



STATE OF WASHINGTON
DRAFT
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

File G2-29179
WR Doc ID 2221319

PRIORITY DATE	WATER RIGHT APPLICATION NUMBER
January 30, 1995	G2-29179

NAME AND MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Fairway Village Homeowners Association 15509 SE Fernwood Dr Vancouver, WA 98683	

Total Rate and Quantity Authorized for Withdrawal

WITHDRAWAL RATE (gpm)	ANNUAL QUANTITY (ac-ft/yr)
100	61.83

gpm = Gallons per Minute; ac-ft/yr = Acre-feet per Year

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Irrigation	100	0	GPM	60	0	05/01-10/15
Storage pond maintenance		100	GPM	1.83	0	05/01 – 10/15

IRRIGATED ACRES	PUBLIC WATER SYSTEM INFORMATION	
40	WATER SYSTEM NAME and ID	CONNECTIONS
	N/A	N/A

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Clark	Groundwater	N/A	28

SOURCE NAME	PARCEL	WELL TAG	TOWNSHIP	RANGE	SECTION	QQ Q	LATITUDE	LONGITUDE
Groundwater	92002406	TBD	1N	2E	1	NW SW	45.60104	-122.50519

QQ Q = ¼ Quarter Quarter

Datum: NAD83/WGS84

Place of Use

PARCEL(S)
92008954, 92007240, 92007682, 92006198, 92006203, 92006206, 92003684, 92002406

LEGAL DESCRIPTION OF THE AUTHORIZED PLACE OF USE		
Portions of Section 1, R2E NW ¼ & SW ¼, and a portion of Section 2 R2E SE ¼, including the following parcels as listed by Clark County:		
92006206	FAIRWAY VILLAGE UNIT-I	TRACT C
92007240	FAIRWAY VILLAGE UNIT 4	TRACT A
92006203	FAIRWAY VILLAGE UNIT-I	TRACT B
92008954	FAIRWAY VILLAGE UNIT-6	TT C
92003684	FAIRWAY VILLAGE UNIT 11	TT A
92007682	FAIRWAY VILLAGE UNIT-5	TRACT A
92002406	FAIRWAY VILLAGE UNIT 10	TT C

Proposed Works
8-inch diameter well drilled to 235 feet; screened from 216 to 229 feet below ground.

Development Schedule		
BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	PUT WATER TO FULL USE BY THIS DATE
Started	January 1, 2025	January 1, 2030

Attention: These dates represent deadlines that must be met or risk cancellation of this authorization. Submittal of formal documentation for each stage is required. Extensions may be requested.

Measurement of Water Use	
HOW OFTEN MUST WATER USE BE MEASURED AND RECORDED?	Monthly
HOW OFTEN MUST WATER USE DATA BE REPORTED TO ECOLOGY?	Annually by January 31
WHAT QUANTITY SHOULD BE REPORTED?	Total annual quantity in acre-feet
WHAT RATE SHOULD BE REPORTED?	Annual peak rate of withdrawal in gpm

Provisions

Mitigation

Impacts to regulated surface water (Burnt Bridge and Lacamas Creeks) from the withdrawals authorized in this decision are being mitigated by relinquishment of a portion of Ground Water Certificate (GWC) G2-00686 which is being held in the Temporary Trust Program by the Terrance Mitigation Bank, LLC. Within 60 days of the issuance of the final Report of Examination, a Voluntary Relinquishment Form will be filed with Ecology relinquishing 18 acre-feet of GWC G2-00686. Following receipt of the Voluntary Relinquishment Form, Ecology will send a letter to Terrace Mitigation Bank, LLC reflecting the reduction of annual quantity being held in temporary trust to 253.5 ac-ft.

Wells, Well Tags, and Well Construction Standards

All wells constructed in the state shall meet the “Minimum Standards for the Construction and Maintenance of Wells” (WAC 173-160) and “Water Well Construction” (RCW 18.104). In general, wells shall be located at least 100 feet from sources of contamination and at least 1,000 feet of the boundary

of a solid waste landfill. Any well which is unusable, abandoned, or is an environmental, safety, or public health hazard shall be decommissioned.

All wells shall be tagged with a Department of Ecology unique well identification number. If you have an existing well and it does not have a tag, please contact the well-drilling coordinator at the regional Department of Ecology office issuing this decision. This tag shall remain attached to the well. If you are required to submit water measuring reports, reference this tag number.

Installation and maintenance of an access port as described in WAC 173-160- 291(3) is required.

Measurements, Monitoring, Metering, and Reporting

An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule “Requirements for Measuring and Reporting Water Use”, chapter 173-173 WAC, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology (Ecology) for modifications to some of the requirements.

Recorded water use data shall be submitted electronically by January 31 each year. To set up an Internet reporting account, contact the Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Regional Office for forms to submit your water use data.

Proof of Appropriation

Consistent with the development schedule given in this report (unless extended by Ecology), the water right holder must file a Notice of Proof of Appropriation (PA) of Water with Ecology. The PA documents the project is complete and all the water needed has been put to full beneficial use (perfected). In order to verify the extent of water use under this permit, an inspection of water use is typically required, known as a “proof exam”. After filing the PA, the water right holder’s next step is to hire a Certified Water Rights Examiner (CWRE) to conduct this proof exam. A list of CWREs is provided to the water right holder upon filing the PA with Ecology. The final water right document, a water right certificate, then may issue based upon the findings of the CWRE. Statutory county and state filing fees may apply prior to certificate issuance.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Findings of Fact and Order

Upon reviewing the investigator’s report, I find all facts, relevant and material to the subject application, have been thoroughly investigated.

Therefore, I ORDER **APPROVAL** of Application No. G2-29179, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do the following within 30 days of the date of receipt of the Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order to Ecology in paper form - by mail or in person (see addresses below). E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

Street Addresses	Mailing Addresses
<p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503</p>	<p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p>
<p>Pollution Control Hearings Board 1111 Israel RD SW, Ste 301 Tumwater, WA 98501</p>	<p>Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903</p>

For additional information, visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>. To find laws and agency rules, visit the Washington State Legislature Website: <http://www1.leg.wa.gov/CodeReviser>.

Authorizing Signature

Signed at Lacey, Washington, this _____ day of _____, 2023.

 Michael J. Gallagher, Section Manager
 Water Resources Program/Southwest Regional Office
 Department of Ecology

INVESTIGATOR'S REPORT

Water Right Application No.: G2-29179 (Fairway Village Homeowners Association)

Investigator: Burt Clothier, L.HG, Mott MacDonald

Reviewed by: Tammy Hall, L.HG, Department of Ecology

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number G2-29179.

Fairway Village Homeowners Association (FVHA) of Clark County, Washington filed a water right application with the Department of Ecology (Ecology) in 1995 requesting the withdrawal of water from an existing well (the Irrigation Well) in the amount of 100 gallons per minute (gpm) for irrigation of a 40-acre, 9-hole golf course. No annual quantity was specified. The well was installed in 1981 and while no historic records are available, water use is presumed to have begun as soon as the golf course was constructed. Ecology file records do not include any correspondence prior to 1995, but it appears that the golf course was directed to file a water right application sometime prior to this as the application was received on January 30, 1995. Follow-up letters from Ecology were sent in 1999 and 2000 but no further action was taken by either the Department or the applicant. The golf course footprint within the development has remained the same since construction so it is presumed that the irrigated area (40 acres) has also remained unchanged, and that water use continued throughout the period.

On November 25, 2020, FVHA received a letter from Ecology notifying FVHA that Ecology was reviewing water rights applications in the area for processing and requesting that FVHA confirm intent to proceed with the application. Ecology also noted that under Chapter 173-528 WAC, surface waters in the area are closed to new consumptive uses, unless the impacts to surface water are mitigated. On December 14, 2020, FVHA responded to Ecology indicating their intent to proceed with the water rights application stating they would develop a mitigation plan to offset the impacts of pumping the FVHA well on regulated surface water. Groundwater modeling and a Water Rights Assessment were undertaken in early 2021 to develop a preliminary mitigation plan.

The Department of Ecology issued a Preliminary Permit to Test a Well for Water Right Application on March 17, 2021, requesting that the existing Irrigation Well be pumped to provide information on the well performance, aquifer response, and determine impacts of pumping on regulated surface water. An aquifer test was performed on October 28, 2021, and subsequent analysis undertaken by a Professional Hydrogeologist.

Table 1. Summary of Requested Water Right

Applicant Name	Fairway Village Homeowners Association (FVHA)
Priority Date	01/30/1995
County	Clark
WRIA	28
Water Source	Groundwater
Place of Use	Fairway Village Golf Course

Purpose	Instantaneous Rate (gpm)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation	100	not specified	May 01	Oct 15

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Well	92002406	None	1N	2E	1	NW SW	45.60104	-122.50519

WRIA = Water Resource Inventory Area; gpm = Gallons per Minute; ac-ft/yr = Acre-feet per Year; QQ Q = ¼ Quarter Quarter

Datum: NAD83/WGS84

Cost Reimbursement

This application is being processed under a cost reimbursement agreement between the applicant and the Department of Ecology. This report has been prepared by Mott MacDonald (formerly Pacific Groundwater Group) and reviewed by Tammy Hall with the Department of Ecology’s Water Resources Program.

INVESTIGATION

In considering this application, the investigation included, but was not limited to research and/or review of:

- Ecology’s online Water Rights Tracking System (WRTS) database
- Records of water rights in the vicinity
- Ecology’s online Well Log Database
- Topographic and local area maps
- DNR surficial geology mapping and online database
- Published reports or studies as cited below
- OpenET website (<https://openetdata.org/>)

Proposed Use and Basis of Water Demand

Site Description

The Fairway Village Golf Course is a 9-hole public course owned and managed by the Fairway Village Homeowner’s Association in Vancouver, Washington. The course was laid out in 1983 as the foundation for the new Fairway Village Golf & Country Club residential development.

The golf course has approximately 40-acres of irrigated turf irrigated by a single well. The Irrigation Well is located on the edge of the Fairview Village Golf Course north of the residence at 15214 SE 35th Street, Vancouver, WA. The well is in the Burnt Bridge Creek watershed, approximately ½ mile from the Columbia River and 4.5 miles from Burnt Bridge Creek.

A site visit was conducted on October 27, 2021, by Burt Clothier of Mott MacDonald to instrument the Irrigation Well with monitoring equipment prior to the well testing described in Hydrogeologic Evaluation of FVHOA Irrigation Well (PGG, 2022). Well testing was accomplished the following day by Travis Klaas of Mott MacDonald.

Water System Description

The Irrigation Well is screened at a depth of 216 to 229 feet below ground surface, which equates to elevations of about -47 to -60 feet mean sea level, or approximately the elevations of the bed of the Columbia River. Well testing has rated the well at up to 100 gpm.

Groundwater is pumped and conveyed through an established irrigation system. The distribution system consists of 8-inch to 4-inch mains with 2-inch lateral lines. A mix of 675 half- and full-head TORO sprinklers are installed with rates of up to 32 gpm. Average run time each sprinkler is about 8 minutes. During the typical irrigation season (May to October) the system runs for up to 4 to 5 hours per day.

Two ponds along the course are used to provide storage of water and a third is decorative only. The pond dimensions are:

- Pond 1: approximately 70 feet wide by 275 feet long with a maximum depth of 8 feet.
- Pond 2: approximately 110 feet wide by 210 feet long with a maximum depth of 10 feet.
- Pond 3: approximately 21 feet wide by 30 feet long with a maximum depth of 4 feet.

Ponds 1 and 2 are used for irrigation water storage. The ponds were constructed by the original golf course developer (which preceded the water right application) and are lined with clay, gravel, and mud. Ponds 1 and 2 are connected by a 6-inch pipe. Water from the irrigation well is pumped into Pond 1 and then flows via gravity to Pond 2. Water for the irrigation sprinklers is pumped from the combined storage of the two ponds. Pond 3 is for aesthetic purposes only and was constructed in about 1997. It is lined with a plastic/polymer liner which was replaced in 2019. It is filled from the irrigation system.

Together, the three ponds can store approximately 8.9 acre-feet of water. The ponds are kept filled year-round, but pumping is usually only necessary during the irrigation season. The ponds have been in use for many years and will have fully saturated the underlying sediments such that no water duty to fill the ponds is necessary. Pumping from the irrigation well is used to replace water used by the irrigation system and make up for any evaporative losses. The ponds are considered a small irrigation impoundment under RCW 90.03.370(8).

History of Water Use

In 1995, FVHA filed a water right application with the Department of Ecology for a withdrawal rate of 100 gpm and an unspecified annual quantity for irrigation of the golf course. The well has supplied groundwater for irrigation use since the well it was installed in 1986. Typical water use has been between 80 and 100 gpm during the irrigation season, usually May through October.

The FVHA well is not metered. The golf course was apparently built and developed between 1985 and 1990. Review of aerial photography indicates continuous irrigation usage throughout the period of available photo record (1985 to present).

Water use from the well ceased in at the end of 2020 in compliance with Ecology's order and FVHA sought and received a 3-year temporary connection to the City of Vancouver water system to supply a substitute source for the irrigation needs while the water right application was being processed. Table 2 provides the recorded annual use of water, with 2020 representing use of the irrigation well prior to cessation and 2021 and 2022 representing water purchased from the City.

Table 2. Water use from City of Vancouver

Year	Period	Gallons	acre-feet
2020	June 1 to Nov 1	10,305,158	31.6
2021	Apr 15 to Oct 15	13,319,397	40.9
2022	May 15 to Oct 15	12,251,611	37.6

* additional use expected through September

Because FVHA needed to purchase water from the City of Vancouver to continue to irrigate while the subject application was being processed, FVHA deficit irrigated to keep costs down. As such, metered water use from the City of Vancouver in Table 1. does not represent the actual irrigation needs for the project. An aerial photo from May and June 2021 corroborates this as grass is considerably more brown and dried and the ponds are partially filled in comparison to aerial photos taken in 2019 when the golf course was fully irrigated, and the ponds were kept filled.

Based on the Washington Irrigation Guide (WIG), water demand for pasture/turf in the Vancouver area is assumed at 16.4 inches of water per year from May thru September. Applying this demand to the 40 acres of the golf course suggests a water duty of 54.3 acre-feet per year. Review of satellite-based analysis via OpenET suggests a range of between 15 to 20.5 inches of cumulative annual evapotranspiration (ET) at the golf course location for the period 2017 to 2022, with four of the six years recording cumulative ET of 18 inches or more. Using 18 inches of ET as a guide would imply a water demand of at least 60 acre-feet per year over the golf course's 40 acres.

In addition, the three ponds used for irrigation water storage and aesthetic purposes have evaporation losses. Combined, the ponds cover 0.72 acres. The pan evaporation value at Portland Airport NOAA station is recorded as 40.3 inches. The pan coefficient in the WIG for Vancouver is 0.76, suggesting a pond/open water evaporation value of 30.6 inches. Over the area of the three ponds, this results in 1.83 acre-feet of water lost annually to evaporation. Pumping of water to the ponds is required to replace these evaporation losses.

Leakage from the base of each pond is also assumed to occur but is difficult to quantify as no field information is available to determine the leakage rates. However, the ponds were built with liners, so leakage rates should be relatively small.

Irrigation system inefficiencies may result in higher usage of water to meet the water duty, so additional pumping may occur. Assuming a relatively efficient system with only minor leakage and low evaporation losses, an inefficiency value of 10% is reasonable. Applying this 10% loss factor to the water duty, implies a total water need of 59.7 acre-feet.

Proposed Use

Groundwater is requested for irrigation of a golf course and aesthetic storage of water in three ponds on an annual basis from May 1 to October 15. Based on the historic range of production, system information from FVHA, and projected demand based on the high-water use conditions discussed above, a maximum water use of 61.83 acre-feet per year is expected (including pond level maintenance requirements).

Regional Hydrogeology

Geologic conditions in the project vicinity generally are mapped as “outburst flood deposits, gravel”, which consists of gravel and sandy gravel with interbedded silts. The following geologic units are found in the study area:

Recent Alluvial Aquifer (RAA)

The recent alluvial deposits of the Columbia River and local streams form the RAA, which is the uppermost aquifer within the Columbia River lowland area. The RAA is unconfined with water levels typically occurring within 10 to 20 feet of ground surface. The RAA is in direct hydraulic continuity with the major rivers, streams and wetlands that occupy the lowlands. Groundwater level fluctuations are highly correlated with changes in river stage. Because of its relatively low permeability and limited degree of saturation, this aquifer is not an important water supply source.

Pleistocene Alluvial Deposits (PAD)

The ancestral Columbia River deposited Pleistocene alluvium as a great deltaic fan emanating from the Columbia River gorge. Because the alluvium was deposited via catastrophic floods emanating from the ancestral Lake Missoula during the Pleistocene Epoch, the unit is sometimes referred to as Missoula Flood deposits or Pleistocene catastrophic flood deposits. Within the upland areas, the Pleistocene alluvial deposits (PAD) are typically less than 100 feet in thickness, and are comprised of coarse sand, gravel, and cobbles. The Pleistocene Alluvial Aquifer (PAA) is part of the PAD deposits and has served as an important municipal and industrial supply source in the Vancouver and Camas vicinities.

Troutdale Formation

The Troutdale Formation overlies older bedrock and comprises unlithified and semi-lithified sediments. In the study area, the Troutdale is exposed along the steeper canyon walls of major drainage features, which have been eroded over time. Previous studies have divided the formation into upper and lower members, based on age and dominant grain size or on water-bearing properties. Past authors also recognize a partially cemented gravel unit at the top of the Troutdale Formation as much as 100 feet thick (PGG 2017). The unit functions as an aquifer in the southern portions of the Vancouver upland and is called the Upper Troutdale Aquifer (UTA).

The Upper Troutdale Aquifer is an important source of supply to many domestic, irrigation, and agricultural users throughout Clark County. The most productive portions of the UTA occur in the Hazel Dell area where well yields may locally exceed 1,000 gpm. Aquifer productivity generally declines in a northerly direction.

The Troutdale formation crops out along the Columbia River immediately adjacent and downstream of the site. Based on this occurrence, the UTA is interpreted to be in hydraulic continuity with the Columbia River in the site vicinity.

Local Hydrogeology

The driller’s log for the Irrigation Well indicates that materials encountered during drilling were generally sands, gravels, silts, clays, cobbles in varying proportions. Cobbly and boulder sediments from land surface to 87 feet bgs represent the PAD. Between 87 and 195 feet bgs, the Upper Troutdale Formation is interbedded between (pre-dominantly) clayey and cemented occurrences sands and gravels, and thinner occurrences of clean sand and gravel (without clay or cement). Clean water-bearing sands and gravels between 195 and 229 feet bgs form the production aquifer within the UTA, and the

well is completed in these deposits between 216.5 to 229 feet bgs. The driller reported a static water level of 154.5 feet bgs.

Test Pumping Results

A 6-hour pumping test was conducted at the Irrigation Well in October 2021 (PGG, 2022). Groundwater levels were monitored in the Irrigation Well using pressure transducers and data loggers with manual water-level confirmation measurements. Groundwater was discharged into an adjacent lined pond approximately 15 feet east from the wellhead.

The irrigation well was pumped at an average rate of 83 gpm. Water levels in the well varied slightly with the change in river stage with about 0.1-foot change in the well for about 2.5-feet of change in the river, indicating that the well is hydraulically connected to Columbia River. The software package AQTESOLV was used to incorporate the river boundary in the analysis.

At the end of the test there was about 24.7 feet of drawdown in the well (including well losses). Results from PGG's aquifer analysis indicates the type-curve fit to drawdown shows an estimated aquifer transmissivity (T) of 952 ft² /day. The type-curve fit also fit well to the recovery portion of the test and was moderately insensitive to aquifer storativity (S). PGG assumed an S value of 0.00001, which is typical for confined aquifers, and used a distance of 2,000 feet to the south of the well to simulate the Columbia River as a constant head boundary.

PGG also used Aqtesolv to estimate long-term sustainable yield from the Irrigation Well. Predictions of time-drawdown in the Irrigation Well for long-term (greater than 1,000 minutes) pumping at the tested rate of 83 gpm and the full allocation rate of 100 gpm. The predicted drawdown curves suggest that hydraulic connection with the Columbia River is expected to cause stabilization after approximately 400 minutes. Maximum predicted drawdown in the Irrigation Well is predicted to be 25 feet at 83 gpm and 30 feet at 100 gpm.

Based on the predicted drawdown of 30 feet under a long-term pumping rate of 100 gpm, continuous pumping will only use about 69 percent of the recommended available drawdown in the well. Thus, the Irrigation Well is expected to be fully capable of meeting the irrigation system demands.

Materials Submitted in Support of Application

A number of reports and memorandums were submitted by the applicant in support of the application, including:

- Fairway Village Homeowners Association, June 2021, Response letter to Department of Ecology re: Fairway Village Homeowners Association Water Right Application G2-29179
- Pacific Groundwater Group, March 2021, Technical Memorandum: Fairway Village Homeowners Association Water Rights Review
- Pacific Groundwater Group, May 2021, Technical Memorandum: Predictive Impacts to Burnt Bridge Creek due to Pumping of FVHA Well
- Pacific Groundwater Group, June 2022, Hydrogeologic Evaluation of Fairway Village HOA Irrigation Well.
- Legal contract in place to buy water.

ANALYSIS

Under Washington State law (RCW 90.03.290), each of the following four criteria must be met for an application for a new water right permit to be approved:

- Water must be available for appropriation.
- Water withdrawal and use must not cause impairment of existing water rights.
- The proposed water use must be beneficial.
- Water use must not be detrimental to the public interest (public welfare).

Water Availability

For any new appropriation, water must be both physically and legally available.

Physical Availability

For water to be physically available for appropriation, water must be present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use or uses. An analysis of physical availability is required for both surface water and groundwater applications.

The Irrigation Well was pumped at 83 gpm for 6-hours. Based on the predicted drawdown of 30 feet under a long-term pumping rate of 100 gpm, continuous pumping will only use about 69 percent of the recommended available drawdown in the well. Results of the pumping test and predictive analyses as reported by PGG (2022) confirm that the aquifer material is capable of supplying water at the requested rate of 100 gpm.

Legal Availability

To meet the legal availability test, the proposed appropriation may not withdraw and use water that is already “spoken for”, such as water from sources that are protected by administrative rule or court order.

Ecology adopted Chapter 173-528 Washington Administrative Code (WAC) Water Resources Management Program for the Salmon-Washougal Basin, WRIA 28 in December 2008. Under provision of this chapter certain surface water bodies, including groundwater in hydraulic continuity with surface water, are closed to new consumptive appropriations. New water rights can still be issued if the impacts of water withdrawals on regulated surface water bodies are mitigated. Included in these closures is Burnt Bridge Creek.

The Irrigation Well is located in the Burnt Bridge Creek surface water basin approximately ½ mile from the Columbia River and 4.5 miles from Burnt Bridge Creek. In a letter to FVHA dated 17 March 2021, Ecology required full mitigation (100%) of any projected impacts to the Burnt Bridge Creek.

MM identified Ground Water Certificate (GWC) G2-00686 (Rotschy) as a possible mitigation source. The water right is located near the headwaters of Burnt Bridge Creek and is associated with farmland that was restored to wetlands. The right currently is held in Temporary Trust for groundwater preservation and instream flow purposes by Terrace Mitigation Bank, LLC. A tentative determination based on water use information evaluated the water right to be beneficially used in the amount of 1,315 gpm and 271.5 acre-feet per year for irrigation of 130 acres. FVHA has contracted to acquire a portion of this right and permanently partially relinquish it to offset impacts to regulated surface water, including Burnt Bridge Creek. With full execution of the Purchase and Sale Agreement, FVHA will meet the mitigation

requirements and water use associated with withdrawals of at the Irrigation Well will be met. Therefore, water is legally available.

Impairment

In analyzing impairment, Ecology must make a determination as to whether existing water rights, including adopted instream flows, may be impaired by the withdrawal and proposed use.

In order to provide an analysis of the effects of the proposed pumping at the Irrigation Well, MM developed a numerical model of the region (PGG 2021). Results of preliminary groundwater modeling performed by MM (2021) indicate approximately 1% of the Irrigation Well pumping is predicted to impact baseflows to Burnt Bridge Creek and 82% of the pumping is predicted to impact baseflows to the Columbia River. The remaining pumping is predicted to impact baseflows to other surface water features represented in the model.

Modeling indicated that voluntarily relinquishing a portion of GWC G2-00686 will fully offset streamflow capture from Burnt Bridge Creek, Lacamas Creek, and other smaller regulated streams (PGG 2021). FVHA has entered into an agreement with the Terrace Mitigation Bank, LLC to purchase up to 18 acre-feet to use as mitigation. Burnt Bridge Creek will benefit the most since the amount of water being purchased is considerably more than predicted impacts.

Beneficial Use

The proposed appropriation must be for a beneficial use of water.

Water for irrigation is considered a beneficial use of water under RCW 90.54.020(1).

Public Interest

The withdrawal and associated use must not be detrimental to the public interest. At a minimum, the following are considered when making this assessment.

Notification to the Washington Department of Fish and Wildlife

Per RCW 90.03.280 and 77.57.020, Ecology must give notice to the Washington Department of Fish and Wildlife (WDFW) of applications to divert, withdraw, use, or store water.

WDFW was provided notice of this water right application on February 22, 2022. WDFW provided a comment letter to Ecology on July 5th, 2022, indicating that they did not oppose the application but that any identified impacts to flows or conditions identified by the WRIA 28 Watershed Plan or WAC 173-528 must be mitigated.

State Environmental Policy Act (SEPA)

Under chapter 197-11 WAC, a water right application is subject to a SEPA threshold determination (i.e., an evaluation of whether there will be significant adverse environmental impacts) if any of the following conditions are met:

- It is a surface water right application for more than 1 cfs, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cfs, so long as that irrigation project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gpm;
- It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;

- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Considering that none of the above conditions are met, the application under review is categorically exempt from a SEPA threshold determination.

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted, and used. Notice of this application was published in the Columbian on December 22 and December 29, 2021.

No protests or comments to this water right application were received.

Conclusions

I find that:

- Water is physically and legally available.
- The appropriation will not impair existing rights.
- The proposed irrigation water is a beneficial use.
- Approval of this application will not be detrimental to the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend this request for a water right be **APPROVED** in the amounts and within the limitations listed below and subject to the provisions listed above.

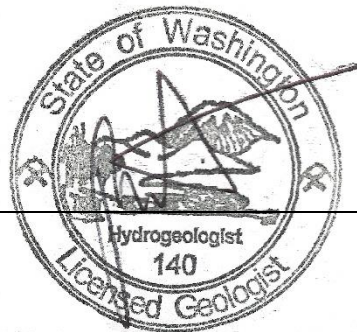
Recommended Quantities, Purpose of Use, and Project Location

The rate and quantity of water recommended are maximum limits. The permit holder may only withdraw water at a rate and quantity within the specified limits that are reasonable and beneficial:

Table 2: Recommended Limits and Location

Maximum Instantaneous Rate (gpm)	100
Maximum Annual Quantity (ac-ft/yr)	61.83
Purpose(s) of Use	Irrigation, storage pond maintenance
Point of Withdrawal	NW¼, SW ¼, Section 1, Township 1 North, Range 2 E., W.M.
Place of Use	Fairway Village Golf Course, as shown in Figure 1

Burt G. Clothier, L.HG



January XX, 2023
Date

Tammy Hall, L.HG

Date

To request ADA accommodation including materials in a format for the visually impaired, call Ecology Water Resources Program at 360-407-6872. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

References

Pacific Groundwater Group, March 2021, Technical Memorandum: Fairway Village Homeowners Association Water Rights Review

Pacific Groundwater Group, May 2021, Technical Memorandum: Predictive Impacts to Burnt Bridge Creek due to Pumping of FVHA Well

Pacific Groundwater Group, June 2022, Hydrogeologic Evaluation of Fairway Village HOA Irrigation Well.

