-2, A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	75-85-95	25-48-70	20-25 -30	NP-3 -5

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	**Pct. of map unit**	**Hydrologic group**	**Depth**	**USDA texture**	**Classification**		**Pct Fragments**		**Percentage passing sieve number—**				**Liquid limit**	**Plasticity index**
					Unified	**AASHTO**	**>10 inches**	**3-10 inches**	**4**	**10**	**40**	**200**		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
97—Quincy-Hezel complex, 0 to 15 percent slopes														
Quincy	50	A	0-4	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	75-88-100	15-23-30	0-5 -10	NP
			4-60	Loamy fine sand, fine sand	SP-SM, SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	75-88-100	10-20-30	0-5 -10	NP
Hezel	25	C	0-7	Loamy fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	80-90-100	15-25-35	0-5 -10	NP
			7-18	Loamy fine sand, loamy sand, fine sand	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	50-63-75	15-25-35	0-5 -10	NP
			18-27	Fine sandy loam, very fine sandy loam, silt loam	ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-83-95	50-65-80	15-20-25	NP-3 -5
			27-60	Stratified fine sandy loam to silt loam	ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	80-90-100	50-65-80	15-20-25	NP-3 -5
104—Rinquin loamy fine sand, 0 to 10 percent slopes														
Rinquin	75	A	0-7	Loamy fine sand	SM	A-1, A-2	0- 0- 0	0- 0- 0	95-98-100	90-95-100	40-63-85	15-23-30	0-5 -10	NP
			7-21	Loamy fine sand, fine sand	SM	A-1, A-2	0- 0- 0	0- 0- 0	95-98-100	90-95-100	40-58-75	10-20-30	0-5 -10	NP
			21-26	Loamy fine sand, fine sand	SM	A-1, A-2	0- 0- 0	0- 0- 0	95-98-100	90-95-100	40-58-75	10-20-30	0-5 -10	NP
			26-36	Weathered bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
133—Sagehill very fine sandy loam, 0 to 2 percent slopes														
Sagehill	75	B	0-6	Very fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	90-93-95	40-50-60	20-23-25	NP-3 -5
			6-25	Very fine sandy loam, fine sandy loam, loamy very fine sand	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-88-95	40-55-70	20-23-25	NP-3 -5
			25-60	Silt loam, very fine sandy loam, fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-90-100	45-60-75	20-23-25	NP-3 -5
134—Sagehill very fine sandy loam, 2 to 5 percent slopes														
Sagehill	75	B	0-6	Very fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	90-93-95	40-50-60	20-23-25	NP-3 -5
			6-25	Very fine sandy loam, fine sandy loam, loamy very fine sand	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-88-95	40-55-70	20-23-25	NP-3 -5
			25-60	Silt loam, very fine sandy loam, fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-90-100	45-60-75	20-23-25	NP-3 -5

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
135—Sagehill very fine sandy loam, 5 to 10 percent slopes														
Sagehill	75	B	0-6	Very fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	90-93-95	40-50-60	20-23-25	NP-3 -5
			6-25	Very fine sandy loam, fine sandy loam, loamy very fine sand	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-88-95	40-55-70	20-23-25	NP-3 -5
			25-60	Silt loam, very fine sandy loam, fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	80-90-100	45-60-75	20-23-25	NP-3 -5
148—Schlomer silt loam, 2 to 5 percent slopes														
Schlomer	75	C	0-4	Silt loam	CL, CL-ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	75-80-85	15-18-20	5-8 -10
			4-16	Silt loam, very fine sandy loam	CL, CL-ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	50-68-85	15-20-25	5-8 -10
			16-22	Silt loam, very fine sandy loam	CL, CL-ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	60-73-85	15-20-25	5-8 -10
			22-34	Silty clay loam, silty clay	CL	A-7	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	90-95-100	40-45-50	15-20-25
			34-44	Weathered bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
182—Taunton very fine sandy loam, 2 to 5 percent slopes														
Taunton	85	C	0-6	Very fine sandy loam	SM	A-2, A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	80-85-90	30-38-45	15-17-20	NP-3 -5
			6-25	Fine sandy loam, very fine sandy loam, silt loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	80-88-95	40-55-70	15-20-25	NP-3 -5
			25-38	Gravelly fine sandy loam, very fine sandy loam, very gravelly silt loam	GM, SM	A-1, A-2, A-4	0- 0- 0	0- 5- 10	50-70-90	35-60-85	30-48-65	20-35-50	15-20-25	NP-3 -5
			38-48	Cemented material	—	—	—	—	—	—	—	—	—	—
			48-60	Stratified cemented material to very gravelly sandy loam	—	—	—	—	—	—	—	—	—	—
183—Timmerman fine sandy loam, 0 to 2 percent slopes														
Timmerman	85	A	0-5	Fine sandy loam	SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-75-80	25-30-35	15-17-20	NP-3 -5
			5-19	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-4	0- 0- 0	0- 0- 0	100-100-100	95-98-100	70-75-80	40-45-50	15-17-20	NP-3 -5
			19-60	Loamy coarse sand, coarse sand, gravelly coarse sand	SP-SM, SM, SP	A-1	0- 0- 0	0- 8- 15	95-98-100	60-78-95	10-25-40	0-10- 20	0-5 -10	NP

Engineering Properties–Franklin County, Washington														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
195—Warden very fine sandy loam, 0 to 2 percent slopes														
Warden	90	B	0-6	Very fine sandy loam	SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	85-90-95	40-53-65	15-20-25	NP-3 -5
			6-19	Very fine sandy loam, silt loam	ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	95-98-100	75-83-90	25-28-30	NP-3 -5
			19-60	Silt loam, very fine sandy loam	ML	A-4	0- 0- 0	0- 0- 0	95-98-100	95-98-100	95-98-100	75-83-90	25-28-30	NP-3 -5
219—Xeric Torriorthents, very steep														
Xeric torriorthents	75	B	0-3	Silt loam	CL	A-4, A-6	0- 0- 0	0- 0- 0	95-98-100	90-95-100	85-93-100	75-85-95	20-25-30	10-13-15
			3-60	Very fine sandy loam, silt loam	CL, CL-ML	A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	80-90-100	50-73-95	20-25-30	5-10-15

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CUP 2025-10/
SEPA 2025-18

Franklin County Odor & Fly Control Plan Resolution

(Res 2001-238)

FRANKLIN COUNTY

COMMISSIONERS
Courthouse - 1016 North 4th
Pasco, Washington 99301
(509) 545-3535

RESOLUTION NUMBER 2001 238

BEFORE THE BOARD OF COMMISSIONERS, FRANKLIN COUNTY, WASHINGTON:

RE: Odor and Fly Control Guidelines for Livestock and Poultry Operations.

WHEREAS, A Task Force consisting of representatives from the Franklin Conservation District, the County Planning Department, the County Planning Commission, the USDA Natural Resources Conservation Service, the Benton Franklin Health Department, the local Poultry Industry, and the local Dairy Industry have proposed recommendations regarding the Odor and Fly Control Guidelines as they pertain to Livestock and Poultry Operations in Franklin County; and

WHEREAS, on May 15, 2001, the Franklin Conservation District Board of Supervisors stated their support and are recommending the Odor and Fly Control Guidelines for Livestock and Poultry Operations;

WHEREAS, Franklin County is a "right to farm" county where agricultural activities and their associated uses are an important and integral part of the local economy; and

WHEREAS, Franklin County understands the importance of managing odor and nuisance issues to a reasonable extent as they relate to these Livestock and Poultry Operations; and

WHEREAS, the public use and interest will be served by supporting the above stated Odor and Fly Control Guidelines, and

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners support the Conservation District's and the Task Force's Recommendations and encourage the use and application of the Guidelines as they relate to the County's Conditional Use Permit Process for Livestock and Poultry Operations in Franklin County.

SIGNED AND DATED THIS 30th DAY OF MAY 2001.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

Chairman

Member

Member

Attest:

Clerk of the Board

Task Force Recommendations

for

Odor and Fly Control Guidelines for Livestock and Poultry Operations in Franklin County, Washington

Presented to:

Franklin County Planning Commission

April 2001

Prepared by Franklin Conservation District

Task Force Recommendations

Background

Odors and flies related to livestock and poultry operations are a concern frequently expressed by the general public. While these issues do not pose a significant health or environmental threat, they can affect the "quality of life" for individuals located within close proximity to livestock facilities. Regional odor problems can also affect economical development within the county. At the request of the Franklin County Planning Commission the Franklin Conservation District convened a Task Force to provide stakeholders, planners, and technical agencies the opportunity to develop guidelines to manage odor and nuisance issues related to these industries.

This report describes the results of the Task Force efforts and provides recommendations on guidelines to the Franklin County Planning Commission. It is anticipated these guidelines will be incorporated into the conditional use permit process as appropriate and necessary.

Task Force Composition

The Task Force was comprised of the following individuals:

Burl Booker – Franklin County Planning Commission
Cliff Bates – Benton/Franklin Health District
Dick Bengen – Dairy Industry
Greg Wendt – Franklin County Planning and Building Dept.
Heather Adams – Franklin Conservation District
Jerrod MacPherson – Franklin County Planning and Building Dept.
Kent Woodward – Poultry Industry
Mark Nielson – Franklin Conservation District
Nieves Lopez – USDA Natural Resources Conservation Service
Paul Rogers – USDA Natural Resources Conservation Service
Steve DeRuyter – Dairy Industry
Steve Hailey – Franklin County Planning Commission
Steve VanBatavia – Dairy Industry
Thane Davidson – Dairy Industry

Task Force Recommendations

Applicability
These guidelines are intended to be used by the Franklin County Planning Commission as part of the conditional use process. The guidelines are not applicable to facilities exempt from Franklin County's zoning ordinances.

Franklin County zoning ordinances require a conditional and/or special use permit for dairies, poultry and egg production, and livestock farming including hog or swine raising, subject to the following head count numbers:

Dairies (milking cows)	500
Feedlots	1,000
Poultry and/or egg production	10,000
Hog or swine raising (sows)	100

Existing operations that currently exceed these numbers are exempt until an expansion occurs.

General Philosophy
The following items represent the general philosophy of the Task Force and helped set sideboards for the subsequent recommendations.

- No livestock facility can be 100% odor free.
- Odor and fly "problems" are relative and hard to quantify.
- Management activities can affect odors and flies.
- Zoning should be used to avoid conflict where possible.
- There is a direct relationship between distance of a facility to neighbors and potential for impacts/complaints.
- All solutions or practices recommended need to be economically and technically feasible.

Odor and Fly Control Guidelines

Introduction
Odor sensation is a personal response. Not all people are equally sensitive, and they do not always agree about the severity of an odor once it is detected. People who move from urban to rural areas, for example, generally do not tolerate odor as well as a neighboring farmer does. The human nose is still the best means of determining the strength of an odor. Precise documentation of the strength and nature of an odor is generally unavailable because of the large number of gases involved and their effects on each other. While this document mainly focuses on odor control, many of the management items discussed will also decrease complaints about flies. It is generally recognized that a clean and well maintained operation will help control fly populations.

The odors released from livestock production may affect numerous people. In addition to the livestock producers and their families, others exposed to odors include neighbors and

anyone who uses nearby public areas. The number of people affected by any one livestock operation can vary greatly due to the proximity of housing developments or location along major roadways or recreational areas. The more people affected, the greater the chance that some will find the odors offensive. Objections also arise from people feeling they have no power over their own situation and are forced to be exposed to odors. However, it should be pointed out that Franklin County has a Right to Farm Ordinance that recognizes agricultural activities conducted on farmland are presumed reasonable and do not constitute a nuisance unless the activity has a substantial adverse effect on the public health and safety.

When assessing an odor situation and evaluating possible methods of reducing odor, if necessary, it is important to consider what is a realistic expectation. Elimination of odor from livestock and associated facilities is not realistic. Odors of some sort will always be produced and are usually released to the environment. What can be evaluated and possibly changed is the frequency of odor occurrence, the duration of the odor, the intensity of the odor and the negative perceptions by some neighbors. These guidelines will discuss management techniques that can be used to affect these odor characteristics.

Selection of a Farm Site

One of the most effective means of reducing odor complaints is careful selection of the site for an animal operation. Sites near farm and nonfarm residences, commercial enterprises, recreational areas, or major roads are particularly prone to problems. Locating an animal operation as far away as possible from any housing developments and one-quarter mile from any neighboring residence normally provides some isolation of the farm and dilution of its odors.

Many animal operations are already situated close to neighbors and major roads. Such farms should be examined to identify potential problems and ways to avoid them by modifying the collection, processing, storage, and disposal of manure. This is especially important when considering the upgrading or expansion of an existing site. Sometimes it is better to abandon the site and invest remodeling or expansion money in new facilities at a better location.

Wind direction and topography can help control odor. New facilities may be sited downwind of home sites so that odors will blow away from them. But simply locating downwind of a residence is not always sufficient to ensure acceptability. In some areas, wind direction may fluctuate too much.

Topography around a building site is very important since it affects air movement. Relatively flat sites that have good air movement and mixing are good places to build livestock facilities. It is best to avoid hilltops above residences in a valley, as odors may travel down hills. On calm nights cool air drains from higher to lower elevations. Any odors from livestock facilities will travel with the cooler air, thus creating potential odor problems. If there are no residences at lower elevations, hilltops are a good location for livestock buildings, especially naturally ventilated ones.

General Farm Management
A clean, well-landscaped, and well-maintained farm has less odor and attracts fewer complaints than a poorly kept one. Trees, shrubs, and windbreaks help screen manure storages.

Animal operators should talk with their neighbors and respond promptly to their complaints. Farmers who maintain a cooperative public attitude are seldom subjected to odor complaints. In addition, operators should keep as large a buffer zone as possible around their facility.

Odor from fresh manure is generally less offensive than that from anaerobic decomposing manure. All areas where manure collects should be cleaned frequently and feeding areas, animal pens, and animals kept as clean and dry as possible. The warm body of an animal, when covered with wet manure, accelerates bacterial growth and odor. Allowing a dry layer of manure to form on the surface of a manure storage helps contain odors. Also, proper disposal of dead animals should be practiced.

Odors from Buildings and Lots
Some odors are generated by livestock buildings and lots. Much of the problem can be attributed to dust production and release. Excessive dust particles are an air pollution problem and can transport odors some distance. Practices to reduce the dust generated and released into the air should be used.

Diluted manure is less likely to volatilize gases. Outside livestock lots should be well-drained and kept as dry as possible. If water is not given a chance to accumulate, less bacterial decomposition will occur; and therefore, less odor is produced. Accumulated manure should be scraped and hauled as frequently as possible.

Manure Storage
Bacterial action causes manure in storage to decompose, which generates odors. These odors are then released to the atmosphere if nothing is done to contain them. A number of factors impact the bacterial action that breaks down manure. Moisture is needed for bacteria to function; so dry manure (under 40 % moisture) is usually less odorous than liquid manure. Temperature also has an impact on manure odors. Higher temperatures speed microbial action, resulting in faster decomposition of the manure. Also important is the type of bacteria present that is primarily dependent on the presence or absence of oxygen in the manure. Aerobic bacteria live when oxygen is present. Water and carbon dioxide are the products of manure degradation by aerobic bacteria. Anaerobic bacteria work in the absence of oxygen, which is the status of most manure storage structures. The products of anaerobic bacteria degradation of manure are much more odiferous than the products from aerobic bacteria. Aerobic decomposition is preferable to anaerobic decomposition.

Fresh manure is less offensive than decomposing manure; so decreasing storage time of the manure lessens odors. Frequent removal also usually removes more solids, the portion of manure generally responsible for odor production. However, it is a problem to have

land available for continuous spreading of manure. If such land is available, this technique is a good option. But in areas where crops are growing on the land for a considerable part of the year, frequent spreading is not possible.

Lagoons are much different than "true" storage facilities. In addition to storage, treatment also takes place in a lagoon. Lagoons are much larger than traditional storage structures because the manure must be diluted with 6 to 10 times as much water as manure added. This dilution is necessary for proper bacterial decomposition of the manure. Odor intensity from lagoons is usually less than from typical slurry storage facilities. Although lagoons are not free of odor, odor is seldom a problem if the lagoon is managed properly. An exception is late spring and early summer, when warmer weather causes increased decomposition. During the cooler weather of fall and winter, bacterial activity decreases and less manure solids are broken down. Since the amount of manure added to the lagoon generally remains the same throughout the year, the amount of undigested manure accumulates during the cooler weather. When the weather warms and bacterial activity increases, there is a large amount of manure solids to be broken down. The rapid breakdown of this large amount of accumulated manure generates more intense odors than normal.

Mismanagement of lagoons can cause increased odors throughout the year. In addition to having enough dilution water, it is also important to release consistent amounts of manure frequently into the lagoon. This allows the bacterial population to stabilize and break down the manure as it is added. Adding too much manure at one time, or at infrequent intervals, causes a situation similar to the spring warm-up, when too much manure is available for decomposition at one time. This procedure really starts with proper sizing of the lagoon. If the lagoon is too small, a similar effect is seen as adding too much manure at one time or not having enough dilution water. The lagoon must be large enough for adequate dilution of the manure added to have proper decomposition without excessive odor production. Operations that add production facilities that release manure into a previously constructed lagoon may be asking for trouble if the lagoon is not large enough to properly break down the additional manure. An important aspect of proper lagoon start-up is that adequate water be in the lagoon before any manure is added. The lagoon should have 1/3 to 1/2 of the minimum design level to ensure adequate manure dilution to properly start the manure degradation process. Lagoons should also be started during warm weather when bacteria are more active.

The solids' component of livestock manure is of primary interest in lagoon function because the solids' component contains the organic matter that is broken down by bacteria. Therefore, the solids are ultimately the source of odors. If the amount of solids released into a lagoon is reduced, odor production should also lessen. One method of reducing the solids in a lagoon is to separate the solids from liquids before the liquids are released into the lagoon. There are a number of processes by which this can be done, including mechanical processes or simply gravity in a settling basin or tank. Separation works well for bovine manure but is more difficult with swine.

Land Application of Manure

Land application is the primary method of manure utilization and is part of nearly every manure-handling system. Odors may not be a significant problem for most operations most of the year, but they may become a very big problem when the manure in storage is agitated prior to unloading, or when it is unloaded and spread on the land in relatively large amounts.

Reduce the odor nuisance by the following procedures:

If there is no storage facility, spread the manure as frequently as possible during warm weather. Unload storages on schedule. To minimize the time that odor is released to the air, have machinery in good repair and labor ready before starting to unload.

Avoid spreading when the wind blows toward populated areas or immediately before weekends and holidays, when nearby neighbors are likely to be engaged in outdoor and recreational activities. Spread in the morning when air is warming and rising rather than in the late afternoon.

Follow weather reports to advantage. Sunny, low-humidity days reduce odors. Turbulent breezes dissipate and dilute odors. Rain removes odors from the atmosphere. But warm, still days with a temperature inversion concentrate odors rather than disperse them.

Avoid spreading near heavily traveled highways, and keep manure from spilling on public roads. If a spill does occur, clean the road promptly.

Minimize agitation and exposure of manure to air during preparation for unloading, hauling, and spreading. Mixing, spraying, and agitating, at any step of the operation, however necessary for proper functioning, releases odors into the air.

If possible, incorporate manure during or immediately after land application by injecting it into the soil or plowing or disking the soil. These practices not only minimize odor but also preserve nutrients and reduce loss by runoff. Where immediate incorporation is not possible, apply manure uniformly in a thin layer so that it will dry in five days or less. This will prevent fly propagation.

Waste from animal wastewater application spray systems should be applied in such a manner and under such conditions to prevent drift from the irrigation field of the wastewater spray beyond the boundary of the animal operation.

Neighbor Relations

Personal interaction with neighbors has very little to do with odor control, but may be the most important part of avoiding complaints. Producers who have a cooperative public attitude receive few odor complaints. Open communication is important; hiding something generally arouses suspicion. All spreading activities should be documented so a record is available in case a problem should develop. Determine the cause of any

complaint and work to correct it. Good public relations go a long way toward improving acceptance of odors generated by livestock production.

Odor Control Plan Components

Odor control plans may be a component of a nutrient management plan approved by the Conservation District or USDA-NRCS or may be a stand alone plan submitted in conjunction with the conditional use permit process conducted by the Franklin County Planning Commission. The contents of an odor control plan shall:

- Identify the name, location, and owner of the animal operation;
- Identify the name, title, address, and telephone number of the person filing the plan;
- Identify the potential sources of odor within the animal operation;
- Describe how odor will be controlled from: the animal houses, wastewater lagoons, wastewater application lands, waste conveyances and temporary accumulation points, and other possible sources of odor within the animal operation.
- Contain a diagram showing all structures and lagoons at the animal operation, forced air directions, and approximate distances to structures or groups of structures within 3000 feet of the property line of the animal operation; a recent or updated aerial photograph may be submitted in place of a diagram provided the items required are shown;
- For existing animal operations, contain a schedule not to exceed six months by which the plan will be implemented (a new animal operation is to have and be in compliance with its plan when it begins operation), for an amended plan, the implementation schedule shall not exceed six months;
- Describe how the plan will be implemented, including training of personnel;
- Describe inspection and maintenance procedures; and
- Describe methods of monitoring and record keeping to verify compliance with the plan

REFERENCES

Much of the above information was extensively borrowed from the following sources:

Animal Manure – Dairy Manure Odor Control, Penpages: Factsheets from Pennsylvania State University, number 0870162, Daniel J. Meyer, Robert E. Graves – Editor, January, 1987.

Environmental Issues in Livestock Production Home Study Course: Odor Assessment and Control, Iowa State University, University Extension, Jay D. Harmon and Gene Tinker.

North Carolina Administrative Code: S 39 D-1800.

CUP 2025-10/
SEPA 2025-18

Franklin County Right to Farm Ordinance

(Ord 8-2008)

ORDINANCE NUMBER 8-2008

AN ORDINANCE ADOPTING THE FRANKLIN COUNTY "RIGHT TO FARM" POLICY AND REPEALING ORDINANCE 23-94 ADOPTED ON OCTOBER 17, 1994.

WHEREAS, Franklin County Ordinance No. 23-94 was adopted on October 17, 1994 and intended to reflect the local importance of agricultural activities and convey the same degree of protection to such activities from nuisance lawsuits as the state legislature gave to agricultural activities and forest practices. The intent of the repeal of Ordinance 23-94 and the adoption of this ordinance is to clarify and confirm that the intent of the local legislative authority is to grant the same degree of protection to agricultural activities as Chapter 7.48 RCW and not to grant protection beyond what state law allows.

Section 1: APPLICABILITY
This ordinance shall apply to the unincorporated areas of Franklin County.

Section 2: FINDINGS AND PURPOSE
Franklin County finds that agricultural activities conducted on farmland and forest practices in urbanizing areas are often subjected to nuisance lawsuits, and that such suits encourage and even force the premature removal of the lands from agricultural uses and timber production. It is therefore the purpose of this ordinance to provide that agricultural activities conducted on farmland and forest practices be protected from nuisance lawsuits.

Section 3: ACTIVITES PRESUMED REASONABLE—NOT A NUISANCE—EXCEPTION—DAMAGES
Agricultural activities conducted on farmland and forest practices, if consistent with good agricultural and forest practices, are presumed to be reasonable and shall not be found to constitute a nuisance unless the activity or practice has a substantial adverse effect on public health and safety.

If those agricultural activities and forest practices are undertaken in conformity with all applicable laws and rules, they are presumed to be good agricultural and forest practices not adversely affecting the public health and safety for purposes of Franklin County Code (FCC) 5.12.030, FCC 5.12.040, and as hereinafter amended. An agricultural activity that is in conformity with such laws and rules shall not be restricted as to the hours of the day or day or days of the week during which it may be conducted.

Nothing in this ordinance shall affect or impair any right to sue for damages.

Section 4: DEFINITIONS.
When used in this chapter, the definitions in FCC 5.12.050 and as hereinafter amended, shall apply.

(1) "Agricultural activity" means a condition or activity which occurs on a farm in connection with the commercial production of farm products and includes, but is not limited to, marketed produce at roadside stands or farm markets; noise; odors; dust; fumes; operation of machinery and irrigation pumps; movement, including, but not limited to, use of current county road ditches, streams, rivers, canals, and drains, and use of water for agricultural activities; ground and aerial application of seed, fertilizers, conditioners, and plant protection products; keeping of bees for production of agricultural or apicultural products; employment and use of labor; roadway movement of equipment and livestock; protection from damage by wildlife; prevention of trespass; construction and maintenance of buildings, fences, roads, bridges, ponds, drains, waterways, and similar features and maintenance of

streambanks and watercourses; and conversion from one agricultural activity to another, including a change in the type of plant-related farm product being produced. The term includes use of new practices and equipment consistent with technological development within the agricultural industry.

(2) "Farm" means the land, buildings, freshwater ponds, freshwater culturing and growing facilities, and machinery used in the commercial production of farm products.

(3) "Farmland" means land or freshwater ponds devoted primarily to the production, for commercial purposes, of livestock, freshwater aquacultural, or other farm products.

(4) "Farm product" means those plants and animals useful to humans and includes, but is not limited to, forages and sod crops, dairy and dairy products, poultry and poultry products, livestock, including breeding, grazing, and recreational equine use, fruits, vegetables, flowers, seeds, grasses, trees, freshwater fish and fish products, apiaries and apiary products, equine and other similar products, or any other product which incorporates the use of food, feed, fiber, or fur.

(5) "Forest practice" means "forest practice" as defined in RCW 76.09.020.

Section 5: CLAIMS BY FARMER-COSTS-RECOVERY

(1) A farmer who prevails in any action, claim, or counterclaim alleging that agricultural activity on a farm constitutes a nuisance may recover the full costs and expenses determined by a court to have been reasonably incurred by the farmer as a result of the action, claim, or counterclaim.

(2) A farmer who prevails in any action, claim, or counterclaim (a) based on an allegation that agricultural activity on a farm is in violation of specified laws, rules, or ordinances, (b) where such activity is not found to be in violation of the specified laws, rules, or ordinances, and (c) actual damages are realized by the farm as a result of the action, claim, or counterclaim, may recover the full costs and expenses determined by a court to have been reasonably incurred by the farmer as a result of the action, claim, or counterclaim.

(3) The costs and expenses that may be recovered according to subsection (1) or (2) of FCC 5.12.060 and as hereinafter amended include actual damages and reasonable attorneys' fees and costs. For the purposes of FCC 5.12.060, "actual damages" include lost revenue and the replacement value of crops or livestock damaged or unable to be harvested or sold as a result of the action, claim, or counterclaim.

(4) In addition to any sums recovered according to subsection (1) or (2) of FCC 5.12.060, a farmer may recover exemplary damages if a court finds that the action, claim, or counterclaim was initiated maliciously and without probable cause.

(5) A farmer may not recover the costs and expenses authorized in this section from a state or local agency that investigates or pursues an enforcement action pursuant to an allegation as specified in subsection (2) of this section.

A state or local agency required to investigate a complaint alleging agricultural activity on a farm is in violation of specified laws, rules, or ordinances and where such activity is not found to be in violation of such specified laws, rules, or ordinances may recover its full investigative costs and expenses if a court determines that the complaint was initiated maliciously and without probable cause.

Section 6: SEVERABILITY.

If any provision of this chapter is declared unconstitutional, or the applicability thereof to any person or circumstance is held invalid, the constitutionality of the remainder of the chapter and the applicability thereof to other persons and circumstances shall not be affected thereby.

Section 7: EFFECTIVE DATE.

This Chapter shall take effect and be in full force upon its passage and adoption.

WHEREAS, Ordinance Number 8-2008 shall be known as the Franklin County Right To Farm Ordinance; and

WHEREAS, Ordinance Number 23-94 adopted October 17, 1994 is hereby repealed.

PASSED this 3 day of November, 2008.

BOARD OF COUNTY COMMISSIONERS
FRANKLIN COUNTY, WASHINGTON

Robert E. Koch, Chair

Rick Miller, Chair Pro Tem

Neva J. Corkrum, Member

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:

By:
Ryan E. Verhulp
Deputy Prosecuting Attorney

df

ORDINANCE NUMBER **8-2008**