

**CLAIM OF
BENEFICIAL USE
for Reservoir Permits by
CWRE's (not self-certified)**



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

**A fee of \$230 must accompany this form for permits
with priority dates of July 9, 1987, or later.**

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

A separate form shall be completed for each permit.

In cases where a permit has been amended through the permit amendment process, a separate claim for the permit amendment is not required. Incorporate the permit amendment into the claim for the permit.

This form is subject to revision. **Begin each new claim** by checking for a new version of this form at:

<https://www.oregon.gov/OWRD/Forms/Pages/default.aspx>

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.

If you have questions regarding the completion of this form, please call 503-979-9103.

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:

<https://www.oregon.gov/OWRD/programs/WaterRights/RA/Pages/default.aspx>

SECTION 1

GENERAL INFORMATION

1. File Information

APPLICATION # R- 63272	PERMIT # (IF APPLICABLE) R- 11387	PERMIT AMENDMENT # (IF APPLICABLE) N/A
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2. Property Owner (current owner information)

APPLICANT/BUSINESS NAME City of St. Helens		PHONE NO. 503-366-8243	ADDITIONAL CONTACT NO.
ADDRESS 265 Strand Street			
CITY St. Helens	STATE OR	ZIP 97051	E-MAIL sdarroux@sthelensoregon.gov

If the current property owner is not the permit holder of record, it is recommended that an assignment be filed with the Department. ***Each*** permit holder of record must sign this form.

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

PERMIT HOLDER OF RECORD City of St. Helens		
ADDRESS 265 Strand Street		
CITY St. Helens	STATE OR	ZIP 97051

ADDITIONAL PERMIT HOLDER OF RECORD N/A		
ADDRESS N/A		
CITY N/A	STATE N/A	ZIP N/A

4. Date of Site Inspection:

02/28/2023

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

NAME	DATE	ASSOCIATION WITH THE PROJECT
Sharon Darroux, PMP	02/28/2023	Engineering Manager

6. County

Columbia County

7. If any property described in the place of use of the permit final order is excluded from this report, identify the owner of record for that property (ORS 537.230(5)):

OWNER OF RECORD N/A			RECEIVED AUG 30 2023 OWRD
ADDRESS N/A			
CITY N/A	STATE N/A	ZIP N/A	

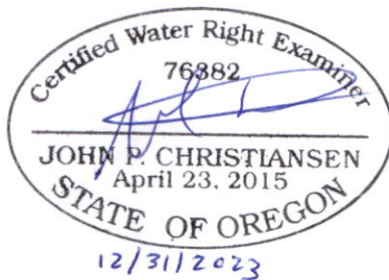
Add additional tables for owners of record as needed

SECTION 2 SIGNATURES

CWRE Statement, Seal and Signature

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

Seal and Signature



CWRE NAME John P. Christiansen, PE, CWRE		PHONE No. 503-563-6151	ADDITIONAL CONTACT No.
ADDRESS 12965 SW Herman Road, Suite 100			
CITY Tualatin	STATE OR	ZIP 97062	E-MAIL JohnC@aks-eng.com

Permit Holder's of Record Signature or Acknowledgement

Each permit or 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
 Digitally signed by Sharon Darroux Date: 2023.08.22 15:51:59 -07'00'	Sharon Darroux	Engineering Manager	8/22/2023

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SECTION 3

CLAIM DESCRIPTION

1. Reservoir source and, if from surface water, the tributary:

RESERVOIR NAME OR NUMBER	SOURCE	TRIBUTARY
Salmonberry Reservoir	Salmonberry Creek	Milton Creek

2. Developed use(s), period of use, and acre foot (af) for each use:

RESERVOIR NAME OR NUMBER	USES	SEASON OR MONTHS WHEN WATER WAS APPROPRIATED FOR STORAGE	VOLUME STORED (AF)
Salmonberry Reservoir	Recreation	Nov. 1 - Apr. 30	59.7
Total Quantity of Water Stored			59.7

3. Provide a general narrative description of the distribution works. This description must trace the water system from each point of diversion to the reservoir:

Located in Columbia County, Oregon, Salmonberry Reservoir was constructed circa 1960 and consists a $\pm 35'$ tall earthen dam along Salmonberry Creek. Salmonberry Creek is a tributary to Milton Creek. The reservoir stores 59.7 acre-feet for recreational use. Excess water is diverted through a 72"x42" arched cmp culvert.

Reminder: The map associated with this claim must identify the location of the point(s) of diversion, Donation Land Claims (DLC), Government Lots (GLot), and Quarter-Quarters (QQ).

4. Variations:

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

YES **NO**

(e.g. "The permit allowed the development of three reservoirs. The permit holder only developed one of the reservoirs." or "The permit allowed for the storage of 9 acre feet of water. The reservoir was developed to hold 5.2 acre feet.")

The permit allowed for 46.2 acre feet of water storage. A survey of the reservoir indicates that it stores ± 59.7 acre feet of water. We attribute this discrepancy to more advanced survey results than was possible when the reservoir was constructed circa 1960 (National Inventory of Dams).

5. Claim Summary:

RESERVOIR NAME OR #	MAXIMUM STORAGE AUTHORIZED BY PERMIT (AF)	MAXIMUM STORAGE DEVELOPED (AF)
Salmonberry Reservoir	46.2	59.7

SECTION 4

SYSTEM DESCRIPTION

Are there multiple reservoirs?

YES **NO**

If "YES" you will need to copy and complete Sections A through E for each reservoir.

Reservoir Name or Number this section describes (only needed if there is more than one):

N/A

A. Reservoir Location

1. Is the reservoir on-channel?

YES NO

2. Provide dam outlet location and/or point of diversion(s).

TWP	RNG	MER	SEC	QQ	GLOT	DLC	MEASURED DISTANCES
5N	2W	W.M.	28	NW SE	N/A	N/A	1,950 ft North, 1640 ft West

Reminder: The map associated with this claim must identify Donation Land Claims (DLC), Government Lots (GLOT), and Quarter-Quarters (QQ).

B. Diversion and Delivery System Information

Provide the following information concerning the diversion and delivery system. Information provided must describe the equipment used to transport the water from the point(s) of diversion to the reservoir.

1. Is a pump used?

YES **NO**

If "NO" items 2 through item 5 may be deleted.

2. Pump Information

MANUFACTURER	MODEL	SERIAL NUMBER	TYPE (CENTRIFUGAL, TURBINE OR SUBMERSIBLE)
N/A	N/A	N/A	N/A

3. Theoretical Pump Capacity

HORSEPOWER	OPERATING PSI	LIFT FROM SOURCE TO PUMP *If a WELL, THE WATER LEVEL DURING PUMPING	LIFT FROM PUMP TO PLACE OF USE	TOTAL PUMP OUTPUT (IN CFS)
N/A	N/A	N/A	N/A	N/A

4. Provide pump calculations:

N/A

5. Measured Pump Capacity (using meter if meter was present and system was operating)

INITIAL METER READING	ENDING METER READING	DURATION OF TIME OBSERVED	TOTAL PUMP OUTPUT (IN CFS)
N/A	N/A	N/A	N/A

Reminder: For pump calculations use the reference information at the end of this document.

6. Additional notes or comments related to the system:

N/A

C. Gravity Flow Pipe

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

1. Does the system involve a gravity flow pipe?

YES NO

If "NO", items 2 through 4 relating to this section may be deleted.

2. Complete the table:

PIPE SIZE	PIPE TYPE	"C" FACTOR	AMOUNT OF FALL	LENGTH OF PIPE	SLOPE	COMPUTED RATE OF WATER FLOW (IN CFS)
72"x42" arch	CMP	N/A	1.75 FT	51 FT	0.0318	90.0

3. Provide calculations:

Manning's Equation: $Q = (1.486/n)(A)(R^{.67})(S^{.5})$
 $n = 0.020$, $S = 0.0138$ ft/ft, $A = 18.1$ ft², $R = 1.153$ ft
 $Q = (1.486/0.020)(18.1)(1.153^{.67})(.0138^{.5}) = 173.8$ CFS

Culvert is inlet controlled to 90.0 CFS. See attached HEADWATER DEPTH FOR CORRUGATED STEEL PIPE-ARCH CULVERTS WITH INLET CONTROL.

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

DATE OF MEASUREMENT	WHO MADE THE MEASUREMENT	MEASUREMENT METHOD	MEASURED QUANTITY OF WATER (IN CFS)
N/A	N/A	N/A	N/A

Attach measurement notes.

D. Gravity Flow Canal or Ditch

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

1. Is a gravity flow canal or ditch used to convey the water as part of the distribution system?

YES NO

If "NO", items 2 through 4 relating to this section may be deleted.

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2. Complete the table:

CANAL OR DITCH TYPE (MATERIAL)	TOP WIDTH OF CANAL OR DITCH	BOTTOM WIDTH OF CANAL OR DITCH	DEPTH	"N" FACTOR	AMOUNT OF FALL	LENGTH OF CANAL / DITCH	SLOPE	COMPUTED RATE (IN CFS)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3. Provide calculations:

N/A

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

DATE OF MEASUREMENT	WHO MADE THE MEASUREMENT	MEASUREMENT METHOD	MEASURED QUANTITY OF WATER (IN CFS)
N/A	N/A	N/A	N/A

Attach measurement notes.

E. Reservoir**1. Does the reservoir require the submittal of as-built plans and specifications?**YES **NO***If "YES", answer item 2; items 3 through 8 relating to this section may be deleted.**If "NO", skip items 2; answer items 3 through 8.***2. Complete the table:**

HAVE THE DOCUMENTS BEEN SUBMITTED? YES OR NO	WHEN WERE THE DOCUMENTS SUBMITTED?	HAVE THEY BEEN APPROVED BY THE DEPARTMENT?	NUMBER OF ACRE FEET STORED
N/A	N/A	N/A	N/A

3. If the reservoir stores less than 9.2 acre-feet of water or if the dam is less than 10 feet in height, and as-built plans and specifications are not required, complete the table and items 4 through 8.

MAXIMUM DEPTH	AVERAGE DEPTH	SURFACE AREA (IN ACRES)	VOLUME (IN ACRE FEET)
N/A	N/A	N/A	N/A

4. Provide reservoir volume calculations:

N/A

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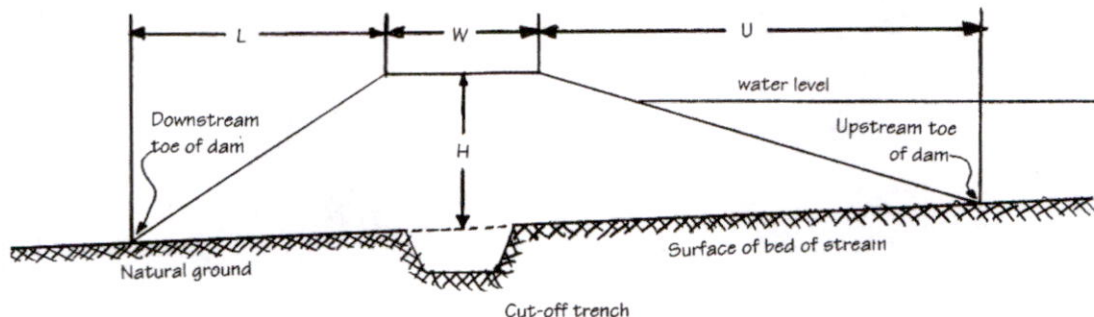
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5. Provide the following information concerning the physical characteristics of the dam:

CREST WIDTH (W)	DAM HEIGHT AT CENTERLINE (H)	DISTANCE FROM DOWNSTREAM TOP OF DAM TO DOWNSTREAM TOE (L)	DISTANCE FROM UPSTREAM TOP OF DAM TO UPSTREAM TOE (U)	WATER LEVEL AT INSPECTION	DOWN-STREAM SLOPE	UP-STREAM SLOPE
18.5 FT	35.0 FT	100 FT	100 FT	EL: 421.75	0.40	0.35

Example Dam Profile This box may be deleted from the form



6. Provide a drawing showing the cross section of the dam at the maximum section indicating details and dimensions. The drawing should be drawn at a standard even scale.

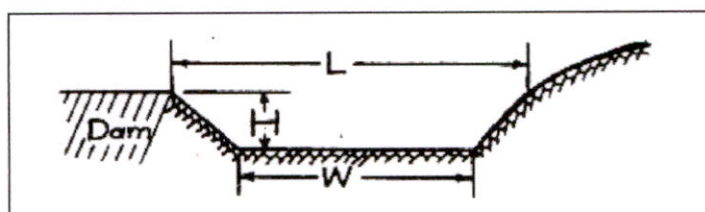
See Exhibit B attached to this application for the Dam Profile and Spillway Cross-Section.

7. Describe the outlet works (size and type of the outlet conduit and location):

Salmonberry Primary Outlet consist of a single 72"x42" corrugated metal pipe located on the NE side of the reservoir. A secondary outlet consists of a concrete valve tower located within the reservoir. This valve tower connects to a 12" cast iron pipe that extends through the dam.

8. Describe the emergency spillway (dimensions and location):

BOTTOM WIDTH (W)	TOP WIDTH (L)	SPILLWAY DEPTH (H)
18.0 FT	50.0 FT	4.0 FT



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SECTION 5 CONDITIONS

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

1. Time Limits:

Permits and any extension final orders contain any or all of the following dates; the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed was to be completed. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or extension final order:

	DATE FROM PERMIT	DATE ACCOMPLISHED*	DESCRIPTION OF ACTIONS TAKEN BY WATER USER TO COMPLY WITH THE TIME LIMITS
ISSUANCE DATE	7/29/1991		
BEGIN CONSTRUCTION (A)	7/29/1992		According to the National Inventory of Dams, the Salmonberry Dam (OR02958) was constructed in the 1960s.
COMPLETE CONSTRUCTION (B)	10/1/1993		
COMPLETE APPLICATION OF WATER (C)	10/1/1994	7/30/1991	Reservoir was operating as intended with an outlet pipe in the event it is necessary to evacuate water when determined necessary to satisfy downstream water rights.

* must be within period between permit or any extension final order issuance and the date to completely apply water

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

YES **NO**

3. Measurement Conditions:

a. Does the permit, permit amendment, or any extension final order require the installation of a meter or approved measuring device?

YES **NO**

If "NO", items b through f relating to this section may be deleted.

Reminder: If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

b. Has a meter been installed?

N/A ~~YES~~ ~~NO~~

c. Meter Information

POD/POA NAME OR #	MANUFACTURER	SERIAL #	CONDITION (WORKING OR NOT)	CURRENT METER READING	DATE INSTALLED
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

If a meter has been installed, items d through f relating to this section may be deleted.

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department?

N/A ~~YES~~ ~~NO~~

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- e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

NAME	TITLE	APPROXIMATE DATE
N/A	N/A	N/A

f. Measurement Device Description

DEVICE DESCRIPTION	CONDITION (WORKING OR NOT)	DATE INSTALLED
N/A	N/A	N/A

4. Recording and reporting conditions

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

YES **NO**

If "NO", item b relating to this section may be deleted.

- b. Have the reports been submitted?

N/A ~~YES~~ **NO**

If the reports have not been submitted, attach a copy of the reports if available.

5. Outlet Pipe

- a. Is the water user required to install a minimum 8" outlet pipe/conduit?

YES NO

If "NO", items b through c relating to this section may be deleted.

- b. Has the outlet pipe been installed?

YES NO

If "YES", items c relating to this section may be deleted.

- c. Does the water user have other means to evacuate the reservoir?

YES NO

DESCRIBE HOW THE WATER USER PLANS TO EVACUATE THE RESERVOIR	HAS THIS PLAN BEEN APPROVED BY THE DEPARTMENT?	BY WHOM?
Emergency Spillway	YES NO	

6. Fish Screening

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

YES **NO**

If "NO", items b through e relating to this section may be deleted.

Reminder: If fish screening devices were required, the COBU map must indicate their location in relation to the point of diversion.

- b. Has the fish screening been installed?

N/A ~~YES~~ **NO**

- c. When was the fish screening installed?

DATE	BY WHOM
N/A	N/A

Reminder: If the permit or transfer final order was issued on or after February 1, 2011, the fish screen is required to be approved by the Oregon Department of Fish and Wildlife regardless of the rate of diversion.

d. If the diversion **involves a pump and the total** diversion rate of all rights at the point of diversion is less than 225 gpm (0.5 cfs):

Has the self-certification form previously been submitted to the Department? **NA** YES NO

- If not, go to <https://www.oregon.gov/OWRD/Forms/Pages/default.aspx> (search for ODFW Small Pump Screen Self Certification), 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).

Reminder: Failure to submit evidence of a timely installed fish screen may result in an unfavorable determination. The ODFW self certification form needs to have been previously submitted or be attached to this form.

e. If the diversion does **not involve a pump 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 <https://www.oregon.gov/OWRD/Forms/Pages/default.aspx>

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.

7. 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 **NO**

If "NO", items b and c relating to this section may be deleted.

Reminder: If by-pass devices were required, the COBU map must indicate their location in relation to the point of diversion.

b. Have by-pass device been installed?

N/A ~~YES~~ ~~NO~~

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, explain whether or not a by-pass device is necessary.)

DESCRIPTION (E.G. "ODFW HAS APPROVED THE BY-PASS DEVICE" OR "NO 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.	IF INSTALLED (DATE)	IF INSTALLED, BY WHOM
N/A	N/A	N/A

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8. Other conditions required by permit, permit amendment final order, or extension final order

- a. Was the water user required to restore the riparian area if it was disturbed? YES ☒ NO
- b. Was a fishway required? YES ☒ NO
- c. Was submittal of a letter from an engineer required prior to storage of water? YES ☒ NO
- d. Was submittal of a water management and conservation plan required? YES ☒ NO
- e. Other conditions? YES ☒ NO

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

N/A

SECTION 6

ATTACHMENTS

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

ATTACHMENT NAME	DESCRIPTION
EXHIBIT A	11"x17" Claim Of Beneficial Use Map with POA
EXHIBIT B	Salmonberry Reservoir Figures

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SECTION 7

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.

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.

COBU Map based off April 2023 AKS Hydrographic and Topographic Surveys.

Map Checklist

Please be sure that the map you submit includes ALL the items listed below.

(Reminder: Incomplete maps and/or claims may be returned.)

- ☒ Map on polyester film.
- ☒ Appropriate scale (1" = 400 feet, 1" = 1320 feet, or the original full-size scale of the county assessor map)
- ☒ Township, Range, Section, Donation Land Claims, and Government Lots
- N/A ☐ If irrigation, number of acres irrigated within each projected Donation Land Claims, Government Lots, Quarter-Quarters
- N/A ☐ Locations of fish screens and/or fish by-pass devices in relationship to point of diversion
- N/A ☐ Locations of meters and/or measuring devices in relationship to point of diversion
- ☒ Conveyance structures illustrated (pumps, reservoirs, pipelines, ditches, etc.)
- ☒ Point(s) of diversion or appropriation (illustrated and coordinates)
- ☒ Tax lot boundaries and numbers
- ☒ Source illustrated if surface water
- ☒ Disclaimer ("This map is not intended to provide legal dimensions or locations of property ownership lines")
- ☒ Application and permit number or transfer number
- ☒ North arrow
- ☒ Legend
- ☒ CWRE stamp and signature

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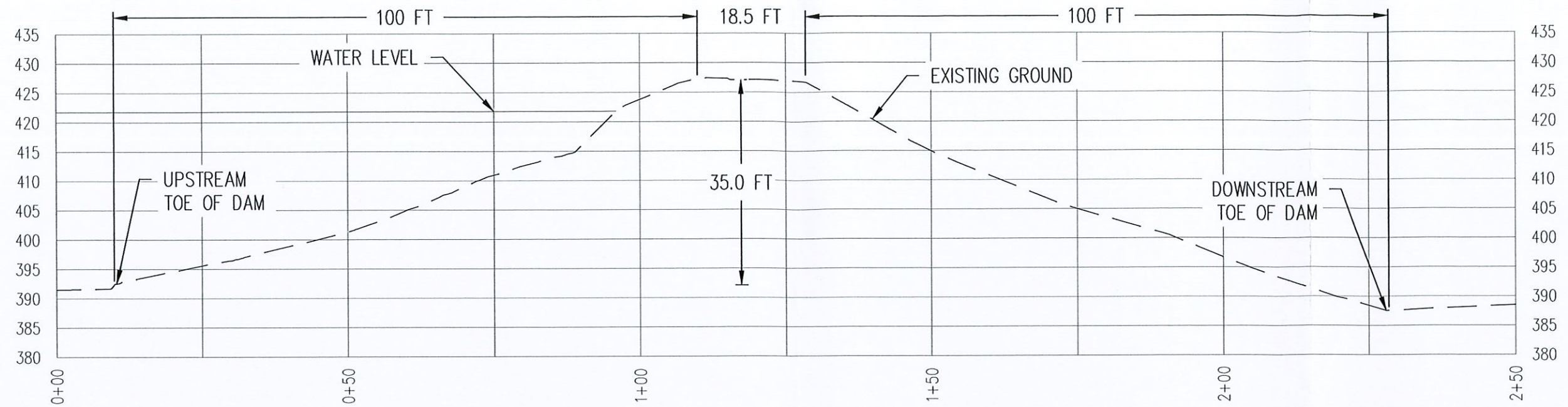


FIGURE 1: SALMONBERRY DAM PROFILE

HORZ. SCALE: 1" = 20'

VERT. SCALE: 1" = 20'

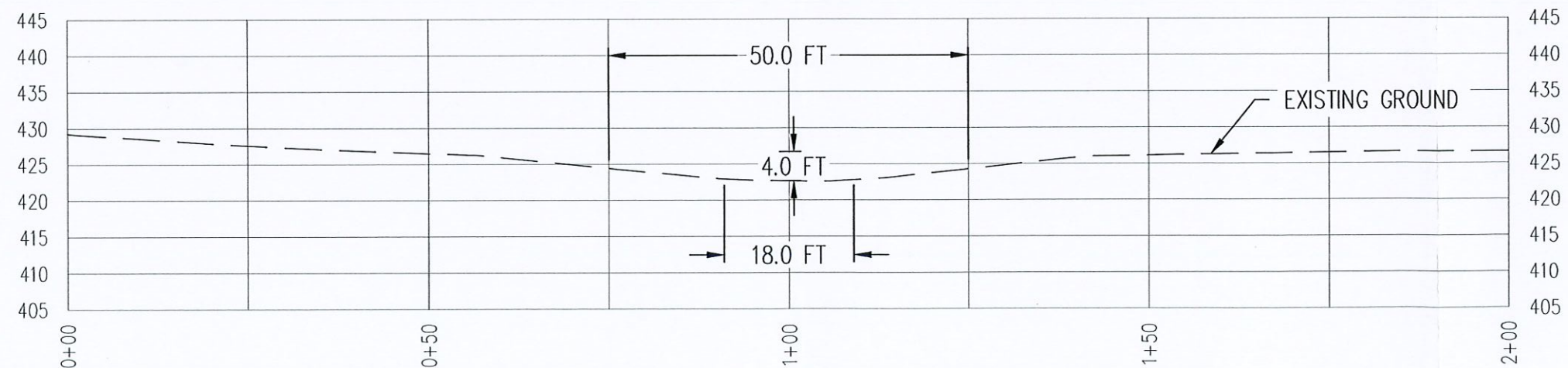


FIGURE 2: SALMONBERRY CROSS-SECTION

HORZ. SCALE: 1" = 20'

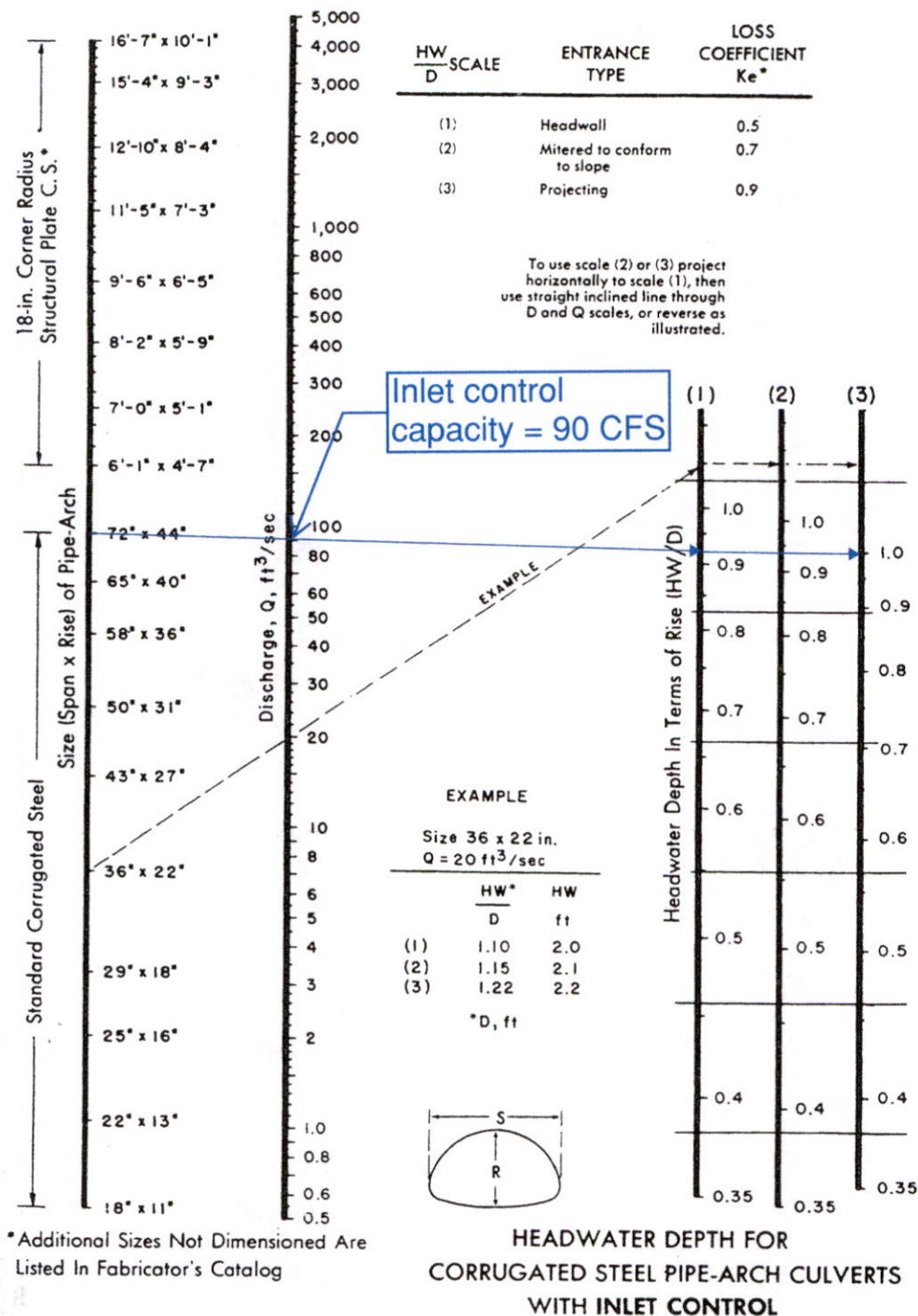
VERT. SCALE: 1" = 20'

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DATE: 07/25/2023

DAM PROFILE AND SPILLWAY CROSS-SECTION		EXHIBIT
SALMONBERRY RESERVOIR WATER RIGHTS		B
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: BGZ CHKD: SRR AKS JOB: 9935





*Additional Sizes Not Dimensioned Are Listed In Fabricator's Catalog

Figure 3.30 Inlet control and headwater depths for corrugated steel pipe-arch culverts.¹³ Headwater depth should be kept low because pipe-arches are generally used where headroom is limited.

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Submittal Transmittal

AKS Engineering & Forestry LLC | 12965 SW Herman Rd. Suite 100 Tualatin, OR 97062

FROM: Steve Russell
AKS Engineering & Forestry LLC
12965 SW Herman Rd.
Suite 100
Tualatin, OR 97062
russells@aks-eng.com
503-563-6151

TO: n/a
Oregon Water Resources Department
725 Summer Street NE Suite A
Salem, OR 97301-1266
503-986-0900

PROJECT: City of St Helens - Salmonberry
Res COBU
9935

DATE SENT: 8/29/2023

SUBJECT: COBU Sub 1

ID: 00004

PURPOSE: For Review and Comment

VIA: Mail

REMARKS:

CONTENTS

QTY:	DATED	DESCRIPTION:	ACTION:
1	8/29/2023	Chk#134188 in amt \$230	

QTY:	DATED	DESCRIPTION:	ACTION:
1	8/29/2023	COBU App Sub 1	

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