# Checklist for Claims of Beneficial Use Received at CSG Counter

Applicat	tion# —	WRD Reviewer CM.
Transfer	# 9733	,
Date Re	eceived 8/4/2021	
CWRE 1	Name Scott Montgomery	
	, ,	
<b>Priority</b>	Date: 1878 - 1917	
Fees Requ		
	P	
YES NO	A fee of \$200 must accompany this	form for permits with priority dates of July 9, 1987,

YES (NO)

A fee of \$200 must accompany this form for <u>permits</u> with priority dates of July 9, 1987, or later.

A fee of \$200 must accompany this form for any <u>transfers</u> including a water right with a priority date of July 9, 1987, or later.

Example – A transfer involves 5 rights and one of the rights has a priority date of July 9, 1987, or later, the fee is required.

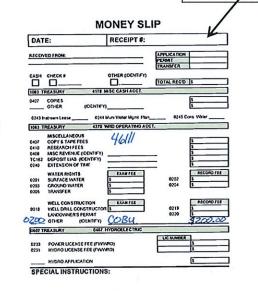
# Map Review:

- Map on polyester film (OAR 690-014-0170(1) & 310-0050(1)(b))

  Application & permit #; or transfer # (OAR 690-014-0100(1))
- Disclaimer (OAR 690-014-0170(5))
- X North arrow (OAR 690-310-0050(2)(c))
- CWRE stamp and signature (OAR 690-014 & 310-0050)
- Appropriate scale (1" = 1320', 1" = 400', or the original full-size scale of the county assessor map) (014 & 310)
- \_\_\_\_\_\_\_Township, range, section, and tax lot numbers (OAR 690-310-0050(4))

# **Report Review:**

- On form provided by the Department (OAR 690-014-0100(1))
- Application & permit #; or transfer # (OAR 690-014)
- W Ownership information (OAR 690-014)
- V Date of survey (OAR 690-014)
- Person interviewed (OAR 690-014)
- County (OAR 690-014)
  - CWRE stamp and signature (OAR 690-014-0100)
- V Signature(s) of all permittee of transfer holder (OAR 690-014-0100)



Fill in App or Transfer Number

RETURN TO APPLICANT -- LETTER ATTACHED

# Groundwater File Review: MA

Pump Test Required?

YES NO

Pump Test Submitted?

YES NO\*

<sup>\*</sup>If no, include pump test flyer w/acknowledgment letter

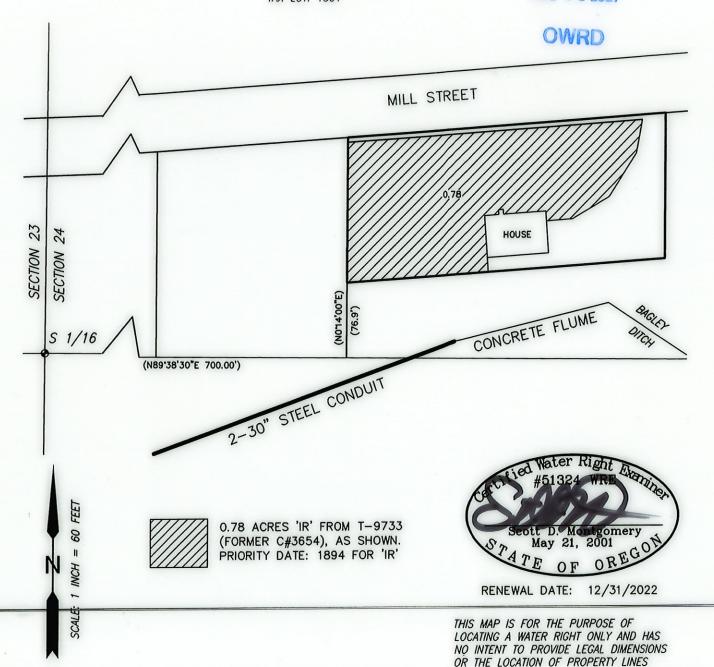
# CLAIM OF BENEFICIAL USE MAP

TO CHANGE PLACE OF USE OF T-9733 FOR J SPEAR RANCH CO.

> TAX MAP: 33S 18E 24D0 TAX LOT: 1301

RECEIVED

AUG 0 4 2021



PREPARED FOR:

J SPEAR RANCH CO. 39650 CLOVER FLAT RD PAISLEY, OR 97636 PREPARED BY:



ALL POINTS ENGINEERING AND SURVEYING, INC. P.O. BOX 767 TERREBONNE, OR 97760 (541) 548-5833 www.APEandS.com

# CLAIM OF BENEFICIAL USE MAP

TO CHANGE POINT OF DIVERSION PER T-9733 FOR J SPEAR RANCH CO.

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# OWRD

TAX LOTS: 100, 200, 201, 300, 301, 600, 800, 1402, 1600, 1700, 2000, 2200, 2300, 2301, 2400, & 2500.

SOUTHEAST 1/4 SECTION 23,

TAX LOTS: 1101, 1400, 1500, 1501, 1600, 1700, 2000, 2001, 2600, 3000, 3200, 4500, & 6600.

NORTHEAST 1/4 SOUTHWEST 1/4,

TAX LOTS: 100, 101, 102, 1500, 1800, 1900, 2000, 2100, 2200, 2300, & 2301.

SOUTHEAST 1/4 SOUTHWEST 1/4,

TAX LOTS: 200, 300, 301, 400, 401, 403, 600, 1301, 1400, 1402, 1500, 1600, & 1805.

SOUTHWEST 1/4,

TAX LOTS: 500, 502, 504, & 505.

SOUTHWEST 1/4 SOUTHEAST 1/4,

TAX LOTS: 500, 600, 800, 900, 1000, 1100, 1200, 1300, 1600, 1700, 1800, 2000, 2001, 2002,

2003, 2100, 2200, 2300, 2600, 2700, 2800, 2900, & 3000,

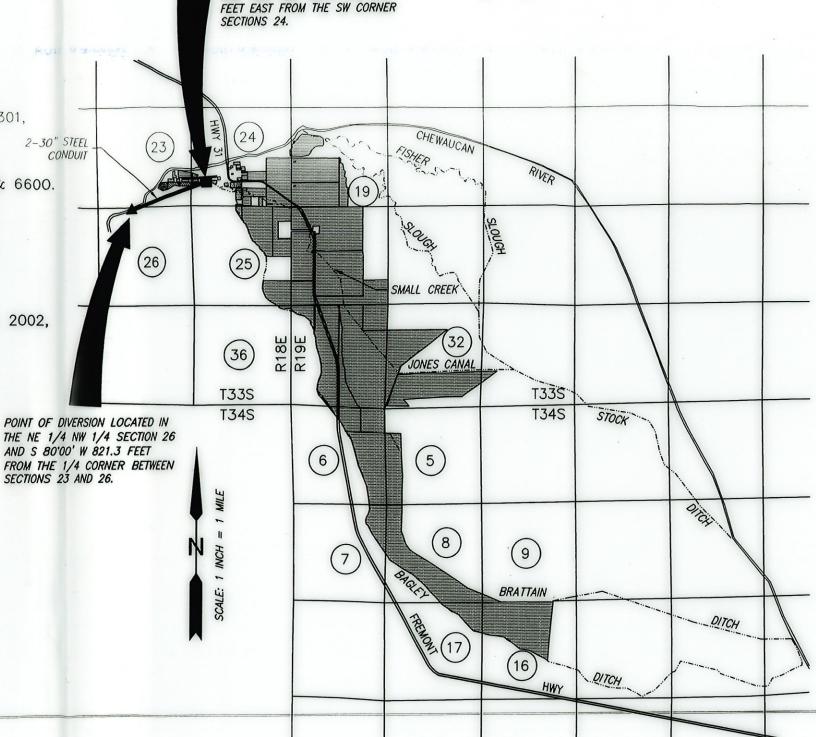
SOUTHEAST 1/4,

SECTION 24,

TAX LOTS 1400, 1800, 1801, 1900, 2000, & 2101. TOWNSHIP 33 SOUTH, RANGE 18 EAST, W.M.,

TAX LOTS: 500, 700, 800, 900, 1000, 1400, 1401, 1403, 1500, 1600, & 1800. TOWNSHIP 33 SOUTH, RANGE 19 EAST, W.M.,

TAX LOTS: 300 & 400 TOWNSHIP 34 SOUTH, RANGE 19 EAST, W.M., ALL WITHIN LAKE COUNTY, OREGON



MEASURING WEIRS LOCATED IN THE SW 1/4 SW 1/4 SECTION 24 AND 1305 FEET NORTH AND 815

PREPARED FOR:

J SPEAR RANCH CO. 39650 CLOVER FLAT RD PAISLEY, OR 97636 PREPARED BY:



ALL POINTS ENGINEERING AND SURVEYING, INC. P.O. BOX 767 TERREBONNE, OR 97760 (541) 548-5833 www.APEandS.com



THIS MAP IS FOR THE PURPOSE OF LOCATING A WATER RIGHT ONLY AND HAS NO INTENT TO PROVIDE LEGAL DIMENSIONS OR THE LOCATION OF PROPERTY LINES



# **ALL POINTS**

ENGINEERING & SURVEYING, INC. P.O. Box 767 (CRR) Terrebonne, Oregon 97760 AUG 0 4 2021

OWRD

# **TRANSMITTAL**

To: Oregon Water Resources Dept 725 Summer St NE, Suite A Salem, OR 97301-1266 Date: 8/2/2021

Attention: Certificates RE: COBU T-9733

[X] Prints [] Plans [] Plat [] Specifications.

Attached is a Claim of Beneficial Use & Final Proof Map on T-9733 for Bagley Ditch Corp.

If you have any questions, please don't hesitate to call or email me.

Copies	No.	Description
1	1	Claim of Beneficial Use (9 pages letter bond)
1	2	Final Proof Map (2 pages mylar)
1	3	Dept fish & Wildlife ltr (3 pages letter bond)
1	4	Aerial imagery (11 pages letter bond)
1	5	Site Photos (13 page letter bond)

Signed:

# CLAIM OF BENEFICIAL USE for Transfer with Multiple Changes – Surface Water



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900

RECEIVED

www.wrd.state.or.us

AUG 0 4 2021

OWRD

A fee of \$200 must accompany this form for any <u>Transfer final orders</u> including a water right with a priority date of July 9, 1987, or later.

Example – A transfer involves 5 rights and one of the rights

Example – A transfer involves 5 rights and one of the rights has a priority date of July 9, 1987, or later, the fee is required.

Claims received without the correct fee of \$200 will be returned.

## A separate form shall be completed for each transfer.

This form is subject to revision. **Begin each new claim** by checking for a new version of this form at: <a href="http://www.oregon.gov/owrd/pages/wr/cwre\_info.aspx">http://www.oregon.gov/owrd/pages/wr/cwre\_info.aspx</a>

The completion of this form is required by OAR 690-014-0100(1) and 690-014-0110(4).

Please type or print in dark ink. If this form is found to contain errors or omissions, it may be returned to you. Every item must have a response. If any requested information does not apply to the claim, insert "NA." Do not delete or alter any section of this form unless directed by the form. The Department may require the submittal of additional information from any water user or authorized agent.

"Section 8" of this form is intended to aid in the completion of this form and should not be submitted.

A claim of beneficial use includes both this report and a map. If the map is being mailed separately from this form, please include a note with this form indicating such.

If you have questions regarding the completion of this form, please call 503-986-0900 and ask for the Certificate Section.

The Department has a program that allows it to enter into a voluntary agreement with an applicant for expedited services. Under such an agreement, the applicant pays the cost to hire additional staff that would not otherwise be available. This program means a certificate may be issued in about a month. For more information on this program see:

http://www.oregon.gov/owrd/pages/mgmt\_reimbursement\_authority.aspx

# SECTION 1

## **GENERAL INFORMATION**

# Type of Authorized Change

This Claim is being submitted for a transfer involving multiple changes.	YES
Mark all that apply:	
1. ☐ Change in POD(s) or Additional POD(s) 2. ☐ Change in Place of	of Use
3. Change in Character of Use	
A separate section will be completed for each type of change authorized in the ti	ransfer final order.

RECEIVED

1. File Information

APPLICATION #
T-9733

AUG 04 2021

**OWRD** 

2. Property Owner (current owner information)

APPLICANT/BUSINESS NAME Bagley Ditch Corp.		PHONE NO. 541-363-29		ADDITIONAL CONTACT NO. 541-943-3328
ADDRESS 39650 Clover Flat Rd				
CITY Paisley	STATE OR	ZIP 97636	E-MAIL  J Spear Ra	nch@yahoo.com

If the current property owner is not the transfer holder of record, it is recommended that an assignment be filed with the Department. <u>Each</u> transfer holder of record must sign this form.

3. Transfer holder of record (this may, or may not, be the current property owner)

TRANSFER HOLDER OF RECORD  Same as above		
ADDRESS		
Сіту	STATE	ZIP

4. Date of Site Inspection:

11/18/2016 & 10/27/2020

5. Person(s) interviewed and description of their association with the project:

NAME	DATE	ASSOCIATION WITH THE PROJECT
Joe Villagrana	11/18/2016	Farm Manager-J. Spear Ranch
Lynda Lown	10/27/2020	Property Owner

**6.** County:

Lake

7. If any property described in the place of use of the transfer final order is excluded from this report, identify the owner of record for that property (ORS 537.230(4)):

OWNER OF RECORD			
ADDRESS			
Сіту	STATE	ZIP	

Add additional tables for owners of record as needed

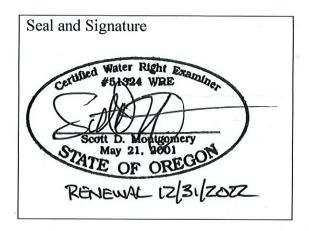
AUG 04 2021

# SECTION 2 SIGNATURES

**OWRD** 

# CWRE Statement, Seal and Signature

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge.



CWRE NAME		PHONE N	0.	ADDITIONAL CONTACT NO.
Scott D. Montgomery		541-548-	5833	541-420-0401
ADDRESS				
PO Box 767		4		
CITY	STATE	ZIP	E-Mail	
Terrebonne	OR	97760	scott@a	peands.com

# Transfer Holder of Record Signature or Acknowledgement

**Each** transfer holder of record must sign this form in the space provided below.

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge. I request that the Department issue a water right certificate.

SIGNATURE	PRINT OR TYPE NAME	TITLE	DATE
Jalilles	Joe Villagrana	President, Bagley Ditch Corp	7.26-21

## **SECTION 3**

# **Changes Made**

Note: The Claim only needs to describe the changes that were authorized in the transfer final order.

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Change #1

AUG 04 2021

**New or Additional Point of Diversion** 

Change in POD(s) or Additional POD(s)

**OWRD** 

Did the transfer order authorize a change in the points of diversion or additional points of diversion?

YES

1. New or additional point of diversion name or number:

POINT OF DIVERSION	Source
(POD) NAME OR NUMBER (CORRESPOND TO MAP)	
POD	Chewaucan River

#### 2. Variations:

Was the use developed differently from what was authorized by the transfer final order, or extension final? If yes, describe below.

NO

(e.g. "The order allowed three new/additional points of diversion. The water user only developed one of the points.")

3. Claim Summary:

S. Civili S. William J.						
New or	MAXIMUM RATE	CALCULATED	AMOUNT OF			
ADDITIONAL	AUTHORIZED	THEORETICAL	WATER			
POD	IN ORDER	RATE BASED ON	MEASURED			
NAME OR #		SYSTEM				
POD	1/25 cfs pre acre	17.04 cfs	14.32 cfs			

# **System Description**

Are there multiple new or additional Points of Diversion (POD)s?

NO

# A. POD System Information

Provide the following information concerning the point of diversion. Information provided must describe the equipment used to appropriate water from the point of diversion.

1. Pump Information

MANUFACTURER MODEL		SERIAL	Type (centrifugal,	Intake	DISCHARGE
		Number	TURBINE OR SUBMERSIBLE)	SIZE	SIZE
No pump					

# **B.** Gravity Flow Pipe

(THE DEPARTMENT TYPICALLY USES THE HAZEN-WILLIAM'S FORMULA FOR A GRAVITY FLOW PIPE SYSTEM)

1. Does the diversion involve a gravity flow pipe?

YES

2. Complete the table:

PIPE	PIPE	"C"	AMOUNT OF	LENGTH OF PIPE	SLOPE	COMPUTED RATE OF
SIZE	ТҮРЕ	FACTOR	FALL			WATER FLOW (IN CFS)
2-30"	Steel	130	90'	4620 LF	0.02 '/'	148.25*

# 3. Provide calculations:

$$V = 1.31x \text{ CxR}^{0.63} \text{ x S}^{0.54}$$
=  $(1.31)(130)x(0.125)^{0.63} \text{ x } (0.02)^{0.54} = 15.10 \text{ fps}$ 

$$R = \underline{D} = 0.625' \qquad A = \underline{D} = 4.91 \text{ sf} \qquad Q = VA = 74.13 \text{ cfs per pipe or } 148.25 \text{ cfs}$$

## \* - when pipes are flowing full

4. If an actual measurement was taken, provide the following:

DATE OF WHO MADE THE		MEASUREMENT	MEASURED QUANTITY OF	
MEASUREMENT	MEASUREMENT	Метнор	WATER (IN CFS)	
11/18/2016	Myself	Weir calculation	14.32	

Attach measurement notes  $Q = 3.33 \text{xWxH}^{3/2}$   $Q_1 = (3.33)(10)(0.4)^{3/2} = 8.42 \text{ cfs}$ 

 $Q_2 = (3.33)(7)(0.4)^{3/2} = 5.90 \text{ cfs}$ 

RECEIVED

# C. Gravity Flow Canal or Ditch

AUG 0 4 2021

(THE DEPARTMENT TYPICALLY USES MANNING'S FORMULA FOR CANALS AND DITCHES)

1. Does the diversion involve a gravity flow ditch or canal?

YES

**OWRD** 

**2.** Complete the table:

CANAL OR DITCH TYPE (MATERIAL)	TOP WIDTH OF CANAL OR DITCH	BOTTOM WIDTH OF CANAL OR DITCH	<b>DEPTH</b>	"N" FACTOR	AMOUNT OF FALL	LENGTH OF CANAL/ DITCH	SLOPE	COMPUTED RATE (IN CFS)
Earthen	15'	10'	2'	0.025	3'	100 LF	0.03 '/'	17.04

#### 3. Provide calculations:

**4.** If an actual measurement was taken, provide the following:

DATE OF	WHO MADE THE	MEASUREMENT	MEASURED QUANTITY OF
MEASUREMENT	MEASUREMENT	Метнор	WATER (IN CFS)
11/18/2016	Myself	Est. Veloc x Area	12.50

Attach measurement notes. Estimated Avg Velocity of ditches was  $\pm -0.25$  fps Q = (0.25)(25) = 6.25 cfs x 2 ditches = 12.50 cfs

# Change #2

## Change in Place of Use

Did the transfer order authorize a change in the place of use?

RECEIVED YES

1. Claim Summary – Authorized Use:

If Irrigation or Nursery Use:

THE # OF ACRES ALLOWED	THE # OF ACRES DEVELOPED
0.78	0.78

AUG 0 4 2021

OWRD

#### 2. Variations:

Was the use developed differently from what was authorized by the transfer final order? If yes, describe below.

NO

(e.g. "The order authorized a change in place of use for 40 acres. The water user only developed 38 acres.")

## Change #3

### Change in Character of Use

Did the transfer order authorize a change in character of use?

NO

# **SECTION 4**

# **CONDITIONS**

All conditions contained in the transfer final order, or any extension final order shall be addressed. Reports that do not address all performance related conditions will be returned.

#### 1. Time Limits:

Describe how the water user has complied with each of the development timelines established in the transfer final order and any extensions of time issued for the transfer:

	DATE FROM TRANSFER	DATE THE NEW AND/OR ADDITIONAL POD(s) WERE READY FOR USE *THIS DATE MUST FALL BETWEEN THE "ISSUANCE DATE" AND THE "COMPLETENESS DATE"
ISSUANCE DATE	11/28/2005	
COMPLETENESS DATE FROM ORDER (C)	10/1/2007	2005

\* MUST BE WITHIN PERIOD BETWEEN TRANSFER FINAL ORDER, OR ANY EXTENSION FINAL ORDER ISSUANCE AND THE DATE TO COMPLETE THE CHANGE

2. Is there an extension final order(s)?

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NO

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3. Measurement Conditions:

a. Does the transfer final order, or any extension final order require the installation

YES

of a meter or other approved measuring device?

b. Has a meter been installed?

YES

c. Meter Information

POD/POA Name or #	MANUFACTURER	SERIAL#	CONDITION (WORKING OR NOT)	CURRENT METER READING	DATE INSTALLED
N Weir	NA	NA	Working	0.40 FT*	Early 2005
S Weir	NA	NA	Working	0.40 FT*	Early 2005

<sup>\*</sup>Staff Gage Reading

4. Recording and reporting conditions

a. Is the water user required to report the water use to the Department?

NO

5. Fish Screening

a. Are any points of diversion required to be screened to prevent fish from entering the point of diversion?

YES

b. Has the fish screening been installed?

YES

c. When was the fish screening installed?

DATE	By Whom
Early 2005	J Spear Ranch Co

- d. If the diversion **involves a pump** <u>and</u> the **total** diversion rate of all rights at the point of diversion is less than 225 gpm (0.5 cfs) and the permit was issued prior to February 1, 2011:
  - Has the self-certification form previously been submitted to the Department?
    - If not, go to <a href="http://www.oregon.gov/owrd/Pages/pubs/forms.aspx">http://www.oregon.gov/owrd/Pages/pubs/forms.aspx</a>, complete and attach a copy of the self-certification form to this claim, and send a copy of it to the Oregon Department of Fish and Wildlife (ODFW).
- e. If the diversion does **not involve a pump \underline{or}** the **total** diversion rate of all rights at the point of diversion is 225 gpm (0.5 cfs) or greater:
  - Has the ODFW approval been previously submitted?

NA YES NO

• If not, contact and work with ODFW to ensure compliance. To demonstrate compliance, provide signed documentation from ODFW. A form is available at: <a href="http://www.oregon.gov/owrd/Pages/pubs/forms.aspx">http://www.oregon.gov/owrd/Pages/pubs/forms.aspx</a>

Reminder: Failure to submit evidence of a timely installed fish screen may result in an unfavorable determination. In order to receive a favorable approval, the ODFW/WRD "Fish Screen Inspection" form needs to have been previously submitted or be attached to this form.

6. By-pass Devices

a. Are any points of diversion required to have a by-pass device to prevent fish from entering the point of diversion?

YES

b. Have by-pass devices been installed?

YES

c. Describe the diversion works as related to whether a by-pass device is installed or unnecessary:

(Provide a letter from ODFW indicating the device is approved or is unnecessary. If there is no letter from ODFW, <u>explain</u> whether or not a by-pass device is necessary.)

DESCRIPTION	IF INSTALLED	IF INSTALLED, BY WHOM
(E.G. "ODFW HAS APPROVED THE BY-PASS DEVICE" OR "NO	(DATE)	
BY-PASS DEVICE IS NECESSARY BECAUSE THERE IS A DIRECT		
DIVERSION FROM THE STREAM VIA A PUMP ON RIVER LEFT		
STREAM BANK WITH FOOT VALVE DESCENDING DIRECTLY INTO		
NATURAL POOL.") IN ADDITION, YOU MAY ATTACH PHOTOS TO		
THIS CLAIM.		
ODFW has approved the by-pass device	<b>Early 2005</b>	J Spear Ranch Co

7. Other conditions required by the transfer final order or extension final order:

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a. Was the water user required to restore the riparian area if it was disturbed?

AUG 0 4 2021

NO

b. Was a fishway required?

c. Other conditions?

WPD

NO

NO

If "YES" to any of the above, identify the condition and describe the water user's actions to comply with the condition(s):

SE	CT	0	N	5

#### **ATTACHMENTS**

Provide a list of any additional documents you are attaching to this report:

ATTACHMENT NAME	DESCRIPTION
Aerial Imagery	FSA/USDA imagery from June 2016 and 2006
Site Photos	Pics of POD, fish screening and bypass, metering device & POU
ODFW letter	Letter approving fish screening & bypass

### **SECTION 6**

### CLAIM OF BENEFICIAL USE MAP

The Claim of Beneficial Use Map must be submitted with this claim. Claims submitted without the Claim of Beneficial Use map will be returned. The map shall be submitted on poly film at a scale of 1" = 1320 feet, 1" = 400 feet, or the original full-size scale of the county assessor map for the location.

For the purpose of this Claim, the map identifying the location of the place of use does not require a new survey. The location of the place of use identified on the Claim map should be based on the original right of record at the time the transfer final order was issued. In transfers approved for additional points of diversion,

the original points must be identified the map based on the original right of record at the time the transfer final order was issued.

Provide a general description of the survey method used to prepare the map. Examples of possible methods include, but are not limited to, a traverse survey, GPS, or the use of aerial photos. If the basis of the survey is an aerial photo, provide the source, date, series and the aerial photo identification number.

The new POD, fish screen, metering device, and place of use were tied using a GARMEN Etrex handheld GPS receiver. Geodetic coordinates were imported to ESRI ArcMap GIS software and converted to Statewide Lambert Projection. Point data was compared with aerial imagery for accuracy.

Map Checklist RECEIVED Please be sure that the map you submit includes ALL the items listed below. AUG 04 2021 (Reminder: Incomplete maps and/or claims may be returned.) OWRD M Map on polyester film X Appropriate scale (1" = 400 feet, 1" = 1320 feet, or the original full-size scale of the county assessor map) X Township, Range, Section, Donation Land Claims, and Government Lots  $\boxtimes$ If irrigation, number of acres irrigated within each projected Donation Land Claims, Government Lots, Quarter-Quarters  $\boxtimes$ Locations of fish screens and/or fish by-pass devices in relationship to point of diversion  $\boxtimes$ Locations of meters and/or measuring devices in relationship to point of diversion or appropriation  $\boxtimes$ Conveyance structures illustrated (pumps, reservoirs, pipelines, ditches, etc.)  $\bowtie$ Point(s) of diversion or appropriation (illustrated and coordinates) X Tax lot boundaries and numbers  $\boxtimes$ Source illustrated if surface water  $\boxtimes$ Disclaimer ("This map is not intended to provide legal dimensions or locations of property ownership lines")  $\boxtimes$ Application and permit number or transfer number  $\boxtimes$ North arrow  $\boxtimes$ Legend X CWRE stamp and signature



Department of Fish and Wildlife

Fish Division 4034 Fairview Industrial Drive SE Salem, OR 97302 (503) 947-6201 FAX (503) 947-6202 www.dfw.state.or.us/

October 22, 2015

Joe Villagrana Bagley Ditch Corporation 39650 Clover Flat Road Paisley, OR 97636 RECEIVED Aug 042021



Dear Mr. Villagrana,

The purpose of this letter is to provide Oregon Department of Fish and Wildlife's (Department) approval for the Paisley Town Weir and associated operating plan, detailed below. The operating plan incorporates screening and bypass needs for fish while meeting water needs for livestock and irrigation and establishes a timeline for implementation of baffles for the weir.

The Paisley Town Weir (PTW) is located on the south bank of the Chewaucan River approximately 1.25 miles upstream of state highway 31 in Paisley, Oregon. The PTW is located on property owned by J-Spear Ranch Company and is operated by the Bagley Ditch Corporation (BDC). Maintenance and management of the PTW is assumed by the BDC through the J-Spear ranch manager located in Paisley, Oregon.

The original PTW was a channel spanning structure that created a migration barrier to native redband trout. In 2002, the Department began discussion with the J-Spear Ranch regarding replacement of the original PTW with a structure that would allow for fish passage and screening. The original structure failed in late 2004, however funding for a new structure had been secured through an Oregon Watershed Enhancement Board (OWEB) grant submitted in October 2003. The BDC filed an application to transfer the points of diversion under water right certificates for multiple water users. Oregon Water Resources Department (OWRD) assigned the application number T-9733. The Bagley Ditch and Town Ditch were consolidated at a new point of diversion upstream of the original structure. The current structure was completed in early 2005.

The water right transfer (T-9733) requires that "The water user shall install and maintain a fish screen or fish by-pass device, as appropriate, at the new point of diversion. The type and plans of the screen or by-pass device must be approved by the Oregon Department of Fish and Wildlife prior to beginning of construction, and shall be installed under the supervision of the Department of Fish and Wildlife." The Department approved PTW fish screening and passage designs by Dan Axness of HDR Engineering. The screen design is a screened trough in which water flows through two inclined screens, keeping fish and debris from being entrained into the ditch. Fish and debris approaching the screens are delivered back to the river via a bypass channel. The structure, as built, had to be modified due to winter icing issues (removable screen sections), and is incomplete because the baffles have yet to be installed.

The structure, as built, was not able to effectively operate under winter anchor and frazzle ice conditions. To fix this issue J-Spear Ranch installed two removable screen sections to

increase flows through the trough during the winter, reducing ice accumulation. Under the current winter operation plan the timing of reinstallation of the screen panels has varied from March 1<sup>st</sup> to March 20<sup>th</sup> depending on ice.

In 2000 and 2001, the Department monitored juvenile redband trout drift timing on the Chewaucan River near the PTW. In both 2000 and 2001 peak migration for redband trout occurred mid-March through April. In 2007 and 2008, the Department sampled the Bagley Ditch to determine when fish were being entrained. No fish were captured from December through late February.

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AUG 0 4 2021

OWRD

#### Screen Operation:

In order for the PTW to function effectively, it must protect fish from entrainment into the Bagley Ditch and impingement upon the screen surface. Klamath Watershed District fish biologists and BDC believe an acceptable way to protect the PTW structure from icing issues and minimize entrainment risk for fishes is to remove the two removable screen sections during the winter with the following conditions:

- BDC may remove the screens no earlier than December 1 each year.
- Screen panels must be reinstalled by March 1 each year.
- The BDC may request a variance for early removal or later installation of the screens from the Department. The request must:
  - o be in writing to the Lakeview Fish Biologist no less than three days from designated removal/installation dates,
  - o state the reason for the request, and
  - o state the beginning date for early removal or ending date for late installation.
  - o The Department may verbally authorize early screen removal in an emergency (e.g. screen icing with the potential to damage the screen or prevent water flow to the ditch), but a written request must be received within three days.

#### By-pass Operation:

The by-pass channel diverts fish back to the river channel below the PTW intake. An adjustable swing-gate within the structure regulates the amount of water that is returned to the river. Under current operation the swing-gate is completely open when the river flows are high and the water right is being met. As flows recede, BDC adjusts the swing-gate to increase the hydraulic head within the structure to meet their water needs which reduces flows back to the river. The swing-gate is not able to be fully closed, allowing fish passage year around if flows permit.

The Department agrees with the current operation and, at this time, no changes are recommended for the operation of the fish by-pass.

#### Baffles:

On May 1, 2014, Department staff completed an approach velocity survey at the PTW fish screen. Twenty-one velocity measurements were taken on each screen (stream side and road side). The Department's fish screen criteria requires that approach velocities are 0.4 feet per second (ft/s) or less. On the stream side screen (left when looking downstream), five (5) of 21 approach velocity measurements exceeded 0.4 ft/s and, on the road side screen (right), 11 of 21 measurements exceeded 0.4 ft/s. Sweeping velocities ranged from -0.40 to 6.9 ft/s.

The fish screen does not currently meet the Department's fish screening criteria. Normalizing the approach velocities across the face of the screens will provide better protection for native

fish from entrainment, injury or death, and increase sediment transportation through the screen structure. The installation and tuning of baffles behind the existing fish screen is expected to normalize the flow across the entire screen.

The Department recommends that baffles be installed and tuned, as agreed upon during original design approval process. The Department's Fish Screening Program will finish the modified baffle drawings and provide an estimate for ODFW construction and installation. BDC will be responsible for obtaining funding (e.g. water user fees, OWEB, etc.) and seeking bids from the Department and other vendors. The baffles should be installed no later than the reinstallation of the removable screen sections March 1<sup>st</sup>, 2017.

#### **Future Considerations:**

The Department may reconsider this operations plan and require modifications to the operations and maintenance of this fish screen in the future. Circumstances that would cause the Department to reconsider these operating guidelines include but are not limited to the following:

- 1. A change in the biological status of fish in the Chewaucan River Basin.
- 2. A change in the Federal or State Endangered Species Act listing or State sensitive species list indicating a greater concern for the status of fish present in Chewaucan River.
- 3. Modifications to the intake or system operations such that the risk of entrainment is increased.
- 4. An increase in the amount of water diverted above the currently permitted amount.

This letter may be used to satisfy the fish screening condition of water right permit T-9733 as described above provided the facility is operated as described in this letter.

Please contact me or the Lakeview District Fish Biologist (541-947-2950) if you have any questions or concerns.

The Department appreciates BDC's cooperation in the operation of the PTW for protection of native fish.

Sincerely,

AUG 0 4 2021

RECEIVED

Alan Ritchey

Fish Screening and Passage Program Manager

OWRD

Cc:

Baki

**Fuss** 

Watson



 Main Help Return Contact Us

Station ID:

10384000 View: Map - Driving Directions - Station Info - Historical Stats - Rating Curve

Name:

RECEIVED

Operator:

CHEWAUCAN R NR PAISLEY, OR

**OWRD** 

Status: Longitude: Near Real Time -120° 34' 11.827" Drainage Area: 275 sqmi Datum: NAD83

AUG 04 2021

Latitude: 42° 41' 5.834" Period of Operation: 4/3/1912 ~ Present

Most Recent Values: Mean Daily Flow:

43.4 cfs@ 06/09/2021

Instantaneous Flow: 36.8 cfs @ 06/10/2021 07:15 Instantaneous Stage: 0.37 ft @ 06/10/2021 07:15 OWRD

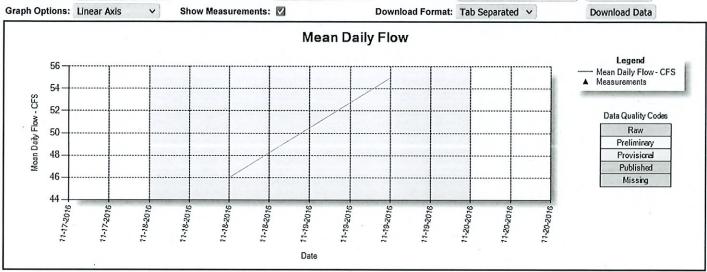
Starting Date: 11/18/2016

**Ending Date:** 

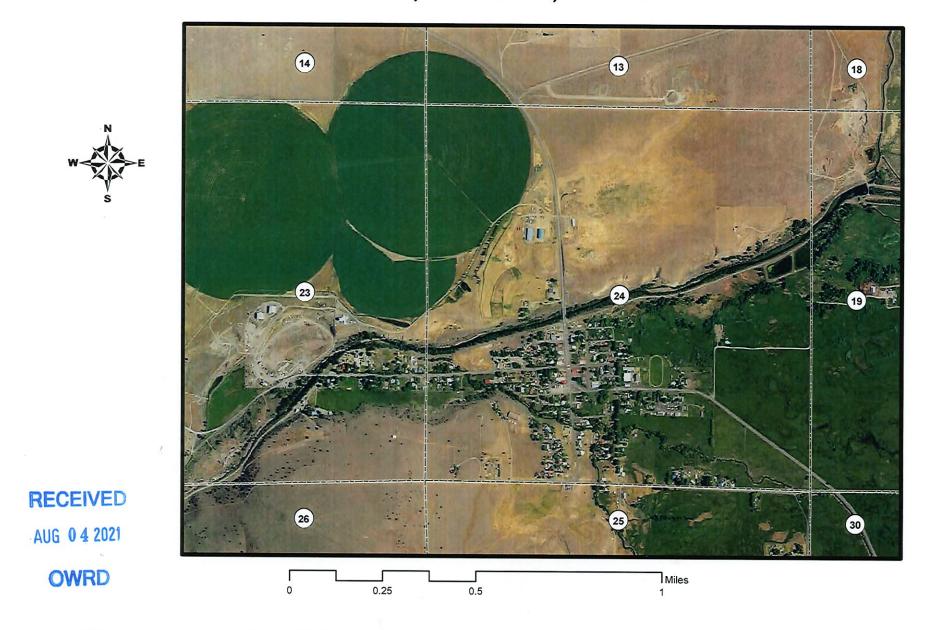
11/19/2016

Dataset: Mean Daily Flow

Refresh Graph



T 33 S, R 18 E, W.M.

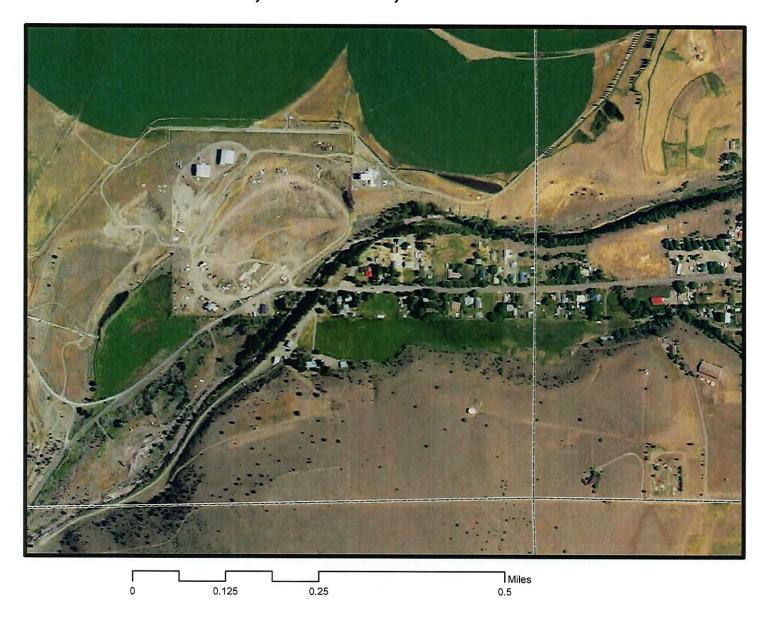






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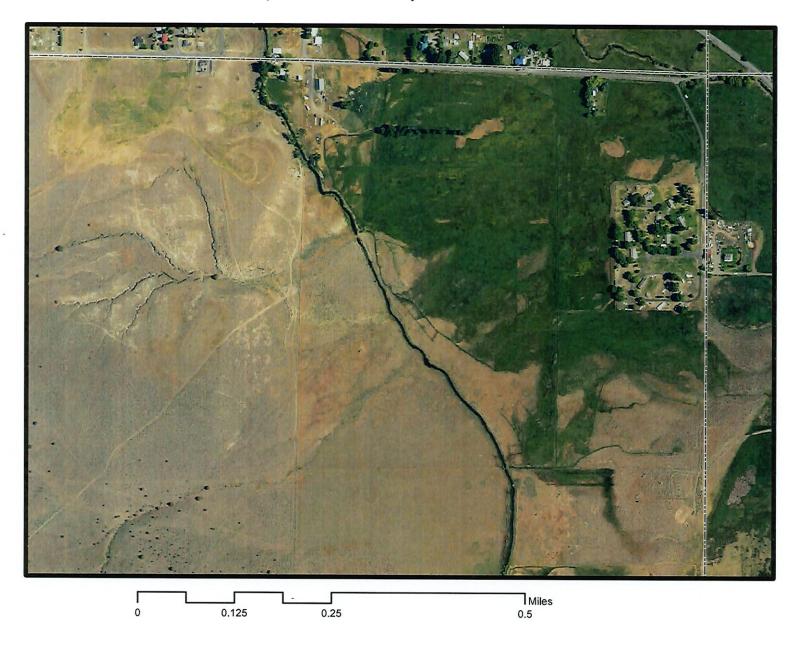


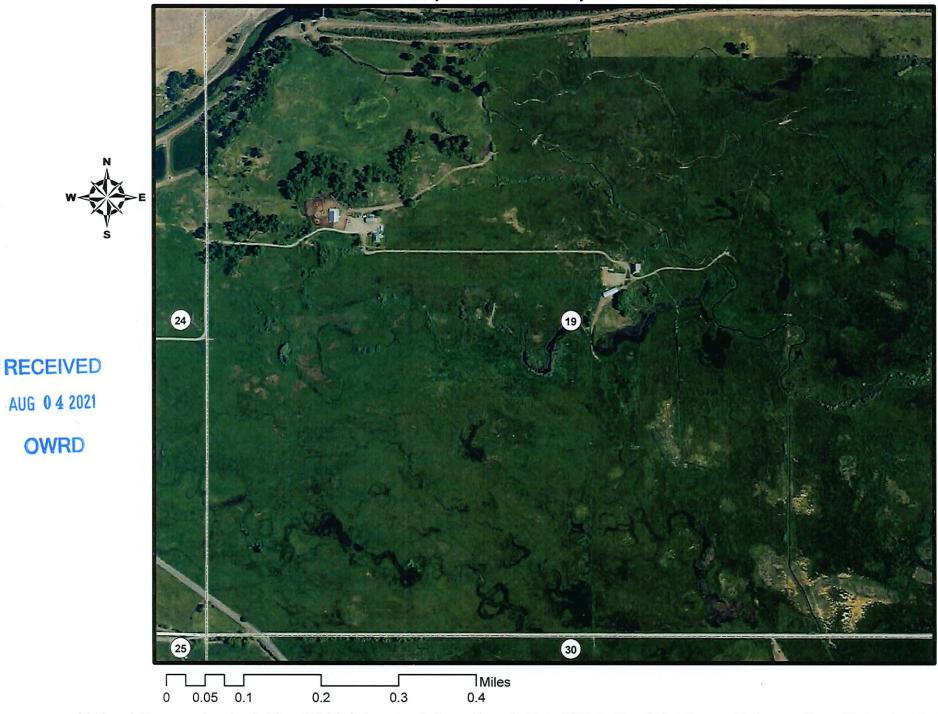


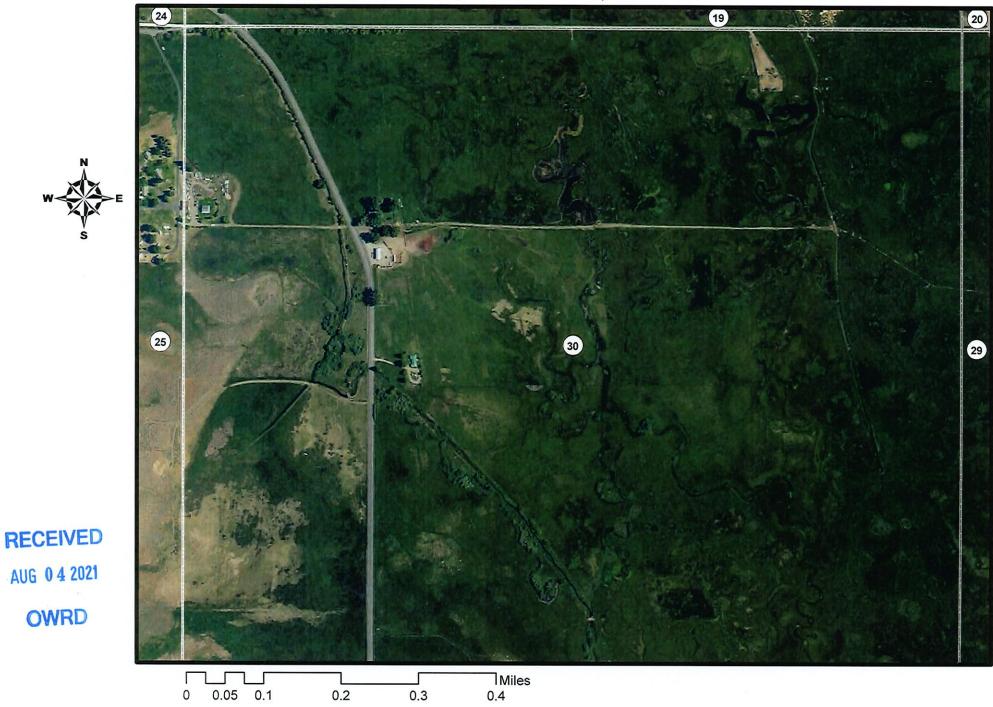
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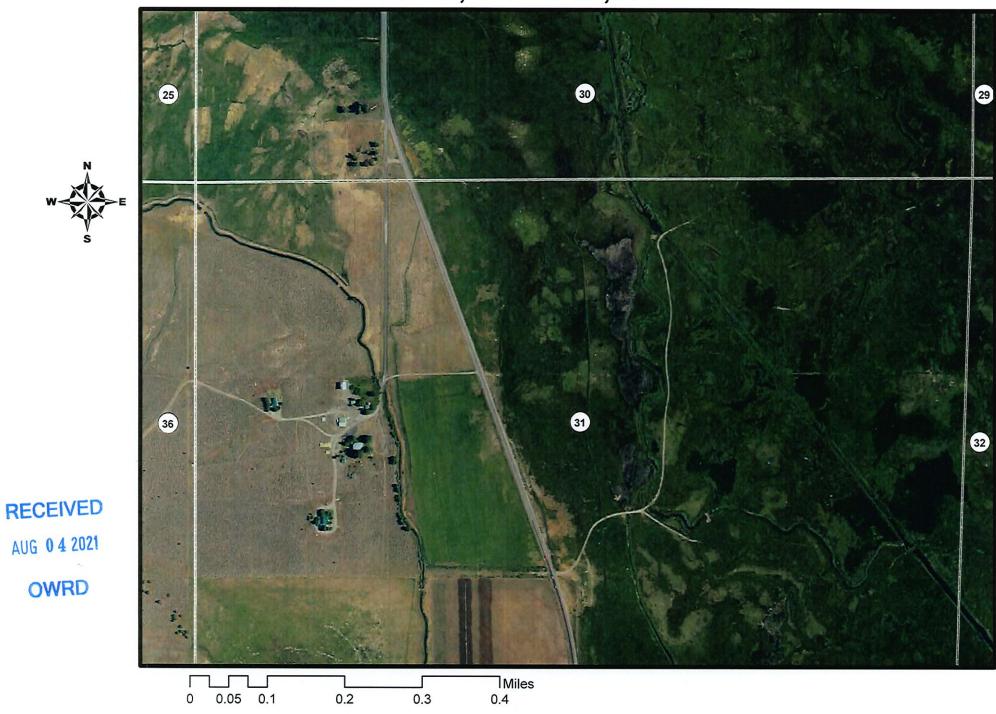
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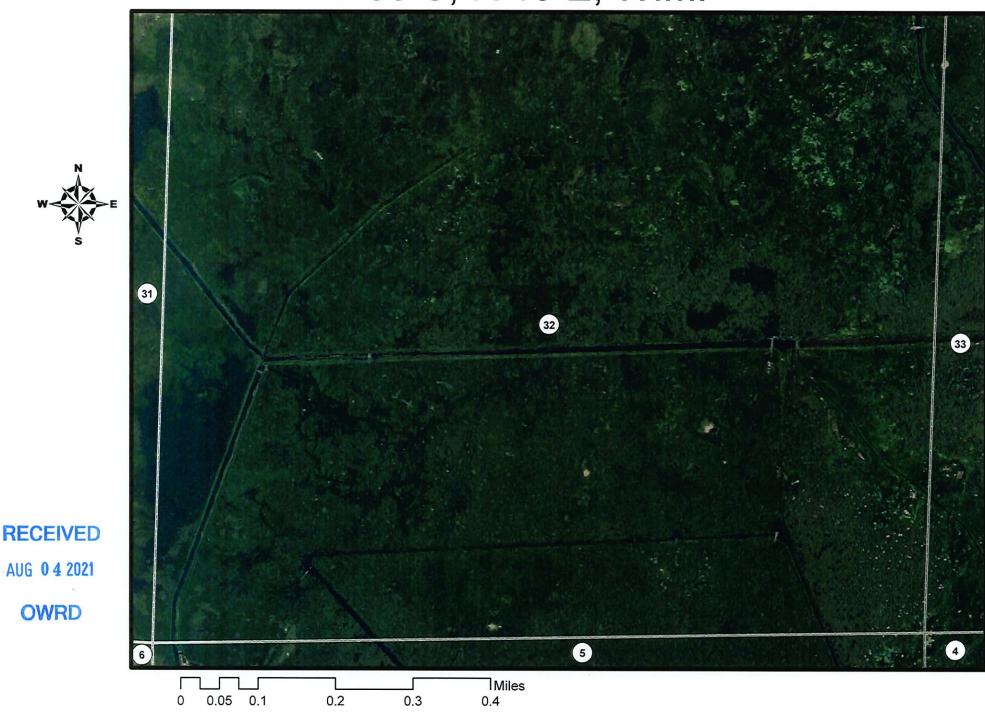




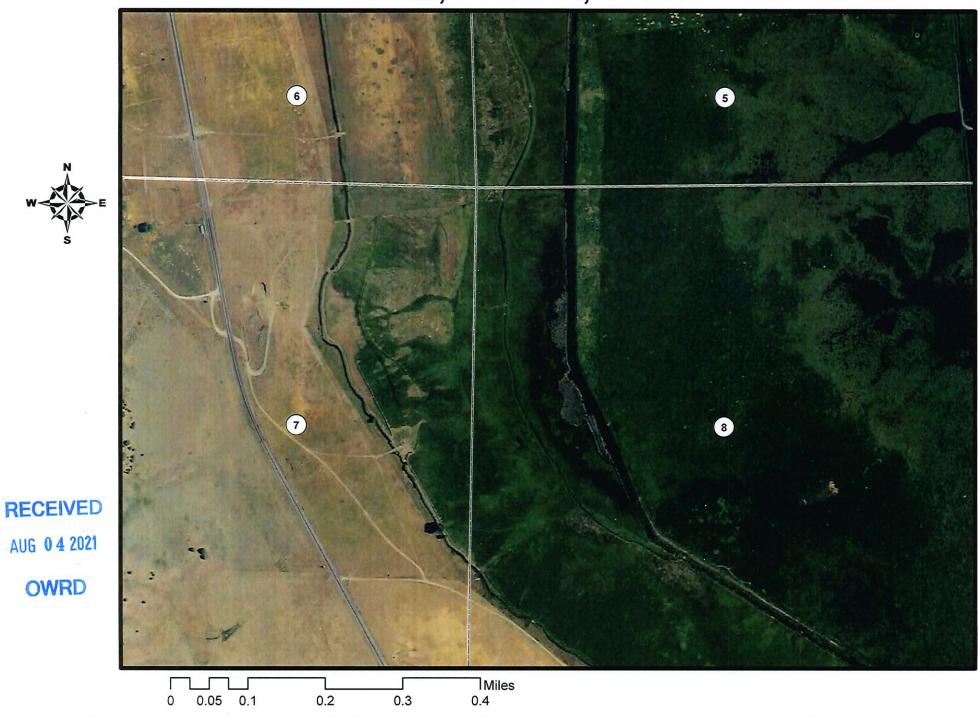
T 33 S, R 19 E, W.M.



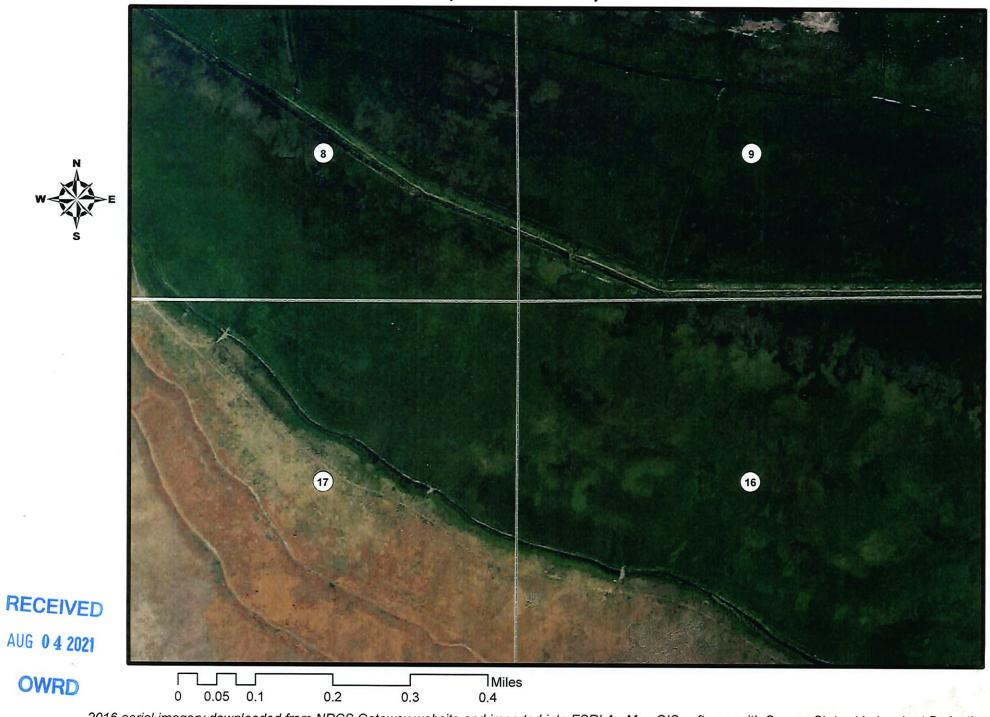
T 33 S, R 19 E, W.M.



T 34 S, R 19 E, W.M.



T 34 S, R 19 E, W.M.



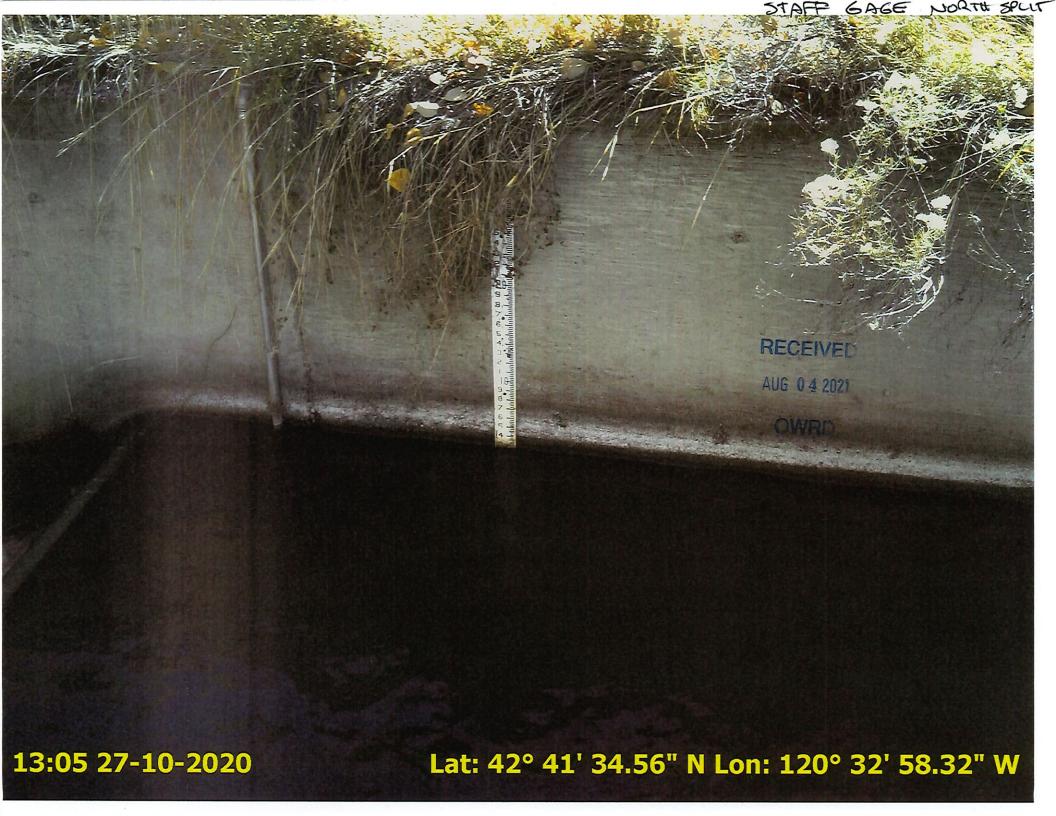
OWRD Miles 0.045 0.09 0.18

42°41′35.12″N 120°32′59.16″W

13 1295.3 m

+1-36°

AUG 04 2021



42°41'34.50"N 170°32'58.47"W

1322.1 m

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1/19



42°4134.59"N 120°32′58.49′W

1319.3 m

1/-9.8

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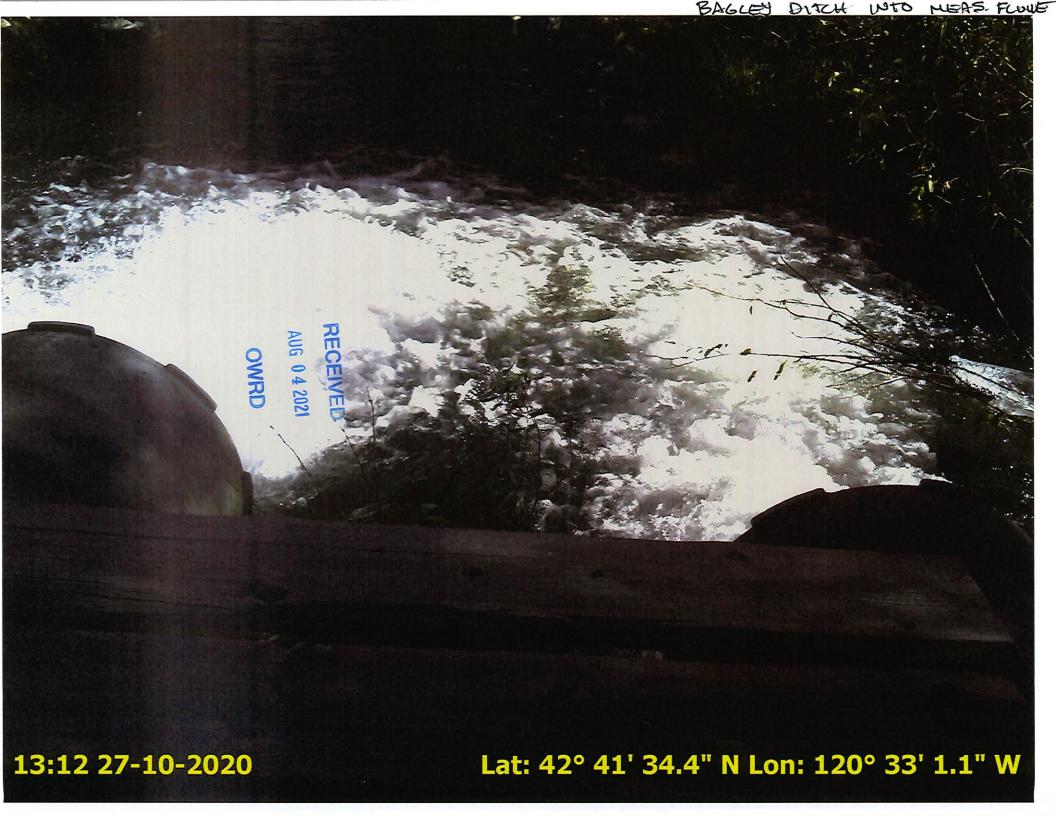
AUG 0 4 2021

42°41'34.00"N 120°33'01.23"W

1321.1 m

RECEIVED AUG 04 2021

+1-9.4



42°41'34.05"N 120° 33'00,98"W 1319.8 m

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AUG 04 2021

+1-8.9 OWRD

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42°41 (34,72"N 170°32'59.55"W 1320.0m

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AUG 0 4 2021

+1-9.7

OWRD

27.5.1. 130



42°41′34.62″N 120°33′00.38″W

+1-14-

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AUG 0 4 2021

**OWRD** 



42°41′34.52″N 170° 33′00.96″W 13324 m

4-13

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AUG 0 4 2021
OWRD



42°41'34,32"N

120° 33'0Z, 25° W

1326.2m +/10.0°

RECEIVED AUG 0 4 2021

OWRD



42°41'36.32"N 120°33'03.28"W

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CIND

1320.1 m +69.2

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OWRD



42°41′36.28″N 120°33′02.03″W

1321.8 m

+1-8.2

CAT GULLING

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42°41'36.40"N 120°33'01.54"W 1322.6 m +(-8.5"

> AUG 04 2021 OWRD

42°41'36.47"N 120°33'00.27"W 13216m

+1-8.1

RECEIVED
AUG 0 4 2021
OWRD