



STATE OF WASHINGTON  
DRAFT  
REPORT OF EXAMINATION  
FOR WATER RIGHT CHANGE

WR Doc ID 6801687

Changed Place of Use  
Added or Changed Purpose of Use

APPLICATION DATE	WATER RIGHT CHANGE APPLICATION NUMBER
April 26, 2021	CS4-Walton49003@1

PRIORITY DATE OF CERTIFICATE PROPOSED FOR CHANGE	CERTIFICATE NUMBER PROPOSED FOR CHANGE
January 1, 1872	Walton49003 (Louis Antoine right)

NAME AND MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Western Rivers Conservancy 71 SW Oak St #100 Portland, OR 97204	400 Havillah Road Tonasket, WA 98855

**Total Rate and Quantity Authorized for Withdrawal**

DIVERSION RATE (cfs)	ANNUAL QUANTITY (ac-ft/yr)
0.58	150.2

cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year

**Associated Water Right(s)**

DOCUMENT NUMBER	INSTANTANEOUS RATE (cfs)	ANNUAL QUANTITY (ac-ft/yr)	REMARKS
Walton49002	0.66	177.2	
Walton49001	0.64	165.2	
Walton49004	0.54	140.21	
SWC2515	5		Overlapping with SWC2514
SWC2514		400	Overlapping with SWC2515
SWC9249	5	100	
GWC3914	1.34	240	
Claim1077	2	200	

**Purpose(s)**

PURPOSE	DIVERSION RATE (cfs)	ANNUAL QUANTITY (ac-ft/yr)	PERIOD OF USE
Instream Flow and Mitigation	0.58	150.2	Apr 1 – Oct 31

**SPECIAL REMARKS:**

The purpose of this water right change is to transfer the water right into the Trust Water Right Program for management as instream flow and mitigation.

## Place of Use

### Primary Reach

From the original point of diversion on Antoine Creek (after the de facto changes occurred and the points of diversion were consolidated), a tributary of the Okanogan River, within the impounding structure within the SW1/4SW1/4SE1/4 of Township 39, Range 38, Section 35, for 3.41 river miles, where water returns to Antoine Creek west of Okanogan County parcel # 3827362001.

### Secondary Reach

From the downstream end of the primary reach, or 3.41 river miles from the point of diversion within the impounding structure within the SW1/4SW1/4SE1/4 of Township 39, Range 38, Section 35, to the confluence with the Okanogan River, downstream to the Columbia River, and on to the Pacific Ocean

## Trust Schedule

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	7.5	11.6	36.5	43.6	31.4	20.4	1.7	152.7
Primary	Qi	0.13	0.19	0.61	0.71	0.51	0.34	0.03	0.71
Secondary	Qa	7.4	11.0	35.2	41.9	30.2	19.6	1.7	147
Secondary	Qi	0.12	0.19	0.59	0.68	0.49	0.33	0.03	0.68

## Proposed Works

Water will be diverted from Antoine Creek above Fancher Reservoir and released into Antoine Creek for instream flow and mitigation.

## 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 Change Application No. CS4-Walton49003@1, 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
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel RD SW, Ste. 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

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 Union Gap, Washington, this \_ day of \_, 2022.

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Trevor Hutton, Section Manager  
Water Resources Program/Central Regional Office  
Department of Ecology

TH:JR:aa (220564)

## INVESTIGATOR'S REPORT

**Water Right Application No.:** This report addresses nine applications to change the purpose of use of nine water rights historically associated with Antoine Valley Ranch (AVR) to instream flow and mitigation. These water rights are SWC2514, SWC2515, SWC9249, GWC03914, Surface Claim 1077, and four appurtenant federal allotments known as the Walton Rights (or the Louis Antoine, Paul Antoine, Catherine Antoine, and Daniel Joe allotments)

**Investigator:** Jacquelyn Wallace, Aspect Consulting, LLC

**Reviewed by:** Jolee Ramos, Ecology CRO

## BACKGROUND

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This report serves as the written findings of fact concerning Water Right Change Application Numbers CS4-Walton49001@1, CS4-Walton49002@1, CS4-Walton49003@1, CS4-Walton49004@1, CS4-SWC2515@1, CR4-SWC2514, CS4-SWC09249@1, CG4-GWC3914@1, CS4-001077CL@1.

On October 15, 2020, Antoine Valley Ranch (AVR) partners filed nine change applications with the Washington State Department of Ecology (Ecology) to change the purpose of use of their water rights to instream flow and mitigation. These change applications were filed as part of a broader land and water acquisition project led by Western Rivers Conservancy (WRC) in partnership with the Confederated Tribes of the Colville Reservation (CTCR), Ecology, and Trout Unlimited (TU). When the change applications were filed, WRC had entered into an agreement with AVR partners to purchase all of AVR's land and water assets, including the water rights subject to this report.

This transaction closed on December 23, 2020, and at that time, WRC became the owner of the subject water rights. In a subsequent transaction which also closed on December 23, 2020, WRC conveyed 1,291.88 acres of the AVR land to the CTCR and the following water rights to Ecology: Walton49001 (commonly known as the Catherine Antoine allotment), Walton49002 (commonly known as the Paul Antoine allotment), and Walton49003 (commonly known as the Daniel Joe allotment). WRC currently retains ownership of the remaining 1,232.46 acres of land and the following water rights: Walton49004 (commonly known as the Daniel Joe allotment), Surface Water Certificate 2515, Surface Water Certificate 2514, Surface Water Certificate 9249, Groundwater Certificate 3914, and Surface Water Claim 1077. This Report of Examination addresses the proposed change of all of the subject water rights from irrigation to instream flow and mitigation.

Antoine Creek, the primary source from which the subject water rights are diverted, provides habitat for priority aquatic species, most notably federally listed Upper Columbia River steelhead. Increasing instream flow in Antoine Creek has been identified as extremely important in contributing to the recovery of this listed steelhead. Due to this tributary's importance to salmon recovery, the CTCR have been tracking the status of steelhead in this tributary and are partners in this overall project to improve instream flows. Changing the subject water rights to instream flow and mitigation will enable Antoine Creek to maintain consistent flows and support steelhead populations across the Okanogan Basin.

**Table 1. Existing Water Right Attributes – SWC2515**

<b>Name on Water Right Document</b>	Robert M. Fancher
<b>Certificate Number</b>	2515
<b>Priority Date</b>	August 30, 1921
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Myers Creek / Fancher Reservoir
<b>Tributary to</b>	Antoine Creek / Okanogan River
<b>Place of Use</b>	500 acres within section 31, Township 38 N. Range 28 E.W.M.

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Irrigation	5	Not specified	Not specified	Not specified

<b>Source Name</b>	<b>Parcel</b>	<b>Well Tag</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>QQ Q</b>	<b>Latitude</b>	<b>Longitude</b>
Myers Creek / Fancher Reservoir	392936000		39	29 E W.M.	36		48.8347	-119.1143

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – SWC 2515**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	48
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Instream flow and mitigation	5	278		

**Table 1. Existing Water Right Attributes – SWC2514**

<b>Name on Water Right Document</b>	Robert M. Fancher & F.A. Fancher
<b>Certificate Number</b>	2514
<b>Priority Date</b>	March 27, 1926
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine & Myers Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Fancher Reservoir storage for irrigation

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Storage for Irrigation	Not specified	400		

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Myers & Antoine Creek	3928352003	N/A	39	38 E. W.M.	35		48.82899	-119.26341

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – SWC2514**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Instream flow & mitigation	0.62 (non-additive)	222.4		

**Table 1. Existing Water Right Attributes – SWC9249**

<b>Name on Water Right Document</b>	Robert M. Fancher
<b>Certificate Number</b>	9249
<b>Priority Date</b>	September 16, 1960
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Lands in Sections 31 and 32, T 38 N., R. 28 E.W.M.

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation of 500 acres	5	100	March 1	June 1

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Antoine Creek	3928352003	N/A	39	28 E.W.M.	35	SW SW SE	48.8289	-119.2638

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – SWC9249**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Instream flow & mitigation	0.27 (non-additive)	97.74		

**Table 1. Existing Water Right Attributes – Claim 1077**

<b>Name on Water Right Document</b>	Robert M. Fancher
<b>Claim Number</b>	1077
<b>Priority Date</b>	1970
<b>County</b>	Okanogan County
<b>WRIA</b>	49
<b>Water Source</b>	Whiskey Cache Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Section 19-30-31, T38N. R 28E.

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation	2	Not specified		

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Whiskey Cache Creek	3828191004	N/A	38	28 E.W.M.	19-30-31		48.782359	-119.350120

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – Claim 1077**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Whiskey Cache Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Instream flow & mitigation	0	0		

**Table 1. Existing Water Right Attributes – GWC3914**

<b>Name on Water Right Document</b>	John T. Fancher
<b>Certificate Number</b>	3914
<b>Priority Date</b>	1959
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	No well tag
<b>Place of Use</b>	Parcels 3727011001 & 3727011002

<b>Purpose</b>	<b>Instantaneous Rate (gpm)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Irrigation of 60 acres	600	240		

<b>Source Name</b>	<b>Parcel</b>	<b>Well Tag</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>QQ Q</b>	<b>Latitude</b>	<b>Longitude</b>
No well tag	3727011002	N/A	37	27 E. W.M.	1		48.73473 8	- 119.36673 5

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

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – GWC3914**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	No well tag
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Instream flow & mitigation	1.34	240		

**Table 1. Existing Water Right Attributes – Walton 49001**

<b>Name on Water Right Document</b>	Catherine Antoine
<b>Certificate Number</b>	Walton 49001
<b>Priority Date</b>	January 1, 1872
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Parcels 3828313004 & 3828313003

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Irrigation	0.64	165.2		



Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Antoine Creek	382893008		38N	E W.M.	29		48.76029	-119.33410

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – Walton49001**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Instream flow & mitigation	0.64	165.2		

**Table 1. Existing Water Right Attributes – Walton 49002**

<b>Name on Water Right Document</b>	Paul Antoine
<b>Certificate Number</b>	Walton 49002
<b>Priority Date</b>	January 1, 1872
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	3828313001 & 3828313002

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation	0.66	177.2		

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Antoine Creek	3828293008		38 N	28 E. W.M.	29	NE SW	48.7605	-199.3338

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – Walton49002**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Instream flow & mitigation	0.66	177.2		

**Table 1. Existing Water Right Attributes – Walton 49003**

<b>Name on Water Right Document</b>	Louis Antoine
<b>Certificate Number</b>	Walton 49003
<b>Priority Date</b>	January 1, 1872
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	3828311004 & 3828311003

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Irrigation	0.58	150.2		

Source Name	Parcel	Well Tag	Township	Range	Section	QQ Q	Latitude	Longitude
Antoine Creek	3828293008		38N	28 E.W.M.	29	NE SW	48.7605	-119.3338

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – Walton 49003**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

Purpose	Instantaneous Rate (cfs)	Annual Quantity (ac-ft/yr)	Begin Season	End Season
Instream flow & mitigation	0.58	150.2		

**Table 1. Existing Water Right Attributes – Walton 49004**

<b>Name on Water Right Document</b>	Daniel Joe
<b>Certificate Number</b>	Walton 49004
<b>Priority Date</b>	1921
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	3827362001

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Irrigation	0.54	140.21		

<b>Source Name</b>	<b>Parcel</b>	<b>Well Tag</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>QQ Q</b>	<b>Latitude</b>	<b>Longitude</b>
Antoine Creek	3828293008		38N	28	29	NE SW	48.7605	-119.3338

WRIA = Water Resource Inventory Area; cfs = Cubic Feet per Second; ac-ft/yr = Acre-feet per Year; QQ Q = Quarter Quarter

Datum: NAD83/WGS84

**Table 2. Requested Water Right Attributes – Walton 49004**

<b>Applicant Name</b>	Trout Unlimited
<b>Date of Application</b>	October 15, 2020
<b>County</b>	Okanogan
<b>WRIA</b>	49
<b>Water Source</b>	Antoine Creek
<b>Tributary to</b>	Okanogan River
<b>Place of Use</b>	Antoine Creek & Okanogan River watersheds

<b>Purpose</b>	<b>Instantaneous Rate (cfs)</b>	<b>Annual Quantity (ac-ft/yr)</b>	<b>Begin Season</b>	<b>End Season</b>
Instream flow & mitigation	0.54	140.21		

**Priority Processing**

This application meets the criteria for priority processing under WAC 173-152-050.

**INVESTIGATION****History of Water Use****Site Description & Water Use**

Antoine Valley Ranch is a historic agricultural operation covering 2,282 acres of land located on Antoine Creek in Okanogan County, Washington. The ranch includes lands that were acquired from both tribal and non-tribal owners between 1920 and 1944. AVR has historically owned a mixture of surface, storage, and groundwater rights for agricultural irrigation. The appurtenant water rights include both federal (Walton) and state water rights. Over time, AVR water used to irrigate rotating crops on various parcels of land within the historic ranch. The extent and validity analysis, described in the pages that follow, show that 623 acres were consistently irrigated over time. Of those 623 acres, 485 acres were

most recently owned by AVR partners, and 138 irrigated acres were adjacent land known as the “Joseph property,” which consists of 160 acres of tribal allotment land adjacent to the main ranch. AVR water was consistently used to irrigate the Joseph property until 2019, when an AVR lessee shifted to irrigating the Joseph property using a groundwater permit obtained from the Confederated Tribes of the Colville Reservation. Although the Joseph property is not within the place of use identified in the AVR state water rights, it is adjacent to that place of use, and the irrigation of this property was a de facto change in the place of use of the AVR state water rights.

#### Federally Reserved Walton Rights

The federally reserved Walton rights are associated with four former land allotments that are located within the former north half of the Colville Reservation. The “north half” is an area of approximately 1.5 million acres that was originally part of the Colville Reservation set aside by Executive Order in 1872. However, in 1892, the “north half” of the Colville Reservation was returned to the United States by an Act of Congress. This agreement reserved Tribal hunting and fishing rights on the north half of the Reservation and also created land allotments with reserved water rights, including the four reserved water rights appurtenant to AVR. The four reserved Walton rights, owned by Tribal allottees Catherine Antoine, Louis Antoine, Paul Antoine, and Daniel Joe, were created in 1900, and have been beneficially used since that date.

In 1921, the allotments were the subject of a federal court adjudication in which the United States sued non-Tribal property owners in the Antoine Creek basin to protect the federal reserved water rights appurtenant to the land allotments. The 1921 federal court decree determined that the land allotments along Antoine Creek included 287 irrigable acres out of 567 irrigable acres and affirmed that these allotments had the right to 287/567ths of the flow of Antoine Creek, supporting the validity of the Walton rights and their protection from external impairment.

In 1923, Robert Fancher leased the allotment owned by Catherine Antoine for a five year term. Soon after this lease ended around 1928, Robert Fancher, with his brothers Fred Fancher and William Fancher, began purchasing the four land allotments that became part of AVR and were purchased by WRC on December 23, 2020. These landholdings, and their appurtenant water rights, form the basis for the subject Walton rights. The Paul Antoine allotment was transferred to the Fanchers in 1931, the Catherine Antoine allotment was transferred in 1932, the Louis Antoine allotment was transferred in 1946, and the Daniel Joe allotment was transferred in 1951.

Table 3 describes the ownership transfer, acreage of properties, and appurtenant water rights.

**Table 3. Allotment Transfer of Ownership, Acreage, and Water Rights**

Original Allotment Owner	Date of Transfer	Non-Tribal Purchaser	Acreage	Irrigable Acreage under 1921 Decree	Allotted Water (cfs)	Allotted Water (acre feet)
Catherine Antoine	8/29/1932	Robert M. Fancher	91.01	76	0.64	165.2
Paul Antoine	9/1/1931	Fred A. Fancher	80	78	0.66	177.2

Daniel Joe	6/25/1951	William Fancher	80	65	0.54	140.21
Louis Antoine	9/10/1946	Fred A. Fancher	80	68	0.58	150.2
Total			331.01	287	2.42	632.81

These federally reserved Walton rights were either beneficially used while in Tribal member ownership or were put to beneficial use by the Fanchers by 1946. Historical photographs and remote imagery from 1946, to the present demonstrate continuous irrigation and beneficial use of all four of the subject federally reserved Walton rights.

#### State Water Rights

##### ***Early claims and water use***

Throughout the early 1900s, most of the non-Tribal allotment property that composed AVR was assembled into collective ownership by Adelbert Avery and Clay Fruit. Avery and Fruit posted notices of intent to use the waters of Antoine Creek for irrigation and domestic use on what was known as the “Fruit Ranch,” which consisted of land owned by Avery, Fruit, and P.E. Skogland.

In 1904, Avery purchased additional land from C.C. Klopfenstine to expand the Fruit Ranch. Klopfenstine had been irrigating his land with water from Antoine Creek, and had posted a notice in 1900 to use approximately 13 cfs for irrigation, mining, and power production.

Also in 1904, Georgina Warren filed and posted a claim for 200 cubic inches of water, which was amended in 1905 to clarify a claim of 2 cfs from Antoine Creek and place of use on the current site of Antoine Valley Ranch.

In 1905, Fruit posted a notice to use 2 cfs of Whiskey Cache Creek for irrigation and domestic uses, and in 1907, posted additional notice to use the waters of Whiskey Cache Creek for storage and irrigation.

In 1908, Avery and Fruit entered into a formal agreement to develop a system of ditches and split the waters of Antoine Creek, and following a 1919 lawsuit with Lorits Johnson, the Okanogan Superior Court ruled in Decree #1237 that Avery and Fruit had a “first and prior right” to 3 cfs of Antoine Creek waters for irrigation, domestic use, and stockwater.

Table 4 below outlines the various early water claims that provide the basis for Antoine Valley Ranch water rights.

**Table 4. Early water claims**

<b>Claim</b>	<b>Purpose/Source</b>	<b>Date</b>	<b>Quantity</b>
C-45 Adelbert Avery Notice	Notice to use waters of Antoine Creek	Early 1900s	
C-46 Fruit Notice 1	Notice to use waters of Antoine Creek for irrigation and domestic use	Early 1900s	2 cfs
C-48 Klopfenstine Notice	Use of Antoine Creek waters for irrigation, mining and power production	1900	13 cfs (500 miners inches)

C-49 Georgina Warren Claim	Use of Antoine Creek	1900, 5 days after Klopfenstine	200 cubic inches, amended to 2 cfs
C-50 Fruit Notice 2	Use of Whiskey Cache Creek for irrigation and domestic use	1905	2 cfs
C-52 Okanogan Superior Court Decree #1237	Avery & Fruit confirmed owners of 3 cfs of Antoine Creek for domestic, stockwater, and irrigation	1919	3 cfs

### ***Water right certificates***

In 1919, the Fancher family bought a portion of the Fruit Ranch and vested water rights and entered into an agreement with P.E. Skogland (who owned other adjacent lands known locally as “the Fruit Ranch”) to develop a reservoir to store water from Antoine & Myers Creek for irrigation purposes on the Fruit Ranch.

In 1921, Robert Fancher applied for a water right to divert 5 cfs from Myers Creek to irrigate property near Antoine Creek, and was issued a permit to divert 5 cfs from Myers Creek to irrigate 500 acres near Antoine Creek. This permit was certificated in 1946 with a 1921 priority date under **Surface Water Certificate (SWC) 2515**, which authorizes the diversion of 5 cfs of water from Myers Creek for irrigation of 500 acres of land in the Antoine Creek basin and also serves as authorization to fill the reservoir.

In 1926, Fancher submitted a separate water right application to Ecology for 400 af/year of storage from Myers & Antoine Creek under Reservoir Permit R-53. This water right was certificated in 1946 under **SWC 2514**. SWC 2514 solidified Fancher’s right to divert 400 af/year from Antoine & Myers Creek for the purpose of storage for irrigation with a priority date of 1926.

That same year, in 1926, the Fancher brothers bought rights and easements to construct a dam and submerge land owned by Eugene Hockett. Construction of Fancher Reservoir began that same year. The original reservoir was built to hold 400 af of water, but in 1960, Fancher raised the height of the dam and added another 100 af of storage.

By 1928, Fancher had purchased the rest of the Fruit Ranch from Skogland and assumed ownership of the entire ranch. Fancher continued to irrigate the Fruit Ranch, worked to develop the reservoir with Antoine & Myers Creek water under SWC 2515, and continued to buy property and develop water rights.

In 1959, the Fanchers filed for and received **Groundwater Certificate 3914** for 240 af/yr to irrigate an additional 60 acres, and the certificate was given a 1959 priority date.

In 1960, Fancher filed for and received **Surface Water Certificate 9249**, which is a right to divert 5 cfs of water from Antoine Creek between March 1 and June 1, and store 100 af/year in Fancher Reservoir to irrigate 500 acres. SWC 9249 was needed when Fancher raised the height of his dam by 5 feet, thereby increasing storage capacity by 100 af.

In 1970, Fancher applied for a claim, **Water Right Claim 1077**, to the flow of Whiskey Cache Creek year-round totaling 200 af/year on 200 irrigated acres, with a flow of 2 cfs, or whatever lesser amount is in the creek.

**Table 5. Historical State Water Rights**

<b>Water Right Number</b>	<b>Description</b>	<b>Priority Date</b>	<b>CFS</b>	<b>Acre Feet</b>	<b>Acres</b>
<b>SWC2515</b>	Reservoir filling right for irrigation	1921	5		500
<b>SWC2514</b>	Reservoir storage for irrigation	1926		400	
<b>SWC9249</b>	Reservoir filling and storage for irrigation	1960	5	100	500
<b>Claim 1077</b>	Whiskey Cache Creek diversion for irrigation	1970	2		200
<b>GWC3914</b>	Groundwater right for irrigation	1959		240	60
<b>Total</b>			12	740	1260

#### ***Recent changes***

In 1978, the Fancher family sold their ranch (formerly the Fruit Ranch) to the Antoine Valley Ranch partners. The property was managed as the historic ranch through 2014, at which time the AVR and its ranch manager modified operations and downgraded property management in anticipation of a conservation purchase.

The conservation value of the property and the appurtenant water rights provide an attractive opportunity to improve habitat for ESA listed salmonids in Antoine Creek and the Okanogan Basin. As a result of reduced water quality in the mainstem Okanogan River, perennial tributaries like Antoine Creek play a critical role in supporting locally threatened steelhead populations in the Okanogan Basin. Due to the value for tribal interests, the Confederated Tribes of the Colville Reservation (CTCR) have been diligently working on acquisition of this property since 2008. In partnership with CTCR, Trout Unlimited has been engaging with landowners to acquire the water rights due to their potential to increase instream flow and enhance the local production and survival of steelhead in Antoine Creek and the Okanogan Basin.

In 2018, Trout Unlimited, on behalf of the AVR owners and a conservation partnership including WRC and CTCR, submitted an application to temporarily donate AVR's water rights into Ecology's Trust Water Rights Program ("TWRP").

At that time, Ecology recognized that aggregate water quantities eligible for TWRP and historically used at AVR are for irrigation of 625 acres. In addition, DOE noted that there was overlap among the state water rights and reduced the quantities for the temporary donation to the TWRP accordingly. For SWC 2514, Ecology reduced the total eligible to 222.4 consumptive acre-feet for the temporary donation of that quantity into the TWRP. For SWC 9249, Ecology reduced the total eligible to 55.6 af/year for the temporary donation to the TWRP, and DOE rejected the Whiskey Cache Claim as part of the temporary donation, noting that these acreages and water quantities overlapped with the other state water rights.



To summarize, in 2019, Ecology accepted 796 af/year of water associated with the state water rights and 632.81 af/year of water associated with the federally reserved Walton rights, for a total quantity of 1428.81 af/year as a temporary donation into the TWRP and acknowledged that 1) this aggregate quantity of water was associated with 625 irrigated acres across the AVR properties, and 2) no tentative extent and validity analysis of the water rights was performed as part of the temporary donation to the TWRP, so donation quantities may not accurately depict final extent and validity values found through the permanent change process.

In 2020, Trout Unlimited, working in partnership with AVR, WRC and CCT, submitted change applications to change the purpose of the water rights within this transaction to instream flow and mitigation.

### ***Site Visit***

On May 20, 2021, Vanessa Brinkhuis & Scott Turner of Ecology met with Jacquelyn Wallace of TU, Peter Dykstra, TU's attorney, Nelson Matthews of WRC, and John Rohrback and Chuck Brushwood of the CTCR. The goal of the site visit was to observe the original point of diversion from Antoine Creek, formerly irrigated lands and methods, and Fancher Reservoir.

During this site visit, it became apparent that, over time, Antoine Valley Ranch consolidated all former diversions into one point of diversion from Antoine Creek. Evidence of past irrigation, including presence of pivot pads and old wheel lines was observed.

Following this site visit, Jacquelyn Wallace of TU met with Derek Olma, one of the Antoine Valley Ranch partners who managed irrigation practices for the ranch, and who lives on and continues to irrigate property adjacent to the ranch. Derek outlined historic areas of irrigation on a parcel map and described irrigation practices and equipment used on each parcel. This information was used to inform the extent and validity analysis described later in this document.

### ***Water System Description***

Historically, water was diverted from four sources to irrigate Antoine Valley Ranch: 1) Antoine Creek to directly irrigate the property, 2) Antoine & Myers Creeks to fill Fancher Reservoir, 3) a groundwater well to irrigate 60 acres, and 4) Whiskey Cache Creek, to irrigate a western portion of Antoine Valley Ranch that was formerly known as Pilot Wheel Ranch.

The historic diversion from Myers Creek has not been active for quite some time. In 2009, Washington Water Trust conducted a site visit to the historic ditch and concluded that use of the diversion had ceased.

In addition, the groundwater well was not in use when the AVR partners purchased the property in 1978, so they continued using the primary diversion from Antoine Creek to irrigate the 60 acres formerly irrigated with groundwater.

Since 1978, AVR has used a single point of diversion to divert water for irrigating alfalfa hay, field corn, and mixed grass hay. Water has been diverted from this single point to deliver water with AVR's irrigation system to approximately 625 acres of irrigated land. AVR partners historically irrigated using a combination of flood irrigation, wheel lines, and hand lines spread across the property, and the irrigation equipment and methods shifted and evolved over time. In the early 2000s, AVR partners upgraded their system so that the majority of their property was irrigated with center pivot, and the remainder with wheel lines.



## Proposed Changes

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### ***Instream Flow & Mitigation***

In a period of nearly ten years prior to the sale of the land and water rights, AVR was considering the sale of AVR and had various conversations with conservation organizations and federal, state, and tribal agencies about the sale of the property. The conservation value of the property and the appurtenant water rights provide an attractive opportunity to improve habitat for ESA listed salmonids in Antoine Creek and the Okanogan Basin. Due to the value for tribal interests, the CTCR have been diligently working on acquisition of this property since 2008. In 2020, WRC purchased the property to return the land to the CTCR, and to secure the water rights for instream flow and mitigation. The purpose of this water right change is 1) to permanently protect this water right for instream flow in Antoine Creek, 2) provide mitigation to allow CTCR to use a portion of the water to irrigate habitat restoration plantings, and 3) to further protect it within the Trust Water Rights Program for instream flow as well as to provide future mitigation opportunities downstream on the Okanogan and Columbia Rivers, where the instream flow value is minimal. The water rights are currently held through donation within the Trust Water Rights Program.

### ***Proposed Trust Water Quantities***

According to Ecology policy, the amount of trust water available for transfer is the greatest extent of water use within the most recent five-years, unless an exception to relinquishment applies. This applies to both the Walton and state-issued rights.

To calculate the amount of trust water available for transfer to and management within the trust water program, two approaches were pursued: 1) a review of meter records and previous due diligence work completed by WWT (2011) and Aspect Consulting (2017), and 2) an independent parcel-by-parcel analysis of AVR's farming history and irrigation practices.

Meter records from Aspect Consulting's 2017 memorandum is summarized below, in Table 6. Metering data are not available from 2015-2018 while the property was not being irrigated and the land was being transitioned to its new environmental purpose. In 2018, TU initiated the process to donate AVR's water into the Trust Water Program.

**Table 6. Antoine Valley Ranch Meter Data**

<b>Year</b>	<b>Total Diversion (ac-ft)</b>
2007	940
2008	1,000
2009	800
2010	1,037
2011	1,130
2012	1,136
2013	1,056
2014	1,294

During our site visit and subsequent discussions with Derek Olma, former AVR partner, TU inquired into the accuracy and reliability of these meter records. From these discussions, we learned that AVR's metering practices were irregular and infrequent. In addition, not all fields were irrigated every year, with one or more fields fallowed per year. Therefore, while this metering data does provide a general

picture of water usage, it is not accurate. TU pursued a parcel-by-parcel analysis to more accurately determine historic water use and water quantity available for transfer to the trust program.

TU met with Derek Olma, a former AVR partner who historically managed the irrigation practices and infrastructure on the ranch. For each parcel owned by AVR, Derek outlined historically irrigated fields, described irrigation equipment used to water the fields, and identified crops grown on each field. Although flood irrigation was historically used on part of the ranch, pivots and wheel lines were more recently used to irrigate the ranch until 2014, when the owners began downsizing the irrigation system. Corn, alfalfa, and grass hay were grown on the ranch, and these crops were rotated across the ranch over time to maintain soil health. Alfalfa was used to calculate water duty since it was the dominant crop grown, and it was grown across the ranch over time.

After gathering information about irrigation infrastructure and crops, TU then reviewed National Agricultural Imagery Program (NAIP) aerial photos, LIDAR imagery, and historical photos to confirm historic beneficial use based on remote imagery. TU then digitized the boundaries of fields irrigated using different types of equipment and calculated how much acreage on each parcel was irrigated using pivots versus wheel lines. The results of this parcel-by-parcel analysis are shown in Table 7 below.

**Table 7. AVR irrigation method parcel analysis**

<b>Parcel</b>	<b>Acres Irrigated</b>	<b>Method</b>	<b>Crop Grown</b>
3828314004	8.46	Wheel Lines	Alfalfa
3828314003	24	Wheel Lines	Alfalfa
3828314003	4	Pivot	Alfalfa
3828314001	23	Pivot	Alfalfa
3828314006	13.5	Pivot	Alfalfa
3828314006	1.6	Wheel lines	Alfalfa
3828314005	3.7	Pivot	Alfalfa
3828314005	8	Wheel lines	Alfalfa
3828311004	3.4	Pivot	Alfalfa
3828311004	7	Wheel lines	Alfalfa
3828311003	9	Wheel lines	Alfalfa
3828311002	19	Wheel Lines	Alfalfa
3827362001	17	Pivot	Alfalfa
3827362001	11.03	Wheel Lines	Alfalfa
3828313004	27	Wheel Lines	Alfalfa
3828313004	3.3	Pivot	Alfalfa
3828313003	36.36	Pivot	Alfalfa
3828313001	19.21	Wheel Lines	Alfalfa
3828313001	17.85	Pivot	Alfalfa
3828313002	37.82	Pivot	Alfalfa
3828312004	37.48	Pivot	Alfalfa
3828310001	9.18	Pivot	Alfalfa
3828312003	35.56	Pivot	Alfalfa
3828310003	11.36	Pivot	Alfalfa
3727011001	31.91	Pivot	Alfalfa
3727011002	34.91	Pivot	Alfalfa
3728060001	28.35	Pivot	Alfalfa
3728060003	2.42	Pivot	Alfalfa
<b>TOTAL</b>	<b>623</b>		

Following this analysis, TU calculated total water use and consumptive use for 1) acreage irrigated with pivot equipment, and 2) acreage irrigated with wheel lines. The Washington Irrigation Guide water duty for alfalfa hay at the Omak station was used in the calculations. Table 8 & 9 below show these calculations.

**Table 8. Pivot trust water calculations**

Acres	488.7
Efficiency of equipment	90%
Misc evap (%)	10%
CIR feet	1034.01
Total duty (WIG CIR/efficiency)	1148.90 AF
Consumptive use (WIG CIR + evap loss)	1148.90 AF

**Table 9. Wheel line trust water calculations**

Acres	134.3
Efficiency of equipment	75%
Misc evap (%)	10%
CIR feet	284.16
Total duty (CIR/efficiency)	378.88 AF
Consumptive use (WIG CIR + evap loss)	322.04 AF

Once the historic acres irrigated, total duty, and consumptive use were calculated for each type of irrigation equipment, the totals were combined for a total water duty (Qa) of 1528 acre-feet and consumptive use (Qa) of 1470.94 acre-feet, as shown in below Table 10. In addition, based on the place of use and historic quantity for each water right certificate, total water duty and consumptive use were allocated to individual water rights as shown in Tables 11-19.

**Table 10. AVR proposed water right quantities**

Water Right	Qi	Qa - CU	Qa - total	Acres
Walton49001 (Catherine Antoine)	0.64	165.2	165.2	76
Walton49002 (Paul Antoine)	0.66	177.2	177.2	78
Walton49003 (Louis Antoine)	0.58	150.2	150.2	68
Walton49004 (Daniel Joe)	0.54	140.2	140.2	65
Surface Certificate 9249	0.27*	97.74	100	0
Surface Certificate 2515	5	278	278	276
Surface Certificate 2514	0.62*	222.4	277	0
Groundwater Certificate 3914	1.34	240	240	60
Claim 1077	0	0	0	0
<b>TOTAL</b>	<b>8.76</b>	<b>1470.94</b>	<b>1528</b>	<b>623</b>

\*The Qi quantities above with asterisk are non-additive.

Although DOE accepted 1428.81 af/year into the TWRP through the temporary donation, and acknowledged that this aggregate quantity of water with continuous beneficial use at AVR was associated with 625 irrigated acres, these analyses support a different quantity for permanent transfer into and management within the Trust Water Rights Program.

### ***Trust Water Place of Use***

The Department of Ecology manages trust water rights by defining a primary and secondary reach. The primary reach is the section of stream between the point of diversion and where non-consumptive water applied to crops returns to the stream and include all water diverted. For AVR water rights, this is the original point of diversion on Antoine Creek (after the de facto changes occurred and the points of diversion were consolidated), a tributary of the Okanogan River, within the impounding structure within the SW1/4SW1/4SE1/4 of Township 39, Range 38, Section 35, for 3.41 river miles, where water returns to Antoine Creek west of Okanogan County parcel # 3827362001. The secondary reach at the downstream end of the primary reach, or 3.41 river miles from the point of diversion within the impounding structure within the SW1/4SW1/4SE1/4 of Township 39, Range 38, Section 35, to the confluence with the Okanogan River, downstream to the Columbia River, and on to the Pacific Ocean.

### ***Trust Water Management***

Trust water is managed by “reach” based on total and consumptive water quantities. To manage these water rights in their respective reaches, monthly water right schedules are developed for total water use and consumptive water use. Following the change process, a Trust Water Right Agreement will be developed that will further outline how these water rights will be managed.

The series of tables below provide the proposed trust schedules for the aggregate water rights as well as for each individual water right.

**Table 11. Antoine Valley Ranch Water Rights Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	75	116	365	436	314	204	17	1,510.0
Primary	Qi	1.28	1.9	6.1	7.1	5.1	3.4	0.3	7.1
Secondary	Qa	74	110	352	419	302	196	17	1,470.0
Secondary	Qi	1.24	1.9	5.9	6.8	4.9	3.3	0.3	6.8

**Table 12. Walton Right 49001 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	8.3	12.8	40.2	47.9	34.6	22.4	1.9	168.10
Primary	Qi	0.14	0.21	0.68	0.78	0.56	0.38	0.03	0.78
Secondary	Qa	8.1	12.1	38.7	46.1	33.3	21.6	1.8	161.70
Secondary	Qi	0.14	0.20	0.65	0.75	0.54	0.36	0.03	0.75

**Table 13. Walton Right 49002 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	8.7	13.9	43.8	52.3	37.7	24.5	2.1	183.0
Primary	Qi	0.15	0.23	0.74	0.85	0.61	0.41	0.03	0.85
Secondary	Qa	8.9	13.2	42.2	50.3	36.3	23.6	2.0	176.5
Secondary	Qi	0.15	0.22	0.71	0.82	0.59	0.40	0.03	0.82

**Table 14. Walton Right 49003 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	7.5	11.6	36.5	43.6	31.4	20.4	1.7	152.7
Primary	Qi	0.13	0.19	0.61	0.71	0.51	0.34	0.03	0.71
Secondary	Qa	7.4	11.0	35.2	41.9	30.2	19.6	1.7	147
Secondary	Qi	0.12	0.19	0.59	0.68	0.49	0.33	0.03	0.68

**Table 15. Walton Right 49004 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	6.8	10.4	32.9	39.2	28.3	18.4	1.6	137.6
Primary	Qi	0.12	0.17	0.55	0.64	0.46	0.31	0.03	0.64
Secondary	Qa	6.7	9.9	31.6	37.7	27.2	17.7	1.5	132.3
Secondary	Qi	0.11	0.17	0.53	0.62	0.44	0.30	0.02	0.62

**Table 16. Surface Certificate 9249 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	5.3	8.1	25.6	30.5	22.0	14.3	1.2	107.0
Primary	Qi	0.09	0.13	0.43	0.50	0.36	0.24	0.02	0.50
Secondary	Qa	5.2	7.7	24.6	29.4	21.2	13.7	1.2	103.0
Secondary	Qi	0.09	0.13	0.41	0.48	0.34	0.23	0.02	0.48

**Table 17. Surface Certificate 2515 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	13.5	20.9	65.7	78.4	56.5	36.7	3.1	274.8
Primary	Qi	0.23	0.34	1.11	1.28	0.92	0.62	0.05	1.28
Secondary	Qa	13.3	19.8	63.3	75.5	54.4	35.4	3.0	264.7
Secondary	Qi	0.22	0.33	1.07	1.23	0.89	0.60	0.05	1.23

**Table 18. Surface Certificate 2514 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	13.5	20.9	65.7	78.4	56.5	36.7	3.1	274.8
Primary	Qi	0.23	0.34	1.11	1.28	0.92	0.62	0.05	1.28
Secondary	Qa	13.3	19.8	63.3	75.5	54.4	35.4	3.0	264.7
Secondary	Qi	0.22	0.33	1.07	1.23	0.89	0.60	0.05	1.23

**Table 19. Groundwater Certificate 3914 Trust Schedule**

Reach	Flow	A	M	J	J	A	S	O	Total
Primary	Qa	12.0	18.6	58.4	69.7	50.3	32.6	2.8	244.4
Primary	Qi	0.20	0.30	0.98	1.14	0.82	0.55	0.05	1.14
Secondary	Qa	11.8	17.6	56.3	67.1	48.4	31.4	2.7	235.3
Secondary	Qi	0.20	0.30	0.95	1.09	0.79	0.53	0.04	1.09

### Hydrogeologic Evaluation

The geology of WRIA 49 is characterized by igneous (mostly intrusive) and metamorphic rocks that have undergone uplift resulting from the offshore collision of tectonic plates at the Cascadia subduction zone. Tectonic uplift formed the north Cascade Mountain Range to the west and Okanogan Highlands to the east. The Okanogan River valley is a primarily structural valley that has been further shaped by erosional and depositional forces. The Okanogan lobe of the Cordilleran continental glacial ice sheet occupied the entirety of WRIA 49, approximately 10,000 to 12,000 years ago. As the ice sheet advanced and retreated, it left behind exposed bedrock or thin glacial sediments in upland regions and thick sequences of glacial sediments in valley bottoms of tributaries and in the Okanogan River valley.

Unconsolidated glacial sediments up to several hundred feet thick on the Okanogan River valley floor were incised by the downcutting Okanogan River following glacial retreat, leaving behind terraces features throughout most of the valley. The upper terraces are primarily glacial sediments and the lowest terraces nearest to the river are primarily reworked glacial sediments and alluvium from the Okanogan River and its tributaries. Tributaries flowing across the terrace surfaces from bedrock uplands have incised canyons oriented perpendicular to the Okanogan River.

Antoine Valley Ranch is located on the uplands to the east of the mainstem Okanogan River in the elongated Antoine Valley, which is bordered to the north by Antoine Creek, to the south by Siwash Creek and to the east and west by uplifted bedrock ridges. The valley floor is made up of a diverse matrix of alluvial and glacial sediments (glacial till, glaciofluvial sand and gravel, and glaciolacustrine silt and clay) otherwise known as glacial drift (Stoffel, 1990). These sediments form the principal aquifers for groundwater storage in Antoine Valley. Based on local well logs the thickness of the glacial deposits within Antoine Valley is between 50 and 150 feet thick with static groundwater levels falling between 4 and 50 feet below ground surface. The thickness of glacial deposits is consistent with values reported in Sumioka and Dinicola (2009), and the shallow water level is consistent with conditions observed during the site visit. Reported yields for wells completed in the glacial sediments range from 15 to 350 gallons per minute, primarily limited by the permeability of the location-specific undifferentiated glacial deposits.

Bedrock within Antoine Valley is comprised primarily of sedimentary, volcanic and metamorphic rocks which have little or no intrinsic permeability. This limits recharge and constrains groundwater flow to secondary fractures. As a result, fewer wells are completed in bedrock and those that are generally exhibit low yields. Antoine Creek is confined above and below Antoine Valley by bedrock. Downstream of Antoine Valley, Antoine Creek is confined by matrix of Tertiary sedimentary and volcanic bedrock which is dominated by volcanoclastic rocks, volcanic tuff, and porphyritic dacite and andesite flows (DNR, 2021). Upstream of Antoine Valley, Antoine Creek is confined by Gneiss bedrock (locally known as Tonasket Gneiss).

According to the recent USGS report (Sumioka and Dinicola, 2009) Antoine Creek is in high hydraulic continuity with the glacially derived aquifers present in Antoine Valley. Based on the USGS data, Antoine Creek turns into a heavily losing reach once entering Antoine Valley. The significant loss in streamflow is due to two main factors: 1) the transition from a low-permeable bedrock-confined setting to a permeable glacially derived valley and 2) the surface water diversions and groundwater withdrawals which supply historically intensive irrigation practices in Antoine Valley.

## **ANALYSIS**

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Under Washington State statutory (RCW 90.03.380, 90.44.100, and RCW 90.42.040) and case law, in evaluating a water right change application, Ecology is required to determine whether, and to what extent, a water right is valid and eligible to be changed. Further, the following criteria must be assessed for a change to a surface water and groundwater right from irrigation to instream flow and mitigation.

- The existing right must not be enlarged.
- The proposed change and resulting water use must not cause impairment of existing rights.
- With regard to groundwater right changes, the water source must not change.
- Water use must continue to be beneficial.



- With regard to groundwater right changes, the proposed change and resulting water use must not be detrimental to the public interest (public welfare).

#### Tentative Determination of Validity and Extent

A tentative determination of the validity and extent of a water right must be performed for any proposed water right change. Ecology must evaluate the historical use of the subject right and other factors to determine the rate and quantity of water that may be changed.

Many sources are used by Ecology in making tentative determinations, but the most commonly used are meter records, site visits, and aerial photography. Ecology's *Policy 1120 – Water Resources Program Policy for Conducting Tentative Determinations of Water Rights (POL 1120)* outlines how Ecology is to conduct tentative determinations of extent and validity of water rights, including a recommendation for a “multiple lines of evidence” approach. Following this guidance, the approaches used in this report were 1) a review of meter records and previous due diligence work completed by WWT (2011) and Aspect Consulting (2017), and 2) an independent parcel-by-parcel analysis of AVR's farming history and irrigation practices. These approaches are described above in more detail in the proposed changes section.

According to Ecology policy, the amount of trust water available for transfer is the greatest extent of water use within the most recent five-year period of uninterrupted use. This applies to both the Walton and state-issued rights.

Although DOE accepted 1428.81 af/year into the TWRP through the temporary donation, and acknowledged that this aggregate quantity of water with continuous beneficial use at AVR was associated with 625 irrigated acres, the analysis described in the proposed trust water section supports a different quantity. Therefore, DOE's tentative extent & validity examination concludes that 1,528 total acre-feet of water, and 1,470.94 of consumptive use water, linked to 623 historically irrigated acres, is eligible for change to instream flow and mitigation, as outlined below in Table 20.

**Table 20. Summary of rights being transferred to instream flow and mitigation**

Water Right Number	Description	Priority Date	Qi (CFS)	Total Qa (Acre Feet)	Consumptive Qa (Acre Feet)	Acres
<b>Walton 49001</b>	Catherine Antoine right	1872	0.64	165.2	165.2	76
<b>Walton 49002</b>	Paul Antoine right	1921	0.66	177.2	177.2	78
<b>Walton 49003</b>	Louis Antoine right	1921	0.58	150.2	150.2	68
<b>Walton 49004</b>	Daniel Joe right	1921	0.54	140.2	140.2	65
<b>SWC2515</b>	Reservoir filling right for irrigation	1921	5	278	278	276



<b>SWC2514</b>	Reservoir storage for irrigation	1926	0.62*	277	222.4	
<b>SWC9249</b>	Reservoir filling and storage for irrigation	1960	0.27*	100	97.74	0
<b>Claim 1077</b>	Whiskey Cache Creek diversion for irrigation	1970	0	0	0	0
<b>GWC3914</b>	Groundwater right for irrigation	1959	1.34	240	240	60
<b>TOTAL</b>			<b>8.76</b>	<b>1528</b>	<b>1470.94</b>	<b>623</b>

\*The Qi quantities above with asterisk are non-additive.

#### Enlargement

A water right may not be enlarged through the change process. The proposed change is to change the purpose of use for all water historically associated with Antoine Valley Ranch to instream flow and mitigation. These uses will not enlarge the water right, and water will be managed subject to a Trust Water Right Agreement filed with the Department of Ecology.

#### Impairment

In analyzing impairment, Ecology must make a determination as to whether existing water rights, including instream flows established by Ecology rules, may be impaired by the proposed change. The analysis will compare impacts that can occur under the existing water right to impacts anticipated if the proposed change is authorized.

This change will place water in the Trust Water Right Program for instream flow and mitigation. Because this change will increase the flow in Antoine Creek, there will be no impairment to other users.

#### Other Administrative Requirements

The following must be considered when evaluating a proposed water right change.

##### ***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 change application on 3/30/2022, with follow-ups on 4/7/2022 and 5/11/2022.

WDFW Water Rights Biologist Steve Boessow indicated via email that he was familiar with the project and was supportive of what the Colville Tribe and Trout Unlimited were doing with Fancher Reservoir and Antoine Valley Ranch. No formal letters were received at the time of this report.

##### ***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.

The subject application's request cumulatively exceeds the SEPA threshold of withdraws more than 1 CFS for purposes other than agricultural irrigation. Therefore, a SEPA threshold determination was completed. The project proponent filled out a SEPA checklist to the satisfaction of the Department of Ecology who is the lead agency. A threshold determination was made that the project would have no probable significant adverse environmental impacts and issued a Determination of Nonsignificance (DNS). The DNS was published in the Okanogan Valley Gazette-Tribune on 1/20/22.

#### **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 Okanogan Valley Gazette-Tribune on December 9, 2021, and December 16, 2021.

#### **Consideration of Protests**

No protests to this water right application were received.

#### **Consideration of Comments**

The Department of Ecology received comments from the following parties:

<b>Commenter</b>	<b>Date of Comment</b>	<b>Summary of Comment</b>
Sarah Kliegman, Okanogan Highlands Alliance	January 10, 2022	Concerns about the history of diversion from Myers Creek as well as ensuring extent and validity of historic water use.
Lorah Super, Methow Valley Citizens Council	January 11, 2022	Concerns about ensuring extent and validity of historic water use

Both comment letters do not oppose placing water into the TWRP for instream benefits, while urging caution to ensure that only valid quantities are recognized. The analysis above demonstrates Ecology's diligence in analyzing the extent and validity of these rights, in some cases reduced from their originally recognized quantities.

Additionally, comments as to the validity of Myers Creek diversions are noted above, with recognition that the physical Myers Creek diversion was supplanted by a *de facto* change to the use of water that utilized Antione Creek instead of the authorized Myers Creek diversion.

To the extent that these comments are directed toward implementation of the Okanogan Watershed Plan addendum that was adopted in January 2021, commenters are reminded that water rights acquired into Trust through this project are not directly tied to implementation of Watershed Planning goals.

From Ecology POL-2094:

“Projects and actions identified in watershed plans are not limited to those that can provide strict in-time, in-place offsets, though projects in the same sub-basin or tributary (within the same WRIA), and during the same time that the use occurs are prioritized. Projects and actions in other sub-basins or tributaries, or projects that replace water only during critical times for fish, may also be recommended.” ... “As articulated in the Final Guidance for Determining Net Ecological Benefit, watershed plans are to be prepared with implementation in mind. However, RCW 90.94.020 and 90.94.030 do not create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Further, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans.” (Publication POL-2094 pages 7 and 10 respectively).

## Conclusions

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I find that:

- 8.76 cfs and 1,528 ac-ft/yr of water is valid and eligible for change (Primary Reach) and 1,470.94 af/yr of water is valid and eligible for change (Secondary Reach). Individual rights are in the quantities listed in tables above and on cover sheets for each water right.
- The proposed change will not result in an enlargement of the subject water right.
- The proposed change will not impair existing rights.
- Transfer of the water to the Trust Water Rights Program is a beneficial use.
- Approval of this change application will not be detrimental to the public interest.

## RECOMMENDATIONS

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Based on the above investigation and conclusions, I recommend this request for a water right change 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 divert water at a rate and quantity within the specified limits that are reasonable and beneficial:

**Table 21. Recommended Project Limits and Location**

Maximum Instantaneous Rate (cfs)	8.76
Maximum Annual Quantity (ac-ft/yr)	1,528
Purpose(s) of Use	Instream flow and mitigation
Point of Diversion	SW¼, SE¼, Section 35, Township 39 North, Range 38 E.W.M.
Place of Use	Antoine Creek & Okanogan River watersheds

Jaquelyn Wallace  
Report Writer

9/22/21  
Date

\_\_\_\_\_  
Ecology Reviewer

\_\_\_\_\_  
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

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Aspect Consulting (September 2017). *Antoine Valley Ranch Trust Water Right Memo*.

Trout Unlimited (July 2015). *Antoine Valley Ranch Deal Structure and Summary of Water Use for the Agreement Not to Divert*, Memorandum to Chuck Brushwood, Colville Confederated Tribe.

Washington Water Trust (November 2011). *Antoine Valley Ranch Project Water Rights History and Beneficial Use Assessment*.

DRAFT