File NR: CS4-02398sb23@47
WR Doc ID: 4241906

DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
Report of Examination for Water Right Change

PRIORITY DATE	WATER RIGHT NUMBER
June 30, 1878	S4-84878-J

MAILING ADDRESS
Chadwick & Nancy Fife
17000 Ahtanum Rd.
Yakima, WA 98903

Total Quantity Authorized for Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AC-FT/YR)
0.02[1]	CFS	3.62[1]

Purpose

PURPOSE OF USE	PERIOD OF USE (mm/dd)
Irrigation of 2.11 acres	04/15 – 07/10

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Yakima	Bachelor Creek	Ahtanum Creek	37-Yakima

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LONGITUDE	LATITUDE
Point of Diversion	171207-43006	12 N.	17 E.	7	SW SE	-120.74433	46.53705

Datum: NAD83/WGS84

[1] When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.02 cubic feet per second, 1.19 acre-feet per year can be diverted.

Place of Use (See Attachment 1)

PARCELS (NOT LISTED FOR SERVICE AREAS)

171207-43006

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The West 513.7 feet of the SW¼SE¼ of Section 7 and the NW¼NE¼ of Section 18 lying southerly of the county road right-of-way and northerly of Bachelor Creek, in T. 12 N., R. 17 E.W.M., Parcel No. 171207-43006, Answer No. 41.

Proposed Works

Applicant maintains a 2.5-horsepower (hp) pump connected to 1.5 - 2 inch mainline. Watering is done specifically by connecting hand lines and hoses around the house.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Begun	Complete	Complete

Washington State Department of Ecology's (Ecology) findings as documented by this water right change decision are based on the Schedule of Water Rights presented in the Conditional Final Order, Subbasin No. 23, issued April 15, 2009 by the Yakima County Superior Court, and the current Acquavella Draft Schedule of Rights, which is periodically updated when changes are made by the Court. Ecology's decision is subject to any subsequent determination made by the Court, including the Final Decree in *Department of Ecology v. Acquavella*. Any changes to this water right made by the Court will be reflected on the final certificate of adjudicated water right, which will issue subsequent to entry of the Final Decree in *Department of Ecology v. Acquavella*.

Measurement of Water Use

How often must water use be measured?	Weekly
How often must water use data be reported to Ecology?	Annually (Jan 31)
What volume should be reported?	Total Annual Volume
What rate should be reported?	Annual Peak Rate of Withdrawal (CFS)

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," WAC 173-173.

WAC 173-173 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 for modifications to some of the requirements.

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

*Nothing here is intended to address anything about any party's duties or rights to regulate water use in Ahtanum Basin.

Provisions

A. This water right may only initiate a call on junior rights when the quantity of water available at the confirmed point of diversion is sufficient to exercise the right.

B. **Department of Fish and Wildlife Requirement(s)**
The intake(s) must be screened in accordance with Department of Fish and Wildlife screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). Contact the Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091, attention: Habitat Program, Phone: (360) 902-2534 if you have questions about screening criteria, or call (509) 575-2104 for the Yakima Construction Shop to obtain technical assistance for your project.
http://wdfw.wa.gov/conservation/habitat/planning/screening/

C. **Easement and Right-of-Way**
Where the water source and/or water transmission facilities are not wholly located upon land owned by the applicant, issuance of a water right change authorization by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between applicant and owner of that land.

D. **Schedule and Inspections**
Department of Ecology personnel, upon presentation of proper credentials, will 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.

Finding of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or the public welfare.

Therefore, I ORDER approval of Application No. CS4-02398sb23@47, subject to existing rights and the provisions specified above.

Your Right To Appeal

This Decision may be appealed pursuant to RCW 34.05.514(3), RCW 90.03.210(2), and Pretrial Order No. 12 entered in *State of Washington, Department of Ecology v. James Acquavella, et al.*, Yakima County Superior Court No. 77-2-01484-5 (the general adjudication of surface water rights in the Yakima River Basin). The person to whom this Decision is issued, if he or she wishes to file an appeal, must file the notice of appeal with the Yakima County Superior Court **within thirty (30) days of receipt of this Decision**. Appeals must be filed with the Superior Court Clerk's Office, Yakima County Superior Court, 128 North 2nd Street, Yakima WA 98901, RE: Yakima River Adjudication. Appeals must be served in accordance with Pretrial Order No. 12, Section III ("Appeals Procedures"). The content of the notice of appeal must conform to RCW 34.05.546. Specifically, the notice of appeal must include:

- The name and mailing address of the appellant.
- Name and address of the appellant's attorney, if any.

- The name and address of the Department of Ecology.
- The specific application number of the decision being appealed.
- A copy of the decision.
- A brief explanation of Ecology's decision.
- Identification of persons who were parties in any adjudicative proceedings that led to Ecology's decision.
- Facts that demonstrate the appellant is entitled to obtain judicial review.
- The appellant's reasons for believing that relief should be granted, and a request for relief, specifying the type and extent of relief requested.

The "parties of record" who must be served with copies of the notice of appeal under RCW 34.05.542(3) are limited to the applicant of the decision subject to appeal, Ecology and the Office of the Attorney General.

All others receiving notice of this Decision, who wish to file an appeal, must file the appeal with the Yakima County Superior Court within **thirty (30) days of the date the Order was mailed.** The appeal must be filed in the same manner as described above.

Please send a copy of your appeal to:

Mr. Thomas Perkow
Acting Section Manager
Water Resources Program
Ecology Central Regional Office
1250 W. Alder Street
Union Gap, WA 98903-0009

Signed at Union Gap, Washington, this 27TH day of JANUARY 2016.

Thomas Perkow, Acting Section Manager
Water Resources Program
Central Regional Office

To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser.

INVESTIGATOR'S REPORT
Jacquelyn Metcalfe, Department of Ecology
Water Right Control Number CS4-02398sb23@47
S4-84878-J

BACKGROUND

Description and Purpose of Requested Change

On February 28, 2005 Chadwick & Nancy Fife filed an application with the Washington State Department of Ecology (Ecology) to change the point of diversion (POD) under Court Claim No. 02398 in *The State of Washington, Department of Ecology v. James J. Acquavella, et al.* to a point on Bachelor Creek. The application was accepted and assigned control No. CS4-02398sb23@47.

This change of diversion is being requested by the applicant and many other Subbasin 23 claimants because they were no longer using the POD confirmed in the 1925 *Achepohl Decree*. Thus, the Court requested that the claimants apply to Ecology to seek authorization to change their points of diversion from the POD confirmed in the *Achepohl Decree* to the location currently in use. This application and many others were submitted to Ecology to satisfy this request of the Court. WAC 173-152-050(2)(b) allows Ecology to prioritize applications ahead of other competing applications.

Table 1: EXISTING Water Right Attributes

Water Right Owner:	Chadwick & Nancy Fife
Priority Date:	June 30, 1878
Place of Use	The West 513.7 feet of the SW¼SE¼ of Section 7 and the NW¼NE¼ of Section 18 lying southerly of the county road right-of-way and northerly of Bachelor Creek, in T. 12 N., R. 17 E.W.M., Parcel No. 171207-43006, Answer No. 41.

County	Waterbody	Tributary To	WRIA
Yakima	Bachelor & Hatton Creek	Ahtanum Creek	37-Yakima

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Irrigation of 2.11 acres	0.02[1]	CFS	3.62[1]	April 15	July 10

[1] When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.02 cubic feet per second, 1.19 acre-feet per year can be diverted.

Source Name	Parcel	Twp	Rng	Sec	QQ Q	Longitude	Latitude
Hatton Creek	171218-42002	12 N.	17 E.	18	NW SE	-120.74230	46.52854
Bachelor Creek	171218-21004	12 N.	17 E.	18	NE NW	-120.74792	46.53461
Hatton Creek	171218-24005	12 N.	17 E.	18	SE NW	-120.74808	46.53071
Bachelor Creek	171218-23001	12 N.	17 E.	18	NW NW	-120.75342	46.53460
Hatton Creek	171218-23001	12 N.	17 E.	18	SW NW	-120.75413	46.53126
Hatton Creek	171218-99990	12 N.	17 E.	18	SW SW	-120.75391	46.52294

CFS = Cubic Feet per Second; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian; Datum in NAD83/WGS84.

Table 2: REQUESTED Water Right Attributes

Water Right Owner:	Chadwick & Nancy Fife
Priority Date:	June 30, 1878
Place of Use	The West 513.7 feet of the SW¼SE¼ of Section 7 and the NW¼NE¼ of Section 18 lying southerly of the county road right-of-way and northerly of Bachelor Creek, in T. 12 N., R. 17 E.W.M., Parcel No. 171207-43006, Answer No. 41.

County	Waterbody	Tributary To	WRIA
Yakima	Bachelor Creek	Ahtanum Creek	37-Yakima

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Irrigation of 2.11 acres	0.02[1]	CFS	3.62[1]	April 15	July 10

Source Name	Parcel	Twp	Rng	Sec	QQ Q	Longitude	Latitude
Bachelor Creek	171207-43006	12 N.	17 E.	7	SW SE	-120.74433	46.53705

CFS = Cubic Feet per Second; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian; Datum in NAD83/WGS84.

Legal Requirements for Requested Change

The following is a list of requirements that must be met prior to authorizing the proposed change in POD:

Public Notice

Public Notice of the application was given in the Yakima Herald-Republic on April 15, 2006 and April 22, 2006. No letters of protest or comments were received during the 30-day protest period.

[1] When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.02 cubic feet per second, 1.19 acre-feet per year can be diverted.

Consultation with the Department of Fish and Wildlife

Ahtanum change applications were presented to the Yakima River Basin Water Transfer Working Group (WTWG) during monthly meetings from February 26, 2007 through October 1, 2007. The Department of Fish and Wildlife participates in the WTWG. Ecology received an April 16, 2007 letter from the Department of Fish and Wildlife stating their primary concern is that each respective water right holder and landowner complies with rules and regulation for the installation of fish screening devices in the state of Washington.

State Environmental Policy Act (SEPA)

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met:

- It is a surface water right application for more than 1 cubic foot per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies.
- It is a groundwater right application for more than 2,250 gallons per minute.
- 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.

Because this application does not meet any of these conditions, it is categorically exempt from SEPA and a threshold determination is not required.

Water Resources Statutes and Case Law

RCW 90.03.360 requires metering of all water users within fish critical basins. The Yakima River has been designated a fish critical basin. RCW 77.55.320, RCW 77.55.040, and RCW 77.55.070 require <u>all</u> diversions from surface waters of the state to be screened to protect fish.

RCW 90.03.380(1) provides that a water right that has been put to beneficial use may be changed. The POD, place of use (POU), and purpose of use may be changed if it would not result in harm or injury to other water rights.

The Washington Supreme Court has held that Ecology, when processing an application for change or transfer of water right is required to make a tentative determination of the extent and validity of the right. This is necessary to establish whether a water right is eligible for change (*R.D. Merrill Co. v. PCHB*, 137 Wn.2d 118, 969 P.2d 458 (1999); *Okanogan Wilderness League v. Town of Twisp*, 133 Wn.2d 769, 947 P.2d 732 (1997)). It is not within Ecology's authority to adjudicate or make a final determination of the extent and validity of any water right or claim to a water right, only the Superior Court has such authority.

INVESTIGATION

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

- The State Water Code.
- Report of the Court Concerning the Water Rights for Subbasin No. 23 (Ahtanum Creek).
- Supplemental Report of the Court Concerning the Water Rights for Subbasin No. 23 (Ahtanum Creek).
- Stream flow data.
- Existing water rights on file for the water system and other recorded water rights in the vicinity.
- Notes from site visit conducted by Ecology staff Mark Dunbar and Danielle Jansik, with Ahtanum Irrigation District Stream Patrolman George Marshall present on August 24, 2015.
- Topographic and local area maps.
- Aerial photographs of the site (2011 and 2013).
- Final Programmatic Environmental Impact Statement for the Ahtanum Creek Watershed Restoration Program (June 2005).

The property is located within the Ahtanum Creek Subbasin No. 23, approximately 17 miles upstream from the confluence of Ahtanum Creek and the Yakima River. Decades of development in the subbasin have resulted in large tracts of property being divided, subdivided, and transferred to new ownership. The division of land into smaller parcels has made the use of private irrigation ditches impractical or impossible in most cases. With the advancement of technology and new materials available, land owners and irrigators have gradually changed their irrigation practices from gravity fed surface diversions and ditches to pumps located on the owner's property, and pressurized sprinkler systems. The change from gravity fed diversions to pressurized systems naturally resulted in a change in location of the POD, which in many cases went undocumented.

The Yakima Superior Court in *The Conditional Final Order* (CFO) dated April 15, 2009 confirmed to Chadwick & Nancy Fife a right of 0.02 cfs, 3.62 ac-ft/yr for the irrigation of 2.11 acres with a June 30, 1878 priority date. The POU lies within the SW¼SE¼ of Section 7 and the NW¼NE¼ of Section 18, T. 12 N., R. 17 E.W.M. It further provided when water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.02 cfs, 1.19 ac-ft/yr can be diverted by Chadwick & Nancy Fife.

The CFO describes the confirmed POD within the NW¼NW¼, NE¼NW¼, SE¼NW¼, SW¼SW¼, Government Lots 2 and 4, all in Section 18, T. 12 N., R. 17 E.W.M. The applicant proposes to change the authorized location of the POD to its current, actual position, which is located in the SW¼SE¼ of Section 7, T. 12 N., R. 17 E.W.M. The new location is approximately 6,500 feet upstream on Hatton Creek, and 6,500 feet downstream on Bachelor Creek from the farthest confirmed POD on Hatton Creek. Hatton and Bachelor Creeks are tributaries to Ahtanum Creek.

The CFO includes a schedule of rights which describes the Court's findings for each surface water claim it confirmed within the Ahtanum Creek subbasin (Subbasin 23). Subsequent to its filing in 2009, the CFO was appealed. The CFO was remanded by the Washington Supreme Court to Yakima County Superior Court.

Ecology is using the Court's schedule of rights for its analysis of potential detriment or injury to existing rights that could result from the proposed change of POD. The Schedule of Rights is periodically updated when changes are adopted by the Court.

History of Water Use

Legal History

There is a long history of legal actions concerning water rights in the Ahtanum Creek drainage. Water right claimants can be divided into two major groups which have historically asserted the right to use water on Ahtanum Creek:

- Property owners on non-tribal land north of the creek (northside users).
- Property owners and the Yakama Nation on land south of the creek (southside users).

At least six legal proceedings have influenced the allocation of water rights on Ahtanum Creek[2]:

1. 1855 Treaty with the Yakama Nation
2. 1897 *Benton v. Johncox*
3. 1908 "Code Agreement"
4. 1925 *State of Washington v. Annie Wiley Achepohl et al.*
5. 1947 *United States v. Ahtanum Irrigation District*
6. 1977 – Currently in progress; *State of Washington Department of Ecology v. James J. Acquavella, et al.*

State of Washington Department of Ecology v. James J. Acquavella, et al. (Acquavella)

The *Acquavella* adjudication began in 1977 and is still in progress at the time of this writing. *Acquavella* is an adjudication of all surface water rights and claims within the entire Yakima River drainage basin, which includes 31 subbasins. The Ahtanum Creek drainage basin is Subbasin No. 23. Ahtanum is the last of the 31 subbasin proceedings in need of completion before a final decree for *Acquavella* can be issued by the Superior Court.

Due to the complex legal history of the Ahtanum Subbasin No. 23, the court established four criteria that must be met when evaluating the validity of Ahtanum claims:

1. The claimant's predecessor must have been a signatory to the *1908 Code Agreement*.
2. The claimant's predecessor must have participated in the 1925 *Achepohl* proceeding and must have provided evidence of compliance with state law.
3. The claimant, or their predecessor, must have filed an answer in *Ahtanum II*.
4. The claimant, or their predecessor, must have shown that water was beneficially used on the property after 1964, when *United States v. Ahtanum Irrigation District Civil Cause No. 312* was finalized by the *Pope Decree*.

[2] History taken from *Report of the Court Concerning the Water Rights for the Subbasin 23 (Ahtanum Creek) Volume 48 – Part 1*; "b. Legal History" pp. 36-39; Yakima County Superior Court Cause No. 77-2-01484-5; January 31, 2002.

The court concluded that it needed to adhere to both the 1964 *Pope Decree* and the 1925 *Achepohl* proceeding. Keeping that in mind, when the court evaluated claims where *Achepohl* certificates authorized more irrigated acreage than found in the *Pope Decree*, the court awarded a junior water right for the difference, provided there was no evidence of abandonment or relinquishment. A junior right, in this case, had the same priority date as the senior portion of the right and, as stated in the Report Of the Court, "...can only be exercised when the flow in Ahtanum Creek exceeds 62.59 cubic feet per second and no uses, including potential storage, are being made of the excess by water right holders on the reservation." The Court later revised its decision concerning junior rights and concluded that junior rights can not be confirmed.

Ahtanum Creek Subbasin Description

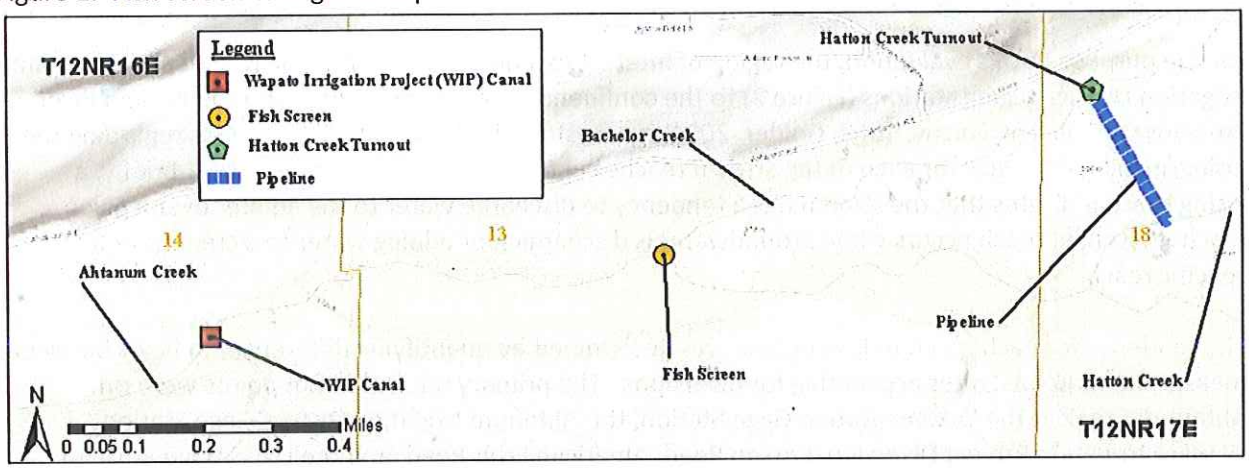
The Ahtanum Creek system is complex. According to the June 2005 Final Programmatic Environmental Impact Statement for the Ahtanum Creek Watershed Restoration Program, the Ahtanum Creek Subbasin can be described as three different reaches. First, the upper reach consists of the North and South Forks of Ahtanum Creek which flow to their confluence near Tampico. The upper reach flows through a combination of managed forest land (North Fork) and tribal land (South Fork). Second, the middle reach begins at the confluence of the North and South Forks and flows to Wiley City. And third, the lower reach starts at Wiley City and flows to confluence with the Yakima River. The majority of irrigation occurs in the middle and lower reaches of the creek, where pasture and hay are the predominant irrigated crops. The middle and lower reaches of Ahtanum Creek are made up of the main channel and two regulated side channels known as Bachelor Creek and Hatton Creek.

Ahtanum Irrigation District

It is important to understand the current relationship between the above mentioned channels in order to make sound determinations on changes in the POD in the Ahtanum system. Many of the irrigation water rights confirmed by the Court are diverted from the smaller channels of Bachelor Creek and Hatton Creek. These two creeks have historically been considered side channels of Ahtanum Creek, first originating from Ahtanum Creek, and then later joining back up to the main channel at two different points downstream.

In the early 1990s, Ahtanum Irrigation District (AID) physically combined the origination points of both Bachelor and Hatton Creeks and placed a head gate with a large fish screen just downstream of the location where the channel splits (Figure 1). The fish screen is located approximately 2,500 feet east and 2,350 feet south of the northwest corner of Section 13, being within the SW¼NW¼ of Section 13, T. 12 N., R. 16 E.W.M. This point is located approximately 3,500 feet downstream from the Wapato Irrigation Project (WIP) canal, which is the POD used for the water users on the Yakama Reservation. Once water flows through the fish screen, it continues through a common channel for approximately 3,800 feet, where there is a continuous-head orifice turnout, which serves as the origination point of Hatton Creek. This point is located approximately 200 feet east and 1,400 feet south from the northwest corner of Section 18, being within the SW¼NW¼ of Section 18, T. 12 N., R. 17 E.W.M. From this point water is diverted though a pipeline, in a southeasterly direction, approximately 700-800 feet under a pasture where it is discharged into the natural flow channel of Hatton Creek.

Figure 1: Fish screen & origination point overview.



Fish passage barriers are located on the lower reaches of Hatton and Bachelor Creeks just upstream from Ahtanum Creek. Although the fish passage barriers exist, Washington State Department of Fish and Wildlife Instream Flow biologist Paul LaRiviere found many fish species present in both Bachelor and Hatton Creeks.

The AID manages the distribution of water among Bachelor, Hatton, and Ahtanum Creeks at the headgate. AID does not hold any water rights, or own any ditches. AID regulates the flow among the three creeks and then manages the diversions of its patrons along the creeks to ensure the priority system is followed.

Proposed Use

The applicant is proposing to change the POD confirmed by the Court to a location approximately 6,500 feet upstream on Hatton Creek, and 6,500 feet downstream on Bachelor Creek from the farthest confirmed POD on Hatton Creek. The proposed POD is approximately 200 feet north and 2,950 feet east of the southwest corner of Section 7, T. 12 N., R. 17 E.W.M. No other change to the water right is proposed.

Other Water Rights Appurtenant to the Proposed POU

Table 3: Appurtenant Water Rights to POU

Water Right Document No.	Priority Date	Instantaneous Quantity (CFS or GPM)	Annual Quantity (AC-FT/YR)	Purpose(s) of Use	Point of Diversion or Withdrawal
GWC03396-A	April 23, 1957	200 gpm	160	Irrigation	Well

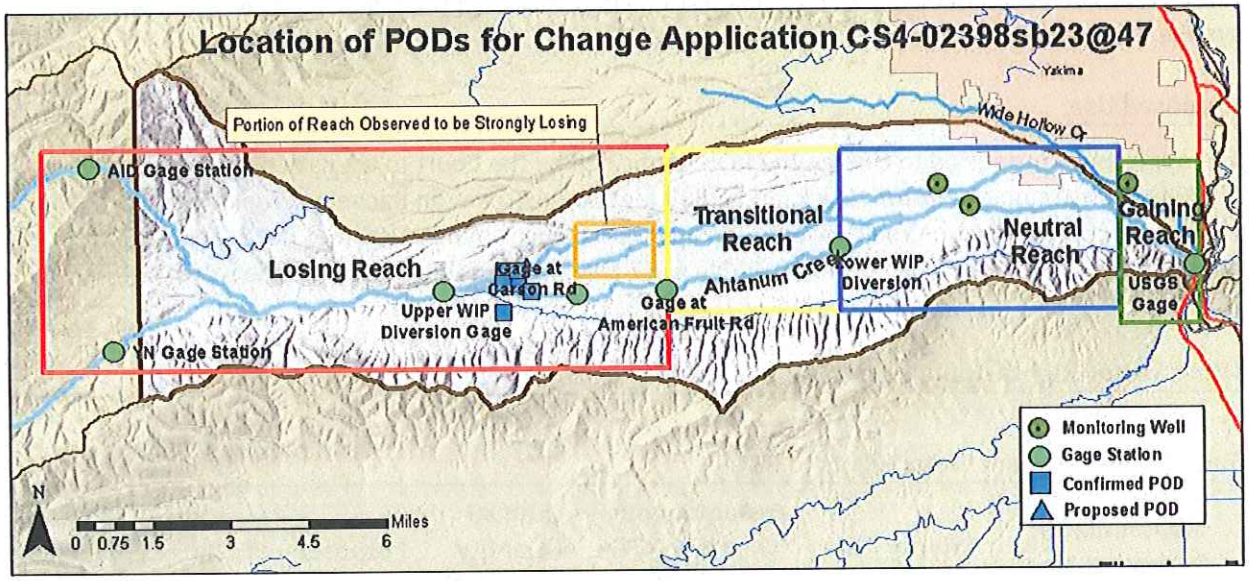
Ground Water Certificate No. GWC03396-A is authorized as an standby/reserve source to existing surface water rights, for the irrigation of 80-acres located in the W½NE¼ of Section 18, T. 12 N., R. 17 E.W.M.

For the purpose of this evaluation, the region of interest extends from the Yakama Nation and Ahtanum Irrigation District gaging stations (Figure 2) to the confluence of Ahtanum Creek with the Yakima River. Previous studies (Foxworthy, 1962; Golder, 2004) have established general classifications regarding the losing/gaining tendency for each of the stream reaches in the Ahtanum Creek watershed. Briefly, a losing reach indicates that the stream has a tendency to discharge water to the aquifer over a given reach. A gaining reach occurs when groundwater is discharging or adding water to a creek over a specific reach.

The tendency for each reach to lose or gain was determined by quantifying differences in flows between measurement points, after accounting for diversions. The primary measurement points were on Ahtanum Creek at the Yakama Nation Gage Station, the Ahtanum Irrigation District Gage Station, Wapato Irrigation Project Diversion, Carson Road, American Fruit Road, and the USGS Gage at Union Gap (Figure 2). Limited or incomplete data is available for each of these gages.

Golder (2004) compiled and compared four years of available data. Golder's study indicated a consistent losing reach between the North Fork and South Fork gage stations and American Fruit Road. Between Carson Road and American Fruit Road, a loss of 2 cfs was observed during the summer and fall (Figure 2).

Figure 2: Hydrologic properties of Ahtanum Creek stream reaches from March through July.



Limited gage data is available on Bachelor Creek and Hatton Creeks; G. Marshall (2015, via personal communication) indicated that the reach between Carson Road and Marks Road on Bachelor Creek and Hatton Creeks took longer to "fill" early in the irrigation season, than other areas in the stream reach (Orange Box, Figure 2).

Based on shared depositional history and geologic environment, the tendency for Bachelor Creek and Hatton Creeks to gain or lose water over a given reach is expected to be similar to Ahtanum Creek.

During the irrigation season, Ahtanum Creek transitions from losing to neutral/gaining, east of Marks Road. Golder (2004) indicated that much of the lower portion of the watershed is a neutral reach, however Foxworthy (1962) suggested that the gaining portion may extend further west. The actual timing and location of the transition from losing to neutral is not fixed. It's dependent on creek flow (and stage or elevation) relative to the groundwater levels.

In the reach between American Fruit Road Gage and the lower WIP diversion, Golder (2004) identified measured stream gains in the spring and losses in the summer. The neutral and gaining reaches were not extensively discussed in Golder (2004). However, monitoring well data compiled by Foxworthy (1962) provides information regarding the seasonal depth to groundwater in the alluvial aquifer. Alluvial aquifer wells located in the neutral reach have a hydrograph with a slight seasonal variation. For example, the monitoring wells in the neutral reach (Circle with a dot, Figure 2) had a 2 to 3 feet variation over the year. Groundwater depth ranged from 2.5 to 5 feet below ground surface (bgs). The monitoring well located in the gaining reach (Circle with a dot, Figure 2) had a groundwater depth of approximately 2 feet bgs and +/-1 foot of variation. The similarity between stream and groundwater elevation support the observation that the eastern portion of the watershed is a gaining reach.

Impairment Considerations

This water right has been historically managed by AID based on the priority class system established in *Achepohl* and will be required to do so within the priority scheme under the forthcoming *Acquavella Decree*. This water right is subject to regulation when water is unavailable for water rights with a priority date senior to 1878.

There are 20 PODs located in the intervening reach (Table 4), some of which are proposed for change, and if approved, will also be located in the intervening reach between the confirmed POD and the proposed POD.

Ahtanum, Bachelor, and Hatton Creeks are characterized as losing streams in the reach between the authorized and proposed PODs. For this move, there may be less water available at the proposed POD than there was at the previously authorized PODs and would lead to less water supply reliability than if the POD remained at the authorized locations. This could potentially lead to earlier calls on the relatively junior rights. Therefore, conditioning of this senior right to not allow a call to cease diversion by junior users would be necessary to prevent impairment.

Table 4: PODs in the Intervening Reach

Water Right Document No.	Application Change No.	Priority Date	Current Source	Proposed Source
S4-84822-J	CS4-02398CTCL@34	June 30, 1852	Ahtanum Creek	Bachelor Creek
S4-84823-J	CS4-02398CTCL@35	June 30, 1852	Bachelor Creek	Ahtanum Creek
S4-84882-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-84870-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A

S4-84820-J	CS4-ADJ20VOL3P328	June 30, 1888	Bachelor and Hatton Creek	Bachelor Creek
S4-84877-J	CS4-ADJ20VOL3P270	June 30, 1878	Ahtanum and Bachelor Creek	Bachelor Creek
S4-85148-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-84879-J	CS4-02398sb23@46	June 30, 1878	Bachelor and Hatton Creek	Hatton Creek
S4-84880-J	CS4-02398sb23@45	June 30, 1878	Bachelor and Hatton Creek	Bachelor Creek
S4-84873-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-84867-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-84871-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-84883-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-84824-J	N/A	June 30, 1888	Bachelor and Hatton Creek	N/A
S4-84815-J	CS4-02398CTCL@33	June 30, 1898	Ahtanum Creek	Bachelor Creek
S4-84884-J	N/A	June 30, 1878	Bachelor and Hatton Creek	N/A
S4-85092-J	CS4-02398CTCL@9	June 30, 1866	Ahtanum and Hatton Creek	Hatton Creek
S4-85093-J	CS4-02398CTCL@9	June 30, 1870	Ahtanum and Hatton Creek	Hatton Creek
S4-84999-J	N/A	June 30, 1871	Bachelor and Hatton Creek	N/A
S4-84979-J	N/A	June 30, 1871	Bachelor and Hatton Creek	N/A

CONCLUSIONS

In accordance with 90.03 RCW, the author makes a tentative determination that the water right confirmed under this portion of Court Claim No. 02398 with a priority date of June 30, 1878, represents a valid water right that authorizes the diversion of up to 0.02 cfs from April 15 through July 10, up to 3.62 ac-ft/yr of water from Bachelor Creek to irrigate 2.11 acres.

Based on reviewing 2011 and 2013 aerial photos, it appears the entire 2-acre POU has been irrigated since the Court confirmed this claim in the 2009 CFO.

Approval of this change to the POD as conditioned will not cause impairment.

Approval of this change to the POU will not enhance the subject right.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a change in the POD be approved in the amounts and within the limitations listed below and subject to the provisions listed above.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

- 0.02 cubic feet per second[1]
- 3.62 acre-feet per year[1]
- Irrigation of 2.11 acres from April 15 through July 10

Point of Diversion:

Within the SW¼SE¼ of Section 7, T. 12 N., R. 17 E.W.M., Parcel No. 171207-43006.

Place of Use:

The West 513.7 feet of the SW¼SE¼ of Section 7 and the NW¼NE¼ of Section 18 lying southerly of the county road right-of-way and northerly of Bachelor Creek, in T. 12 N., R. 17 E.W.M., Parcel No. 171207-43006, Answer No. 41.

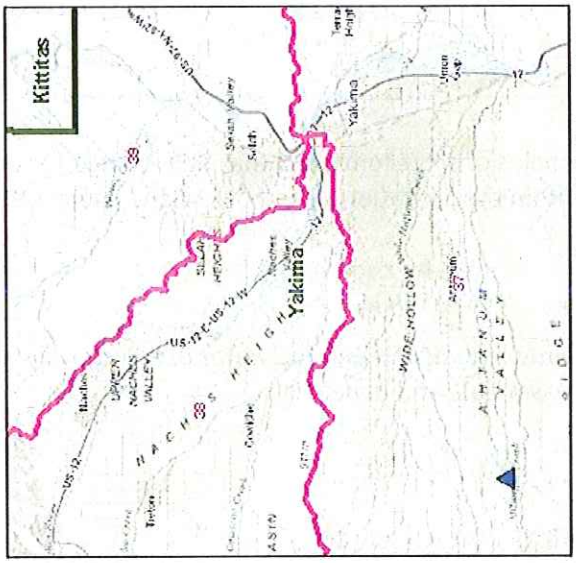
Jacquelyn Metcalfe, Permit Writer *Date* 1/12/16

If you need this publication in an alternate format, please call Water Resources Program at (360) 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call (877) 833-6341.

[1] When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.02 cubic feet per second, 1.19 acre-feet per year can be diverted.

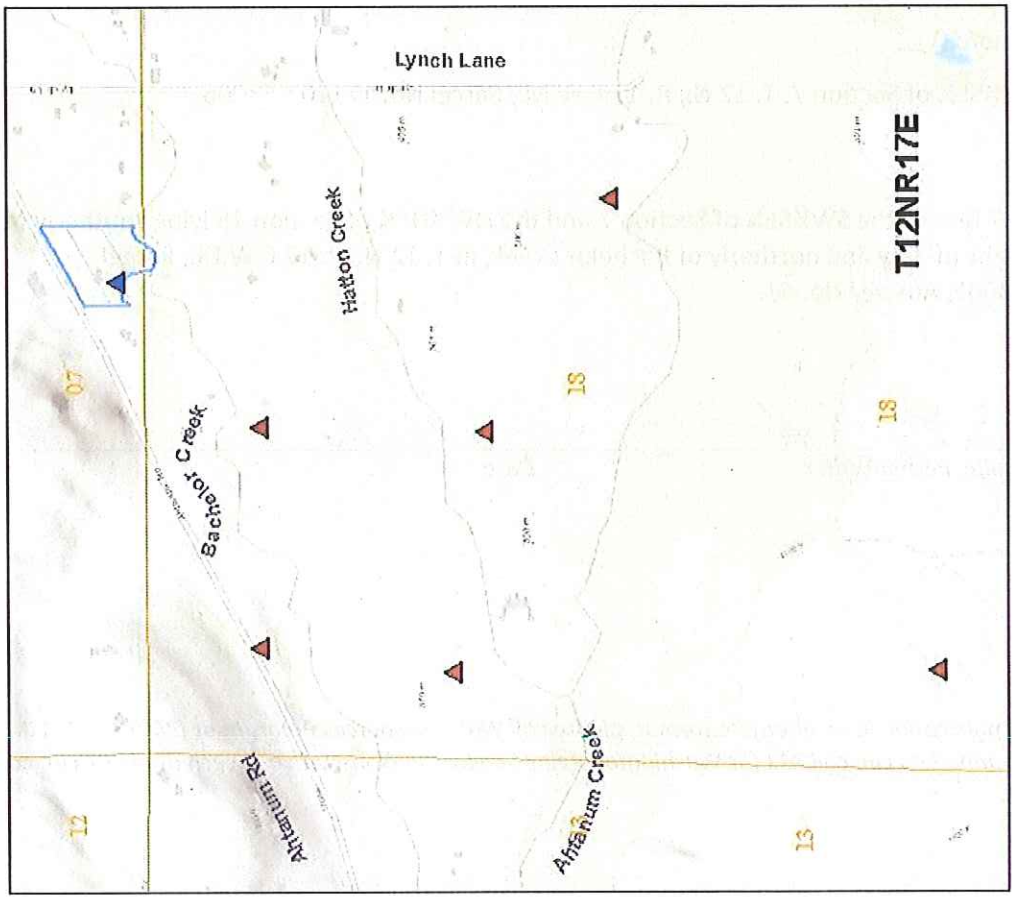
ATTACHMENT 1

Chadwick & Nancy Fife
CS4-02398sb23@47
T12N/R17E
WRIA 37 - Yakima



Legend

- Authorized Place of Use
- Authorized Point of Diversion
- Confirmed Points of Diversion
- Townships
- Sections
- WRIA
- Counties



Comment:
Place of use and source locations are as defined within the Report of Examination cover sheet for the document identified in the header above.