



State of Washington Trust Water Right Report of Examination

Change Purpose of Use	Change Place of Use
PRIORITY DATE	WATER RIGHT NUMBER
June 30, 1889	Yakima Adjudication Court Claim No. 00383
APPLICANT	CHANGE APPLICATION NO.
Washington Water Trust 1530 Westlake Avenue North, Suite 400 Seattle, Washington 98109	CS4-00383sb3@6(B)

Purpose and Quantity

Primary Reach A

0.17 cfs from May 1 through September 15, and 40.22 ac-ft/yr to be used for the purpose of instream flow.

Primary Reach B

0.12 cfs from May 1 through September 15, and 35.12 ac-ft/yr to be used for the purpose of instream flow.

Trust Water Right Place of Use (See Attached Map)

Primary Reach A:

Begins at the historic Teanaway River point of diversion at a point 475 feet south and 200 feet west from the northeast corner of Section 8, T. 20 N., R. 16 E.W.M., and ends at a point 940 feet north and 2465 feet west of the southeast corner of Section 10, T. 20 N., R. 16 E.W.M.

Primary Reach B:

Begins at the current Teanaway River point of diversion at a point 940 feet north and 2465 feet west of the southeast corner of Section 10, and ends at a point 200 feet south of the northeast quarter corner of Section 15, T. 20 N., R. 16 E.W.M.

REACH	WATERBODY	RIVER MI	TWN	RNG	SEC
Begin Primary Reach A	Teanaway River	6.8	20	16	8
Begin Primary Reach B	Teanaway River	4.7	20	16	10
End Primary Reach B	Teanaway River	4.1	20	16	15

**PORTION OF WATER RIGHT
NOT PLACED INTO TRUST UNDER
WRTS File #: S4-00383sb3@6(B)a**

PRIORITY DATE	WATER RIGHT NUMBER
June 30, 1889	Yakima Adjudication Court Claim No. 00383

WATER RIGHT HOLDER	CHANGE APPLICATION NO.
Dorothy J. Crosetto c/o Law Office of John H. F. Ufkes PO Box 1819 Ellensburg, Washington 98926	CS4-00383sb3@6(B)

Purpose and Quantity

0.05 cfs and 5.10 ac-ft/yr for irrigation of 2.4 acres, May 1 through September 15.

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Kittitas	Teanaway River	Yakima River	39

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Ring well	201610-0000-0003	20	16	10	SW¼SE¼	47°14'8.46"N	120°49'26.74"W
Teanaway River	201610-0000-0003	20	16	10	SW¼SE¼	47°14'5.11"N	120°49'29.34"W

Ring well (Well ID No. AGM-798) – 1295 ft north and 2260 ft west from the southeast corner of Section 10, being within the southwest quarter of the southeast quarter of Section 10, T. 20 N., R. 16 E.W.M. The Teanaway River seasonal point of diversion is to be located at a point as near as possible to the existing point of diversion (ring well).

Place of Use (See map on Attachment 2)

That portion of the SW¼SE¼ of Section 10, T. 20 N., R. 16 E.W.M., lying northeast of Teanaway River.

Description of Water System

The point of diversion consists of a 75 horsepower (hp) pump placed in a large ring well (Well ID No. AGM-798), capable of diverting approximately 250 gallons per minute (gpm). From the point of diversion, water is conveyed through a conveyance pipe and laterals to supply a series of laterals with riser connections for hand-line irrigation. The surface water point of diversion consists of a seasonal pump in the Teanaway River, which conveys water to the existing pond and ring well.

Measurement of Water Use

How often must water use be measured?	Monthly
How often must water use data be reported to Ecology?	Annually, by January 31 st of each calendar year.
What volume should be reported?	Total Annual Volume
What rate should be reported?	Monthly Peak Rate of Diversion in cfs.

Provisions Related to the Portion of the Water Right Not Placed in Trust

The portion of Court Claim No. 00383 (1889 priority date) shall be reduced to a maximum of 0.05 cfs and 5.10 ac-ft/yr for irrigation of 2.4 acres, May 1 through September 15.

The remainder of Court Claim No. 00383 shall comply with the *Order Requiring Metering Measuring, and Reporting Requirements, All Subbasins (1-31) in Benton, Kittitas, and Yakima Counties* entered September 15, 2005, in the Yakima Adjudication. A copy of the order is included with hard copies. The order may be viewed at the following web site:

<http://www.ecy.wa.gov/programs/wr/measuring/images/pdf/order772014845.pdf>.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above provisions, and to inspect at reasonable times any measuring device used to meet the above provisions.

The intake(s) shall 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). If you have questions about screening criteria contact:

Department of Fish and Wildlife
Attention: Habitat Program
600 Capitol Way N
Olympia, WA 98501-1091

Phone: (360) 902-2534

Email: habitatprogram@dfw.wa.gov

Website:

<http://wdfw.wa.gov/conservation/habitat/planning/screening/>

Findings of Facts

Upon reviewing the investigator's report, I find all facts relevant and material to Change Application No. CS4-00383sb3@6(B) have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or detrimental to the public interest.

Therefore, I ORDER the requested change of place and purpose of use under Trust Water Right Application No. CS4-00383sb3@6(B), be approved subject to existing rights and the provisions specified above.

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.

Signed at Yakima, Washington, this _____ day of _____ 2015.

Sage Park
Section Manger, Water Resources Program
Central Region Office

If you need this document in a format for the visually impaired, call the Water Resources Program at 509-575-2490. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Combined Report:

The following investigator's report is a general report that pertains to two applications: CS4-00383sb3(B)@6 and CS4-00383sb3@6(B).

BACKGROUND

Description and Purpose of Proposed Change

On December 17, 2013, Washington Water Trust (WWT) of Seattle, Washington, filed two applications with the Washington State Department of Ecology (Ecology) to place a portion of Yakima Adjudication Court Claim No. 00383, Subbasin No. 3, into the State of Washington's Trust Water Right Program (TWRP). WWT requests a permanent transfer to the TWRP for instream flow in the Teanaway River. The applications were accepted on January 9, 2014 and assigned Application Nos. CS4-00383sb3(B)@6 and CS4-00383sb3@6(B).

Court Claim No. 00383 was originally confirmed to Teanaway Valley Family Farm, LLP and Dorothy J. Crosetto (D. Crosetto) under two different priority dates (June 30, 1888 and 1889). The claim was later divided in Yakima Superior Court. D. Crosetto's portion of the 1888 priority date included a maximum instantaneous diversion rate (Qi) of 0.93 cubic feet per second (cfs) and a cumulative annual quantity (Qa) of 302.25 acre-feet/year (ac-ft/yr) for the irrigation of 46.5 acres, May 1 through September 15, and 1 ac-ft/yr stockwater, year round. D. Crosetto's portion of the 1889 priority date included 0.17 cfs and 43.75 ac-ft/yr for the irrigation of 3.5 acres, May 1 through September 15, and 1 ac-ft/yr stockwater, year round. Both portions of the claim diverted out of the Teanaway River via the Ballard Ditch and an adjacent unnamed stream (John's or Fred's Creek). The claim also included the surplus provision to divert an additional 0.93 and 0.17 cfs, respectively, when all other existing rights are satisfied, typically available for a 30-day period in May and June.

WWT proposes to permanently transfer portions of Court Claim No. 00383 to instream flow for environmental benefit. Under Application No. CS4-00383sb3(B)@6, the portion proposed for transfer includes water savings associated with conveyance and on-farm improvements (irrigation efficiencies) by switching from flood to center-pivot and hand-line irrigation, and from the fallowing of 10 acres. Under Application No. CS4-00383sb3@6(B), the application proposed for transfer only includes the water associated with conveyance and on-farm improvements by switching from flood to hand-line irrigation. D. Crosetto will retain the quantities required to irrigate up to 36.5 acres and stockwater.

There is no change proposed for the portion of Court Claim No. 00383 belonging to Teanaway Valley Family Farm, LLP.

Expedited Processing

These applications qualify for expedited processing under WAC 173-152-050(3)(a) whereby water right change applications may be processed prior to applications submitted at an earlier date when the proposed water use, if approved, would substantially enhance or protect the quality of the natural environment. This proposed change would increase instream flows, improving fish access to habitat in the upper Teanaway River basin.

Based on the provisions of RCW 43.21A.690 and RCW 90.03.265, these applications were processed by Aspect Consulting, LLC (Aspect Consulting) under Ecology Cost-Reimbursement Assignment No. ASP021 (Master Contract No. C1000185).

Table 1a: Attributes of Court Claim No. 00383 and Proposed Change Under No. CS4-00383sb3(B)@6

Attributes	Existing	Proposed
Name	D.J. (Dorothy J.) Crosetto	Washington Water Trust
Priority Date Date of Application for Change	Priority Date – June 30, 1888	Application Date – January 9, 2014
Instantaneous Quantity	0.93 cfs and when surplus water is available in excess of that needed to satisfy all existing rights, an additional 0.93 cfs may be diverted.	Trust Water Portion: Up to 1.44 cfs (May 1 through June 30) and 0.51 cfs (May 31 through September 15). Remaining Portion: 0.42 cfs for irrigation.
Annual Quantity	302.25 ac-ft/yr for irrigation; 1 ac-ft/yr for stockwater.	Trust Water Portion: 226.59 ac-ft/yr for instream flow. Remaining Portion: 75.66 ac-ft/yr for irrigation; 1.0 ac-ft/yr for stock water.
Source	Teanaway River, a unnamed stream (John’s Creek), and a ring well.	Trust Water Portion: Teanaway River and an unnamed stream (John’s Creek). Remaining Portion: Teanaway River and a ring well.
Point of Diversion/Withdrawal	Teanaway River - SE¼SE¼, Unnamed Stream - SW¼NE¼, and Ring Well SE¼SE¼; all in Section 10 and Teanaway River - NE¼NE¼; in Section 8, T. 20 N., R. 16 E.W.M.	Trust Water Portion: N/A Remaining Portion: Teanaway River - SE¼SE¼, and Ring Well SE¼SE¼; all in Section 10, T. 20 N., R. 16 E.W.M.
Purpose of Use	Irrigation of 46.5 acres and stockwater.	Trust Water Portion: Instream Flow. Remaining Portion: Irrigation of 38.5 acres and stock water.
Period of Use	May 1 through September 15 for irrigation; year round for stockwater.	Trust Water Portion: May 1 through September 15. Remaining Portion: May 1 through September 15 for irrigation; year round for stock water.
Place of Use	See Attachment 1.	Trust Water Portion: John’s Creek, Teanaway, and Yakima Rivers. Remaining Portion: See Attachment 1.

Table 1b: Attributes of Court Claim No. 00383 and Proposed Change Under No. CS4-00383sb3@6(B)

Attributes	Existing	Proposed
Name	D.J. (Dorothy J.) Crosetto	Washington Water Trust
Priority Date Date of Application for Change	Priority Date – June 30, 1889	Application Date – January 9, 2014
Instantaneous Quantity	0.17 cfs and when surplus water is available in excess of that needed to satisfy all existing rights, an additional 0.17 cfs may be diverted.	Trust Water Portion: Up to 0.32 cfs (May 1 through June 30) and 0.15 cfs (May 31 through September 15). Remaining Portion: 0.02 cfs for irrigation.
Annual Quantity	43.75 ac-ft/yr for irrigation; 1 ac-ft/yr for stockwater.	Trust Water Portion: 40.78 ac-ft/yr for instream flow. Remaining Portion: 2.97 ac-ft/yr for irrigation and stock water.
Source	Teanaway River, a unnamed stream (Fred’s Creek), and a ring well.	Trust Water Portion: Teanaway River and an unnamed stream (Fred’s Creek). Remaining Portion: Teanaway River and a ring well.
Point of Diversion/Withdrawal	Teanaway River - SE¼SE¼, Unnamed Stream - SW¼NE¼, and Ring Well SE¼SE¼; all in Section 10 and Teanaway River - NE¼NE¼; in Section 8, T. 20 N., R. 16 E.W.M.	Trust Water Portion: N/A Remaining Portion: Teanaway River - SE¼SE¼, and Ring Well SE¼SE¼; all in Section 10, T. 20 N., R. 16 E.W.M.
Purpose of Use	Irrigation of 3.5 acres and stockwater	Trust Water Portion: Instream Flow Remaining Portion: Irrigation of 1.5 acres and stock water.
Period of Use	May 1 through September 15 for irrigation; year round for stockwater.	Trust Water Portion: May 1 through September 15. Remaining Portion: May 1 through September 15 for irrigation; year round for stock water.
Place of Use	See Attachment 1.	Trust Water Portion: Fred’s Creek, Teanaway, and Yakima Rivers. Remaining Portion: See Attachment 1.

Legal Requirements for Proposed Change

The following is a list of requirements that must be met prior to authorizing the proposed change in Water Right Change Application Nos. CS4-00383sb3(B)@6 and CS4-00383sb3@6(B).

- **Public Notice**

Notice of the proposed appropriations were published in *The Daily Record* of Ellensburg, Washington, on September 6 and 13, 2014. No protests were received by Ecology.

- **State Environmental Policy Act (SEPA)**

The water right transfers required a SEPA review under WAC 197-11-800(4). Ecology, acting as the SEPA lead agency for this project, determined that the water right changes will not have a probable significant adverse impact on the environment and issued a Determination of Nonsignificance (DNS) on December 5, 2014.

- **Water Resources Statutes and Case Law**

A transfer to instream flows in the Yakima Basin is governed by RCW 90.38. RCW 90.38.040(1) states that all trust water rights acquired by the Department of Ecology (Ecology) shall be placed in the Yakima River Basin Trust Water Right Program to be managed by Ecology. Ecology shall issue a Certificate of Water Right in the name of the state of Washington for each trust water right it acquires.

The Washington Supreme Court has held that Ecology, when processing an application for change to a water right, is required to make a tentative determination of extent and validity of the claim or right. This is necessary to establish whether the claim or right is eligible for change. *R. D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp*.

INVESTIGATION

In consideration of these applications, Aspect Consulting reviewed available documents pertaining to the historic use of water, site conditions, WWT's calculations, and the potential effect on existing water rights. This included information submitted by the applicant and pertinent Ecology records including stream gage data, adjudication and water rights records, and water resource policy and guidance documents.

On April 8, 2014, Tyson Carlson (Aspect Consulting) and Kelsey Collins (Ecology) met with Jason McCormick of WWT to locate the original point(s) of diversion, the Ballard Ditch alignment, and observe the historic irrigated acreage.

This project was presented at the Water Transfer Working Group (WTWG) on April 6, 2015. This group represents private, federal, state and tribal groups interested in water right changes in the Yakima Basin. No objections were received from the WTWG.

History of Water Use

Two water rights were confirmed under Court Claim No. 00383 to Teanaway Valley Family Farm, LLP and Dorothy J. (D.J.) Crosetto, in the Yakima River Basin Water Rights Adjudication for Subbasin No. 3, Teanaway River drainage basin, with a Conditional Final Order (CFO) signed on February 8, 2001.

From the Teanaway River point of diversion, water was historically conveyed via the Ballard Ditch, until diverted onto the place of use described above. In addition, water was diverted from two additional points of diversion located on two small streams – John's Creek (1888 priority date) and Fred's Creek (1889 priority date) – located adjacent to the place of use. The fields were irrigated with flood irrigation

methods. Tail water was generally intercepted by several riparian areas and/or ponds located on the property, and then directed back toward the Teanaway River, converging approximately 14,500 feet downstream from the original point of diversion on the Teanaway River.

The fields were typically planted with timothy hay, or pastured for grazing of stock.

In 2002, flooding severely damaged the Ballard Ditch diversion on the Teanaway River. As a result, in 2003 D. Crosetto participated in the Irrigation Efficiencies Grant Program (IEGP) – a voluntary cost share program with the Kittitas County Conservation District (KCCD) to help irrigators in fish-critical basins improve on-farm irrigation efficiency that result in increased instream flow. D. Crosetto's project included establishing a new point of diversion and converting the on-farm irrigation system from flood to center-pivot and hand-lines. The efficiencies savings was later transferred to instream flow for a minimum 10-year period.

D. Crosetto entered into an agreement with Ecology and WWT to sell portions of Court Claim No. 00383 and place it into trust on October 28, 2013. The portions included the irrigation efficiencies savings and water from following of 10 acres.

Extent and Validity

In order to make a water right change decision, Ecology must make a tentative determination on the extent and validity of the right. Under RCW 90.14.160 any portion of a water right or water right claim not exercised for a period of five successive years, without sufficient cause, shall be relinquished and revert to the state. In cases when a water right has had recent departmental action, including approval of a change application within the last 5 years, clarification is provided by *Water Resources Program Policy for Conducting Tentative Determination of Water Rights (POL-1120)*, indicating a simplified tentative determination may be conducted.

Since signing of the CFO for the Teanaway Subbasin in February 8, 2001, the water rights were used for irrigation through the 2002 irrigation season, then following the flood, the water right was exercised by a combination of irrigation, donations and leases that temporarily enrolled the right in the TWRP.

The claim was first divided in Yakima Superior Court in an *Order of Partition*, signed on June 2, 2003. D. Crosetto's portion of the 1888 priority date (1888) included 0.93 cfs (Qi) and 302.25 ac-ft/yr (Qa) for the irrigation of 46.5 acres (May 1 through September 15) and 1 ac-ft/yr stockwater (year round). D. Crosetto's portion of the 1889 priority date (1889) included 0.17 cfs and 43.75 ac-ft/yr for the irrigation of 3.5 acres (May 1 through September 15) and 1 ac-ft/yr for stockwater (year round). Attributes of these two portions of the claim are described in Tables 1a and 1b above.

Ecology authorized a change in the point of diversion for D. Crosetto under Nos. CS4-00383CTCL(B) and CS4-00383CTCL@1(B) for a portion of the 1888 and 1889 claims, respectively, to a location approximately 9,000 feet downstream of the original Ballard Ditch diversion. The authorized quantities included the full adjudicated water duty, less conveyance loss, equaling 0.93 cfs (Qi) and 181 ac-ft/yr (Qa) for irrigation of 46.5 acres and 1 ac-ft/yr stockwater for the 1888 portion; 0.17 cfs (Qi) and 15 ac-ft/yr (Qa) for irrigation of 3.5 acres and 1 ac-ft/yr stockwater for the 1889 portion. The new authorized diversion is a ring well or pond located in the southeast quarter of the southeast quarter of

Section 10¹. To account for the uncertainty in final on-farm demand, Ecology assumed a conservative irrigation efficiency of 60 percent, to be later refined by metering data submitted under annual reporting requirements.

During the 2004 irrigation season, the ring well and pond did not yield enough water to supply the full authorized quantity; therefore, under No. CS4-00383CTCL(B)@2, Ecology authorized an additional point of diversion from the Teanaway River. The point of diversion is a seasonal pump placed at a point on the river directly adjacent to the pond and ring well². As part of the subject investigation, Ecology determined that the authorized point(s) of diversion locations were in error, and has corrected the locations in the document authorizing use of the retained quantities.

In 2004, Ecology temporarily placed the irrigation efficiencies savings in the TRWP through the 2013 irrigation season. Under No. CS4-00383CTCL(B)@1 (1888), the irrigation efficiencies included 0.23 cfs (Qi) and 56.6 ac-ft/yr (Qa). The 1889 portion (No. CS4-00383CTCL@2(B)) included 0.02 cfs (Qi) and 4.3 ac-ft/yr (Qa). In the decision(s), Ecology noted that approximately 150.25 ac-ft/yr – 120.25 and 30.0 ac-ft/yr for the 1888 and 1889 portions, respectively – was not placed in trust, and could not be reasonably used on-farm. These portions – up to 120.25 (1888) and 29.95 (1889) ac-ft/yr – were later donated to the TRWP through the 2013 irrigation season by an *Order Pendente Lite (OPL)*, signed on January 12, 2006. The *OPL* also included 0.7 cfs and 41.8 ac-ft/yr (1888); 0.15 cfs and 3.2 ac-ft/yr (1889) late season lease (August 1 through September 15) for the 2006 through 2010 irrigation seasons. Ecology recognized the late season lease under Nos. CS4-00383CTCL(B)@4 and CS4-00383CTCL@4(B)³, for the 1888 and 1889 portions, respectively.

The late season lease was later extended through the 2025 irrigation season by an *OPL* signed on April 14, 2011 for 0.51 cfs and 41.75 ac-ft/yr (1888); 0.05 cfs and 3.15 ac-ft/yr (1889). Applications filed with Ecology were assigned Nos. CS4-00383CTCL(B)@5 and CS4-00383CTCL@5(B) for the 1888 and 1889 portions, respectively. On January 13, 2014, the trust period of the irrigation efficiencies savings was extended by donation letter (Nos. CS4-00383CTCL(B)@1 and CS4-00383CTCL@2(B)) through the 2018 irrigation season.

Table 2 – Summary of Decision Documents

Document No.	Date	1888 Portion			1889 Portion			Purpose
		Qi	Qa	stock	Qi	Qa	stock	
CFO	2/8/2001	0.93	302.25	1	0.17	43.75	1	-
<i>Order of Partition</i>	6/2/2003	0.93	302.25	1	0.17	43.75	1	Division of Water Right
CS4-00383CTCL(B)	1/21/2004	0.93	181.00	1	-	-	-	Change in POD
CS4-00383CTCL@1(B)	1/21/2004	-	-	-	0.17	15.00	1	Change in POD
CS4-00383CTCL(B)@1	8/12/2004	0.23	56.50	-	-	-	-	IEGP Instream Flow (2004-2013)
CS4-00383CTCL@2(B)		-	-	-	0.02	4.30	-	IEGP Instream Flow (2004-2013)

¹ During the site inspection, the ring well and pond was observed to be located 1,350 feet south and 350 feet east from the center of Section 10 in the SW¼SE¼.

² This location is also authorized for the SE¼SE¼ quarter, but was observed to be located 1,700 feet south and 175 feet east from the center of Section 10, in the SW¼SE¼.

³ The Trust ROEs incorrectly identified the consumptive Qi as being protected in the Primary Reach, instead of the total Qi.

Document No.	Date	1888 Portion			1889 Portion			Purpose
		Qi	Qa	stock	Qi	Qa	stock	
CS4-00383CTCL(B)@2	8/12/2004	0.70	125.40	-	-	-	-	Add Teanaway River POD
OPL	1/12/2006	0.70	41.80	-	0.15	3.20	-	August 1 - Sept 15 Lease (2006-2010)
		0	120.25	-	0	29.95	-	Donation
CS4-00383CTCL(B)@4	8/3/2006	0.47	41.80	-	-	-	-	August 1 - Sept 15 Lease ROE (2006-2010)
CS4-00383CTCL@4(B)	8/3/2006	-	-	-	0.04	3.20	-	August 1 - Sept 15 Lease ROE (2006-2010)
OPL	4/14/2011	0.51	41.75	-	0.05	3.15	-	August 1 - Sept 15 Lease (2011-2025)
CS4-00383CTCL(B)@1	6/2/2013	0.23	56.50	-	-	-	-	IEGP Instream Flow Extension (2013-2018)
CS4-00383CTCL(B)@2	6/2/2013	-	-	-	0.02	4.30	-	IEGP Instream Flow Extension (2013-2018)
CS4-00383sb3(B)@6	12/17/2013	0.51	226.59	-	-	-	-	Subject Application
CS4-00383sb3@6(B)	12/17/2013	-	-	-	0.15	40.78	-	Subject Application
CS4-00383CTCL(B)@1	1/13/2014	0.23	56.50	-	-	-	-	Extension Granted (2013-2018)
CS4-00383CTCL@2(B)	1/13/2014	-	-	-	0.02	4.30	-	Extension Granted (2013-2018)

D. Crosetto irrigated portions of the 46.5 (1888) and 3.5 (1889) acre places of use using the updated center-pivot and hand-line irrigation system. Within the 1888 authorized place of use, approximately 26.0 acres of timothy hay fields are irrigated with the center-pivot and about 12.5 acres are irrigated with hand-lines. The hand-line-irrigated wooded pasture covers about 8.0 acres. The 1889 authorized place of use includes about 2.4 acres of hand-line-irrigated hay.

Review of aerial photos from the years 2003, 2005, 2006, 2009, 2011, 2012, and 2013 indicate that since issuance of the CFO, D. Crosetto's authorized place of use has either been irrigated or fallowed (under donation or lease) as described above. Irrigation and/or fallowing of the acreage was also supported by the review of Landsat imagery over a similar time span. Furthermore, historic water use was substantiated by a declaration provided by D. Crosetto, and an interview with Stan Isley, Court Appointed Water Master for the Teanaway River.

In summary, the sum of leases and donations (218.55 ac-ft/yr), and calculation (see below) of early season on-farm irrigation (48.16 ac-ft/yr) contributing to the maximum beneficial use of the 1888 portion in any five year period is 0.93 cfs and 266.71 ac-ft/yr for irrigation of 46.5 acres. Similarly, maximum beneficial use of the 1889 portion totaled 0.17 cfs and 40.22 (37.45 + 2.77) ac-ft/yr for the irrigation of 2.4 acres.

D. Crosetto also used the surface water diversion for stock water in the wooded pasture area located in the southeast corner of the 1888 place of use. From 2001 to 2010, 5 cattle were typically pastured. After 2010, the cattle were replaced with up to 6 horses. There is no documented use of stockwater on the 1889 place of use.

Stock water use estimates are based on the water demand requirements listed in the Washington State Department of Health Water System Design Manual (DOH 2009). The listed stock water requirement for cattle is up to 20 gallons per day per head, and horses require up to 12 gallons per day per head. Therefore, based on the maximum number of stock on farm (year round) in the last five years, the annual stock water use is estimated at 0.11 acre-feet.

Court Claim No. 00383 also includes a provision that authorizes diversion of additional water during the spring freshet when all existing rights are satisfied. Under this provision, D. Crosetto is authorized for an additional 0.93 and 0.17 cfs for the 1888 and the 1889 portions, respectively. This surplus water is normally only available for a 30-day period in May and June. Inspection of available flow data from the Bureau of Reclamation for the lower Teanaway River over the last several years indicate the spring freshet on the Teanaway River typically begins by late March, peaking at around 650 to 800 cfs, then declining to summer baseflow condition by mid-July (approximately 20 cfs). According to Stan Isley, water is available in most water years to fully satisfy the surplus diversion for a 30 day period.

The spring freshet was estimated to be 47.70 ac-ft/yr for the 1888 portion. This quantity was periodically leased or donated to Ecology. However, no spring freshet water was protected under the 1889 partitioned quantities.

Land to be Fallowed

The proposed lands to be fallowed include the 8.0 acres of pasture located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ and NE $\frac{1}{4}$ SE $\frac{1}{4}$, and 2.0 acres of timothy hay located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$, all being within Section 10, Township 20 North, Range 16 E.W.M.

Both areas are designated 'Little Corners' in the attached map to D. Crosetto's declaration, and shown in Attachment 1.

Other Rights Appurtenant to the Place of Use

No other water rights for irrigation or stockwater purposes are appurtenant to D. Crosetto's authorized place of use.

Trust Water Place of Use

Ecology typically manages its trust water rights by defining a primary and a secondary reach. The primary reach is the length of stream between the historic point of diversion and where any of the water diverted, but not consumed, returns to the river.

Based on the location of the retained downriver point of diversion, the primary reach on the Teanaway River will be divided into two reaches designated A and B. Primary reach A includes the full diversion rate for that reach of the Teanaway River between the original Ballard Ditch diversion and the new point(s) of diversion. Primary reach A begins at a point 475 feet south and 200 feet west from the northeast corner of Section 8, T. 20 N., R. 16 E.W.M., and ends at a point 1,700 feet south and 175 feet east of the center of Section 10, T. 20 N., R. 16 E.W.M.

Primary Reach B contains a portion of water associated with historic conveyance loss and savings from increased irrigation efficiency for both subject applications. In addition, Primary Reach B for No. CS4-00383sb3(B)@6 (1888) also includes water from the fallowing of 10 acres. The break between the reaches occur at the new point(s) of diversion (described above). Water will continue to be diverted

at the new point(s) of diversion to satisfy D. Crosetto's retained irrigation of 36.5 acres. Primary Reach B ends at a point 200 feet south of the northeast quarter corner of Section 15, T. 20 N., R. 16 E.W.M.

The additional point(s) of diversion on the unnamed stream (John's Creek or Fred's Creek for the 1888 and 1889 portion, respectively), were seasonal and not regularly used; therefore, no water is being assigned to those reaches.

Return flow from the place of use is generally intercepted by several riparian areas and/or ponds located on the property, and then directed back toward the Teanaway River, converging approximately 14,500 feet downstream from the original point of diversion. It is assumed that all irrigation water, either surface or shallow groundwater, from the subject place of use returns back to the Teanaway River upstream of this point. Therefore, the end of the primary reach and beginning of the secondary reach is at a point on the Teanaway River near the downstream extent of the place of use, at a point 200 feet south of the northeast quarter corner of Section 15, T. 20 N., R. 16 E.W.M. The secondary reach extends downstream on the Teanaway River to the confluence with the Yakima River, and downstream on the Yakima River to the confluence with the Columbia River. The secondary reach then continues down the Columbia River to the confluence with the Pacific Ocean. The secondary reach contains only the consumptive use associated with the 10 acres D. Crosetto proposes to fallow under No. CS4-00383sb3(B)@6. The consumptive use is eligible for protection as a trust water right in the secondary reach in the quantities described below.

Instream flows in the Teanaway River may be measured at the newly established gage at Red Bridge Road.

Trust Water Right Calculations

This section describes how the nonconsumptive and consumptive water use values were calculated to identify:

- 1) how much nonconsumptive water will be transferred into the TWRP associated with conveyance loss and on-farm demand (efficiency savings);
- 2) how much water is required for the continued irrigation of 36.5 acres of timothy hay (retained irrigation); and
- 3) how much water will be transferred into the TWRP from the fallowing of 10 acres.

Efficiency Savings

Under Change Authorization Nos. CS4-00383CTCL(B)@1 (1888) and CS4-00383CTCL@2(B) (1889), Ecology estimated the IEGP contract amounts and additional quantities that could not be reasonably used on-farm, including conveyance and irrigation efficiencies by switching from flood to center-pivot and hand-line irrigation. These quantities are eligible for protection in the TWRP and total 176.75 (56.50 + 120.25) ac-ft/yr and 34.25 (4.30 + 29.95) ac-ft/yr for the 1888 and 1889 priority date, respectively. These estimates were calculated using an assumed irrigation efficiency of 60 percent, leaving approximately 125.50 ac-ft/y (1888) and 9.5 ac-ft/yr (1889) on-farm for irrigation of 46.5 and 3.5 acres, respectively. These quantities are also subject to a late season lease, resulting in approximately 83.70 ac-ft/yr (1888) and 6.3 ac-ft/yr (1889) remains for early season irrigation⁴, May 1 to August 1.

⁴ Calculations assumed 2006 lease quantities.

Retained Irrigation

To estimate the amount of water required for continued irrigation of 36.5 acres of timothy hay (26 acres with center-pivot; 10.5 acres with hand-lines), Ecology uses various estimation methods such as the Washington Irrigation Guide (WIG). The WIG data show the estimated average amount of water required by a crop above the portion of the requirement that might be met by antecedent moisture in the root zone under average climatic conditions (the amount of water a crop needs in excess of rainfall). The monthly WIG data indicate that the Crop Irrigation Requirement (CIR) for pasture is 1.51 feet/acre and the CIR for clover – the surrogate crop used for timothy hay near Cle Elum area – is 1.59 feet/acre.

Using Ecology’s *Guidance Document, GUID-1210, Determining Irrigation Efficiency and Consumptive Use, Table 1*, the average application efficiency (Ea) for the center-pivot irrigation system was estimated to be 90 percent; hand-line irrigation was estimated at 75 percent. Monthly total irrigation demand (TIR) was then calculated based on the monthly CIR for clover or pasture in the Clem Elum area ($TIR = CIR/Ea$). The sum of the monthly TIR multiplied by the number of irrigated acres is the total quantity of water required to fully irrigate the place of use. The monthly TIR (in acre-feet) is converted to an instantaneous rate (in cfs) by dividing by the number of days in each respective month, then by the conversion factor 1.9834 ac-ft/day/cfs.

Based on this analysis, the irrigation quantities required for continued irrigation of 36.5 acres (1888) of timothy hay (26 acres with center-pivot and 10.5 acres with hand-lines) is 68.31 (46.01 + 22.30) ac-ft/yr. Irrigation quantities required for irrigation of 2.4 acres (1889) of timothy hay with hand-lines is 5.10 ac-ft/yr. Early season (May 1 to August 1) irrigation quantities include 37.10 and 2.77 ac-ft/yr for the 1888 and 1889 portions, respectively. According to the applicant, the ring well and the seasonal Teanaway River point of diversion require a combined instantaneous rate up to 250 gallons per minute (gpm), or about 0.56 (0.51 + 0.05) cfs for both portions.

For comparison, the calculated irrigation demand for 48.90 (46.5 + 2.4) acres is 93.75 ac-ft/yr, of which about 50.92 ac-ft/yr is early season and not subject to late season lease. The calculation compares favorability with aggregate metering data, which indicates an average early season demand of 46.5 ac-ft/yr and a maximum use 56.70 acre-feet (in 2007).

Following of 10 Acres under CS4-00383sb3(B)@6 (1888)

Using the same WIG-based analysis and assumptions described above, the quantity of water available to be transferred into the TWRP from the following of 8.0 acres of pasture and 2.0 acres of timothy hay, both under hand-line irrigation is 16.09 and 4.25 ac-ft/yr, respectively, at maximum total diversion rate of 0.119 cfs (July TIR). These results are summarized in Table 3 below.

Table 3 – Irrigation Quantities Eligible for Protection in TWRP (Primary Reach) under CS4-00383sb3(B)@6

Purpose	Unit	May	Jun	Jul	Aug	Sept	Oct	Total
Instream Flow (8 ac pasture)	ac-ft	0	2.97	5.78	4.26	3.08	0	16.09
Average Qi	cfs	0	0.050	0.094	0.069	0.052	0	-
Instream Flow (2 ac hay)	ac-ft	0	0.79	1.52	1.12	0.82	0	4.25
Average Qi	cfs	0	0.013	0.025	0.018	0.014	0	-
Total	ac-ft	0	3.76	7.30	5.38	3.90	0	20.34
	cfs	0	0.063	0.119	0.088	0.066	0	-

In determining percent of consumptive use (%CU), 10 percent was added to the hand-line Ea to account for evaporative losses, totaling 85 %CU. Monthly consumptive use for irrigation was then calculated by multiplying the TIR by the specified %CU and the area to be fallowed. Total consumptive use is the sum of the monthly consumptive use. Table 4 summarizes the amount of consumptive use assigned to the secondary reach based on the fallowing of 10 acres.

Table 4 – Consumptive Use (Secondary Reach) under CS4-00383sb3(B)@6

Purpose	Unit	May	Jun	Jul	Aug	Sept	Oct	Total
Instream Flow (8 acres)	ac-ft	0	2.52	4.91	3.62	2.62	0	13.68
Average Qi	cfs	0	0.042	0.080	0.059	0.044	0	-
Instream Flow (2 acres)	ac-ft	0	0.67	1.29	0.96	0.69	0	3.61
Average Qi	cfs	0	0.011	0.021	0.016	0.012	0	-
Total	ac-ft	0	3.19	6.20	4.57	3.32	0	17.29
	cfs	0	0.054	0.101	0.074	0.056	0	-

In summary, the quantities associated with the Primary and Secondary Reaches were calculated as follows:

Primary Reach A:

For the 1888 portion, up to 0.93 cfs and 266.71 ac-ft/yr are assigned to Primary Reach A. 0.93 cfs is the authorized maximum diversion rate and 266.71 ac-ft/yr is the total volume protected in trust (218.55 ac-ft/yr) plus the early season diversion volume required to irrigate 46.5 acres. For the 1889 portion, up to 0.17 cfs and 40.22 ac-ft/yr are assigned to Primary Reach A. 0.17 cfs is the authorized maximum diversion rate and 40.22 ac-ft/yr is the total volume protected in trust (34.25 ac-ft/yr) plus the early season diversion volume required to irrigate 2.4 acres.

Primary Reach B:

Up to 0.42 cfs and 198.40 ac-ft/yr (1888) and up to 0.12 cfs and 35.12 ac-ft/yr (1889) are assigned to Primary Reach B. These quantities are calculated from the Primary Reach A quantities, minus the amounts required for the continued irrigation of 36.5 acres (1888) and 2.4 acres (1889) with center-pivot and hand-lines.

Both Primary reach A and B will be subject to the 1888 surplus water provision, allowing diversion of up to 1.86 cfs during the spring freshet. No water is available for diversion under the 1889 surplus provision.

Secondary Reach:

Quantities available from the fallowing of 10 acres are available for protection in the econdary Reach, and presented in Table 4.

Water Not Placed in Trust

The remaining portion of Court Claim No. 00383 which has not been sold and is not placed in trust will be retained by the D. Crosetto. Therefore, the 1888 and 1889 portions of Court Claim No. 00383 described above will continue to be diverted from the current point(s) of diversion.

Trust Water Management

Under Nos. CS4-00383sb3(B)@6 and CS4-00383sb3@6(B), portions of Court Claim No. 00383 are being changed to instream flow, which shall be protected against diversion and use by junior priority water users from the authorized point of diversion to the confluence of the Yakima and Columbia Rivers, then down the Columbia River to the Pacific Ocean.

Impairment Considerations

Under RCW 90.38.040(5)(a), a trust water right may be exercised only if Ecology first determines that the authorization will not impair or injure any other water rights.

Following flooding in 2002, the historic Ballard Ditch was temporarily repaired, but ultimately decommissioned. Remaining claimants to the Ballard Ditch include: Teanaway Valley Family Farm (Court Claim 00383), D. J. (Dorothy J.) Crosetto (Court Claim 00383), Tom and Carol Conner (Court Claim No. 00746), and James & Sheryl Fruhling (Court Claim No. 01142). As a result, the four remaining claimants have converted to alternate irrigation supplies, such as down-river point(s) of diversions on either the mainstem Teanaway River or adjacent points, or their water rights were placed in the TWRP.

Therefore the proposed change to instream flow will not cause a reduction in the availability of water in the Primary Reach. Similarly, no senior water right in the secondary reach will be negatively affected by increased instream flows during the irrigation season. Therefore, based on these considerations, transferring the subject portions of Court Claim No. 00383 to trust is not expected to impair other water rights.

Consideration of Protests and Comments

No protest or comments were received for consideration.

CONCLUSIONS

A portion of Court Claim No. 00383 is appurtenant to the subject property. Review of the evidence provided within this report and proceedings within the Yakima River Basin Adjudication Court, indicate that a total of 46.5 acres have been historically and beneficially used under Court Claim No. 00383, including conveyance and stockwater quantities.

In accordance with Chapter 90.38 RCW, the author makes a tentative determination that D. Crosetto's portion of Court Claim No. 00383 (1888 priority date) represents a valid right to divert water from the Teanaway River, an unnamed stream (John's Creek), and a ring well in quantities up to 0.93 cfs and 266.71 ac-ft/yr for the irrigation of 46.5 acres, May 1 through September 15; and 0.11 ac-ft/yr for stock water, year round. In addition, D. Crosetto's portion of Court Claim No. 00383 (1889 priority date) represents a valid right to divert water from the Teanaway River, an unnamed stream (Fred's Creek), and a ring well in quantities up to 0.17 cfs and 40.22 ac-ft/yr for the irrigation of 2.4 acres, May 1 through September 15.

In addition, when surplus water is available in excess of what is needed to satisfy all existing rights, a diversion up to 1.86 cfs under the 1888 portion is available for a 30-day period in May and June.

Approval of this water right change request as provisioned will not enlarge the water right or impair existing water rights.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the request for change to Application Nos. CS4-00383sb3(B)@6 and CS4-00383sb3@6(B) be approved in the amounts and within the limitations described on page 1 and subject to the provisions beginning on page 2 of this Report of Examination.

Change Application CS4-00383sb3(B)@6

Primary Reach A

Up to 1.86 cfs from May 1 through May 30, and 0.93 cfs from May 31 through September 15, and 266.71 ac-ft/yr to be used for the purpose of instream flow.

Primary Reach B

Up to 1.35 cfs from May 1 through May 30, and 0.42 cfs from May 31 through September 15, and 198.40 ac-ft/yr to be used for the purpose of instream flow.

Secondary Reach

The following quantities are to be used for the purpose of instream flow:

Unit	May	Jun	Jul	Aug	Sept	Oct	Total
ac-ft	0	3.19	6.20	4.57	3.32	0	17.29
cfs	0	0.054	0.101	0.074	0.056	0	-

Change Application CS4-00383sb3@6(B)

Primary Reach A

0.17 cfs from May 1 through September 15, and 40.22 ac-ft/yr to be used for the purpose of instream flow.

Primary Reach B

0.12 cfs from May 1 through September 15, and 35.12 ac-ft/yr to be used for the purpose of instream flow.

Report by: _____
Tyson D. Carlson, LHG, Aspect Consulting, LLC

Date

Reviewed by: _____
Kelsey Sinclair Collins
Water Resources Program

Date

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CITATIONS

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Report of Referee*, Subbasin No. 3 (Teaway River). Signed January 25, 1996.

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Supplemental Report of Referee*, Subbasin No. 3 (Teaway River). Signed March 29, 1999.

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Second Supplemental Report of Referee*, Subbasin No. 3 (Teaway River). Signed August 3, 2000.

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Conditional Final Order*, Subbasin No. 3 (Teaway River). Signed May 8, 2003.

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Order of Partition* of Court Claim Nos. 00383/(A) and 05635, Subbasin No. 3. Signed June 2, 2003.

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Order Pendente Lite* Re: Lease and Donation of Water Right for Instream Flow, Court Claim Nos. 00383/(A) 05635, Subbasin No. 3. Signed June 12, 2006.

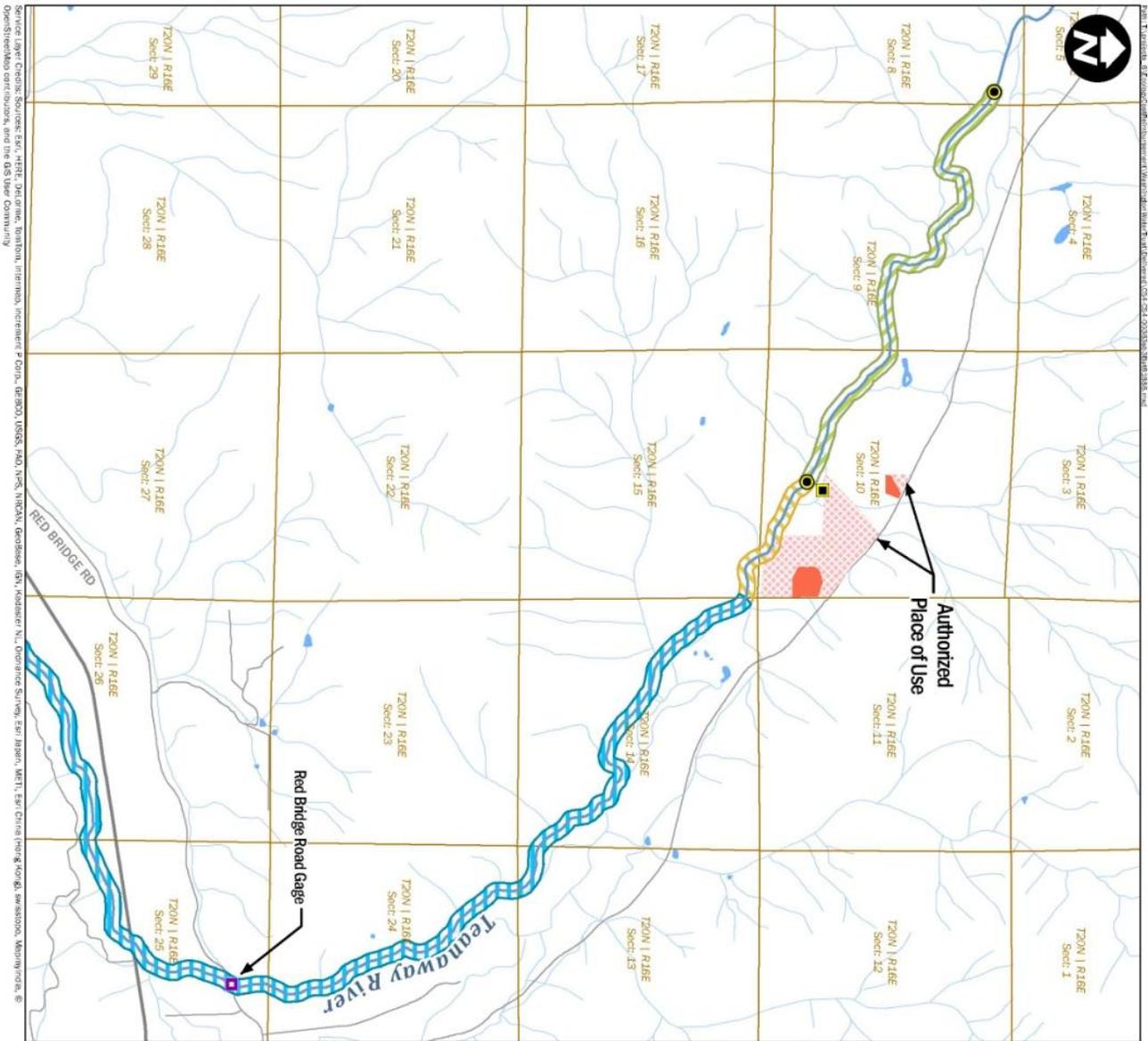
State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Order Pendente Lite* Re: Lease of Dorothy Crosetto Late Season Water Rights for Instream Flow, RE: Court Claim No. 00383/(A) 05635, Subbasin No. 3. Signed April 14, 2011.

State of Washington, Department of Ecology v. Acquavella, et al., Yakima County Superior Court Case No. 77-2-01484-5, *Declaration of Dolly Crosetto In Support of Applications to Enter Water Right into Trust Water Right Program*, RE: Court Claim Nos. 00383/(A) 05635, Subbasin No. 3. Signed June 28, 2014.

Washington State Department of Ecology, 2004. POL 1120, Water Resource Program Policy for Conducting Tentative Determinations of Water Rights. August 30, 2004.

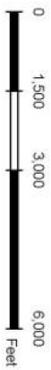
Washington State Department of Ecology, 2005. GUID-1210, Water Resource Program Guidance, Determining Irrigation Efficiency and Consumptive Use. October, 11, 2005.

ATTACHMENT 1:
Changes to the 1888 portion of Court Claim No. 00383.



Comments: Place of use and point of diversion are defined on the cover sheet under the heading "LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED."

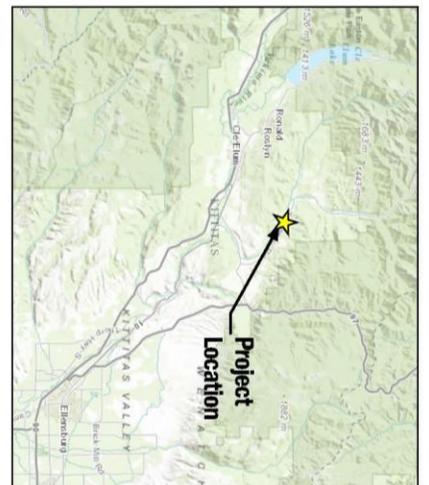
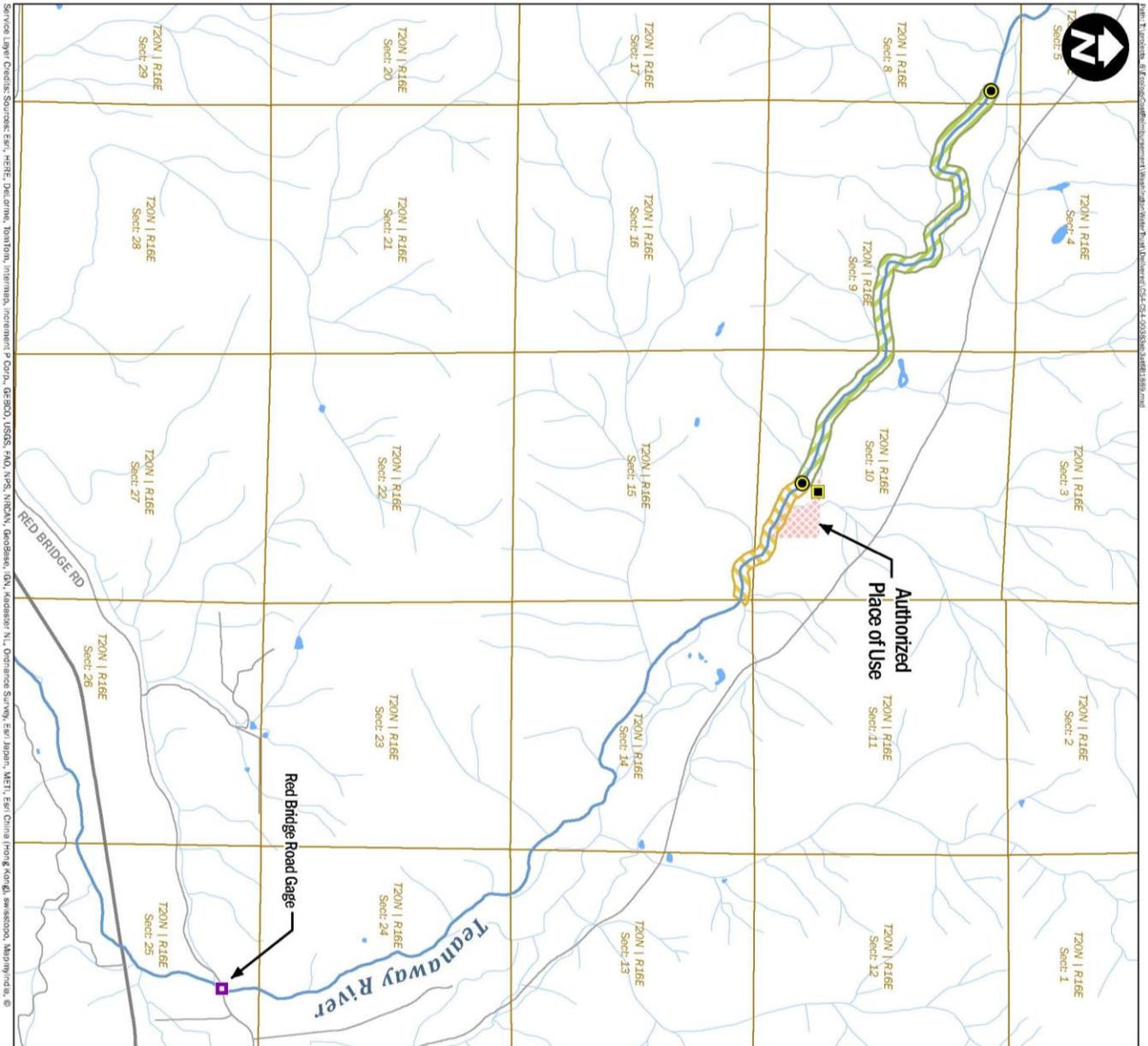
- Authorized Point of Diversion
- Ring Well
- Authorized Place of Use
- Land to be Fallowed (Little Corners)
- Primary Reach A
- Primary Reach B
- Secondary Reach
- Red Bridge Road Gage
- Local Road
- Highway
- Interstate
- Sections (TRS)



	Mar-2015	ATTACHMENT NO. 1
	APPROVED FOR THE TDD / RMP	
<p align="center">No. CS4-CS4-00383sb3(B)@6 (1888) Washington Water Trust WRIA 39 Kittitas County, Washington</p>		

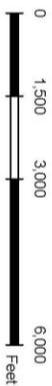
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ATTACHMENT 2:
Changes to the 1889 portion of Court Claim No. 00383.



Comments: Place of use and point of diversion are defined on the cover sheet under the heading "LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED."

- Authorized Point of Diversion
- Ring Well
- Authorized Place of Use
- Primary Reach A
- Primary Reach B
- Red Bridge Road Gage
- Local Road
- Highway
- Interstate
- Sections (TRS)



		Mar-2015	ATTACHMENT NO. 1
		PROJECT NO. 090180	
No. CS4-CS4-00383sb3@6(B) (1889) Washington Water Trust WRIA 39 Kittitas County, Washington			