Applicant Name: Round Lake Farms, LLC  
Application Number: GRAN-22-01/CS3-24700C@1

This record of decision was made by a majority of the board at an open public meeting of the (Board Name) Grant County Water Conservancy Board held on (date meeting was held) June 23, 2022. The undersigned board commissioners certify that they each understand the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that each commissioner, having reviewed the report of examination, knows and understands the content of the report.

☐ Approval: The (board name) Water Conservancy Board hereby grants conditional approval for the water right transfer described and conditioned within the report of examination on (date report of exam was signed) and submits this record of decision and report of examination to the Department of Ecology for final review.

☐ Denial: The (board name) Water Conservancy Board hereby denies conditional approval for the water right transfer as described within the report of examination on (date report of exam was signed) and submits this record of decision to the Department of Ecology for final review.

Signed:

<table>
<thead>
<tr>
<th>Water Conservancy Board Name:</th>
<th>Grant County Water Conservancy Board</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair Name:</td>
<td>Gerald (Spud) Brown</td>
<td>Signature:</td>
</tr>
<tr>
<td>(choose one)</td>
<td>□ Approve □ Deny □ Abstain □ Recuse □ Other (please explain)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Conservancy Board Name:</th>
<th>Grant County Water Conservancy Board</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: Commissioner Name:</td>
<td>Ken Enns</td>
<td>Signature:</td>
</tr>
<tr>
<td>(choose one)</td>
<td>□ Approve ☒ Deny □ Abstain □ Recuse □ Other (please explain)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Conservancy Board Name:</th>
<th>Grant County Water Conservancy Board</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: Commissioner Name:</td>
<td>David Stevens</td>
<td>Signature:</td>
</tr>
<tr>
<td>(choose one)</td>
<td>□ Approve ☒ Deny □ Abstain □ Recuse □ Other (please explain)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Conservancy Board Name:</th>
<th>Grant County Water Conservancy Board</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: Alt. Commissioner Name:</td>
<td>Alan Dillin</td>
<td>Signature:</td>
</tr>
<tr>
<td>(choose one)</td>
<td>□ Approve ☒ Deny □ Abstain □ Recuse □ Other (please explain)</td>
<td></td>
</tr>
</tbody>
</table>

Mailed with all related documents to the Dept of Ecology (send to the Regional office below), and any other interested parties.

ECY 040-105 (05/14) If you need this document in a format for the visually impaired, call Water Resources Program at 360-407-6872. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.
NOTE TO APPLICANT: Pursuant to WAC 173-153-130(8), the applicant is not permitted to proceed to act on the proposal until Ecology makes a final decision affirming, in whole or in part, the board’s recommendation. It is advised that the applicant not proceed until the appeal period of Ecology’s decision is complete.

NOTE TO AUTHOR: Read the instructions for completing a water conservancy board report of examination. Use the Tab key to move through the form or with your mouse, select the fields to enter information.

- Surface Water
- Ground Water

**Date Application Received**: 2/28/2022
**Water Right Document Number**: S3-24700C
**Water Right Priority Date**: 12/16/1975
**Board-Assigned Change Application Number**: GRAN 22-01
**Name**: Randy Reber/Round Lake Farms, LLC

**Changes Proposed**:  
- Add irrigated acres
- Add point of diversion/withdrawal
- Other (Temporary, Trust, Interties, etc.)

**SEPA**: The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 WAC and has determined the application is:  
- Exempt
- Not Exempt

**BACKGROUND AND DECISION SUMMARY**
Please include a map(s) reflecting all referenced existing and proposed point(s) of diversion or withdrawal and place(s) of use (RCW 90.03.260(7); WAC 173-153-070 (6)(c)).

<table>
<thead>
<tr>
<th>Existing Right (Tentative Determination)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum cub ft/second</strong></td>
</tr>
<tr>
<td><strong>Maximum acre-ft/yr</strong></td>
</tr>
<tr>
<td><strong>Tributary (if surface water)</strong></td>
</tr>
</tbody>
</table>

**Source** | **Surface Water – Round Lake** | **Upper Crab Creek** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parcel no.</strong></td>
<td><strong>NE SW</strong></td>
<td><strong>Section Township N. Range WRIA County</strong></td>
</tr>
<tr>
<td>171256000</td>
<td>¼ ¼</td>
<td>16 22 28E W.M. 42 Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**
Type detailed legal description of the place of use: A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E, W.M.

**Parcel no.** | **Section Township N. Range WRIA County** |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>171257000</td>
<td>¼ ¼</td>
</tr>
</tbody>
</table>

### Proposed Use

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**

A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**

A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**

A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**

A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**

A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>

**LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED**

A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Use</th>
<th>Tributary of (if surface water)</th>
<th>Seasonal irrigation of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water – Round Lake</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
<tr>
<td>Groundwater/Surface Water Underflow</td>
<td>Tributary of Upper Crab Creek</td>
<td>Seasonal irrigation of 412 acres</td>
<td></td>
</tr>
<tr>
<td>parcel no.</td>
<td>NE SW 16 22</td>
<td>Township N. Range WRIA County</td>
<td>Grant</td>
</tr>
</tbody>
</table>
### Description of Proposed Works

Description of water diversion/withdrawal, conveyance, and distribution system: The proposed works for the irrigation system will consist of completion of one (1) well, pump and conveyance piping that will discharge into Round Lake. Water will be pumped out of Round Lake to the irrigated acres using the existing pumping and conveyance infrastructure.

### Development Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin project by this date (At least 75 days after Board's ROD issuance)</td>
<td>December 1, 2022</td>
</tr>
<tr>
<td>Complete project by this date</td>
<td>December 1, 2024</td>
</tr>
<tr>
<td>Complete change &amp; put water to full use by this date</td>
<td>July 1, 2025</td>
</tr>
</tbody>
</table>
NOTE TO AUTHOR: This form reflects the minimum regulatory requirements as required in WAC 173-153-130(6). In accordance with WAC 173-153-130(5), “It is the responsibility of the water conservancy board to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board’s evaluation process, are thoroughly evaluated and discussed in the board’s deliberations. These discussions must be fully documented in the report of examination.” Completion solely of the minimum regulatory requirements may not constitute a fully documented decision.

BACKGROUND [See WAC 173-153-130(6)(a)]

On Month February, day 24, year 2022.

Name of applicant: Round Lake Farms, LLC of City: Soap Lake State: WA filed an application for change (to do what e.g., PoU, PoD, POW, etc) PoD under (Water right number, e.g., certificate, permit, claim, superseding document #, cert of change #): S3-24700C. The application was accepted at an open public meeting on Month: February, day: 24, year: 2022, and the board assigned application number: GRAN-22-01.

Attributes of the water right as currently documented

Name on certificate, claim, permit: Robert A. Haner

Water right document number (e.g., cert #, claim #, permit #, superseding document #): S3-24700C

As modified by certificate of change number: 

Priority date, first use Date of priority or claimed date water was originally first put to beneficial use: 12/16/1975

Water quantities: Qi (Instant qty): 6.7 cfs Qa (Annual qty): 1,442 acre ft./year

Source ( well, river, etc): Round Lake tributary to Upper Crab Creek

Point of diversion/withdrawal (Distance from ¼¼, Section, Township, Range EWM): NE¼ SW¼ of Section 16, Twn 22N, R 28E, W.M. (1,400 feet east and 1,700 ft north from the southwest corner of Section 16).

Purpose of use: Irrigation Number of Acres if Irrigation: 412

Period of use: Irrigation Season

Place of use: A total of 412 acres within the W1/2 SE1/4, S1/2 NW1/4, and SW1/4 of Sec. 17; the S1/2 SE1/4 of Sec. 18; the E1/2 of Sec. 19; and the W1/2 of Sec. 20; all within T22N, R28E

Existing provisions (family farm act, interruptable, etc.): 

All withdrawal will cease from this point of diversion when the surface water level reaches 37 feet as measured from the lowest point in Round Lake.

The amount of water granted under this certificate is a maximum limit that shall not be exceeded, and the certificate holder shall be entitled only to that amount of water within the specified limit that is beneficially used and required for the actual crop grown on the number of acres and place of use specified in the certificate.

Issuance of this certificate shall not be construed as excusing the holder thereof from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971.

This authorization to make use of public waters of the state is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise.

The entire opening of the diversion intake shall be tightly screened at all times with wire mesh having openings with dimensions not greater than 0.125 (1/8) inch. Water approach velocity to the screen shall be less than 1 foot per second and approaching 0.5 foot per second, as measured one foot in front of the screen.
Tentative determination of the water right

The tentative determination is provided on the front page of this report.

The following attachments are made part of this ROE:

- Attachment 1: Figures and Tables
- Attachment 2: Water Right Documents
- Attachment 3: WRIA 43 Report Excerpts
- Attachment 4: Aerial Photographs
- Attachment 5: Landau Ribail memorandum
- Attachment 6: Landau NRCS memorandum
- Attachment 7: Grant PUD Power Meter Records
- Attachment 8: SEPA DNS
- Attachment 9: Public Notice
- Attachment 10: Well Logs
- Attachment 11: Nearby Groundwater Uses to Proposed PoD.
- Attachment 12: Attorney Letter
- Attachment 13: Surface Water to Groundwater Examples

History of water use
Describe the historical water use information that was considered by the board:

Information reviewed by the Board included documents relating to S3-24700C available from Ecology's Water Rights Tracking System (WRTS) database, aerial imagery, Grant County Public Utility District (Grant PUD) power records, information from the applicant and current water right holder, communications from the previous owner (Dave Kosa representative of the previous site owner), communications from a previous and current farm worker (Mark Bently) and technical documents related to the hydrology and hydrogeology of the Quincy Basin and Upper Crab Creek.

An application was filed by Robert A. Haner on December 16, 1975 for 6.7 cfs and an annual quantity of 1,505 acre-ft to irrigate 430 acres. A permit was subsequently issued for the requested amount on December 15, 1976. A change application was subsequently submitted on July 19, 1978 for 6.7 cfs and an annual quantity of 1,505 acre-ft to irrigate 430 acres. The purpose of the change was to modify the place of use (PoU) to accommodate variations in soil conditions. A superseding permit was issued on January 22, 1979 for the requested amounts. A proof report of examination was prepared by Ecology on September 10, 1980 documenting the irrigation of 412 acres, an instantaneous quantity of 6.7 cfs and an annual quantity of 1,442 acre-ft. The documented water duty was 3.5 acre-ft/acre. Irrigation was by 3 center pivot circles each approximately 137.3 acres. The instantaneous quantity of 6.7 cfs is equivalent to 3,007 gpm or 7.3 gpm/acre. Water was supplied by six turbine pumps located at the point of diversion (PoD). Four of the pumps had 150 HP motors; the other two pumps had 125 HP motors. The discharge pipe was 18 inches. The diversion infrastructure also services three (3) additional circles and 430 acres in Section 21, T22N, R28E W.M. under certificate of change S3-CV1-3P128(B). The final PoU is presented on Figure I in Attachment I. S3-24700C water right documents are presented in Attachment 2 (application, permit, application for change, superseding permit, proof report of examination, certificate).

Under certificate S3-24700C, water is drawn directly from Round Lake. Diversion is provisioned by the certificate on maintaining 37 feet (ft) of water depth in the lake, as measured from the lowest point in the lake. Round Lake is unique in that it is connected by a narrow side channel from Crab Creek at relatively high creek flows in the spring (i.e., the spring freshet). During the spring freshet, the creek overflows a high point (i.e., saddle) in the side channel and subsequently fills Round Lake. Water in the lake is then used to irrigate the PoU throughout the irrigation season, including after the creek eventually dries up (disconnecting the lake from the creek). Both the duration and intensity of spring/summer high flows in Upper Crab Creek is important to maintaining adequate water in the lake to irrigate the PoU throughout the irrigation season. Bill Stevens, one of the current owners of Round Lake Farms indicates that a strong spring freshet that fully fills the lake is adequate to irrigate a full irrigation season and part of the next season for the 412 acres under S3-24700C and 430 acres under S3-CV1-3P128(B). Conversely, drought years, when there is little or no spring runoff, can limit the ability to fully irrigate the combined acreage. The duration and intensity of the spring freshet have been in decline due to groundwater over pumping in the Odessa Groundwater Management Subarea (Odessa Subarea) and unpermitted diversions and impoundments on the creek upstream of Round Lake. The annual peak flow and the mean monthly flow on Upper Crab Creek upstream of Round Lake at the USGS gauge at Irby, Washington are shown on Figure 2, Attachment 1. Note that the...
the 2005 WRIA 43 watershed report (referred to herein as the ‘WRIA 43 Report’) documented that Upper Crab Creek “flow has decreased over time even when precipitation amounts in its drainage basin have remained stable or have increased slightly” (see Section 2.7 of the WRIA 43 report). Identified contributing factors for the decrease in flow include: increased groundwater pumping, stream flow diversions, and modifications of stream channel geometry. Relevant excerpts from the WRIA 43 Report are provided in Attachment 3.

Available aerial photographs from 1977 to 2021 from the USGS LandsatLook (1983 to present) website and Google Earth (select years) are presented in Attachment 4. First water use is estimated to be 1980 based on the proof report of examination (Attachment 2). During the period 1980 to 2021 there are two five-year periods where irrigation was apparently limited due to water availability: 1990 to 1994 and 2008 to 2012. During some or all of these time periods, irrigation appears to be limited to maintaining cover crops to secure the soil which is sandy in nature (Mark Bently – personal communication).

Between 1990 and 1994 peak Upper Crab Creek flows were extremely low (representing a drought condition). Peak flow at the USGS Irby gauge (see Figure 6, Attachment 1) were:
- 1990: 17 cfs
- 1991: 68 cfs
- 1992: 12 cfs
- 1993: 440 cfs

In comparison, the median peak flow at the USGS Irby gauge for the time period 1943 to 2018 is 793 cfs; the 10th percentile flow is 1,265 cfs. At the low peak flows in 1990, 1992, and 1994, Crab Creek flow to Round Lake was likely limited. While the 1991 flow of 68 cfs and the 1993 flow of 440 cfs would have potentially been sufficient to supply flow to Round Lake the volume of flow was not sufficient to irrigate the entire 842 acres authorized for withdrawal [S3-24700C plus S3-CV1-3P128(B)] from the lake given the pervasive drought conditions.

Between 2008 and 2012 peak Upper Crab Creek flows were low to moderate. Peak flow at the USGS Irby gauge were:
- 2008: 366 cfs
- 2009: 323 cfs
- 2010: 415 cfs
- 2011: 146 cfs
- 2012: 80 cfs.

Peak flow during this period were between the 12th percentile (78 cfs) and the 40th percentile (420 cfs) based on the 1943 to 2018 time period. However, other factors limited the flow from Upper Crab Creek to Round Lake. Gary Ribail’s farm is located between Stratford Lake and Wilson Creek on Upper Crab Creek upstream of Round Lake (Figure 6, Attachment 1). Mr. Ribail used an old dam to create a reservoir in the main channel of Upper Crab Creek to facilitate pumping from the creek. In accordance with notes from a February 12, 2008 USBR/Ecology Quincy Basin Groundwater Management Meeting, “Gary Ribail who is south of town has been putting boards in the creek that is flooding a significant amount of farm land”. In an internal Ecology email dated October 29, 2009, Lynn Maser the Ecology Quincy Basin watermaster commented about the dam after a site inspection the previous day: “more boards in than I’ve seen before...”. In an April 24, 2006 email, Ecology’s Kevin Brown noted that the “water backs up two to three MILES up the creek”. The Ribail dam has the potential to capture substantial portions of the spring freshet and store thousands of acre-ft in the reservoir behind the dam. As Lynn Maser commented in his January 2008 notes in Ecology’s files “the (Ribail’s) SW claims don’t convey any right to dam the creek. There is not authority to dam the creek. There is no reservoir authorization either, and even though it’s just boards apparently the ‘reservoir’ is huge”. Landau Associates estimated that over 3,000 acre-ft could be detained behind the Ribail dam and have a significant impact on the spring freshet. A 2020 Landau Associates memorandum on the Ribail dam is included in Attachment 5. In addition to the Ribail dam, an impoundment was installed as part of a wetland restoration program that was developed on Upper Crab Creek upstream of Round Lake between about 2005 and 2008. This program was promoted and financed by the National Resource Conservation Service (NRCS) and covered over 2,000 acres of farmland in and adjacent to the creek that was converted to wetlands and storage ponds. Stated purposes of this program included:
- Reduce excessive runoff, flooding, or ponding and increase dynamic floodwater storage
- Improve the ability of wetland areas to recharge groundwater


• Reduce flood peak discharges.

In other words, to reduce the spring freshet. Streamflow monitoring conducted in 2019 and 2020 indicated that an 870-acre portion of this project reduced Upper Crab Creek flows between 39 and 83 percent. Round Lake Farms has filed a lawsuit against NRCS related to the restoration projects impairing their Round Lake water rights. In July 2020, Landau Associates submitted a complaint to Ecology on behalf of Round Lake Farms regarding the NRCS restoration project. The complaint, which includes streamflow data, is included in Attachment 6.

The combination of the Ribail dam and the NRCS restoration reduces the spring freshet and enhances groundwater recharge resulting in a lack of sufficient water for irrigation for Round Lake Farms. The lack of water is sufficient cause for non-use of water, per RCW 90.14.140(1)(a), that would explain partial or no irrigation of the existing PoU during some years and exempt the water right from partial relinquishment. In particular, the two-part test of *Ege v. Ecology* for assessment of sufficient cause for non-use appears to be satisfied. The two-part test of *Ege v. Ecology* includes:

1. Has the water rights holder proved sufficient cause for the nonuse of water due to actions reasonably outside their control?
2. If there were actions the water rights holder could have taken to make beneficial use of the water, did they take reasonably diligent steps to do so?

The low flows in Crab Creek, due in part to the Ribail dam and the NRCS restoration projects, were outside the control of Round Lake Farms. Despite the lack of water availability in Round Lake, Round Lake Farms took diligent action to attempt beneficial use of water, including growing cover crops (which take less water than commercial crops) to stabilize the soil within the PoU.

In more recent years, Round Lake Farms has been able to irrigate its combined acreage thanks to additional water availability in Round Lake due to a variety of factors, as described below.

In 2015 Round Lake was filled from releases by the Bureau of Reclamation through the Pinto Dam 4x4 gate directly into Stratford Lake and Crab Creek. The flow was released as part of tests for the Potholes Supplemental Feed Route from February 3, 2015 through August 9, 2016 (see Bureau of Reclamation 2016 fact sheet). While Round Lake Farms did not have authority to use the federal water, in fact it was difficult to distinguish the different types of water.

On April 14, 2020, Ecology sent Round Lake Farms a technical assistance letter alleging that the farm was irrigating “1 large pivot, 2 small ½ pivots and food plots totaling approximately 150 acres within Section 17 and 20, T.22N., R.28E. W.M.” (see the 2019 aerial photograph in Attachment 4). Round Lake Farms has ceased irrigating this acreage.

At the USGS Irby gauge the 2020 peak flow was 56.1 cfs; in 2021 the peak flow was about 35.6 cfs. No water in Upper Crab Creek flowed into Round Lake during either of these two years. Consequently, Round Lake Farms purchased emergency water from the East Columbia Basin Irrigation District (ECBID) under a temporary Article 28 water service contract. The water was supplied by the Bureau of Reclamation through discharge from the Pinto Dam 4x4 gate. Water was discharged into Stratford Lake and then flowed down Upper Crab Creek and into Round Lake. The emergency water was purchased from the ECBID for irrigation but also to preserve the existing hay stands to facilitate beneficial use of water in the future.

**Water Duty**

The original water duty for wheat at the PoU was established by the Ecology proof report of examination at 3.5 acre-ft/acre or 1,442 acre-ft. This is also the default water duty used throughout the Quincy Basin for artificially stored groundwater permits [WAC 173-134A-080(2)(m)] and for federally contracted platted farm unit water on Class 2 soil. Note that the soil conditions at the PoU are described as “sandy”. Given the sandy soil conditions (which often require a higher water duty than loamy or silty soil) and the use of modern efficient center pivot irrigation systems within the PoU, a water duty of 3.5 acre-ft per acre is generally reasonable. Crops grown on the existing PoU have included a combination of wheat, corn, hay, and possibly alfalfa (Mark Bently personal communication). According to recent aerial imagery of the existing PoU, the portion of the crop circles that is within the existing PoU includes approximately 412 acres of irrigated crop land. According to the Washington Irrigation Guide (WIG; USDA NRCS 1997), in the vicinity of the Ephrata station, the annual irrigation requirement for winter wheat is 28.30 inches (or 2.36 ft), the annual irrigation requirement for field corn is 32.36 inches (or 2.70 ft), and the annual irrigation requirement for

---


pasture/turf (used as a surrogate for hay) is 43.22 inches (or 3.60 ft). Assuming evaporative losses from the center pivot irrigation system with an end gun of 20% (i.e., an application efficiency of 80%; Ecology GUID-1210), the total irrigation requirement on the existing PoU land (crop demands plus evaporative losses) for winter wheat could be expected to have been approximately 2.95 ft per season. Applied over 412 acres irrigated in the existing PoU, that equates to an annual volumetric use of approximately 1,215 acre-ft. The total irrigation requirement on the existing PoU land for field corn could be expected to have been approximately 3.38 ft per season. Applied over 412 acres irrigated in the existing PoU, that equates to an annual volumetric use of approximately 1,392 acre-ft. The total irrigation requirement on the existing PoU land for pasture/turf (used as a hay surrogate) could be expected to have been approximately 4.5 ft per season. Applied over 412 acres irrigated in the existing PoU, that equates to an annual volumetric use of approximately 1,854 acre-ft.

Considering the inherent uncertainty in the accuracy of the water duty analysis method, the estimated annual water duty volume within the PoU is consistent with the authorized annual quantity of 1,442 acre-ft.

The instantaneous quantity amount of 6.7 cfs is equivalent to 3,007 gpm or 7.3 gpm/acre. The 7.3 gpm/acre is within the range of standard crop water duty in the Columbia Basin for center pivot irrigation.

Grant County PUD meter records were also requested from 1980 to the present. The PUD provided records from 2015 to the present (Attachment 7). According to Bill Stevens of Round Lake Farms, water is pumped from the lake using a combination of the six pumps that are connected to the 18-inch distribution line that services both S3-24700C and S3-CV1-P128(B) circles. Calculations and associated parameter values using annual power data is presented in Attachment 7. Calculated water usage per growing season for the combined S3-24700C and S3-CV1-128(B) circles varied between 2,643 acre-ft (2020) and 3,444 acre-ft (2015). The total combined authorized water usages is 1,442 acre-ft (S3-24700C) plus 1,500 acre-ft [S3-CV1-3Pl28(B)] or 2,942 acre-ft. Power records for this time period are consistent with authorized water usage given the uncertainties in the calculation.

Previous changes

Describe any previous change decisions associated with the water right:

A change application was submitted on July 19, 1978 for 6.7 cfs and an annual quantity of 1,505 acre-ft to irrigate 430 acres. The purpose of the change was to modify the PoU under the existing permit to accommodate variations in soil conditions. A superseding permit was issued on January 22, 1979 for the requested amounts. A proof report of examination was prepared by Ecology on September 10, 1980 documenting the irrigation of 412 acres, an instantaneous quantity of 6.7 cfs and an annual quantity of 1,442 acre-ft.

SEPA

The board has reviewed the proposed project in its entirety (Provide a detailed explanation of how the board complied with the State Environmental Policy Act):

A SEPA check list was submitted with the application. The Board subsequently made a determination of non-significance that is included as Attachment 8. The DNS was published in the Columbia Basin Herald on April 1, 2022.
Other

Provide any other pertinent information relative to the background of this water right:

Round Lake is located partially in both the Quincy Groundwater Management Subarea (Quincy Subarea) and the Odessa Groundwater Management Subarea (Odessa Subarea). The proposed PoD 1 would be a well located in the west half of Section 9, T22N, R28E in the Quincy Subarea (see Figure 1, Attachment 1). This well will draw water from the Quincy unconsolidated zone of the Quincy Subarea and discharge water into Round Lake.

The technical basis for the PoD well is to capture surface water that has been recharged to groundwater through installation and operation of upstream impoundments and restoration projects (described within the History of Water Use section).

The WRIA 43 Report details Upper Crab Creek watershed activities that enhance groundwater recharge and reduce flood potential. These activities include stream channel and wetland restoration, off channel storage, and installation of dams and impoundments on Upper Crab Creek. The NRCS wetland restoration projects and the Ribail dam represent these types of projects that captured the spring freshet and recharged groundwater. Neither of these projects are authorized under the water code to impound water. The proposed PoD would recapture surface water authorized under S3-24700C that is forced underground by these upstream projects. Water would be pumped from the POD well directly into the lake or directly into Crab Creek and into the lake. Water would then be pumped from the lake from the existing surface water point of diversion. The well would only be used in an emergency and non-additive capacity when natural surface water flow is not available.

The information or conclusions in this section were authored and/or developed by Eric Weber, LHg, CWRE, of Landau Associates, Inc.

COMMENT AND PROTESTS [See WAC 173-153-130(6)(b)]

Public notice of the application was given in the (Name of Publication(s): Columbia Basin Herald) on Dates Published: 3/21/22 and 3/28/22 (Attachment 9). Protest period ended on (end date of protest period): 4/27/22.

There were # or no protests received during the 30 day protest period. In addition, no or # oral and written comments were received at an open public meeting of the board or other means as designated by the board.

Date (protest/comment received): May 26, 2022

This was recognized by the board as a ☐ Protest ☑ Comment

Name/address of protestor/commenter: Marc Maynard, Bureau of Reclamation Ephrata Field Office Manager attended the May 26, 2022 Grant County Conservancy Board Meeting to comment on the GRAN 22-01 change application.

Issue (describe issues raised): The issue described by Mr. Maynard is the concern that the well may be withdrawing water in the Quincy Basin that is claimed by the federal government as artificially stored groundwater (ASGW).

Board’s analysis (board's response to the protest/comment): The applicant’s contention is that an existing appropriation for state water exists and that the water withdrawn from the well would consist of the appropriated surface water recharged to the aquifer by the NRCS wetland reserve projects and the Ribail dam. The Bureau mentioned that their protest would remain in place pending review by their hydrogeology subject matter experts. The Board has not resolved the potential for the additional point of diversion to impact ASGW.

NOTE to author: Repeat this table as necessary to describe each protest or comment (attach a separate sheet if needed)

Other

Provide any other pertinent information relative to the comments and protests receive:

The term "Point of Diversion" is used even though water will be extracted from a well. The rationale for using this terminology is that the well will be capturing surface water underflow forced underground by upstream dams and impoundments.

As defined in WAC 173-124-050.
Eastern Washington Council of Governments, WDFW, and Department of Archaeology and Historic Preservation (DAHP) were provided copies of the publication notice on 3/22/22. One comment was received from DAHP (email correspondence on 4/5/22) indicating that, due to the small footprint of the proposed project [i.e., the installation of one well], DAHP is not requesting a cultural resources survey. However, due to the high probability of encountering cultural resources within the proposed project area, DAHP requested that the applicant prepare an Inadvertent Discovery Plan and prepare construction crews for the possibility of encountering archaeological material during ground disturbing activities.

The information or conclusions in this section were authored and/or developed by Eric Weber, LHg, CWRE, of Landau Associates, Inc.

INVESTIGATION [See WAC 173-153-130(6)(c)]

The following information was obtained from a site inspection conducted by (person(s)): Alan Dillin and Spud Brown on (date of field exam): May 19, 2022, technical reports, research of department records (list other references, if any) ____ and conversations with the applicant and/or other interested parties.

Proposed project plans and specifications

Describe proposed use of water to include # of connections, method of irrigation, type of crop, commercial use, etc. Also describe any issues related to development, such as the proposed development schedule and an analysis of the effect of the proposed transfer on other water rights, pending change applications & instream flows established under state law.

The PoD 1 well will be installed in the unconsolidated material that overlies the Wanapum and/or Grand Ronde Basalt Formations north of the lake. These unconsolidated deposits are up to 200 ft thick, but thin towards the south based on well logs from three wells drilled in Section 9 north of Round Lake and USGS's A Three-Dimensional Hydrogeologic Framework Model of Columbia Plateau Regional Aquifer System² (Figure 5 of Attachment 1 and Attachment 10). Consequently, the proposed well is expected to be less than 200 ft deep. The diameter of the PoD 1 well will likely be 16 inches with a 20-inch surface seal to at least 18 ft depth. The expected well yield will be up to a maximum of 3,000 gallons per minute (gpm). The water will be pumped into Round Lake (either directly or via Crab Creek) and then pumped to field using existing irrigation infrastructure. An appropriate pump will be chosen based on the design pumping rate of 3,000 gpm and a pumping test of the new well. The average pumping rate during a low water year (i.e., a year when Round Lake does not receive any flow from Crab Creek) is expected to be about 1,340 gpm.⁶

No additional Qi or Qa is requested or will be used as a part of the proposed change beyond those already authorized by S3-24700C. Therefore, no enlargement of the existing water right is proposed or anticipated.

Other water rights appurtenant to the property (if applicable)

Describe any other water rights or other water uses associated with both the current and proposed PoU and an explanation of how those other rights or uses will be exercised in conjunction with the right proposed to be transferred.

Places of use for these water rights that affect Round Lake and the S3-24700C PoU are shown on Figure 1, Attachment 1. In addition to these water rights places of use, the Washington Department of Natural Resources (DNR) submitted two water right claims in 1974, with a claimed first water use date of 1889. The claim document numbers are S3-06497CL and S3-06498CL for diversions from Round Lake. Both the claims are for a Qi of 0.01 cubic feet per second (cfs) and a Qa of 0.5 acre-ft for stockwater and wildlife refuge.

S3-CV1-3P128(B) is a Round Lake Farms (RLF) water right that diverts water from the same pumps as S3-24700C to irrigate 3 circles in T22N, R28E, Section 21 (see Attachment 1, Figure 1). While S3-CV1-3P128(B) receives water from Round Lake, this authorization is not provisioned on maintaining a minimum depth in Round Lake. S3-CV1-3P128(B) is senior to S3-24700C. Claim S3-096177CL overlaps S3-24700C. In the past, RLF has irrigated about 150 acres of land (1

---

² USGS, A Three-Dimensional Hydrogeologic Framework Model of Columbia Plateau Regional Aquifer System
https://or.water.usgs.gov/proj/cpras/

⁶1,442 acre-ft applied over an 8-month period is equivalent to an average flow rate of about 1,340 gpm.


11
circle and 2 wipers) under this claim. RLF received a technical assistance letter (TAL) from Ecology on April 14, 2020 regarding this 150 acres. Currently, RLF is not irrigating the acreage referred to in the TAL.

As shown on Figure 1, Attachment 1, G3-01216C overlaps a portion of the PoU for S3-24700C. Attributes of this groundwater certificate include an instantaneous quantity of 1,000 gpm, an annual quantity of 634 acre-ft for seasonal irrigation of 317 acres. The supply of water for G3-01216C comes from a deep Grande Ronde basalt well that does not affect the Round Lake surface water supply. The circles irrigated under this right are adjacent to the circles irrigated under S3-24700C.

Public Interest (groundwater only)
The proposed transfer is subject to RCW 90.44.100 and therefore, cannot be detrimental to the public interest, including impacts on any watershed planning activities. Provide an analysis of the transfer as to whether it is detrimental to the public interest, including impacts on any watershed planning activity. Public interest is not considered if the proposed water right is authorized under RCW 90.03.380 exclusively.

The Bureau of Reclamation commented that the proposal may result in taking ASGW that is not available for diversion. Otherwise, there has been no public expression, protest, or concern regarding the subject proposal, and no findings through this investigation indicate that there would be any detrimental impact to the public welfare through issuance of the proposed change.

Tentative Determination
In order to make a water right change decision, the Board must make a tentative determination on the validity and extent of the right. The Board has made the tentative determination as displayed upon the first page of this report. There are several circumstances that can cause the board’s tentative determination to differ from the stated extent of the water right within water right documentation. Water right documents attempt to define a maximum limitation to a water right, rather than the actual extent to which a water right has been developed and maintained through historic beneficial use. Additionally, except for a sufficient cause pursuant to RCW 90.14.140, water rights, in whole or in part, not put to a beneficial use for five consecutive years since 1967 may be subject to relinquishment under Chapter 90.14.130 through 90.14.180 RCW. Water rights may additionally be lost through abandonment. The Board’s tentative determination was based upon the following findings. Describe any information indicating that an existing water right or portion of a water right has been relinquished or abandoned due to nonuse and the basis for the determination.

The tentative determination of quantities valid for change are described on the cover pages of this ROE. The certificate is in good standing and tentatively determined to be valid for 6.7 cfs and 1,442 acre-ft per year for the seasonal irrigation of 412 acres.

Geologic, Hydrogeologic, or other scientific investigations (if applicable)
Describe the results of any geologic, hydrogeologic, or other scientific investigations that were considered by the board and how this information contributed to the board’s conclusions.

Geologic conditions in the vicinity of Round Lake were characterized based on well logs⁷, a surficial geologic map⁸, USGS online three-dimensional hydrogeologic framework model⁹, the Columbia Basin Groundwater Management Area (GWMA)
geologic framework maps\textsuperscript{10}, other USGS reports, basalt rehydration study report\textsuperscript{11}, and the WRIA 43 Report. Round Lake is a small lake carved out of the Columbia River Basalts during the Pleistocene catastrophic floods associated with the repeated draining of Glacial Lake Missoula. The Wanapum Basalt Formation occurs at the surface in the vicinity of the lake though appears to be absent north of the lake. The Priest Rapids (Mvwpr), Roza (Mvwr), and Frenchman Springs (Mvwfs) members of the Wanapum Basalt have all been mapped adjacent to the lake as shown on Figure 3, Attachment 1.

From approximately the north side of Round Lake north to about the Bureau of Reclamation Main Canal, is a broad area defined by the Crab Creek valley where Pleistocene flood gravels (Qfg) overlay the Columbia River Basalts (Figure 3, Attachment 1). These gravels are up to about 200 ft thick based on three well logs listed on Ecology’s well log database located in Township 22N, Range 28E, Section 9 (Attachment 10). One of these well logs (T.L. Clark: well log #3) documents a 160-ft well that was pumped at 3,000 gpm with no apparent drawdown. The other two well logs (well logs #1 and #2) indicate coarse sand and gravel deposits but don’t include pumping test information. Section 9 well log locations are shown on Figure 4, Attachment 1 and are presented in Attachment 10. The thickness of the gravel deposits is estimated on the geologic cross section located on Figure 4 and shown on Figure 5 (Attachment 1).

The source of water for Round Lake is the watershed of Upper Crab Creek. Almost the entire watershed is part of WRIA 43 though Round Lake is in WRIA 42. The lake is located at a point where the creek leaves the confines of the WRIA 43 canyons and coulees and enters the broad Quincy Basin. To quote the 1918 USGS report on Quincy Basin groundwater “the glacial outwash deposits receive…. water that falls on the extensive drainage basin of Crab Creek and is poured into Quincy Valley either as surface water or as underflow…. the water sinking in some places and emerging from the gravel in others. During spring freshets there is a continuous flow, which for short periods may become very large”. A typical definition of underflow is that it is “part of the stream and subject to the same riparian and appropriative rights that guide the use of the stream itself”\textsuperscript{12}. In the description of Upper Crab Creek hydrology, the interconnection of surface water and groundwater is noted as a primary characteristic. As stated in Section 3.8.1.2 of the WRIA 43 Report, the connection between groundwater and surface water “has been observed as several flowing reaches of Crab Creek that are followed by dry reaches and locations where Crab Creek appears to suddenly sink below ground or emerge from the subsurface”. Section 3.8.2.2 of the WRIA 43 Report indicates that “(t)he groundwater within the sediments is assumed to be in direct hydraulic connection with streams. However, groundwater flows at a slower rate than the streams and variably loses to, or gains water from, the coulee streams depending on the time of year, location along the stream, and extent of well pumping. Channelization of Crab Creek… is inferred to increase the flow of streams”.

The proposed additional point of diversion (PoD 1) is located on the west half of Section 9, T22N, R28E, W.M. on land owned by Round Lake Farms. This well will be screened in the coarse gravel deposits that are recharged from Upper Crab Creek infiltrating into adjacent flood plain deposits and alluvium. This recharge has been exacerbated by the NRCS wetland restoration projects and the Ribail dam. The well will collect water that would otherwise flow down Upper Crab Creek into Round Lake.

Other

Provide any other pertinent information relative to the investigation of this application.

N/A

The information or conclusions in this section were authored and/or developed by (Name of Person): Eric Weber, LHg, CWRE, of Landau Associates, Inc.

\textsuperscript{10} Basalt elevation and isopach maps produced by the Franklin Conservation District for the Geologic Framework Project of the GWMA. Groundwater Solutions, Inc. and Kennedy/Jenks Consultants.

\textsuperscript{11} GSI Water Solutions, Inc. 2015. Hydrogeologic Assessment of the LCCD Rehydration Project Area, Southwestern Lincoln County, Northeastern Grant County, and Northwestern Adams County, Washington

\textsuperscript{12} \url{https://www.watereducation.org/aquapedia-background/groundwater-law}
CONCLUSIONS [See WAC 173-153-130(6)(d)]

Tentative determination (validity and extent of the right)
Describe whether, and to what extent, a valid water right exists.

The Board has tentatively determined that a valid transferable right exists in the following quantities: 6.7 cfs and 1,442 acre-ft per year for seasonal irrigation of 412 acres.

Relinquishment or abandonment concerns
Describe any relinquishment or abandonment of the water right associated with the water right transfer application as discussed in the investigation section of this report.

To the extent water has been available, the full amount of authorized water use for S3-24700C has been put to beneficial use and is available for transfer.

Hydraulic analysis
Describe the result, as adopted by the board, of any hydraulic analysis done related to the proposed water right transfer.

The new PoD I will be a well installed in the Upper Crab Creek valley where the creek transitions from the canyon and coulee confined stream conditions of WRIA 43 to the more open landscape of the Quincy Basin. At this location, infiltrated surface water and groundwater underflow occupy highly permeable Pleistocene flood gravels present in this area that are capable of very high yields.

An estimate of the hydraulic conductivity of overburden sand and gravel deposits north of the lake is on the high end for gravel, based on pumping test results for the T.L. Clark well (well log #3; Attachment 10) and soil texture descriptions in Section 9 well logs (Attachment 10). A high-end value for sand and gravel hydraulic conductivity is about 30,000 ft/day (about 10 centimeters per second [cm/sec])13. Transmissivity will vary with aquifer thickness. If saturated deposits are 20 ft thick at the well site, the transmissivity would be 600,000 ft2/day (4,448,800 gallons per day per [gpd]/ft). Transmissivity can be used to estimate specific capacity (pumping rate - Q divided by in-well drawdown - s). For example, the following empirical equation (Driscoll 1986) is a commonly used equation to correlate specific capacity with transmissivity:

\[ T = \frac{1500 \times Q}{s}, \text{ where} \]

- \( T \) = transmissivity (gpd/ft)
- \( Q \) = pumping rate (gpm)
- \( s \) = drawdown due to well pumping (ft).

Based on this equation, the specific capacity of a properly constructed well would be about 3,000 gpm/ft. This analysis suggests that even a shallow well located north of Round Lake could provide up to 3,000 gpm without impairment to existing wells.

13 Freeze and Cherry, 1979 Table 2.2. Groundwater. Prentice-Hall, Inc. New Jersey.
Consideration of comments and protests
Discuss the board's conclusions of issues raised by any comments and protests received.

One comment was received from DAHP, requesting an inadvertent discovery plan be prepared and implemented for ground-disturbing activities [e.g., well installation] as part of the proposed project. This request can be accommodated with a provision on the change ROE. The Bureau of Reclamation commented that the additional point of diversion may capture ASGW that is not available for appropriation. The Bureau added that additional review by the Bureau’s subject matter experts would be required to resolve this issue.

Impairment
Describe how or if the transfer proposal will impair existing rights of others.
Existing known uses in the vicinity of the proposed PoW are summarized in Attachment 11. There are three known existing wells within Section 9, T22N, R28E, W.M. that supply irrigation to the following water rights:

- G3-QB0234. Qa = 525.35 acre-ft/year; Qi = 1,500 gpm
- G3-01460CWRIS. Qa = 481 acre-ft/year; Qi = 1,400 gpm
- G3-01401CWRIS. Qa = 101 acre-ft/year; Qi = 250 gpm
- G3-*00518S. Qa = 2,200 acre-ft/year; Qi = 7,200 gpm
- G3-CVI-3P351. Qa = 232 acre-ft/year; Qi = 955 gpm.

The first three of these water rights are appurtenant to land owned by the applicant, Round Lake Farms. There are also five residents or businesses within about a mile of the proposed PoD 1. These properties may have exempt wells.

“Impair” or “impairment” means to 1) adversely impact the physical availability of water for a beneficial use that is entitled to protection; and/or 2) to prevent the beneficial use of the water to which one is entitled; and/or 3) to adversely affect the flow of a surface water course at a time when the flows are at or below flow levels established by rule (POL-1200); and/or 4) degrade the quality of a source to the point that the water is unsuitable for use by existing water right holders (WAC 173-150). Demonstration of impairment would require evidence of a substantial and lasting or frequent impact reflecting such conditions.

The above hydraulic analysis indicates that impairment is not indicated to be likely.

Public Interest
If the proposed transfer is authorized pursuant to RCW 90.44.100, describe whether it is detrimental to the public interest.
Public interest shall not be considered if the proposed transfer is authorized pursuant to RCW 90.03.380 exclusively.

The Bureau of Reclamation commented that the proposal may result in taking ASGW that is not available for diversion. Otherwise, there has been no public expression, protest, or concern regarding the subject proposal, and no findings through this investigation indicate that there would be any detrimental impact to the public welfare through issuance of the proposed change.

Other
The board also considered the previous provisions associated with the water right as identified in the background section of this report when making its decision. Provide any other pertinent information relative to the board's conclusions.

Beneficial Use
According to RCW 90.54.020(1), the existing use (i.e., irrigation) is considered a beneficial use of water. The Board researched the decision on whether Ecology has the authority to add a groundwater point of diversion to an existing surface water right. An independent decision was provided by an attorney that this type of change is allowed. The attorney opinion is included as Attachment 12. Furthermore, the applicant researched examples of where this type of change was approved by Ecology in the past. Select examples from Ecology approved ROEs and certificates are provided in Attachment 13.
DECISION [See WAC 173-153-130(6)(e)]

Provide a complete description of the board's decision, fully and comprehensively addressing the entire application proposal.

The Grant County Water Conservancy Board recommends that this application for change to the PoD of Certificate S3-24700C be denied. The Board has reviewed all documentation presented in the ROE and concludes that the change will not enlarge the authorized quantities of water or authorized place of use. Additionally, the Board concludes that surface water and groundwater are in hydraulic continuity throughout most or all of the Upper Crab Creek drainage and that adding a groundwater PoD is allowed under Washington State water code. During the review and processing of the change application, technical concerns arose relative to the delineation of naturally occurring groundwater in hydraulic connection to surface water and the location of “stored” water from leakage of canals. This resulted in a continuing protest from the Bureau of Reclamation. The application is denied in deference to the Bureau’s concerns.

Provide any other pertinent information relative to the board's decision.

N/A

The information or conclusions in this section were authored and/or developed by Eric Weber, LHg, CWRE, of Landau Associates, Inc.

PROVISIONS [See WAC 173-153-130(6)(f)]

Conditions and limitations

Identify any conditions and limitations recommended as part of an approved transfer, and/or any other corrective action necessary to maintain the water use in compliance with state laws and regulations.

In addition to the existing provisions of S3-24700C, the following provision is recommended for the approved change authorization:

A cultural resources Inadvertent Discovery Plan (IDP), in accordance with Washington State Department of Archaeology and Historic Preservation (DAHP) requirements, shall be prepared and followed during the installation of the proposed POD I well. An IDP template provided by Ecology (ECY 070-560) may be used, with site-specific information, to satisfy this provision.

Mitigation (if applicable)

Describe any requirement to mitigate adverse effects of the project. Mitigation may be proposed by the applicant or the board and be required in the board's decision.

No mitigation requirements apply.

Construction Schedule

Provide a schedule for development and completion of the water right transfer, if approved in part or in whole that includes a definite date for completion of the transfer and application of the water to an authorized beneficial use.
Beginning of Construction: 12/1/2022
Completion of Construction: 12/1/2024
Full Beneficial Use: 12/1/2025

Other
Provide any other pertinent information relative to provisions
Not Applicable.

The information or conclusions in this section were authored and/or developed by (Name of Person): Eric Weber, LHg, CWRE of Landau Associates, Inc. The signature and stamp of Mr. Weber is provided below.

The undersigned board commissioner certifies that he/she understands the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that he/she, having reviewed the report of examination, knows and understands the content of this report and concurs with the report's conclusions.

Signed at Ephrata, Washington
This 23rd day of June, 2022

Name of Board Representative: Ken Enns
Name of Water Conservancy Board: Grant County Water Conservancy Board
Signature: Ken Enns