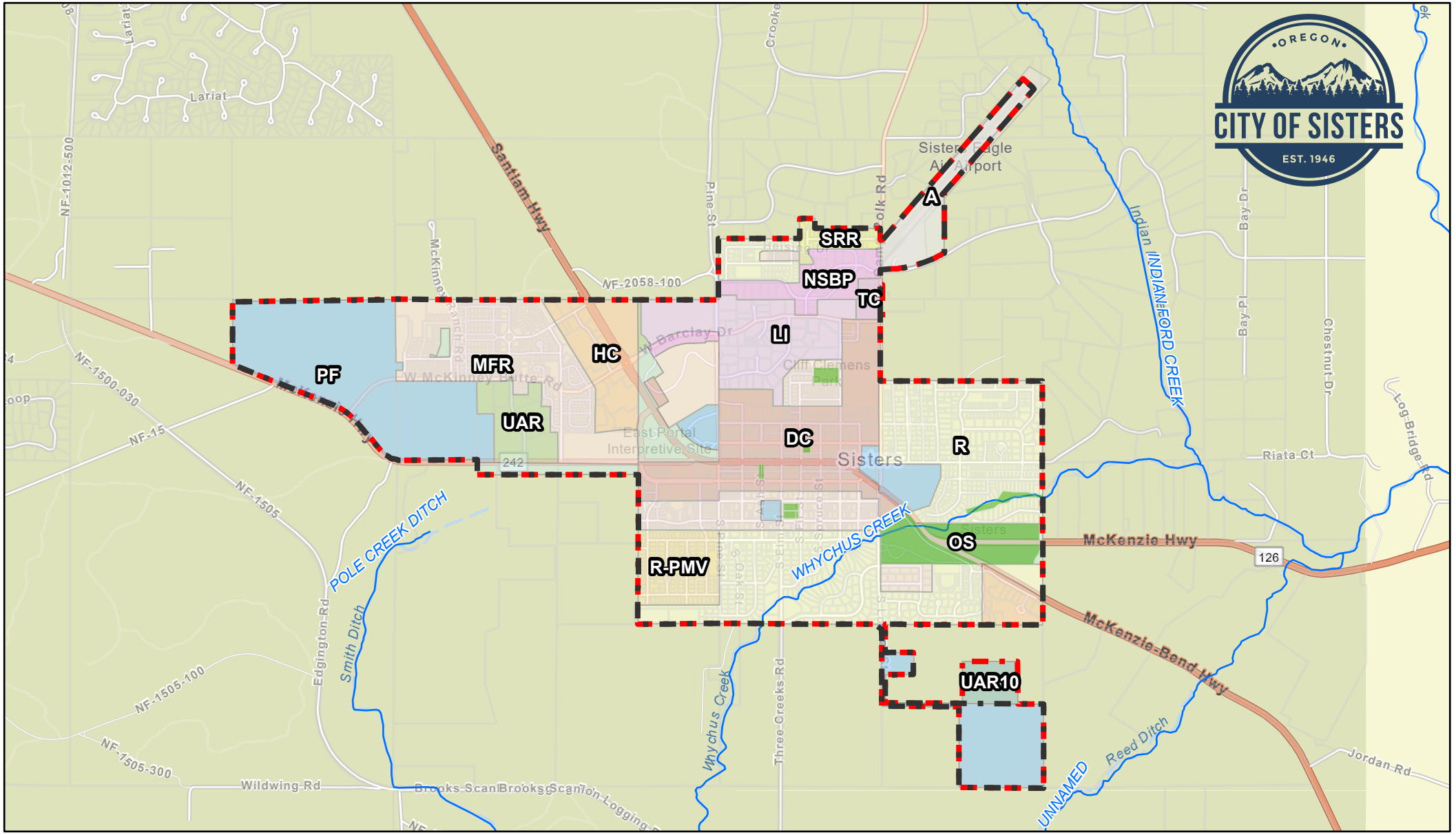
Appendices Table of Contents

APPENDIX A
Planning and Zoning Map

City of Sisters Zoning Map



7/28/2021, 2:52:01 PM

City Limits
UGB
Parks
Streams
Taxlots

Zoning
Airport
Downtown Commercial
Highway Commercial
Tourist Commercial
Open Space
Public Facility
Light Industrial
N. Sisters Bus. Park
Multi-Family Residential
Residential
Sun Ranch Residential
R - Pine Meadow Village
Urban Area Reserve
Urban Area Reserve 10

1:36,112

0 0.2 0.4 0.8 mi

0 0.35 0.7 1.4 km

State of Oregon GEO, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

City of Sisters

APPENDIX B
Oregon Health Authority - Water System Information

OHA Drinking Water Services

OR41 00826 **SISTERS, CITY OF** **Classification**: COMMUNITY

Contact: PAUL BERTAGNA
PO BOX 39
SISTERS, OR 97759

Phone: 541-323-5212
County: DESCHUTES
Activity Status: ACTIVE -- History
Population: 3,235
Number of Connections: 2,028
Operating Period: January 1 to December 31
Regulating Agency: DESCHUTES COUNTY
Certified Operator(s)
Owner Type: LOCAL GOVERNMENT
Required: Y
Licensed By: N/A
Distribution class: 1
Approved Drinking Water Protection Plan: No
Treatment class: None
Source Water Assessment: Yes
Filtration Endorsement Required: No
Last Survey Date: Jul 26, 2022

Sources

Facility ID	Facility Name - Well Logs	Activity Status	Availability	Source Type
EP-B	**EP FOR CITY WELL**	**A**		**GW**
SRC-BA	CITY WELL - DESC3023	A	Permanent	**GW**
EP-C	**EP FOR HIGH SCHOOL WELL**	**A**		**GW**
SRC-CA	HIGH SCHOOL WELL - DESC1034	A	Permanent	**GW**
EP-D	**EP FOR SUN RANCH WELL**	**A**		**GW**
SRC-DA	SUN RANCH WELL - L84019	A	Permanent	**GW**
EP-E	**EP FOR WELL #4**	**A**		**GW**
SRC-EA	WELL #4 - L138648	A	Permanent	**GW**

Show Disconnected and Abandoned Sources

Find Purchasers/Sellers

Treatment

Facility ID	Facility Name	Filter Type	Giardia Removal Credit	Treatment Process	Treatment Objective
WTP-B	TP FOR CITY WELL			RESID. MAINT. GAS CHLORINATION	OTHER
WTP-C	TP FOR HIGH SCHOOL WELL			RESID. MAINT. HYPOCHLORINATION	OTHER
WTP-D	TP FOR SUN RANCH WELL			RESID. MAINT. HYPOCHLORINATION	OTHER
WTP-E	TP FOR WELL #4			RESID. MAINT. HYPOCHLORINATION	OTHER

Consumer Confidence Reports (Last 5 Years)

For Year	Date Received	Date Certified
2021	*Due 7/1/2022*	Jul 26, 2022
2020	Mar 17, 2021	Mar 17, 2021
2019	Apr 23, 2020	Apr 23, 2020
2018	May 09, 2019	May 09, 2019
2017	Feb 15, 2019	Jul 17, 2018

Cross Connection/Backflow Prevention Information (Last 3 Records)

Enabling Authority Received	Annual Summary Report Received	Fee Invoice Paid
Yes (PDF)	2021 (PDF)	2022
	2020 (PDF)	2021
	2019 (PDF)	2020

APPENDIX C
Water System Survey for City of Sisters, PWS #41-00826

DESCHUTES COUNTY

HEALTH SERVICES

1550 Williamson Blvd, Suite 100, Bend, Oregon 97701
Public Health (541) 322-7400, Fax (541) 322-7465

www.deschutes.org

July 27, 2022

Paul Bertagna
Josh Stotts
City of Sisters Water System, PWS #00826
PO Box 39
Sisters, OR, 97759

Re: Water System Survey for City of Sisters, PWS #41-00826

Dear Mr. Bertagna and Mr. Stotts,

Thank you for your time and assistance in conducting a **Water System Survey at City of Sisters on 7/26/2022.** The main purpose of the survey was to evaluate the entire water system in terms of supplying safe drinking water to the public. I have enclosed a copy of the report for your records.

Significant deficiencies and rule violations must be corrected as soon as possible but no later than November 30, 2022. Contact this office within 30 days to confirm receipt or propose an approvable correction schedule. Once the deficiencies and rule violations have been corrected, submit written verification or photographs and date of correction.

If the water system fails to act within the required time frame, you must notify all persons served by the water system. A repeat public notice will be required every three months until all deficiencies are corrected, or you are in compliance with an approved corrective action plan. You must forward a copy of the public notice to Data Management, Compliance, and Enforcement (DMCE) at P.O. Box 14450, Portland, OR 97293-0450. You may also fax the report to 971-673-0694 or email to dwp.dmce@dhsoha.state.or.us.

Significant deficiencies and rule violations noted during the survey:

- **Caulk or otherwise seal the gap between the steel plate and the concrete pedestal at the City Well. The concrete grout has broken loose creating a gap and potential entry point for contaminants.**

Comments and recommendations:

-Take annual raw assessment samples from all 4 wells prior to treatment and label them "assessment".
-Update your protocol for under-certified operators as discussed
-provide AVBs for any hose attached or disconnect after use

Chemical sampling due this year:

20 Lead and Copper samples – (Second of two 6-month rounds being taking now). If results are low, schedule will be reduced to 10 every 3 years

Eastside Well #4
Radionuclides 3rd quarter 2022 (and 1st, 2nd quarter 2023).
Arsenic, VOC, SOC.

Sun Ranch Well #3
IOC (including arsenic), VOC, SOC

High School Well #2
Arsenic, VOC, SOC

City Well #1
Arsenic, VOC, SOC

Nitrate for all 4 wells

Drinking Water Services has established criteria for determining whether a system has demonstrated "outstanding performance." Systems designated Outstanding Performers may have the frequency of their water system surveys reduced from every three years to every five years. Although your water system did not meet the criteria, I encourage you to take steps toward receiving this designation in the future.

A summary of your monitoring requirements appears on pages 13-16. Please cross-check this schedule with your laboratory and maintain a copy for future monitoring.

If you have any questions or would like the survey report in an alternate format, please contact me at 541-388-6563 or jeff.freund@deschutes.org.

Thank you for your assistance and cooperation.

Sincerely,

Jeff Freund, REHS/RS

Enclosure

Cc: ODWP

JEF/jef

Deficiency Summary

Surveyor: Jeff Freund

Date Corrective Action Plan is due: _____ **County:** Deschutes

Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
☒	☐	**Source:**		
		Well construction:		
		City Well - gap between steel well plate and concrete	11/30/2022	
		pedestal where cement grout missing		
		Spring/other source:		
☐	☒	**Treatment:**		
		Surface water treatment:		
		Disinfection:		
		Other treatment:		
☐	☒	**Finished Water Storage:**		
☒	☐	**Distribution:**		
		Annual Summary Report for 2021 not submitted	√ corrected	
		(provided during survey)		
☐	☒	**Monitoring:**		
☐	☒	**Management & Operations:**		
☐	☒	**Operator Certification:**		
☐	☒	**Other Rule Violations:**		

Database Updates: ☐ *None* ☒ *Inventory* ☐ *Treatment* ☐ *Monitoring* ☐ *Page:*

Comments:

☒ **Source Deficiencies:**

Well Construction Deficiencies:

- ☒⊕ Sanitary seal and casing not watertight
- ☐⊕ Does not meet setbacks from hazards
- ☐⊕ Wellhead not protected from flooding
- ☐⊕ No raw water sample tap
- ☐⊕ No treated sample tap (if applicable)
- ☐⊕ No screen on existing well vent

Spring Source Deficiencies:

- ☐⊕ Springbox not impervious durable material
- ☐⊕ No watertight access hatch/entry
- ☐⊕ No screened overflow
- ☐⊕ Does not meet setbacks from hazards
- ☐⊕ No raw water sample tap
- ☐⊕ No treated sample tap (if applicable)

☐ **Treatment Deficiencies/Violations:**

Surface Water Treatment Deficiencies:

- ☐+ Turbidity standards not met - *0030(3)*
- ☐+ Turbidimeters not calibrated per manufacturer or at least quarterly - *0036(5)(b)(A)(ii)*
- ☐⊕ Incorrect location for turbidity monitoring
- ☐⊕ If serving > 3,300 people no alarm or auto plant shut off for low chlorine residual
- ☐+ For conventional or direct filtration: No alarm or plant shut off for high turbidity
- ☐⊕ For conventional filtration: Settled water not measured daily
- ☐⊕ For conventional or direct filtration: Turbidity profile not conducted on individual filters at least quarterly
- ☐⊕ For cartridge filtration: Filters not changed according to mfg. rec. pressure differential
- ☐⊕ For cartridge filtration: No pressure gauges before and after cartridge filter
- ☐+ For membrane filtration: Direct integrity testing does not meet requirements under -0036(5)(d)(B)
- ☐+ For membrane filtration: Indirect integrity testing does not meet requirements under *-0036(5)(d)(C)*
- ☐⊕ For diatomaceous earth filtration: Body feed not added with influent flow.

Disinfection Deficiencies/Violations:

- ☐+ DPD/EPA approved method not used - *0036(9)(e)*
- ☐+ Free chlorine residual not maintained - *0032(3/5)*
- ☐+ Chlorine not measured & recorded - *0036(9)*
- ☐+ Minimum CT required not met all times - *0032(3/5)*
- ☐⊕ No means to adequately determine flow rate on contact chamber effluent line
- ☐+ pH, Temperature, and chlorine residual not measured daily at first user - *0036(5)(a/b)*
- ☐⊕ Failure to calculate CT values correctly
- ☐⊕ No means to adequately determine disinfection contact time under peak flow and minimum storage conditions

UV Disinfection Violations (OAR 333-0050(5)(k)):

- ☐+ Bypass around UV system
- ☐+ Lamp sleeve not cleaned
- ☐+ Lamp not replaced per manufacturer
- ☐+ No intensity sensor with alarm or shut-off

Other Treatment Violations:

- ☐+ Non-NSF approved chemicals - *0087(6)*
- ☐+ Corrosion control parameters not met - *0034*

☐ **Distribution System Violations:**

- ☐+ System pressure < 20 psi - *0025(7)*

Cross Connection (OAR 333-061-0070):

- ☐+ No ordinance or enabling authority (CWS)
- ☒+ Annual Summary Report not issued (CWS)
- ☐+ Testing records not current (CWS, NTNC, TNC)
- ☐+ No Cross Connection Control Specialist (CWS ≥ 300 connections)

☐ **Finished Water Storage Deficiencies:**

- ☐⊕ Hatch not locked or adequately secured
- ☐⊕ Roof and access hatch not watertight
- ☐⊕ No flap valve, screen, or equivalent on drain
- ☐⊕ No screened vent

☐ **Monitoring Violations:**

- ☐+ Monitoring not current - *0025(1)*
- ☐+ Unaddressed MCL violations or LCR AL exceedances - *0030*
- ☐+ No Coliform Sampling Plan - *0036(6)(a)(I)*

☐ **Management & Operations Violations:**

- ☐+ No operations and maintenance manual - *0065(4)*
- ☐+ Emergency response plan not completed - *0064(1)*
- ☐+ Major modifications not approved (plan review) - *0050*
- ☐+ Master plan not current (≥ 300 con.) - *0060(5)*
- ☐+ Annual CCR not distributed (CWS) - *0043(1)(a)*
- ☐+ PNC or out of compliance with AO
- ☐+ Public notice not issued as required - *0042*

☐ **Operator Certification Violations:**

- ☐+ No certified operator at required level - *0065(2)*
- ☐+ No protocol for under certified operator - *0225(2)*

☐ **Other Rule Violations:** _____

⊕ Significant deficiency per OAR 333-061-0076
+ Rule violation per OAR 333-061-XXX

Inventory and Narrative

☐ **Outstanding Performer**

Type:	**Status**	**Size**	**Season:** ☒ All year ☐ Seasonal
☒ Community (C) ☐ Non-Transient Non-Community (NTNC) ☐ Transient Non-Community (TNC) ☐ Non-EPA (NP)	Population:	3235	Begins: (mm/dd) /
	Connections:	2028	Ends: (mm/dd) /

License:	☒ Not Lic. ☐ Health Dept. ☐ Ag	**Service Area Characteristics:**	SU
Responsible Agency:	☐ State ☒ County ☐ Ag	**Owner Type:**	2
Minimum WS Certification Requirements:	WD: 1 WT: ☐ FE ☐ Small WS ☐ N/A		

For changes in operations staff contact Operator Certification: dws.opcert@dhsoha.state.or.us

Primary Administrative Contact (mailing address):

Contact Name:	Paul Bertagna	Phone:	(541) 323-5212
Title:	Public Works Director	Cell:	(541) 610-6340
Street Address:	PO Box 39	Emergency #:	( )
City/State/Zip:	Sisters, OR 97759	Email:	pbertagna@ci.sisters.or.us

Center of Service Area (for public maps):

decimal degrees (e.g., 45.894357, -123.960433) or address	

Legal/Owner/Secondary Contact (optional/not entered in SDWIS):

Contact Name:	City of Sisters	Phone:	(541) 383-5212
Title:	Josh Stotts	Cell:	(541) 419-0975
Street Address:	520 East Cascade Ave.	Emergency #:	( )
City/State/Zip:	Sisters, OR 977590	Email:	

System Physical Address (optional/not entered in SDWIS):

Contact Name:	Gus Johnson	Phone:	(541) 536-8670
Title:		Cell:	(541) 588-0919
Street Address:	Sugar Pine and Ponderosa	Emergency #:	( )
City/State/Zip:		Email:	

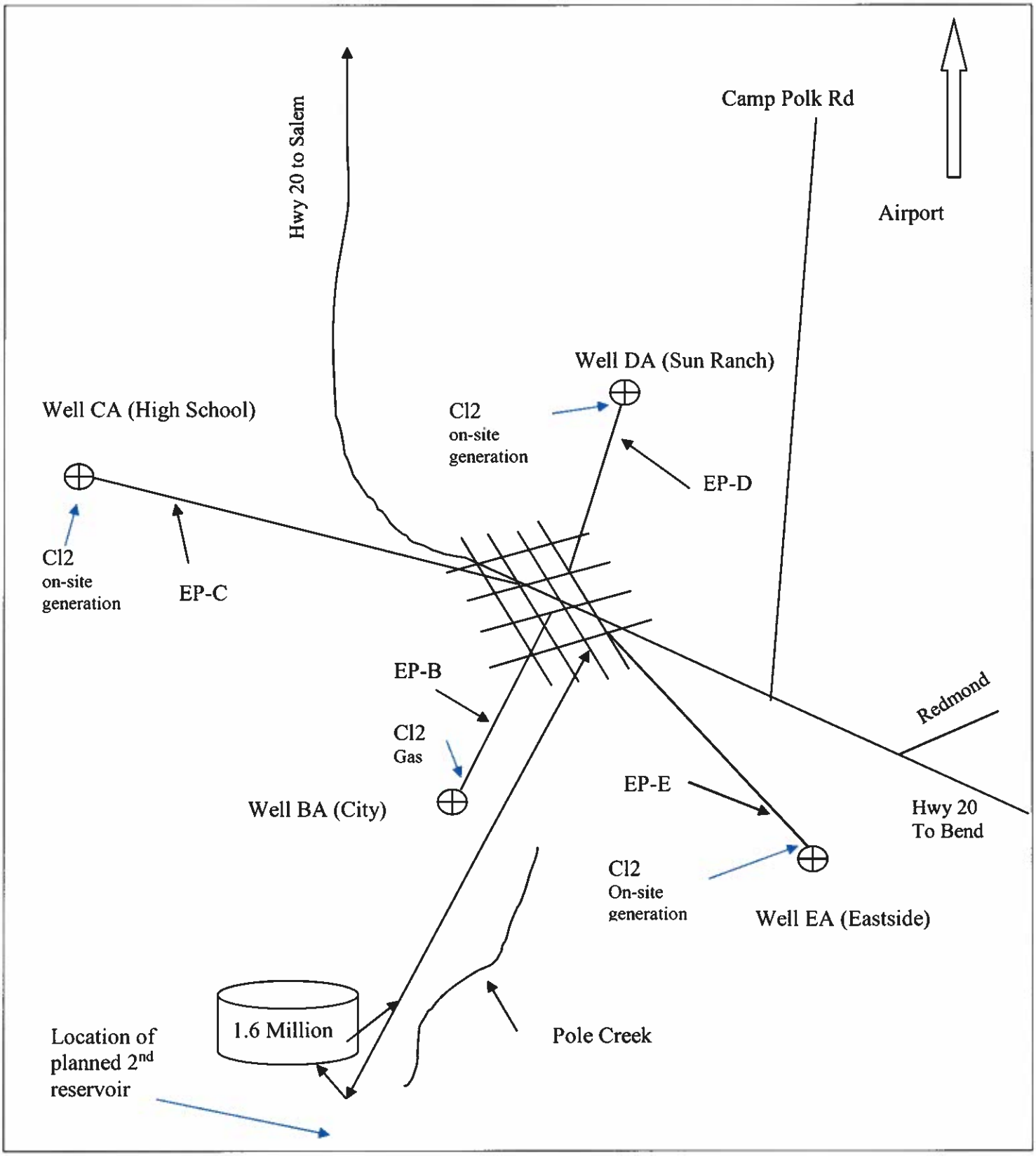
Emergency Systems Available:

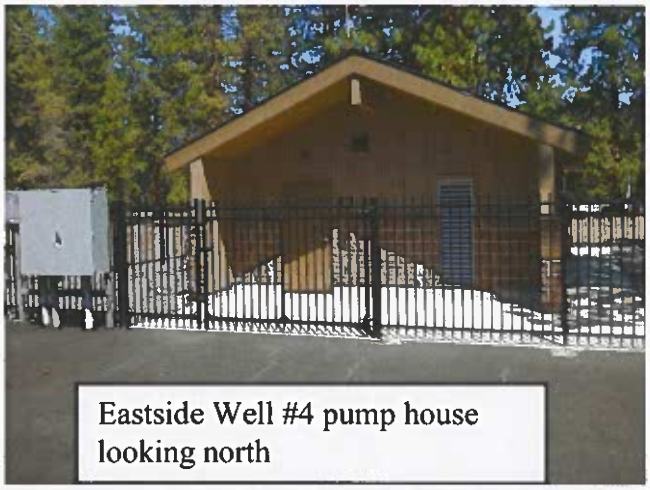
Name:	None	**PWS ID#:**	**41**	

Narrative:

This community system comprises 4 wells, 1 large reservoir and distribution. Chlorine is added for residual maintenance in the form of on-site generated sodium hypochlorite for three wells and chlorine gas at the other. System supplies water to the city of Sisters which includes residential, commercial and industrial facilities. There are approximately 30 licensed food establishments in the city. Chlorine residual is monitored daily in the distribution and averages .20 mg/L.

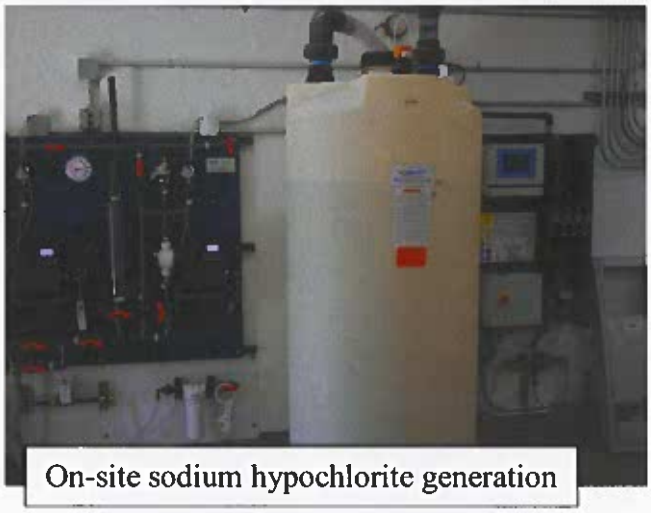
Water System Schematic





Eastside Well #4 pump house looking north

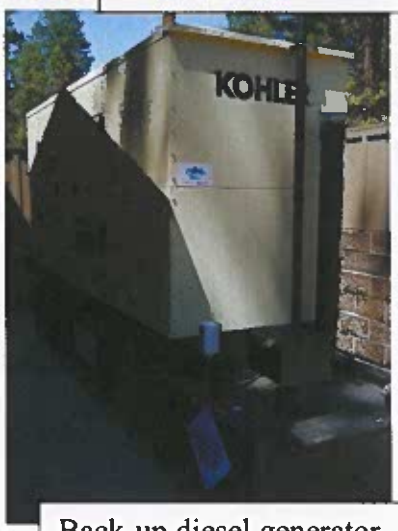
Eastside well #4



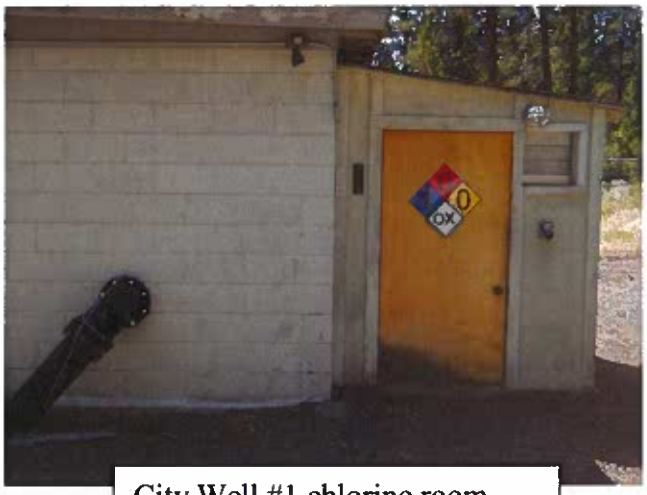
On-site sodium hypochlorite generation

Well #4 control panel

Chlorine generator



Back-up diesel generator for well #4



City Well #1 chlorine room

City well #1 chlorine gas

Dedicated sample station
1 of 3 in distribution

Dedicated sample station

Source Information

ID	Entry Points (Location where water enters distribution and is sampled)	Source Type (Ground, Surface, GWUDI, Purchased ground, Purchased surface)	Availability (Permanent, Seasonal*, Emergency) *If seasonal, indicate begin/end dates	Begin (M/D)		End (M/D)	
B	City Well (#1)	Groundwater	Permanent				
C	High School Well (#2)	Groundwater	Permanent				
D	Sun Ranch Well (#3)	Groundwater	Permanent				
E	Eastside well (#4)	Groundwater	Permanent				

ID	Sources (Contributing to Entry Point)	Land Use*	Capacity (GPM)	Source Type (Ground, Surface, GWUDI, Purchased ground, Purchased surface)	Availability (Permanent, Seasonal, Emergency, Abandoned, Disconnected)
BA	City Well (Desc 3023)	KM		Groundwater	Permanent
CA	High School (Desc1034)	GLI		Groundwater	Permanent
DA	Sun Ranch (L84019)	GLI		Groundwater	Permanent
EA	Eastside Well #4	GLI		Groundwater	Permanent

*Land Use Codes: (A) **Pristine Forest** (B) **Irrigated Crops** (C) **Non-Irrigated Crops** (D) **Pasture** (E) **Light Industry** (F) **Heavy Industry** (G) **Urban-Sewered Area** (H) **Rural On-Site Sewage Disposal** (I) **Urban On-Site Sewage Disposal** (J) **Rangeland** (K) **Managed Forest** (L) **Commercial** (M) **Recreational Use**

Yes **No**

☒ ☐ Has the water system implemented strategies to protect their drinking water sources? (e.g., posting source area signs, notifying residents of hazardous waste collection events, provide residents information about maintaining their septic systems, abandoning unused wells, etc.)

☒ ☐ Is the water system interested in protecting their drinking water sources from contamination? If yes, contact regional geologist at 541-726-2587.

Comments:

Pump house #1 CIty Well planned to be remodelled and gas chlorination replaced with on-site generation

Disinfection

No #	Disinfection Method (Chlorine Gas, Sodium Hypochlorite, On-site Generated Sodium Hypochlorite, Calcium Hypochlorite, Chloramines, Ozone, UV, Mixed Oxidants, Other)	Location	Disinfection Source Water	Residual Maintenance	Other Purpose	Proportional to Flow	Dosage Recorded
1	Chlorine Gas	City well #1	☐	☒		☒	☐
2	Sodium Hypo - on site generated	High school well #2	☐	☒		☒	☐
3	Sodium Hypo- on site generated	Sun ranch well #3	☐	☒		☒	☐
4	Sodium Hypo- on site generated	Eastside well #4	☐	☒		☒	☐

Chlorine residuals ☐ N/A

Yes	No	
☒	☐	• Is a DPD or other EPA approved method used?
☒	☐	• NSF 60/61 certified (or equivalent)?
☐	☐	• Are entry point residuals recorded at least once per day (SWTR, GWR 4-log)? ☒N/A
☐	☐	• Is entry point residual monitoring continuous if population > 3,300 (SWTR, GWR 4-log)? ☒N/A
☒	☐	• Are distribution residuals recorded at least twice weekly?
☐	☐	Are on-line chlorine analyzers verified weekly with DPD type or EPA approved test kit? ☒N/A

Chlorine gas ☐ N/A

Yes	No		Yes	No	
☒	☐	Separate room for gas storage and feeder?	☒	☐	Gas cylinders properly secured?
☒	☐	Fan with on/off switch outside?	☒	☐	Door that opens out?
☒	☐	Vent located next to the floor?	☐	☒	Self-contained breathing apparatus?
☐	☒	Door with a window?	☐	☒	Air scrubber system?

UV ☒ N/A

Yes	No	
☐	☐	• Does all water contact UV (no bypass)?
☐	☐	• Is lamp sleeve cleaned?
☐	☐	• Is lamp replaced per manufacturer?
☐	☐	• Intensity sensor with alarm or shut-off?

CT evaluation for disinfection ☒ N/A

Disinfection Requirement:
☐ (sw) 0.5 log inactivation Giardia ☐ (sw) 1.0 log inactivation Giardia
☐ (gw) 4.0 log inactivation viruses ☐ (sw) log inactivation Crypto: _____
☐ (gw) Minimum chlorine residual: _____ mg/l

Yes	No	
☐	☐	• Does the contact chamber have effluent flow meter or adequate alternative?
		If no, how is peak flow determined for CT calculations? _____
☐	☐	• Has a tracer study been conducted or adequate alternative? Tracer Study Date: _____
		Demand flow (gpm): _____ Baffling factor (%): _____
		Volume used (gal): _____ Results (min): _____
☐	☐	Adequate alternate method for contact time? Describe:

Peak hour demand flow over the past 12 months: gpm = _____

Lowest operating volume over the past 12 months: gallons = _____

Yes	No	
☐	☐	Is tracer study still valid?
☐	☐	• (SW only) Are pH, temp, and chlorine residual measured daily before or at the first user?
☐	☐	• Are CT values being calculated correctly?
☐	☐	• Are CT values met at all times (SWTR, GWR 4-log)?

Comments:

Treatment

Process Used*	Chemical Added**	Purpose	Location in System	Code***
Gas Chlorination	Chlorine Gas	Residual Maintenance	City Well	X401
Hypochlorination	Sodium hypcohlorite	Residual Maintenance	High School Well	X421
Hypochlorination	Sodium hypochlorite	Residual Maintenance	Sun Ranch Well	X421
Hypochlorination	Sodium hypochlorite	Residual Maintenance	New Well #4	X421

*See "Treatment Plant Inspection" page for details on filtration. **See "Disinfection" page for details on disinfection equipment. ***See Treatment Codes on back.

Yes	No	
☒	☐	Is treatment the same as last survey? (if no, explain in comments) _____
☒	☐	Is lab equipment for on-site analysis appropriate? _____
☒	☐	Is equipment maintained properly? _____
☒	☐	Is redundant equipment available? _____
☒	☐	• Are chemicals NSF Standard 60 certified or equivalent? (☐N/A - no chemicals are used)
☐	☐	• If bypass piping is present, is there a physical separation? (SWTR, GWR 4-log, chemical MCL) ☒N/A
☐	☒	Does system practice corrosion control?
☐	☐	• Is corrosion control operated within parameters set by DWS? ☒N/A

Describe method of corrosion control (if applicable)

Using a Hach electric colorimeter

Records Kept:

Yes	No		Yes	No	
☒	☐	Dosages	☒	☐	Flowrate
☒	☐	Raw pH	☐	☒	Treated pH
☒	☐	Raw temperature	☐	☒	Treated temperature
☐	☒	Raw turbidity and/or particle counts	☐	☒	Treated turbidity

Comments:

Well Information

Source ID#: SRC-	BA		CA		DA		EA					
Source Name:	CIty Well		High School		Sun Ranch		New #4					
Well log available?*	☒ Y	☐ N	☒ Y	☐ N	☒ Y	☐ N	☒ Y	☐ N	☐ Y	☐ N	☐ Y	☐ N
Well log ID (e.g., COLU123, L12345)	Desc3023		Desc1034		L84019		L138648					
	Yes	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Well active?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Pitless adaptor?	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐
● Sanitary seal & casing watertight?	☐	☒	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
● Raw water sample tap?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
● Treated water sample tap? ☐N/A	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
● If vented, properly screened?	—	—	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
● Wellhead protected from flooding?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Concrete slab around casing?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Casing height ≥12-in. above slab/grade?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Flowmeter?	☐	☒	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Pressure gauge?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Pump to waste piping?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
● Well meets setbacks from hazards?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
If no, identify list of hazard(s) within the setback and the distance to the hazard HAZARD: DISTANCE (ft.):												
Protective housing?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
If yes, does it have:												
Heat?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Light?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Floor drain?	☒	☐	☐	☒	☒	☐	☒	☐	☐	☐	☐	☐
Well pump removal provision?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐	☐	☐
Pump Type: (vertical turbine, submersible, centrifugal, shallow jet, deep jet)	VT		VT		VT		VT					
Bearing lubrication: (oil, or water)	Oil		Oil		Oil		Oil					
Pumping capacity (gpm)					1507							

*If no well log available, record any known information regarding depth of well, depth of grout seal, year of installation, or casing diameter in the comments section below.

Comments:

Storage and Pressure Tanks

Number	Name	Tank Type (G)round, (E)levated, (P)ressure	Tank Material (Concrete, Steel, Redwood, Plastic, Other)	Year Built	Volume (gal.)
1	Reservoir	Ground	Concrete	1994	1.6M

Total Volume: 1.6M

Reservoir Number:	1									
Reservoir Features	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Fence/gate?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
● Hatch secured (e.g. locked, bolted, etc.)?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
● All tank access points watertight?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
● Screened vent?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Overflow?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
● Overflow protected (screen/flap/valve)?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drain to daylight?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Water level gauge?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bypass piping? (● if used for contact time)	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alarm for high or low levels?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Separate inlet/outlet?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Approved interior coating?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Exterior in good condition?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Annual interior/exterior inspection?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cleaning schedule?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Continuously disinfected? (● post '81 redwood)	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pressure Tanks										
Accessible for maintenance?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bypass piping?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drain?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pressure relief device?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Air bladder/diaphragm?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Valve for adding air?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments

Second reservoir planned upslope of existing

Distribution System Information

Service Area and Facility Map

Yes	No	
☒	☐	Does the system have a service area and facility map (indicate features on map):

- ☒ Water lines (including size and material)
- ☒ Treatment facilities
- ☒ Storage facilities (reservoirs)
- ☒ Sampling points
- ☒ Sources-wells & withdrawal points
- ☐ Pressure zones
- ☐ Pressure regulating valves
- ☐ Booster pumps

Distribution Data

Yes	No		Comments
☒	☐	• System pressure ≥ 20 psi?	60-75 psi
☒	☐	Water system leakage <10%?	
☒	☐	Hydrants or blowoffs on all dead ends? ☐ N/A	
☒	☐	Routine flushing? (How often)	Annually
☒	☐	Adequate valving?	
☒	☐	Routine valve turning? (How often)	
☐	☒	Does the distribution system have asbestos cement (AC) pipe?	
		If yes, *verify asbestos sampling is completed on Water Quality Monitoring Page (CWS, NTNC).*	

Cross Connection Control (CWS, NTNC, and TNC)

Yes	No	N/A		Comments
☒	☐	☐	• Assemblies tested annually? (CWS, NTNC, TNC)	90%
☒	☐	☐	• Ordinance or enabling authority? (CWS)	
☒	☐	☐	• Annual Summary Report submitted? (CWS)	
☒	☐	☐	• Certified Cross Connection Control Specialist? (CWS ≥ 300 connections)	Contract with Olson LLC

Comments:

All high hazard connections, commercial/industrial, fire and underground irrigation have premise isolation, DCVA/RP

Water Quality Monitoring EP-B (City Well)

Contaminant	N/A	Number & Frequency	Next Tests Due
Entry Point Sampling:			
Arsenic	☐	3 yrs	1/1/2020-12/312022
Inorganic Chemicals (Including Nitrite) ..... (sw)	☒		
Inorganic Chemicals (Including Nitrite) ..... (gw)	☐	9 yrs	1/1/2020-12/31/2028
Nitrate	☐	Annually	2022
Radionuclides (Community Water Systems Only):			
Gross Alpha	☐	9 yrs	1/1/2017-12/31/2025
Radium 226/228	☐	9 yrs	1/1/2017-12/31/2025
Uranium	☐	9 yrs	1/1/2020-12/31/2028
SOCs	☐	3 yrs	1/1/2020-12/312022
VOCs (sw)	☒		
VOCs (gw)	☐	3 yrs	1/1/2020-12/312022
Distribution System Sampling:			
Coliform Bacteria	☐	3/month	August 2022
Asbestos (for AC pipe/asbestos geologic areas) ..	☐		
TTHMs and HAA5s	☐	Annually	August 2022
Lead and Copper # sites: 20	☐	2- 6 month rounds	July/August 2022
Other Sampling:			
TOC	☒		
Turbidity	☒		
Source Water Coliform	☐	Annually	2022
Other (specify) ____	☒		

Yes	No	
☒	☐	• Is all required monitoring current?
☒	☐	Are samples collected at the correct locations in the system?

Yes	No	
☐	☐	• Have all MCL violations or LCR AL exceedances been addressed? ☒ N/A
☒	☐	DBP's collected at correct locations? ☐ N/A
☒	☐	• Does the system have a written coliform sampling plan?

Does the plan include:

Yes	No		Yes	No	
☒	☐	Sample collection protocol	☒	☐	Rotation schedule
☒	☐	Distribution map	☒	☐	Repeat locations
☒	☐	Sample site locations	☒	☐	Source locations ☐ N/A

Comments:
Round of 20 L & C taken 1/12/2022. Will need at least one more round of 20 July/August of 2022. If results below DL of .005Pb/.65Cu can go to 10 every 3 yrs.

Water Quality Monitoring EP-C (High School Well)

Contaminant	N/A	Number & Frequency	Next Tests Due
Entry Point Sampling:			
Arsenic	☐	3 yrs	1/1/2020-12/312022
Inorganic Chemicals (Including Nitrite) (sw)	☒		
Inorganic Chemicals (Including Nitrite) (gw)	☐	9 yrs	1/1/2020-12/31/2028
Nitrate	☐	Annually	2022
Radionuclides (Community Water Systems Only):			
Gross Alpha	☐	9 yrs	1/1/2017-12/31/2025
Radium 226/228	☐	9 yrs	1/1/2017-12/31/2025
Uranium	☐	9 yrs	1/1/2020-12/31/2028
SOCs	☐	3 yrs	1/1/2020-12/312022
VOCs (sw)	☒		
VOCs (gw)	☐	3 yrs	1/1/2020-12/312022
Distribution System Sampling:			
Other Sampling:			
TOC	☒		
Turbidity	☒		
Source Water Coliform	☐	Annually	
Other (specify) ____	☒		

Yes	No	
☒	☐	• Is all required monitoring current?
☒	☐	Are samples collected at the correct locations in the system?

Comments:

Water Quality Monitoring EP-D (Sun Ranch Well)

Contaminant	N/A	Number & Frequency	Next Tests Due
Entry Point Sampling:			
Arsenic	☐	3 yrs	1/1/2020-12/312022
Inorganic Chemicals (Including Nitrite) ..... (sw)	☒		
Inorganic Chemicals (Including Nitrite) ..... (gw)	☐	3 yrs	1/1/2020-12/31/2022
Nitrate	☐	Annually	2022
Radionuclides (Community Water Systems Only):			
Gross Alpha	☐	9 yrs	1/1/2020-12/31/2028
Radium 226/228	☐	9 yrs	1/1/2020-12/31/2028
Uranium	☐	9 yrs	1/1/2020-12/31/2028
SOCs	☐	3 yrs	1/1/2020-12/312022
VOCs (sw)	☒		
VOCs (gw)	☐	3 yrs	1/1/2020-12/312022
Distribution System Sampling:			
Other Sampling:			
TOC	☒		
Turbidity	☒		
Source Water Coliform	☐	Annually	
Other (specify) _____	☒		

Yes	No	
☒	☐	• Is all required monitoring current?
☒	☐	Are samples collected at the correct locations in the system?

Comments:

Water Quality Monitoring EP-E (New Well #4)

Contaminant	N/A	Number & Frequency	Next Tests Due
Entry Point Sampling:			
Arsenic	☐	3 yrs	1/1/2020-12/312022
Inorganic Chemicals (Including Nitrite) ..... (sw)	☒		
Inorganic Chemicals (Including Nitrite) ..... (gw)	☐	3 yrs	1/1/2023-12/31/2025
Nitrate	☐	Annual	2022
Radionuclides (Community Water Systems Only):			
Gross Alpha	☐	Quarterly	3rd 2022 & 1st,2nd 2023
Radium 226/228	☐	Quarterly	3rd 2022 & 1st,2nd 2023
Uranium	☐	Quarterly	3rd 2022 & 1st,2nd 2023
SOCs	☐	Annually	2022, 2023
VOCs (sw)	☒		
VOCs (gw)	☐	Annually	2022, 2023
Distribution System Sampling:			
Other Sampling:			
TOC	☒		
Turbidity	☒		
Source Water Coliform	☐	Annually	
Other (specify) _____	☒		

Yes	No	
☒	☐	• Is all required monitoring current?
☒	☐	Are samples collected at the correct locations in the system?

One quarter rads taken 4th qtr 2020. 4 consecutive qtrs. needed. If first two qtrs. ND can go to every 9 yrs

Comments: New Wells

IOC – 3 rounds @ 3 yrs then can go to 9 yrs
VOC/SOC – 3 annual rounds then can go to 3 yrs

Management & Operations

O&M Manual and Emergency Response Plan

Yes	No	
☒	☐	● Does system have an operation and maintenance manual?
☒	☐	● Does system have an emergency response plan?
☒	☐	Do any system components have auxiliary power?
		If yes, describe: Diesel Genrators at High School, Eastside and and City Wells

Operator Certification

Yes	No	N/A	
☒	☐		● Is the DRC identified and certified at the appropriate level?
		☒	If the DRC is a contract operator, how do they work with the system?
☐	☐	☐	● Does system have written protocols for under-certified operators?

Plan Review/Master Plan

Yes	No	N/A	
☒	☐	☐	● Have all major modifications been approved by DWS?
☒	☐	☐	● Does the system have a current (<20 yr. old) master plan? (Not required if < 300 connections)
			What year was the plan completed?

Compliance Status

Yes	No	N/A	
☒	☐		● Is water system in compliance (all orders resolved and not a priority non-complier)?
☐	☐	☒	● Does the system issue public notice as required?
☒	☐	☐	● Are consumer confidence reports sent to users each year?

Comments:

APPENDIX D
Oregon Water Resources Department and City Well Information

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the
STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

DESC 3023

WATER WELL REPORT
STATE OF OREGON
(Please type or print)
(Do not write above this line)

State Well No. 15S/10E-9
State Permit No. G-9979

(1) OWNER:
Name City of Sisters
Address Sisters City Hall
Sisters, Oregon 97759

(2) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐

CASING INSTALLED:
Threaded ☐ Welded ☒
14 " Diam. from +2 ft. to 100 ft. Gage 250
12 " Diam. from 25 ft. to 111 ft. Gage 250
10 " Diam. from 0 ft. to 195.6 ft. Gage 250

PERFORATIONS:
Perforated? ☒ Yes ☐ No.
Type of perforator used ACY. and Machine
Size of perforations 1/4 in. by 6" X and 1/4" by 2"
1200 perforations from 50 ft. to 100 ft.
1560 perforations from 95.6 ft. to 195.6 ft.
perforations from ft. to ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? Davidson Drilling
Yield: 549 gal./min. with 4 ft. drawdown after 1½ hrs.
902 " 7'4" " 4 "
" 1315 " 5'3" " 1 "
PUMP TEST 24 hrs.
~~Bailer test~~ gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water 46 Depth artesian flow encountered ft.

(9) CONSTRUCTION:
Well seal—Material used Cement and Bentonite
Well sealed from land surface to 40 ft.
Diameter of well bore to bottom of seal 18 in.
Diameter of well bore below seal 16 in.
Number of sacks of cement used in well seal 58 sacks
Number of sacks of bentonite used in well seal 150 lbs. sacks
Brand name of bentonite Western
Number of pounds of bentonite per 100 gallons of water 5½ gals. water per 100 lbs. Cement lbs./100 gals.
Was a drive shoe used? ☐ Yes ☒ No Plugs Size: location ft.
Did any strata contain unusable water? ☒ Yes ☐ No
Type of water? Surface depth of strata 3 feet
Method of sealing strata off casing and grout
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.

(10) LOCATION OF WELL:
County Deschutes Driller's well number
NW ¼ SW ¼ Section 9 T. 15 S R. 10 E W.M.
Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.
Depth at which water was first found 105 ft.
Static level 85 ft. below land surface. Date 10/2/75
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 10"
Depth drilled 211 ft. Depth of completed well 211 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. *Report each change in position of Static Water Level and indicate principal water-bearing strata.*

MATERIAL	From	To	SWL
Overburden	0	2	
Cong. Gray	2	21	
Clay and Cong. Brown	21	29	
Lava - Mild	29	111	
Sandstone & Cong. Brown	111	175	
Cong. Gray - Waterbearing	175	195	
Basalt	195	211	

RECEIVED
JAN 05 1976
WATER RESOURCES DEPT.
SALEM, OREGON

Work started 4/3/ 1975 Completed 10/2 1975
Date well drilling machine moved off of well 10/3/ 1975

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] William D. Baker (Drilling Machine Operator) Date 10/15 1975
Drilling Machine Operator's License No. 803

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name DAVIDSON DRILLING INC. (Person, firm or corporation) (Type or print)
Address 626 N.W. Parshall Way Redmond, Ore. 97756
[Signed] G. Gordon Davidson (Water Well Contractor)
Contractor's License No. 548 Date 10/15/ 1975

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Desc 1034

RECEIVED

SEP 16 1991

WATER RESOURCES DEPT
SALEM, OREGON

15S/10E/8S

(START CARD) # 27957

(1) OWNER:

Well Number:

Name Hap Taylor Construction

Address 2641 NE Ravenwood Dr.

City Bend State OR Zip 97701

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 302 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
22"	0	39	Cement	0	39	93 sacks
17"	39	190				
14"	190	244				
13"	244	302				

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	18"	+1	39	.375	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	14"	+1½	244	.250	☒	☐	☒	☐
	10"	238	302	.250	☒	☐	☒	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
242	302	1/8x3	2400	10"		☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
1200	.3ft	220	8 hrs hr.

Temperature of water 51 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Deschutes Latitude Longitude

Township 15 S N or S. Range 10 E E or W. WM.

Section 8 ¼ ¼

Tax Lot Lot Block Subdivision

Street Address of Well (or nearest address) 15200 McKenzie Hwy. Sisters, OR

(10) STATIC WATER LEVEL:

101 ft. below land surface. Date 7/31/91

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 105'

From	To	Estimated Flow Rate	SWL
251	273		101
283	288		101
288	295	1200+	101
295	301		101

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top soil	0	1	
Cobbles with sand & dirt	1	23	
Volcanic gravels —	23	34	
Basalt black porous	34	50	
Basalt grey hard	50	63	
Cinders red	63	75	
Volcanic gravels grey & red	75	98	
Basalt grey medium fractured	98	103	
Pumice white	103	105	
Basalt grey fractured with round gravels	105	145	101
Conglomerate brown	145	155	101
Rock grey hard	155	160	101
Rock soft grey & brown	160	175	101
Gravel broken	175	193	101
Rock broken grey & brown	193	203	101
Conglomerate tight brown	203	235	101
Rock broken with gravel	235	241	101
Basalt grey hard & porous	241	251	101
Basalt brown porous	251	273	
Basalt grey hard	273	283	
Basalt porous grey & lavender	283	288	
Cinders red	288	295	

Date started 7-19-91 Completed 8-12-91

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number 1358

Signed Date 8-21-91

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 723

Signed Date 8-21-91

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

DESC 1034

RECEIVED

SEP 16 1991

WATER RESOURCES DEPT. SALEM, OREGON

(START CARD) # 27957 (cont'd)

(1) OWNER:

Well Number

Name Hap Taylor Construction (cont'd)

Address

City State Zip

(2) TYPE OF WORK:

☐ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☐ Depth of Completed Well ____ ft.

Explosives used Yes ☐ No ☐ Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ____ ft. to ____ ft. Material ____

Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☐ Perforations Method

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Latitude ' " Longitude ' "

Township N or S, Range E or W, WM.

Section ¼ ¼

Tax Lot Lot Block Subdivision

Street Address of Well (or nearest address)

(10) STATIC WATER LEVEL:

ft. below land surface. Date

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Basalt porous brown	295	301	101
Basalt porous brown hard	301	302	

Date started Completed

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number

Signed Date

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 8/88

OESC 1034

RECEIVED
JUN - 9 1992
WATER RESOURCES DEPT
SALEM, OREGON

15S/10E/5

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

(START CARD) # 27957

(1) OWNER:
Well Number:
Name: Hap Taylor Construction
Address: 2641 NE Ravenwood Dr.
City: Bend State: Oregon Zip: 97701

(2) TYPE OF WORK:
☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD
☒ Rotary Air ☐ Rotary Mud ☐ Cable
☐ Other

(4) PROPOSED USE:
☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐ Yes ☒ No Depth of Completed Well 302 ft.
Explosives used ☐ Yes ☒ No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
22"	0	39	Cement	0	39	93
17"	39	190				
14"	190	244				
13"	244	302				

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E
☐ Other
Backfill placed from ft. to ft. Material
Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	18"	+1	39	.375	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	14"	+1½	244	.250	☒	☐	☒	☐
	10"	238	302	.250	☒	☐	☒	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:
☒ Perforations Method Fast
☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
242	302	1/8x3	2400	10"		☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.
1200	.3ft	220	8 hrs

Temperature of water 51 degrees Was Artesian Flow Found
Was a water analysis done? ☐ Yes By whom
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other
Depth of strata:

(9) LOCATION OF WELL by legal description:
County Deschutes Latitude Longitude
Township 15 S N or S. Range 10 E E or W. WM.
Section 5 ¼ ¼
Tax Lot Lot Block Subdivision
Street Address of Well (or nearest address) Sisters School
New construction

(10) STATIC WATER LEVEL:
101 ft. below land surface. Date 7-31
Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:
Depth at which water was first found 105'

From	To	Estimated Flow Rate	SWL
251	273	1200+	101
283	288	1200+	101
288	295	1200+	101
295	301	1200+	101

(12) WELL LOG:
Ground elevation

Material	From	To	SWL
Top soil	0	1	
Cobbles with sand and dirt	1	23	
Volcanic gravels	23	34	
Basalt black pourus	34	50	
Basalt grey hard	50	63	
Cinders Red	63	75	
Volcanic gravels grey & red	75	92	
Basalt grey med fract	98	103	
Pumice white	103	105	
Basalt grey fractured	105		
with round gravels		145	101
Conglomerate brown	145	155	101
Rock grey hard	155	160	101
Rock soft grey & brown	160	175	101
gravel brocken	175	193	101
rock broken grey & brown	193	203	101
conglomerate tight brown	203	235	101
Rock broken with gravel	235	241	101
Basalt grey hard & pouros	241	251	101
Basalt brown pouros	251	273	
Basalt grey hard	273	283	
Basalt pouros grey & lavender	283	288	
Cinders red	288	295	

Date started continued next page ed

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.
WWC Number 1358
Signed Date 8-16-91

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 123
Signed Date 8-16-91

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER

15S/10E/5

Continued Page 2

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

OBSC 1034

JUN - 9 1992

(START CARD) # 27957

(1) OWNER:

Well Number: WATER RESOURCES SALEM, OREGON

Name: Hap Taylor Construction

Address: 2641 NE Ravenwood Dr

City: Bend State: Oregon Zip: 97701

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☐ No Depth of Completed Well ____ ft.

Explosives used ☐ Yes ☐ No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds

How was seal placed. Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ____ ft. to ____ ft. Material ____

Gravel placed from ____ ft. to ____ ft. Size of gravel ____

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☐ Perforations Method

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water ____ Depth Artesian Flow Found ____

Was a water analysis done? ☐ Yes By whom ____

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____

Depth of strata: ____

(9) LOCATION OF WELL by legal description:

County ____ Latitude ____ Longitude ____

Township ____ N or S. Range ____ E or W. WM.

Section ____ ¼ ____ ¼

Tax Lot ____ Lot ____ Block ____ Subdivision ____

Street Address of Well (or nearest address) ____

(10) STATIC WATER LEVEL:

____ ft. below land surface. Date ____

Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:

Depth at which water was first found ____

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:

Ground elevation ____

Material	From	To	SWL
Basalt pouros brown	295	301	101
" " " hard	301	302	

Date started 7-19-91 Completed 8-12-91

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number 1358

Signed [signature] Date 8-16-91

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 723

Signed [signature] Date 8-16-91

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/88

DESC 57902

DESC 57902

03-06-2007

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

WELL LABEL # L 84019

AMENDED 3.6.07 AMENDED 3.20.07 RT CARD # 1000329

(1) LAND OWNER

Owner Well I.D. Sisters Well #3

First Name _____ Last Name _____

Company CITY OF SISTERS

Address 520 EAST CASCADE AVE

City SISTERS State OR Zip 97759

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☐ Domestic ☐ Irrigation ☒ Community ☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering ☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☒ Attach copy

Depth of Completed Well 288.00 ft.

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/ lbs
20	0	193	Cement	0	130	300	S
16	193	293	Bentonite Chips	130	170	48	S
			Cement	170	195	40	S

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☐ Other

Backfill placed from ____ ft. to ____ ft. Material ____

Filter pack from ____ ft. to ____ ft. Material ____ Size ____

Explosives used: ☐ Yes Type ____ Amount ____

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	16	☒	2	195	.375	●	○	☒	☐
○	●	14	☐	268	283	.375	●	○	☒	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) ____

Temp casing ☐ Yes Dia ____ From ____ To ____

(7) PERFORATIONS/SCREENS

Perforations Method ____

Screens Type Cont. Wire Wrap Material 304 SS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen		14	188	268	.25			

(8) WELL TESTS: Minimum testing time is 1 hour

● Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1,500	1.3	175	1.5
2,000	4	175	2
2,500	6	175	2

Temperature 54 °F Lab analysis ☐ Yes By ____

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Effects

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WATER RESOURCES DEPT
SALEM, OREGON

(9) LOCATION OF WELL (legal description)

County Deschutes Twp ~~10.00~~ 15 S N/S Range 10.00 E E/W WM

Sec 4 SE 1/4 of the NW 1/4 Tax Lot 103

Tax Map Number ____ Lot ____

Lat ° 0 ' " or ____ DMS or DD

Long ° 0 ' " or ____ DMS or DD

○ Street address of well ◉ Nearest address

NE LOT ABOUT 350 FT WEST OF CAMP POLK RD AT INTERSECTION WITH BARCLAY

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening				
Completed Well	02-02-2007			73.3

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found ____

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Ground Elevation ____

Material	From	To
Top Soil	0	4
Gravels (some cemented)	4	139
Black Basalt	139	160
Gravels w/ Brown Visicular (wb 500+)	160	170
Gray Basalt	170	196
Broken Brown Basalt Visicular (wb)	196	201
Brown Basalt w/ some Visicular Basalt (wb)	201	210
Brown & Red Visicular Basalt (wb)	210	245
Black Basalt w/ Some Red Clay Stone (wb)	245	250
Brown Basalt w/ Red Clay Stone (wb)	250	258
Soft Brown Visicular Basalt	258	270
Black Basalt	270	293

Date Started 11-27-2006 Completed 02-02-2007

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1702 Date 03-06-2007

Electronically Filed

Signed RUSTY R OTTO (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1523 Date 03-06-2007

Electronically Filed

Signed ROBERT STADELI (E-filed)

Contact Info (optional) ____

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.88

AMENDED 3-20-07 **DESC 57902**

WATER SUPPLY WELL REPORT - continuation page

AMENDED 3-6-07 DESC 57902 03-06-2007

WELL I.D. # L 84019

START CARD # 1000329

(5) BORE HOLE CONSTRUCTION

BORE HOLE

Dia	From	To

SEAL

Material	From	To	Amt	sacks/ lbs

FILTER PACK

From	To	Material	Size

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

(7) PERFORATIONS/SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
3,000	6	175	2

Water Quality Concerns

From	To	Description	Amount	Units

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WATER RESOURCES DEPT
SALEM, OREGON

(10) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Material	From	To

Comments/Remarks

Map of well

Oregon

Theodore R. Kulongoski, Governor

Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1266
503-986-0900
FAX 503-986-0904

January 17, 2007

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JAN 19 2007

GEO TECH EXPLORATIONS
ROBERT STADELI #1523
19700 SW TETON
TUALATIN OR 97062

FINAL ORDER

Dear Robert:

The Special Standard request you submitted for owner: City of Sisters, Start Card number 1000329 is hereby approved for the following: You may use 3/4-inch unhydrated bentonite chips in this well from a depth of 155 ft bgs to 170 ft bgs due to a lost circulation zone. The sealing material from 155 ft bgs to land surface shall be cement grout. The placement of the bentonite shall conform to the Departments rules and the manufacturers specifications and result in a seal that is free of voids or bridges. Care shall be taken to minimize the introduction of bentonite dust (See OAR 690-210-0330). All other standards must be adhered to. Your Special Standard request form is enclosed.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions concerning this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrd.state.or.us.

Sincerely,

Kristopher Byrd
Well Construction Program Coordinator
Enforcement Section

cc: Larry Carey, SC Region Well Inspector
File.

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

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SALEM, OREGON

WATER SUPPLY WELL REPORT - continuation page

AMENDED 3-20-07 DESC 57902

AMENDED 3-6-07 03-06-2007

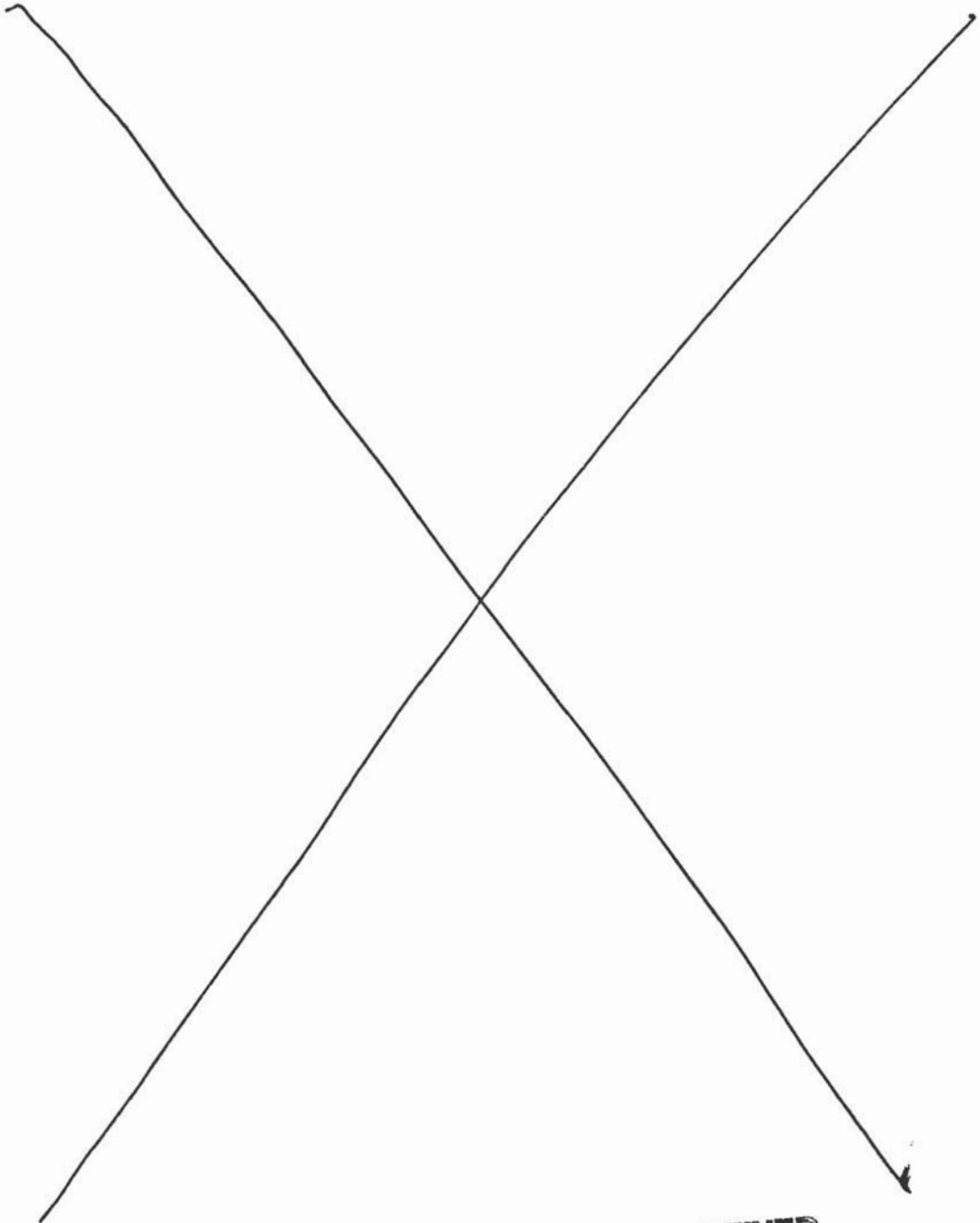
WELL I.D. # L 84019

START CARD # 1000329

~~Page 4 of 4~~

Map of well

only 3 pages



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WATER RESOURCES DEPT
SALEM, OREGON

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

DESC 62447

1/20/2021

WELL I.D. LABEL# L 138648
START CARD # 1049398
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D.
First Name Last Name
Company CITY OF SISTERS
Address PO BOX 39 525 E. CASCADE AVENUE
City SISTERS State OR Zip 97759

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion ☐ Alteration (complete 2a & 10) ☐ Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:						○	○	☐	☐

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Community ☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering ☐ Thermal ☐ Injection ☒ Other MUNICIPAL

(5) BORE HOLE CONSTRUCTION

Special Standard ☒ (Attach copy)
Depth of Completed Well 293.00 ft.

BORE HOLE

Dia	From	To
22	0	200
15	200	293

SEAL

Material	From	To	Amt	sacks/lbs
Bentonite Chips	0	115	381	S
		Calculated	211.65	
Cement with 5% Bentor	115	137	53	S
		Calculated	14.5	

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E
☒ Other POURED DRY
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	16	☒	4	200	.375	●	○	☒	☐
○	●	12	☐	290	293	.375	●	○	☒	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s)
Temp casing ☒ Yes Dia 20 From + ☐ 0 To 200

(7) PERFORATIONS/SCREENS

Perforations Method
Screens Type CONTINUOS WIRE Material 304 SS

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen	Liner	12	190	290	.125			

(8) WELL TESTS: Minimum testing time is 1 hour

◉ Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1970	13	160	24

Temperature 54 °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount 112 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County DESCHUTES Twp 15.00 S N/S Range 10.00 E E/W WM
Sec 9 SW 1/4 of the NE 1/4 Tax Lot 401
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
◉ Street address of well ○ Nearest address
504 S LOCUST ST CREEKSIDE CAMPGROUND WELL#4

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration			☐	
Completed Well	1/19/2021		☐	76.8

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 102.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
10/14/2020	102	165	100		☐	57
10/19/2020	165	177	50		☐	82
1/11/2021	201	280	1970		☐	76.5
					☐	
					☐	

(11) WELL LOG

Ground Elevation

Material	From	To
SANDY PUMICE AND GRAVEL	0	3
GRAY AND BROWN LAVA	3	45
RED CINDERS	45	50
GRAVELS W/BROWN SAND	50	65
SANDSTONE CONGLOMERATE	65	72
GRAY MILD LAVA	72	93
DARK BROWN SANDSTONE	93	102
GRAVELS AND SAND W/BASALT CHIPS	102	127
CEMENTED GRAVELS	127	141
FRACTURED BASALT W/CINDER	141	148
GRAY BASALT	148	165
BROKEN BASALT W/CLAY SEAMS	165	177
HARD GRAY BASALT	177	201
BROWN AND GRAY BROKEN LAVA	201	206
FRACTURED BROWN BASALT	206	233
GRAY WEATHERED BASALT	233	245
BROWN BROKEN BASALT	245	259
GRAY BASALT SOME FRACTURED	259	276
BROKEN BASALT	276	280

Date Started 10/12/2020 Completed 1/19/2021

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1852 Date 1/19/2021

Signed JEB ABBAS (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1720 Date 1/20/2021

Signed JACK ABBAS (E-filed)

Contact Info (optional) JACK ABBAS

WATER SUPPLY WELL REPORT - continuation page

DESC 62447

1/20/2021

WELL I.D. LABEL# L 138648

START CARD # 1049398

ORIGINAL LOG #

(2a) PRE-ALTERATION

Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

Material	From	To	Amt	sacks/lbs

(5) BORE HOLE CONSTRUCTION

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/ lbs
			Bentonite Chips	137	142	9	S
					Calculated	5.8	
			Cement with 5% Bentor	142	159	22	S
					Calculated	14	
			Bentonite Chips	159	169	19	S
					Calculated	18.4	
			Cement with 5% Bentor	169	200	239	S
					Calculated	25	

FILTER PACK

From	To	Material	Size

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

(7) PERFORATIONS/SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(10) STATIC WATER LEVEL

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Material	From	To
HARD GRAY BASALT	280	293

Comments/Remarks

APPENDIX E
Municipal Water Right Permits, Certificates, and Transfers

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
P.O. BOX 39
SISTERS, OREGON 97759

confirms the right to use the waters of A WELL in the DESCHUTES RIVER BASIN for the purpose of MUNICIPAL USE.

The right has been perfected under Permit G-9979. The date of priority is FEBRUARY 24, 1983. The right is limited to not more than 1.78 CUBIC FEET PER SECOND or its equivalent in case of rotation, measured at the well.

The well is located as follows:

NW 1/4 SW 1/4, SECTION 9, T 15 S, R 10 E, W.M.; 481.87 FEET SOUTH AND 706.96 FEET EAST FROM THE W 1/4 CORNER OF SECTION 9.

The right shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right, and to which such right is appurtenant, is as follows:

S 1/2 SE 1/4
SW 1/4
SECTION 4

E 1/2 SW 1/4
SE 1/4
SECTION 5

E 1/2 NE 1/4
NE 1/4 NW 1/4
NW 1/4 NE 1/4
SECTION 8

N 1/2
SECTION 9
TOWNSHIP 15 SOUTH, RANGE 10 EAST, W.M.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described.

WITNESS the signature of the Water Resources Director, affixed JULY 19, 1991.

SUPERSEDED BY
CERT. NO. 88184

/s/ WILLIAM H. YOUNG
William H. Young

Recorded in State Record of Water Right Certificates numbered 66520.

T-11284 Cancelled V87 p. 405

G-10545.DM

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
P.O. BOX 39
SISTERS, OR 97759

confirms the right to use the waters of TWO WELLS, in the DESCHUTES RIVER BASIN for MUNICIPAL USE.

This right was perfected under Permit G-9979. The date of priority is FEBRUARY 24, 1983. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 1.78 CUBIC FEET PER SECOND or its equivalent in case of rotation, measured at the wells.

The well is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	4	SE NW	ADDITIONAL WELL (WELL #3) 1890 FEET SOUTH AND 2325 FEET EAST FROM NW CORNER, SECTION 4
15 S	10 E	WM	9	NW SW	ORIGINAL WELL (WELL #1) 482 FEET SOUTH AND 707 FEET EAST FROM W1/4 CORNER, SECTION 9

The right shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use is as follows:

Twp	Rng	Mer	Sec	Q-Q	GLot
15 S	10 E	WM	4	NE NW	3
15 S	10 E	WM	4	SW NW	
15 S	10 E	WM	4	SE NW	
15 S	10 E	WM	4	SW 1/4	
15 S	10 E	WM	4	SW SE	
15 S	10 E	WM	4	SE SE	
15 S	10 E	WM	5	SW 1/4	
15 S	10 E	WM	5	SE 1/4	
15 S	10 E	WM	6	SE 1/4	
15 S	10 E	WM	8	NE NE	
15 S	10 E	WM	8	NW NE	
15 S	10 E	WM	8	SE NE	
15 S	10 E	WM	8	NE NW	

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482. Pursuant to ORS 183.482, ORS 536.075 and OAR 137-003-0675, you may petition for judicial review and petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Twp	Rng	Mer	Sec	Q-Q	GLot
15 S	10 E	WM	9	NE 1/4	
15 S	10 E	WM	9	NW 1/4	
15 S	10 E	WM	9	SE 1/4	

Water Use Measurement Conditions:

A. The water user shall maintain the meter or other suitable measuring device in good working order.

B. The water user shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The quantity of water diverted at the additional point of appropriation (well), together with the quantity of diverted at the old point of appropriation, shall not exceed the quantity of water available from the original point of appropriation.

Water shall be acquired from the same aquifer (water source) as the original point of appropriation.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described; however, water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510(3).

This certificate is issued to confirm a change in ADDITIONAL POINT OF APPROPRIATION AND PLACE OF USE approved by an order of the Water Resources Director entered APRIL 20, 2012, at Special Order Volume 87, Page 405, approving Transfer Application 11284, and supersedes Certificate 66520, State record of Water Right Certificates.

Issued APR 23 2013.

Dwight W. French
Administrator, Water Right Services, for
Phillip C. Ward, Director

STATE OF OREGON

County of DESCHUTES

PERMIT TO APPROPRIATE THE PUBLIC WATERS

This is to certify that I have examined APPLICATION G-10545 and do hereby grant the same SUBJECT TO EXISTING RIGHTS and the following limitations and conditions:

This permit is issued to **City of Sisters by John A. Rankin, Planning Director/Engineer of PO Box 39, Sisters, Oregon 97759, phone 549-6022, for use of the waters of 1 well.**

for the PURPOSE of **municipal use**

that the PRIORITY OF THE RIGHT dates from **February 24, 1983**

and is limited to the amount of water which can be applied to beneficial use and shall not exceed **2.93 cubic feet per second**

measured at the point of diversion from the **well** , or its equivalent in case of rotation with other water users.

The well is to be LOCATED: **481.87 feet South and 706.96 feet East from the W 1/4 Corner of Section 9, being within the NW 1/4 SW 1/4 of Section 9, Township 15 South, Range 10 East, WM, in the County of Deschutes.**

A description of the PLACE OF USE under the permit, and to which such right is appurtenant, is as follows:

Township 15 South, Range 10 East, WM	Section 4	S 1/2 SW 1/4	SE 1/4
	Section 5	E 1/2 SE 1/4	SW 1/4
	Section 8	E 1/2 NE 1/4 NW 1/4	NE 1/4 NW 1/4 NE 1/4
	Section 9	N 1/2	

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine water level elevation in the well at all times. The permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

Actual construction work shall begin on or before **March 18, 1984** , and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19 **84** .

Complete application of the water to the proposed use shall be made on or before October 1, 19 **85** .

Witness my hand this **18th** day of **March** , 1983 .

/s/ JAMES E. SEXSON

WATER RESOURCES DIRECTOR

This permit is for the beneficial use of water. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan. It is possible that the land use you propose may not be allowed if it is not in keeping with the goals and the acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.

APPLICATION G-10545 "CERTIFICATE NO. 66520" PERMIT **G 9979**

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-11284, Deschutes County	))))	FINAL ORDER APPROVING AN ADDITIONAL POINT OF APPROPRIATION AND CHANGE IN PLACE OF USE

Authority

ORS 537.705 and 540.505 to 540.580 establish the process in which a water right holder may submit a request to transfer the point of appropriation, place of use, or character of use authorized under an existing water right. OAR Chapter 690, Division 380 implements the statutes and provides the Department's procedures and criteria for evaluating transfer applications.

Applicant
CITY OF SISTERS
PO BOX 39
SISTERS, OR 97759

Agent
GSI WATER SOLUTIONS INC.
1600 WESTERN BLVD. SUITE 240
CORVALLIS, OR 97333

Findings of Fact

Background

1. On August 23, 2011, City of Sisters filed an application for an additional point of appropriation and to change the place of use under Certificate 66520. The Department assigned the application number T-11284.

2. The right to be transferred is as follows:

Certificate: 66520 in the name of City of Sisters (perfected under Permit G-9979)
Use: Municipal use
Priority Date: February 24, 1983
Rate: 1.78 cubic feet per second
Source: A well within the Deschutes River Basin

Authorized Point of Appropriation:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	9	NW SW	481.87 FEET SOUTH AND 706.96 FEET EAST FROM THE W1/4 CORNER OF SECTION 9

This final order is subject to judicial review by the Court of Appeals under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482(1). Pursuant to ORS 536.075 and OAR 137-003-0675, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Authorized Place of Use:

MUNICIPAL USE				
Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	SE SW
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	8	NE NE
15 S	10 E	WM	8	NW NE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	9	NE NE
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW

3. Transfer Application T-11284 proposes an additional point of appropriation approximately 1.25 miles from the existing point of appropriation to:

WELL	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
DESC 57902	15 S	10 E	WM	4	SE NW	1890 FEET SOUTH AND 2325 FEET EAST FROM THE NW CORNER OF SECTION 4

4. Transfer Application T-11284 also proposes to change the place of use of the right to:

MUNICIPAL USE					
Twp	Rng	Mer	Sec	Q-Q	GOV LOT
15 S	10 E	WM	4	NE NW	3
15 S	10 E	WM	4	SW NW	
15 S	10 E	WM	4	SE NW	
15 S	10 E	WM	4	NE SW	
15 S	10 E	WM	4	NW SW	
15 S	10 E	WM	4	SW SW	
15 S	10 E	WM	4	SE SW	
15 S	10 E	WM	4	SW SE	
15 S	10 E	WM	4	SE SE	
15 S	10 E	WM	5	NE SW	
15 S	10 E	WM	5	NW SW	
15 S	10 E	WM	5	SW SW	
15 S	10 E	WM	5	SE SW	

MUNICIPAL USE					
Twp	Rng	Mer	Sec	Q-Q	GOV LOT
15 S	10 E	WM	5	NE SE	
15 S	10 E	WM	5	NW SE	
15 S	10 E	WM	5	SW SE	
15 S	10 E	WM	5	SE SE	
15 S	10 E	WM	6	NE SE	
15 S	10 E	WM	6	NW SE	
15 S	10 E	WM	6	SW SE	
15 S	10 E	WM	6	SE SE	
15 S	10 E	WM	8	NE NE	
15 S	10 E	WM	8	NW NE	
15 S	10 E	WM	8	SE NE	
15 S	10 E	WM	8	NE NW	
15 S	10 E	WM	9	NE NE	
15 S	10 E	WM	9	NW NE	
15 S	10 E	WM	9	SW NE	
15 S	10 E	WM	9	SE NE	
15 S	10 E	WM	9	NE NW	
15 S	10 E	WM	9	NW NW	
15 S	10 E	WM	9	SW NW	
15 S	10 E	WM	9	SE NW	
15 S	10 E	WM	9	NE SE	
15 S	10 E	WM	9	NW SE	
15 S	10 E	WM	9	SW SE	
15 S	10 E	WM	9	SE SE	

5. Notice of the application for transfer was published on August 30, 2011, pursuant to OAR 690-380-4000. No comments were filed in response to the notice.

6. On February 15, 2012, the Department sent a copy of the draft Preliminary Determination proposing to approve Transfer Application T-11284 to the applicant. The draft Preliminary Determination cover letter set forth a deadline of March 16, 2012, for the applicant to respond. The applicant requested that the Department proceed with issuance of a Preliminary Determination and provided the necessary information to demonstrate that the applicant is authorized to pursue the transfer.

7. On March 2, 2012, the Department issued a Preliminary Determination proposing to approve Transfer Application T-11284 and sent a copy to the applicant. Additionally, notice of the Preliminary Determination for the transfer application was published on the Department's weekly notice on March 6, 2012, and in the Sisters Nugget newspaper on March 7, 14 and 21, 2012, pursuant to ORS 540.520 and OAR 690-380-4020. No protests were filed in response to the notice.

Transfer Review Criteria (OAR 690-380-4010)

8. Water has been used according to the terms and conditions of the right. The right is not subject to forfeiture under ORS 540.610 because it is a right held by a municipality.

9. A pump, pipelines, and a municipal system sufficient to use the full amount of water allowed under the existing right are present.

10. The proposed change would not result in enlargement of the right.

11. The proposed change would not result in injury to other water rights.

Conclusions of Law

The additional point of appropriation and change in place of use proposed in Transfer Application T-11284 are consistent with the requirements of ORS 537.705 and 540.505 to 540.580 and OAR 690-380-5000.

Now, therefore, it is ORDERED:

1. The additional point of appropriation and change in place of use proposed in application T-11284 are approved.

2. The right to the use of the water is restricted to beneficial use at the place of use described; however, because the right is for municipal use, water may be applied to lands which are not specifically described, provided the holder of the right complies with ORS 540.510(3). The right to the use of water is subject to all other conditions and limitations contained in Certificate 66520 and any related decree.

3. Water right certificate 66520 is cancelled.

4. The quantity of water diverted at the additional point of appropriation, together with that diverted at the original point of appropriation, shall not exceed the quantity of water lawfully available at the original point of appropriation.

5. Water use measurement conditions:

   a. Before water use may begin under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device, at each point of appropriation.

   b. The water user shall maintain the meters or measuring devices in good working order.

   c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

6. Water shall be acquired from the same aquifer (water source) as the original point of appropriation.

7. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before **October 1, 2017**. A Claim of Beneficial Use prepared by a Certified Water Right Examiner shall be submitted by the applicant to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.

8. After satisfactory proof of beneficial use is received, a new certificate confirming the right transferred will be issued

Dated at Salem, Oregon this 20 day of April, 2012.

Dwight French, Water Right Services Administrator, for
PHILLIP C. WARD, DIRECTOR

Mailing Date APR 23 2012

Application for
Permanent Water Right Transfer

Part 1 of 5 – Minimum Requirements Checklist

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

This transfer application will be returned if Parts 1 through 5 and all required attachments are not completed and included.
For questions, please call (503) 986-0900, and ask for Transfer Section.

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Check all items included with this application. (N/A = Not Applicable)

☒ Part 1 – Completed Minimum Requirements Checklist.

☒ Part 2 – Completed Transfer Application Map Checklist.

☒ Part 3 – Application Fee, payable by check to the Oregon Water Resources Department, and completed Fee Worksheet, page 3. Try the new online fee calculator at: http://apps.wrd.state.or.us/apps/misc/wrd_fee_calculator.

☒ Part 4 – Completed Applicant Information and Signature.

☒ Part 5 – Information about Water Rights to be Transferred: **How many water rights are to be transferred? 1 List them here: 93889 (Attachment A)**
Please include a separate Part 5 for each water right. (See instructions on page 6)
NOTE: A separate transfer application is required for each water right unless the criteria in OAR 690-380-3220 are met.

Attachments:

☒ Completed Transfer Application Map. **Attachment B**

☒ Completed Evidence of Use Affidavit and supporting documentation. **Attachment C**

☐ ☒ N/A Affidavit(s) of Consent from Landowner(s) (if the applicant does not own the land the water right is on.)

☐ ☒ N/A Supplemental Form D – For water rights served by or issued in the name of an irrigation district. Complete when the transfer applicant is not the irrigation district.

☒ ☐ N/A Oregon Water Resources Department's Land Use Information Form with approval and signature (or signed land use form receipt stub) from each local land use authority in which water is to be diverted, conveyed, and/or used. Not required if water is to be diverted, conveyed, and/or used only on federal lands or if **all** of the following apply: a) a change in place of use only, b) no structural changes, c) the use of water is for irrigation only, and d) the use is located within an irrigation district or an exclusive farm use zone. **Attachment D**

☒ ☐ N/A Water Well Report/Well Log for changes in point(s) of appropriation (well(s)) or additional point(s) of appropriation. **Attachment E**

☐ ☒ N/A Geologist Report for a change from a surface water point of diversion to a ground water point of appropriation (well), if the proposed well is more than 500' from the surface water source and more than 1000' upstream or downstream from the point of diversion. See OAR 690-380-2130 for requirements and applicability.

(For Staff Use Only)

WE ARE RETURNING YOUR APPLICATION FOR THE FOLLOWING REASON(S):

___ Application fee not enclosed/insufficient
___ Map not included or incomplete
___ Land Use Form not enclosed or incomplete
___ Evidence of Use Form not enclosed or incomplete
___ Additional signature(s) required
___ Part ____ is incomplete
Other/Explanation - 13840
Staff: _____ 503- _____ Date: ____/____/____

Part 2 of 5 – Transfer Application Map

Your transfer application will be returned if any of the map requirements listed below are not met.

Please be sure that the transfer application map you submit includes all the required items and matches the existing water right map. Check all boxes that apply.

☒ ☐ N/A Certified Water Right Examiner (CWRE) Stamp and Original Signature. For a list of CWREs, see http://apps.wrd.state.or.us/apps/wr/cwre_license_view/. CWRE stamp and signature are not required for substitutions.

☐ ☒ N/A If **more than three** water rights are involved, separate maps are needed for each water right.

☒ Permanent quality printed with dark ink on good quality paper.

☒ The size of the map can be 8½ x 11 inches, 8½ x 14 inches, 11 x 17 inches, or up to 30 x 30 inches. For 30 x 30 inch maps, one extra copy is required.

☒ A north arrow, a legend, and scale.

☒ The scale of the map must be: 1 inch = 400 feet, 1 inch = 1,320 feet, the scale of the Final Proof/Claim of Beneficial Use Map (the map used when the permit was certificated), the scale of the county assessor map if the scale is not smaller than 1 inch = 1,320 feet, or a scale that has been pre-approved by the Department.

☒ Township, Range, Section, ¼ ¼, DLC, Government Lot, and other recognized public land survey lines.

☒ Tax lot boundaries (property lines) are required. Tax lot numbers are recommended.

☒ Major physical features including rivers and creeks showing direction of flow, lakes and reservoirs, roads, and railroads.

☒ Major water delivery system features from the point(s) of diversion/appropriation such as main pipelines, canals, and ditches.

☒ Existing place of use that includes separate hachuring for each water right, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions. If less than the entirety of the water right is being changed, a separate hachuring is needed for lands left unchanged.

☒ ☐ N/A Proposed place of use that includes separate hachuring for each water right, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions.

☒ Existing point(s) of diversion or well(s) with distance and bearing or coordinates from a recognized survey corner. This information can be found in your water right certificate or permit.

☒ ☐ N/A If you are proposing a change in point(s) of diversion or well(s), show the proposed location and label it clearly with distance and bearing or coordinates. If GPS coordinates are used, latitude-longitude coordinates may be expressed as either degrees-minutes-seconds with at least one digit after the decimal (example – 42°32'15.5") or degrees-decimal with five or more digits after the decimal (example – 42.53764°).

FEE WORKSHEET for PERMANENT TRANSFER (except Substitution)			
1	Base Fee (includes one type of change to one water right for up to 1 cfs)	*1*	$1,360
2	Types of change proposed: ☒ Place of Use ☐ Character of Use ☒ Point of Diversion/Appropriation Number of above boxes checked = **2** (2a) Subtract 1 from the number in line 2a = **1** (2b) *If only one change, this will be 0* Multiply line 2b by $1090 and enter »	*2*	**$1,090**
3	Number of water rights included in transfer **1** (3a) Subtract 1 from the number in 3a above: **0** (3b) *If only one water right this will be 0* Multiply line 3b by $610 and enter »	*3*	**0**
4	Do you propose to add or change a well, or change from a surface water POD to a well? ☒ No: enter 0 ☐ Yes: enter $480 for the 1st well to be added or changed _____(4a) Do you propose to add or change additional wells? ☐ No: enter 0 ☒ Yes: multiply the number of additional wells by $410 **2** (4b) Add line 4a to line 4b and enter » » » » » » » » » » » » » » » »	*4*	**$820**
5	Do you propose to change the place of use or character of use? ☐ No: enter 0 on line 5 ☒ Yes: enter the cfs for the portions of the rights to be transferred (see below*): **1.56** (5a) Subtract 1.0 from the number in 5a above: **0.56** (5b) If 5b is 0 or less, enter 0 on line 5 » » » » » » » » » » » » » » » » If 5b is greater than 0, round up to the nearest whole number: **1** (5c) and multiply 5c by $410, then enter on line 5 »	*5*	**$410**
6	Add entries on lines 1 through 5 above » » » » » » » » » Subtotal:	*6*	**$3,680**
7	Is this transfer: ☐ necessary to complete a project funded by the Oregon Watershed Enhancement Board (OWEB) under ORS 541.932? ☐ endorsed in writing by ODFW as a change that will result in a net benefit to fish and wildlife habitat? If one or more boxes is checked, multiply line 6 by 0.5 and enter on line 7 » If no box is applicable, enter 0 on line 7 » » » » » » » » » » » » » » » » » »	*7*	**0**
8	Subtract line 7 from line 6 » » » » » » » » » » » » » » » » » **Transfer Fee:**	*8*	**$3,680**

*Example for Line 5a calculation to transfer 45.0 acres of Primary Certificate 12345 (total 1.25 cfs for 100 acres) and 45.0 acres of Supplemental Certificate 87654 (1/80 cfs per acre) on the same land:

1. For irrigation calculate cfs for each water right involved as follows:
   a. Divide total authorized cfs by total acres in the water right *(for C12345, 1.25 cfs ÷100 ac)*; then multiply by the number of acres to be transferred to get the transfer cfs *(x 45 ac= 0.56 cfs)*.
   b. If the water right certificate does not list total cfs, but identifies the allowable use as 1/40 or 1/80 of a cfs per acre; multiply number of acres proposed for change by either 0.025 (1/40) or 0.0125 (1/80). *(For C87654, 45.0 ac x 0.0125 cfs/ac = 0.56 cfs)*
2. Add cfs for the portions of water rights on all the land included in the transfer; however **do not count cfs for supplemental rights on acreage for which you have already calculated the cfs fee for the primary right on the same land.** The fee should be assessed only once for each "on the ground" acre included in the transfer. *(In this example, blank 5a would be only 0.56 cfs, since both rights serve the same 45.0 acres. Blank 5b would be 0 and Line 5 would then also become 0).*

FEE WORKSHEET for SUBSTITUTION			
1	Base Fee (includes change to one well)	*1*	$990.00
2	Number of wells included in substitution _____(2a) Subtract 1 from the number in 2a above: _____(2b) *If only one well this will be 0* Multiply line 2b by $480 and enter » » » » » » » » » » » »	*2*	
3	Add entries on lines 1 through 2 above » » » » » **Fee for Substitution:**	*3*	**N/A**

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Part 4 of 5 – Applicant Information and Signature

Applicant Information

APPLICANT/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.
City of Sisters, Attn: Paul Bertagna			541-549-6022	
ADDRESS				FAX NO.
PO Box 39				
CITY	STATE	ZIP	E-MAIL	
Sisters	OR	97759	pbertagna@ci.sisters.or.us	
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.				

Agent Information – The agent is authorized to represent the applicant in all matters relating to this application.

AGENT/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.
GSI Water Solutions, Inc., Attn: Trevor Grandy			971-200-8545	
ADDRESS				FAX NO.
147 SW Shevlin Hixon Dr., Suite 201				
CITY	STATE	ZIP	E-MAIL	
Bend	OR	97702	tgrandy@gsiws.com	
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.				

Explain in your own words what you propose to accomplish with this transfer application, and why:
The applicant is proposing to add two points of appropriation (Well 3 and Well 4) to water right Certificate 93889. The applicant is also proposing to change the place of use of Certificate 93889 to be the "City of Sisters service area."

If you need additional space, continue on a separate piece of paper and attach to the application as "Attachment 1".

Check One Box

☐ By signing this application, I understand that, upon receipt of the draft preliminary determination and prior to Department approval of the transfer, I will be required to provide landownership information and evidence that I am authorized to pursue the transfer as identified in OAR 690-380-4010(5); **OR**

☒ I affirm the applicant is a municipality as defined in ORS 540.510(3)(b) and that the right is in the name of the municipality or a predecessor; **OR**

☐ I affirm the applicant is an entity with the authority to condemn property and is acquiring by condemnation the property to which the water right proposed for transfer is appurtenant and have supporting documentation.

By my signature below, I confirm that I understand:

- Prior to Department approval of the transfer application, I may be required to submit payment to the Department for publication of a notice in a newspaper with general circulation in the area where the water right is located, once per week for two consecutive weeks. If more than one qualifying newspaper is available, I suggest publishing the notice in the following newspaper: **The Nugget.**
- Amendments to the application may only be made in response to the Department's Draft Preliminary Determination (DPD). The applicant will have a period of at least 30 days to amend the application to address any issues identified by the Department in the DPD, or to withdraw the application. Note that amendments may be subject to additional fees, pursuant to ORS 536.050.
- Failure to complete an approved change in place of use and/or change in character of use, will result in loss of the water right (OAR 690-380-6010).
- Refunds may only be granted upon request and, as set forth in ORS 536.050(4)(a), if the Director determines that a refund of all or part of a fee is appropriate in the interests of fairness to the public or necessary to correct an error of the Department.

I (we) affirm that the information contained in this application is true and accurate.

Applicant signature | Cory Misley, City Manager (Print Name (and Title if applicable)) | 9/21/2021 (Date)

Is the applicant the sole owner of the land on which the water right, or portion thereof, proposed for transfer is located? ☐ Yes ☐ No*

N/A: The applicant is a municipality

**If NO, include signatures of all deeded landowners (and mailing and/or e-mail addresses if different than the applicant's) or attach affidavits of consent (and mailing and/or e-mail addresses) from all landowners or individuals/entities to which the water right(s) were conveyed.*

Check the following boxes that apply:

☒ The applicant is responsible for completion of change(s). Notices and correspondence should continue to be sent to the applicant.

☐ The receiving landowner will be responsible for completing the proposed change(s) after the final order is issued. Copies of notices and correspondence should be sent to this landowner.

☐ Both the receiving landowner and applicant will be responsible for completion of change(s). Copies of notices and correspondence should be sent to this landowner and the applicant.

At this time, are the lands in this transfer application in the process of being sold? ☐ Yes ☒ No

If YES, and you know who the new landowner will be, please complete the receiving landowner information table below. If you do not know who the new landowner will be, then a request for assignment will have to be filed for at a later date.

If a property sells, the certificated water right(s) located on the land belong to the new owner, unless a sale agreement or other document states otherwise. For more information see: https://www.oregon.gov/owrd/WRDFormsPDF/Transfer_Property_Transactions.pdf

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RECEIVING LANDOWNER NAME N/A			PHONE NO.	ADDITIONAL CONTACT NO.
ADDRESS				FAX NO.
CITY	STATE	ZIP	E-MAIL	
Describe any special ownership circumstances: **The applicant is a municipality**				
The confirming Certificate shall be issued in the name of: ☐ Applicant ☐ Receiving Landowner				

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TACS

☐ Check here if any of the water rights proposed for transfer are or will be located within or served by an irrigation or other water district. (**Tip: Complete and attach Supplemental Form D.**)

IRRIGATION DISTRICT NAME	ADDRESS	
N/A		
CITY	STATE	ZIP

☐ Check here if water for any of the rights supplied under a water service agreement or other contract for stored water with a federal agency or other entity.

ENTITY NAME	ADDRESS	
N/A		
CITY	STATE	ZIP

To meet State Land Use Consistency Requirements, you must list all county, city, municipal corporation, or tribal governments within whose jurisdiction water will be diverted, conveyed or used.

ENTITY NAME	ADDRESS	
City of Sisters	**520 East Cascade; PO Box 39**	
CITY	STATE	ZIP
Sisters	**OR**	**97759**

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP

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Part 5 of 5 – Water Right Information

Please use a separate Part 5 for each water right being changed. See instructions on page 6, to copy and paste additional Part 5s, or to add additional rows to tables within the form.

CERTIFICATE # 93889

Description of Water Delivery System

System capacity: **1.56** cubic feet per second (cfs) **OR**

_____ gallons per minute (gpm)

Describe the current water delivery system or the system that was in place at some time within the last five years. Include information on the pumps, canals, pipelines, and sprinklers used to divert, convey, and apply the water at the authorized place of use. **The City of Sisters' current point of appropriation, Well 2, is equipped with a submersible pump. Water is pumped from the well into the City's municipal water distribution system.**

Table 1. Location of Authorized and Proposed Point(s) of Diversion (POD) or Appropriation (POA)
(Note: If the POD/POA name is not specified on the certificate, assign it a name or number here.)

POD/POA Name or Number	Is this POD/POA Authorized on the Certificate or is it Proposed?	If POA, OWRD Well Log ID# (or Well ID Tag # L-___)	Twp		Rng		Sec	¼	¼	Tax Lot, DLC or Gov't Lot	Measured Distances (from a recognized survey corner)
Well 2	☒ Authorized ☐ Proposed	DESC 1034	15	S	10	E	5	SW	SW	900	1,280 feet North and 1,175 feet East from SW corner of Section 5
Well 3	☐ Authorized ☒ Proposed	DESC 57902	15	S	10	E	4	SE	NW	103	1,890 feet South and 2,325 feet East from NW corner of Section 4
Well 4	☐ Authorized ☒ Proposed	DESC 62447	15	S	10	E	9	SW	NE	401	1,505 feet South and 1,715 feet West from NE corner of Section 9

Check all type(s) of change(s) proposed below (change "CODES" are provided in parentheses):

- ☒ Place of Use (POU)
- ☐ Character of Use (USE)
- ☐ Point of Diversion (POD)
- ☐ Additional Point of Diversion (APOD)
- ☐ Surface Water POD to Ground Water POA (SW/GW)
- ☐ Supplemental Use to Primary Use (S to P)
- ☐ Point of Appropriation/Well (POA)
- ☒ Additional Point of Appropriation (APOA)
- ☐ Substitution (SUB)
- ☐ Government Action POD (GOV)

Will all of the proposed changes affect the entire water right?

☒ Yes Complete only the Proposed ("to" or "on" lands) section of Table 2 on the next page. Use the "CODES" listed above to describe the proposed changes.

☐ No Complete all of Table 2 to describe the portion of the water right to be changed.

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Please use and attach additional pages of Table 2 as needed.
See page 6 for instructions.

Do you have questions about how to fill-out the tables?
Contact the Department at 503-986-0900 and ask for Transfer Staff.

Table 2. Description of Changes to Water Right Certificate # 93889

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change.
If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

AUTHORIZED (the "from" or "off" lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES. List only that part or portion of the water right that will be changed.											Proposed Changes (see "CODES" from previous page)	PROPOSED (the "to" or "on" lands) The listing as it would appear AFTER PROPOSED CHANGES are made.									
Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	Type of USE listed on Certificate	POD(s) or POA(s) (name or number from Table 1)	Priority Date		Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	New Type of USE	POD(s)/ POA(s) to be used (from Table 1)	Priority Date
EXAMPLE																				
2 S	9 E	1	NE NW	100		1.50	Irrigation	POD #1 POD #2	1901	POD/POA	2 S	9 E	1	NW NW	500	1	10.0		POD #5	1971
											2 S	9 E	2	SW NW	500		5.0		POD #6	1991
							Municipal	Well 2	6/25/1991	POD/APOA	"The City of Sisters Service Area"							Municipal	Well 2 Well 3 Well 4	6/25/1991

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Additional Remarks: **The applicant is proposing to add Wells 3 & 4 to Certificate 93889 and change the place of use to be the "City of Sisters service area."**

For Place of Use or Character of Use Changes

Are there other water right certificates, water use permits or ground water registrations associated with the "from" or the "to" lands? ☒ Yes ☐ No

If YES, list the certificate, water use permit, or ground water registration numbers: **N/A – The authorized use is municipal use, so the water rights are not 'layered'.**

Pursuant to ORS 540.510, any "layered" water use such as an irrigation right that is supplemental to a primary right proposed for transfer must be included in the transfer or be cancelled. Any change to a ground water registration must be filed separately in a ground water registration modification application.

For Substitution (ground water supplemental irrigation will be substituted for surface water primary irrigation)

Ground water supplemental Permit or Certificate # _____;
Surface water primary Certificate # _____.

For a change from Supplemental Irrigation Use to Primary Irrigation Use

Identify the primary certificate to be cancelled. Certificate # _____

For a change in point(s) of appropriation (well(s)) or additional point(s) of appropriation:

☒ Well log(s) are attached for each authorized and proposed well(s) that are clearly labeled and associated with the corresponding well(s) in Table 1 above and on the accompanying application map.

See Attachment E

Tip: You may search for well logs on the Department's web page at:
http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx

AND/OR

☐ Describe the construction of the authorized and proposed well(s) in Table 3 for any wells that do not have a well log. For *proposed wells not yet constructed or built*, provide "a best estimate" for each requested information element in the table. The Department recommends you consult a licensed well driller, geologist, or certified water right examiner to assist with assembling the information necessary to complete Table 3.

Table 3. Construction of Point(s) of Appropriation

Any well(s) in this listing must be clearly tied to corresponding well(s) described in Table 1 and shown on the accompanying application map. Failure to provide the information will delay the processing of your transfer application until it is received. The information is necessary for the department to assess whether the proposed well(s) will access the same source aquifer as the authorized point(s) of appropriation (POA). The Department is prohibited by law from approving POA changes that do not access the same source aquifer.

Proposed or Authorized POA Name or Number	Is well already built? (Yes or No)	If an existing well: OWRD Well ID Tag No. L-___	Total well depth	Casing Diameter	Casing intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water level of completed well (in feet)	Source aquifer (sand, gravel, basalt, etc.)	Well-specific rate (cfs or gpm), if less than full rate of water right

Attachment A

Certificate 93889

Application for a Permanent Water Right Transfer – City of Sisters

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STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS OR 97759

confirms the right to the use of water perfected under the terms of Permit G-11418. The amount of water used to which this right is entitled is limited to the amount used beneficially, and shall not exceed the amount specified, or its equivalent in the case of rotation, measured at the point of diversion from the source. The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-12591

SOURCE OF WATER: WELL 2 IN WHYCHUS BASIN

PURPOSE OR USE: MUNICIPAL USES

MAXIMUM RATE: 1.56 CUBIC FEET PER SECOND

DATE OF PRIORITY: JUNE 25, 1991

The well is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	5	SW SW	WELL 2 - 1280 FEET NORTH AND 1175 FEET EAST FROM SW CORNER, SECTION 5

A description of the place of use is as follows:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	SW NE
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	SE SW

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484 and ORS 536.075. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 183.484, ORS 536.075 and OAR 137-004-0080, you may petition for judicial review and petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate within three months after issuance of the certificate.

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	8	NW NW
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NW SW

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The City shall monitor and report the impact of water use under this right on water levels within the aquifer that provides water to the well under this right in accordance with the plan on file with the Department. If any well listed on this right displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the City shall discontinue use of, or reduce the rate or volume of withdrawal from, the well. Such action shall be taken until the water level recovers to above the 25-foot decline level or until the Department determines, based on the City or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The City shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine the water level elevation in the well at all times.

When required by the Department, the water user shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The Director may require water level or pump test results every ten years.

Failure to comply with any of the provisions of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

This right is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described; however, water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510.

Issued JUL 25 2018

Dwight French
Water Right Services Division Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

Attachment B

Application Map

Application for a Permanent Water Right Transfer – City of Sisters

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Attachment C

Evidence of Use Affadavit

Application for a Permanent Water Right Transfer – City of Sisters

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Application for Water Right
Transfer
Evidence of Use Affidavit

OREGON WATER RESOURCES DEPARTMENT
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Please print legibly or type. Be as specific as possible. Attach additional pages if you need more spacing. Supporting documentation must be attached.

State of Oregon)
) ss
County of DESCHUTES)

I, CORY MISLEY, in my capacity as CITY MANAGER,

mailing address PO Box 39 Sisters, OR 97759

telephone number (541)549-6022, being first duly sworn depose and say:

1. My knowledge of the exercise or status of the water right is based on (check one):
   ☐ Personal observation ☒ Professional expertise

2. I attest that:
   ☐ Water was used during the previous five years on the **entire** place of use for Certificate # _____; **OR**

   ☐ My knowledge is specific to the use of water at the following locations within the last five years:

Certificate #	Township		Range		Mer	Sec	¼ ¼	Gov't Lot or DLC	Acres (if applicable)

OR

☐ Confirming Certificate # _____ has been issued within the past five years; **OR**

☐ Part or all of the water right was leased instream at some time within the last five years. The instream lease number is: _____ (Note: If the entire right proposed for transfer was not leased, additional evidence of use is needed for the portion not leased instream.); **OR**

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☒ The water right is not subject to forfeiture and documentation that a presumption of forfeiture for non-use would be rebutted under ORS 540.610(2) is attached.

☐ Water has been used at the actual current point of diversion or appropriation for more than 10 years for Certificate # _____(For Historic POD/POA Transfers)

(continues on reverse side)

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3. The water right was used for: (e.g., crops, pasture, etc.): MUNICIPAL WATER SUPPLY

4. I understand that if I do not attach one or more of the documents shown in the table below to support the above statements, my application will be considered incomplete.

Signature of Affiant

9/21/2021
Date

Signed and sworn to (or affirmed) before me this 21 day of September, 2021.

OFFICIAL STAMP
KERRY ELLEN PROSSER
NOTARY PUBLIC - OREGON
COMMISSION NO. 1005420
COMMISSION EXPIRES NOVEMBER 09, 2024

Notary Public for Oregon

My Commission Expires: 11/09/24

Supporting Documents	Examples
☐ Copy of a water right certificate that has been issued within the last five years. (not a remaining right certificate)	Copy of **confirming** water right certificate that shows issue date
☐ Copies of receipts from sales of irrigated crops or for expenditures related to use of water	• Power usage records for pumps associated with irrigation use • Fertilizer or seed bills related to irrigated crops • Farmers Co-op sales receipt
☐ Records such as FSA crop reports, irrigation district records, NRCS farm management plan, or records of other water suppliers	• District assessment records for water delivered • Crop reports submitted under a federal loan agreement • Beneficial use reports from district • IRS Farm Usage Deduction Report • Agricultural Stabilization Plan • CREP Report
☐ Aerial photos containing sufficient detail to establish location and date of photograph	Multiple photos can be submitted to resolve different areas of a water right. If the photograph does not print with a "date stamp" or without the source being identified, the date of the photograph and source should be added. Sources for aerial photos: OSU –www.oregonexplorer.info/imagery OWRD – www.wrd.state.or.us Google Earth – earth.google.com TerraServer – www.terraserver.com
☐ Approved Lease establishing beneficial use within the last 5 years	Copy of instream lease or lease number
☒ The water right is not subject to forfeiture and documentation that a presumption of forfeiture for non-use would be rebutted under ORS 540.610(2).	**This is a municipal water right and a presumption of forfeiture would be rebutted under ORS 540.610(2)(a) and (b). See water right Certificate 93889 in transfer application, Attachment A.**

Attachment E

Well Logs: DESC 1034, DESC 57092, & DESC 62447

Application for a Permanent Water Right Transfer – City of Sisters

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

Desc 1034

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SEP 16 1991

WATER RESOURCES DEPT
SALEM, OREGON

15S/10E/8S

(START CARD) # 27957

(1) OWNER:

Well Number

Name Hap Taylor Construction

Address 2641 NE Ravenwood Dr.

City Bend State OR Zip 97701

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 302 ft.

Explosives used ☐ Yes ☒ No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
22"	0	39	Cement	0	39	93 sacks
17"	39	190				
14"	190	244				
13"	244	302				

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	18"	+1	39	.375	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:	14"	+1½	244	.250	☒	☐	☒	☐
	10"	238	302	.250	☒	☐	☒	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
242	302	1/8x3	2400	10"		☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
1200	.3ft	220	8 hrs

Temperature of water 51 Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

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(9) LOCATION OF WELL by legal description:

County Deschutes Latitude Longitude

Township 15 S N or S Range 10 E E or W WM

Section 8 ¼ ¼

Tax Lot Lot Block Subdivision

Street Address of Well (or nearest address) 15200 McKenzie Hwy

Sisters, OR

(10) STATIC WATER LEVEL:

101 ft. below land surface. Date 7/31/91

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 105'

From	To	Estimated Flow Rate	SWL
251	273		101
283	288		101
288	295	1200+	101
295	301		101

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Top soil	0	1	
Cobbles with sand & dirt	1	23	
Volcanic gravels	23	34	
Basalt black porous	34	50	
Basalt grey hard	50	63	
Cinders red	63	75	
Volcanic gravels grey & red	75	98	
Basalt grey medium fractured	98	103	
Pumice white	103	105	
Basalt grey fractured with round gravels	105	145	101
Conglomerate brown	145	155	101
Rock grey hard	155	160	101
Rock soft grey & brown	160	175	101
Gravel broken	175	193	101
Rock broken grey & brown	193	203	101
Conglomerate tight brown	203	235	101
Rock broken with gravel	235	241	101
Basalt grey hard & porous	241	251	101
Basalt brown porous	251	273	
Basalt grey hard	273	283	
Basalt porous grey & lavender	283	288	
Cinders red	288	295	

Date started 7-19-91 Completed 8-12-91

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number 1358

Signed Date 8-21-91

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 723

Signed Date 8-21-91

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 6009C 2/88

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DESC 1034

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SEP 16 1991

WATER RESOURCES DEPT. SALEM, OREGON

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

(START CARD) # 27957 (cont'd)

(1) OWNER:

Well Number

Name Hap Taylor Construction (cont'd)

Address

City State Zip

(2) TYPE OF WORK:

☐ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☐ Depth of Completed Well ft.

Explosives used Yes ☐ No ☐ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☐ Perforations Method

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.

Temperature of water Depth Artesian Flow Found

Was a water analysis done? ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Latitude ° Longitude °

Township N or S, Range E or W, WM.

Section ¼ ¼

Tax Lot Lot Block Subdivision

Street Address of Well (or nearest address)

(10) STATIC WATER LEVEL:

ft. below land surface. Date

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found

From	To	Estimated Flow Rate	SWL

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Basalt porous brown	295	301	101
Basalt porous brown hard	301	302	

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Date started Completed

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number

Signed Date

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. all work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number

Signed Date

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 8209C 8/85

DESC 57902

DESC 57902

03-06-2007

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

AMENDED 3.6.07

WELL LABEL # L 84019

AMENDED 3.20.07 RT CARD # 1000329

(1) LAND OWNER

Owner Well I.D. Sisters Well #3

First Name _____ Last Name _____

Company CITY OF SISTERS

Address 520 EAST CASCADE AVE

City SISTERS State OR Zip 97759

(2) TYPE OF WORK

☒ New Well ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud ☐ Reverse Rotary ☐ Other

(4) PROPOSED USE

☐ Domestic ☐ Irrigation ☒ Community ☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering ☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION

Special Standard ☒ Attach copy

Depth of Completed Well 288.00 ft.

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/ lbs
20	0	193	Cement	0	130	300	S
16	193	293	Bentonite Chips	130	170	48	S
			Cement	170	195	40	S

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☐ Other

Backfill placed from ____ ft. to ____ ft. Material ____

Filter pack from ____ ft. to ____ ft. Material ____ Size ____

Explosives used: ☐ Yes Type ____ Amount ____

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	16	☒	2	195	.375	●	○	☒	☐
○	●	14	☐	268	283	.375	●	○	☒	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐
○	○		☐				○	○	☐	☐

Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) ____

Temp casing ☐ Yes Dia ____ From ____ To ____

(7) PERFORATIONS/SCREENS

Perforations Method ____

Screens Type Cont. Wire Wrap Material 304 SS

Perf/ Screen	Casing/ Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen		14	188	268	.25			

(8) WELL TESTS: Minimum testing time is 1 hour

● Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1,500	1.3	175	1.5
2,000	4	175	2
2,500	6	175	2

Temperature 54 °F Lab analysis ☐ Yes By ____

Water quality concerns? ☐ Yes (describe below)

From	To	Description	Amt

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(9) LOCATION OF WELL (legal description)

County Deschutes Twp 10.00 S N/S Range 10.00 E E/W WM

Sec 4 SE 1/4 of the NW 1/4 Tax Lot 103

Tax Map Number ____ Lot ____

Lat ° 0 ' " or ____ DMS or DD

Long ° 0 ' " or ____ DMS or DD

○ Street address of well ● Nearest address

NE LOT ABOUT 350 FT WEST OF CAMP POLK RD AT INTERSECTION WITH BARCLAY

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening				
Completed Well	02-02-2007			73.3

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found ____

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Ground Elevation ____

Material	From	To
Top Soil	0	4
Gravels (some cemented)	4	139
Black Basalt	139	160
Gravels w/ Brown Visicular (wb 500+)	160	170
Gray Basalt	170	196
Broken Brown Basalt Visicular (wb)	196	201
Brown Basalt w/ some Visicular Basalt (wb)	201	210
Brown & Red Visicular Basalt (wb)	210	245
Black Basalt w/ Some Red Clay Stone (wb)	245	250
Brown Basalt w/ Red Clay Stone (wb)	250	258
Soft Brown Visicular Basalt	258	270
Black Basalt	270	293

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Date Started 11-27-2006 Completed 02-02-2007

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1702 Date 03-06-2007

Electronically Filed

Signed RUSTY R OTTO (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1523 Date 03-06-2007

Electronically Filed

Signed ROBERT STADELI (E-filed)

Contact Info (optional) ____

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version: 0.88

13840

AMENDED 3-20-07 DESC 57902

WATER SUPPLY WELL REPORT - continuation page

AMENDED DESC 57902 3-6-07 03-06-2007

WELL I.D. # L 84019

START CARD # 1000329

(5) BORE HOLE CONSTRUCTION

BORE HOLE

Dia	From	To

SEAL

Material	From	To	Amt	sacks/ lbs

FILTER PACK

From	To	Material	Size

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

(7) PERFORATIONS/SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
3,000	6	175	2

Water Quality Concerns

From	To	Description	Amount	Units

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MAR 2 8 2007

WATER RESOURCES DEPT
SALEM, OREGON

(10) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(11) WELL LOG

Material	From	To

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Comments/Remarks

Map of well

Oregon

Theodore R. Kulongoski, Governor

Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1266
503-986-0900
FAX 503-986-0904

January 17, 2007

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JAN 19 2007

GEO TECH EXPLORATIONS
ROBERT STADELI #1523
19700 SW TETON
TUALATIN OR 97062

FINAL ORDER

Dear Robert:

The Special Standard request you submitted for owner: City of Sisters, Start Card number 1000329 is hereby approved for the following: You may use 3/4-inch unhydrated bentonite chips in this well from a depth of 155 ft bgs to 170 ft bgs due to a lost circulation zone. The sealing material from 155 ft bgs to land surface shall be cement grout. The placement of the bentonite shall conform to the Departments rules and the manufacturers specifications and result in a seal that is free of voids or bridges. Care shall be taken to minimize the introduction of bentonite dust (See OAR 690-210-0330). All other standards must be adhered to. Your Special Standard request form is enclosed.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions concerning this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrd.state.or.us.

Sincerely,

Kristopher Byrd
Well Construction Program Coordinator
Enforcement Section

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cc: Larry Carey, SC Region Well Inspector
File.

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

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SALEM, OREGON

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WATER SUPPLY WELL REPORT - continuation page

AMENDED 3-2007 DESC 57902

AMENDED 3-6-07 03-06-2007

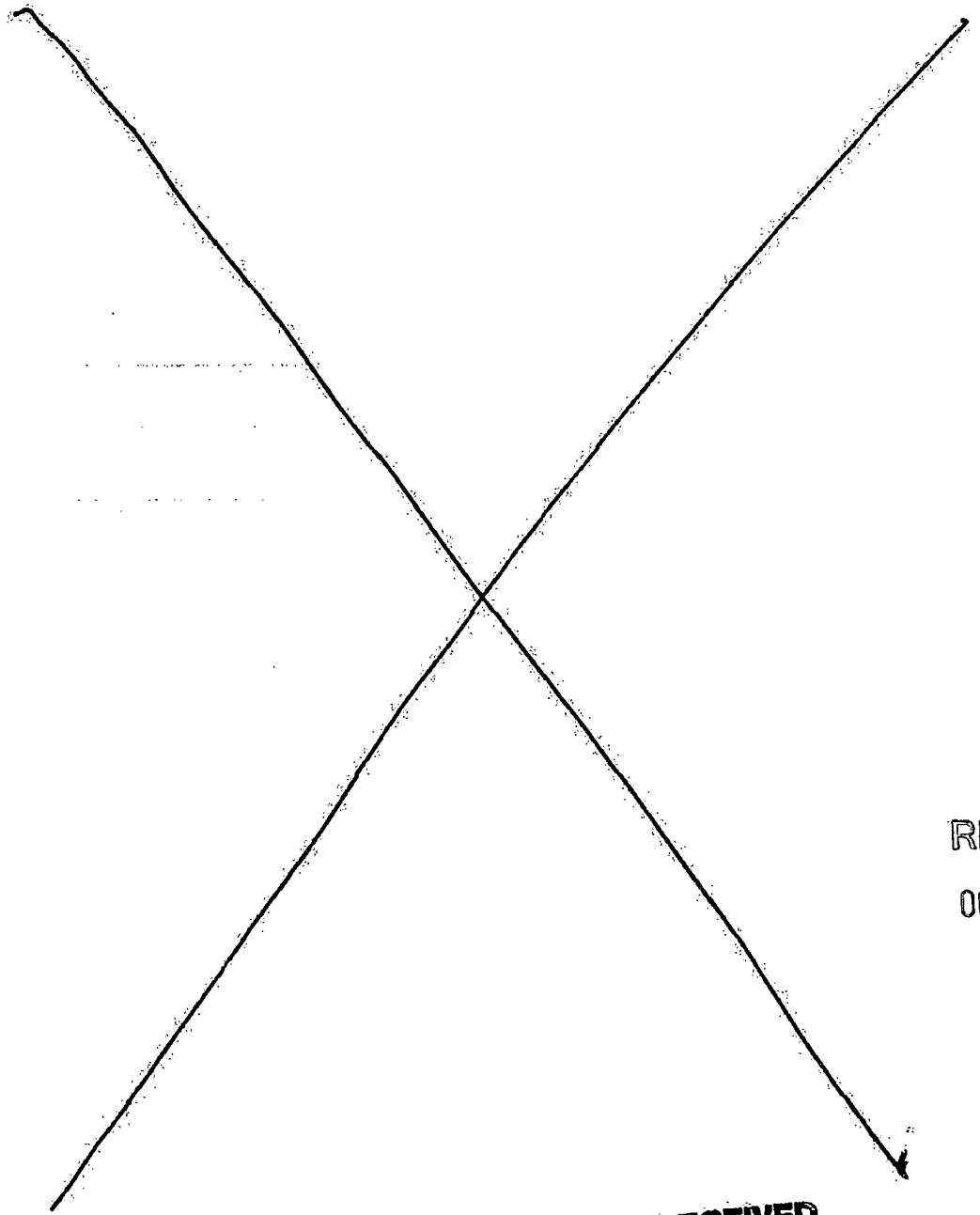
WELL I.D. # L 84019

START CARD # 1000329

~~Page 4 of 4~~

Map of well

only 3 pages



STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

DESC 62447
1/20/2021

WELL I.D. LABEL# L 138648
START CARD # 1049398
ORIGINAL LOG #

(1) LAND OWNER
Owner Well I.D.
First Name Last Name
Company CITY OF SISTERS
Address PO BOX 39 525 E. CASCADE AVENUE
City SISTERS State OR Zip 97759

(2) TYPE OF WORK
[X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (complete 2a & 10) [ ] Abandonment(complete 5a)

(2a) PRE-ALTERATION
	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD
[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud
[ ] Reverse Rotary [ ] Other

(4) PROPOSED USE
[ ] Domestic [ ] Irrigation [ ] Community
[ ] Industrial/ Commericial [ ] Livestock [ ] Dewatering
[ ] Thermal [ ] Injection [X] Other MUNICIPAL

(5) BORE HOLE CONSTRUCTION
Special Standard [X] (Attach copy)
Depth of Completed Well 293.00 ft.

BORE HOLE

Dia	From	To
22	0	200
15	200	293

SEAL

Material	From	To	Amt	sacks/lbs
Bentonite Chips	0	115	381	S
		Calculated	211.65	
Cement with 5% Bento	115	137	53	S
		Calculated	14.5	

How was seal placed: Method [ ] A [ ] B [X] C [ ] D [ ] E
[X] Other POURED DRY
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: [ ] Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	16	X	4	200	.375	●	○	X	
○	●	12		290	293	.375	●	○	X	
○	○						○	○		
○	○						○	○		
○	○						○	○		

Shoe [ ] Inside [ ] Outside [ ] Other Location of shoe(s)
Temp casing [X] Yes Dia 20 From + [ ] 0 To 200

(7) PERFORATIONS/SCREENS
Perforations Method
Screens Type CONTINUOS WIRE Material 304 SS

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen	Liner	12	190	290	.125			

(8) WELL TESTS: Minimum testing time is 1 hour
● Pump ○ Bailer ○ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
1970	13	160	24

Temperature 54 °F Lab analysis [ ] Yes By
Water quality concerns? [ ] Yes (describe below) TDS amount 112 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)
County DESCHUTES Twp 15.00 S N/S Range 10.00 E E/W WM
Sec 9 SW 1/4 of the NE 1/4 Tax Lot 401
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
● Street address of well ○ Nearest address
504 S LOCUST ST CREEKSIDE CAMPGROUND WELL#4

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	1/19/2021			76.8

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found 102.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
10/14/2020	102	165	100			57
10/19/2020	165	177	50			82
1/11/2021	201	280	1970			76.5

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(11) WELL LOG
Ground Elevation

Material	From	To
SANDY PUMICE AND GRAVEL	0	3
GRAY AND BROWN LAVA	3	45
RED CINDERS	45	50
GRAVELS W/BROWN SAND	50	65
SANDSTONE CONGLOMERATE	65	72
GRAY MILD LAVA	72	93
DARK BROWN SANDSTONE	93	102
GRAVELS AND SAND W/BASALT CHIPS	102	127
CEMENTED GRAVELS	127	141
FRACTURED BASALT W/CINDER	141	148
GRAY BASALT	148	165
BROKEN BASALT W/CLAY SEAMS	165	177
HARD GRAY BASALT	177	201
BROWN AND GRAY BROKEN LAVA	201	206
FRACTURED BROWN BASALT	206	233
GRAY WEATHERED BASALT	233	245
BROWN BROKEN BASALT	245	259
GRAY BASALT SOME FRACTURED	259	276
BROKEN BASALT	276	280

Date Started 10/12/2020 Completed 1/19/2021

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
License Number 1852 Date 1/19/2021
Signed JEB ABBAS (E-filed)

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
License Number 1720 Date 1/20/2021
Signed JACK ABBAS (E-filed)
Contact Info (optional) JACK ABBAS 13840

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

WATER SUPPLY WELL REPORT - continuation page

DESC 62447

1/20/2021

WELL I.D. LABEL# L	138648
START CARD #	1049398
ORIGINAL LOG #	

(2a) PRE-ALTERATION

Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

Material	From	To	Amt	sacks/lbs

Water Quality Concerns

From	To	Description	Amount	Units

(5) BORE HOLE CONSTRUCTION

BORE HOLE Dia	From	To	Material	SEAL From	To	Amt	sacks/lbs
			Bentonite Chips	137	142	9	S
					Calculated	5.8	
			Cement with 5% Bento	142	159	22	S
					Calculated	14	
			Bentonite Chips	159	169	19	S
					Calculated	18.4	
			Cement with 5% Bento	169	200	239	S
					Calculated	25	

FILTER PACK

From	To	Material	Size

(10) STATIC WATER LEVEL

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(6) CASING/LINER

Casing Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

(11) WELL LOG

Material	From	To
HARD GRAY BASALT	280	293

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(7) PERFORATIONS/SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Comments/Remarks

GSI
Water Solutions, Inc.

September 30, 2021

Kelly Starnes
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, OR 97301

Re: Application for Permanent Water Right Transfer for Certificate 93889
City of Sisters

Dear Mr. Starnes:

GSI Water Solutions, Inc. (GSI) is submitting the enclosed permanent water right transfer application on behalf of the City of Sisters (City). Also enclosed is the $3,680 application fee.

The City is proposing to add two points of appropriation (Well 3 and Well 4) to water right Certificate 93889 and change the place of use to the "City of Sisters service area."

Please contact me at 971-200-8545 if you have any questions regarding this application.

Sincerely,

Trevor Grandy
Water Resources Consultant

CC: Paul Bertagna, City of Sisters

Enclosures: Permanent Water Right Transfer Application
Check in the amount of $3,680

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OWRD

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STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS OR 97759

confirms the right to the use of water perfected under the terms of Permit G-11418. The amount of water used to which this right is entitled is limited to the amount used beneficially, and shall not exceed the amount specified, or its equivalent in the case of rotation, measured at the point of diversion from the source. The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-12591

SOURCE OF WATER: WELL 2 IN WHYCHUS BASIN

PURPOSE OR USE: MUNICIPAL USES

MAXIMUM RATE: 1.56 CUBIC FEET PER SECOND

DATE OF PRIORITY: JUNE 25, 1991

The well is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	5	SW SW	WELL 2 - 1280 FEET NORTH AND 1175 FEET EAST FROM SW CORNER, SECTION 5

A description of the place of use is as follows:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	SW NE
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	SE SW

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484 and ORS 536.075. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 183.484, ORS 536.075 and OAR 137-004-0080, you may petition for judicial review and petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate within three months after issuance of the certificate.

13840

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	8	NW NW
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NW SW

The City shall monitor and report the impact of water use under this right on water levels within the aquifer that provides water to the well under this right in accordance with the plan on file with the Department. If any well listed on this right displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the City shall discontinue use of, or reduce the rate or volume of withdrawal from, the well. Such action shall be taken until the water level recovers to above the 25-foot decline level or until the Department determines, based on the City or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The City shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine the water level elevation in the well at all times.

When required by the Department, the water user shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The Director may require water level or pump test results every ten years.

Failure to comply with any of the provisions of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

This right is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described; however, water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510.

Issued JUL 25 2018.

Dwight French
Water Right Services Division Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

13840

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS OR 97759

confirms the right to use the waters of WELL 2 in the SQUAW CREEK Basin for MUNICIPAL USE.

This right was perfected under Permit G-11418. The date of priority is JUNE 25, 1991. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 1.78 CUBIC FEET PER SECOND or its equivalent in case of rotation, measured at the well.

The well is located as follows:

Twp	Rng	Mer	Sec	Q-Q	GLot	DLC	Measured Distances
15 S	10 E	WM	5	SW SW			1280 FEET NORTH & 1175 FEET EAST FROM SW CORNER, SECTION 5

A description of the place of use to which this right is appurtenant is as follows:

MUNICIPAL USE						
Twp	Rng	Mer	Sec	Q-Q	GLot	DLC
15 S	10 E	WM	4	SW NE		
15 S	10 E	WM	4	SE NW		
15 S	10 E	WM	4	NE SW		
15 S	10 E	WM	4	NW SW		
15 S	10 E	WM	4	SW SW		
15 S	10 E	WM	4	SE SW		
15 S	10 E	WM	4	NE SE		
15 S	10 E	WM	4	NW SE		
15 S	10 E	WM	4	SW SE		
15 S	10 E	WM	4	SE SE		
15 S	10 E	WM	5	NE SW		
15 S	10 E	WM	5	SE SW		
15 S	10 E	WM	5	NE SE		

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate at any time before it has issued, and after the time has expired for the completion of the appropriation under the permit, or within three months after issuance of the certificate.

MUNICIPAL USE						
Twp	Rng	Mer	Sec	Q-Q	GLot	DLC
15 S	10 E	WM	5	NW SE		
15 S	10 E	WM	5	SW SE		
15 S	10 E	WM	5	SE SE		
15 S	10 E	WM	8	SE NE		
15 S	10 E	WM	8	NE NW		
15 S	10 E	WM	8	NW NW		
15 S	10 E	WM	9	NW NE		
15 S	10 E	WM	9	SW NE		
15 S	10 E	WM	9	SE NE		
15 S	10 E	WM	9	NE NW		
15 S	10 E	WM	9	NW NW		
15 S	10 E	WM	9	SW NW		
15 S	10 E	WM	9	SE NW		
15 S	10 E	WM	9	NW SW		

The City shall monitor and report the impact of water use under this right on water levels within the aquifer that provides water to the well under this right in accordance with the plan on file with the Department. If a well listed on this permit displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the City shall discontinue use of, or reduce the rate or volume of withdrawal from, the well. Such action shall be taken until the water level recovers to above the 25 foot decline level or until the Department determines, based on the City or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The City shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interference.

The well shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine the water level elevation in the well at all times. When required by the Department, the water user shall install and maintain a weir, meter, or other suitable measuring device and shall keep a complete record of the amount of ground water withdrawn.

The Director may require water level or pump tests every ten years.

Failure to comply with any of the provisions of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

This right is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

Water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510(3).

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Issued DEC 1 1 2008.

Phillip C. Ward, Director
Water Resources Department

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS OR 97759

confirms the right to use the waters of WELL #3 in the WHYCHUS BASIN for MUNICIPAL USES.

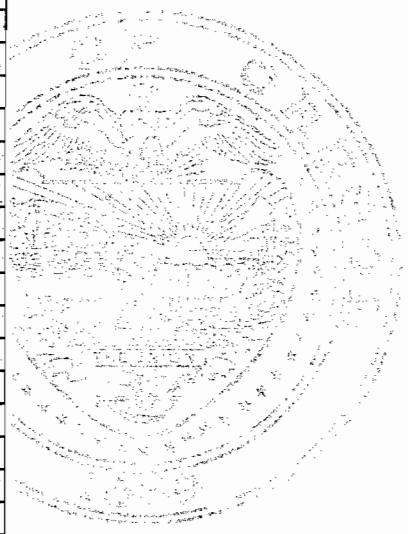
This right was perfected under Permit G-11418. The date of priority is JUNE 25, 1991. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 1.78 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the point of appropriation.

The point of appropriation is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	4	SE NW	1,890 FEET SOUTH AND 2,325 FEET EAST FROM THE NW CORNER OF SECTION 4

A description of the place of use is as follows:

Municipal Uses				
Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	NE NW
15 S	10 E	WM	4	SW NW
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	SW NE
15 S	10 E	WM	5	SE NE
15 S	10 E	WM	5	SW NW
15 S	10 E	WM	5	SE NW
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	NW SW
15 S	10 E	WM	5	SW SW
15 S	10 E	WM	5	SE SW



NOTICE OF RIGHT TO RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482. Pursuant to ORS 183.482, ORS 536.075, and OAR 137-004-0080, you may petition for judicial review and petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Municipal Uses				
Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	6	NE SE
15 S	10 E	WM	6	NW SE
15 S	10 E	WM	6	SW SE
15 S	10 E	WM	6	SE SE
15 S	10 E	WM	8	NE NE
15 S	10 E	WM	8	NW NE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	9	NE NE
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NE SE
15 S	10 E	WM	9	NW SE
15 S	10 E	WM	9	SW SE
15 S	10 E	WM	9	SE SE

The City shall monitor and report the impact of water use under this right on water levels within the aquifer that provides water to the well under this right in accordance with the plan on file with the Department. If any well listed on this right displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the City shall discontinue use of, or reduce the rate or volume of withdrawal from, the well. Such action shall be taken until the water level recovers to above the 25-foot decline level or until the Department determines, based on the City or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The City shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine the water level elevation in the well at all times.

The water user shall maintain an in-line flow meter or other suitable device for measuring and recording the quantity of water appropriated.

The Director may require water level or pump tests every ten years.

Failure to comply with any of the provisions of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

This right is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

Water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510(3).

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Water shall be acquired from the same aquifer (water source) as the original point of appropriation.

The quantity of water diverted at the new point of appropriation shall not exceed the quantity of water lawfully available at the original point of appropriation, described as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	5	SW SW	1,280 FEET SOUTH AND 1,175 FEET EAST FROM THE SW CORNER OF SECTION 5

This certificate is issued to confirm changes in point of appropriation and place of use approved by an order of the Water Resources Director entered June 1, 2009, at Special Order Volume 77, Page 955, approving Transfer Application 10766, supersedes Certificate 85243, State record of Water Right Certificates.

Issued OCT 7 2011.

Dwight W. French
Water Right Services Administrator, for
Phillip C. Ward, Director

 Recorded in State Record of Water Right Certificates numbered 87247

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS OR 97759

confirms the right to the use of water perfected under the terms of Permit G-11418. The amount of water used to which this right is entitled is limited to the amount used beneficially, and shall not exceed the amount specified, or its equivalent in the case of rotation, measured at the point of diversion from the source. The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-12591

SOURCE OF WATER: WELL 2 IN WHYCHUS BASIN

PURPOSE OR USE: MUNICIPAL USES

MAXIMUM RATE: 1.56 CUBIC FEET PER SECOND

DATE OF PRIORITY: JUNE 25, 1991

The well is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	5	SW SW	WELL 2 - 1280 FEET NORTH AND 1175 FEET EAST FROM SW CORNER, SECTION 5

A description of the place of use is as follows:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	SW NE
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	SE SW

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484 and ORS 536.075. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 183.484, ORS 536.075 and OAR 137-004-0080, you may petition for judicial review and petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate within three months after issuance of the certificate.

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	8	NW NW
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NW SW

The City shall monitor and report the impact of water use under this right on water levels within the aquifer that provides water to the well under this right in accordance with the plan on file with the Department. If any well listed on this right displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the City shall discontinue use of, or reduce the rate or volume of withdrawal from, the well. Such action shall be taken until the water level recovers to above the 25-foot decline level or until the Department determines, based on the City or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The City shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine the water level elevation in the well at all times.

When required by the Department, the water user shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The Director may require water level or pump test results every ten years.

Failure to comply with any of the provisions of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

This right is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described; however, water may be applied to lands which are not specifically described above, provided the holder of this right complies with ORS 540.510.

Issued JUL 25 2018.

Dwight French
Water Right Services Division Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

STATE OF OREGON

COUNTY OF DESCHUTES

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

CITY OF SISTERS
P.O. BOX 39 503-549-6022
SISTERS, OREGON 97759

to use the waters of A WELL in the SQUAW CREEK BASIN for MUNICIPAL USE.

This permit is issued approving Application G-12591. The date of priority is JUNE 25, 1991. The use is limited to not more than 3.34 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the well.

The well is located as follows:

SW 1/4 SW 1/4, SECTION 5, T 15 S, R 10 E, W.M.; 40 FEET SOUTH AND 145 FEET WEST FROM NE CORNER, SW 1/4 SW 1/4, SECTION 5.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

SW 1/4 NE 1/4
SE 1/4 NW 1/4
S 1/2
SECTION 4
E 1/2 SW 1/4
SE 1/4
SECTION 5
N 1/2 NW 1/4
SE 1/4 NE 1/4
SECTION 8
W 1/2 NE 1/4
SE 1/4 NE 1/4
NW 1/4
NW 1/4 SW 1/4
SECTION 9
TOWNSHIP 15 SOUTH, RANGE 10 EAST, W.M.

The City shall develop a plan to monitor and report the impact of water use under this permit on water levels within the aquifer that provides water to the permitted well. The plan shall be submitted to the Department within one year of the date the permit is issued and shall be subject to the approval of the Department. At a minimum, the plan shall include a program to periodically measure static water levels within the permitted well or an adequate substitute such as water levels in nearby wells. The plan shall also stipulate a reference water level against which any water-level declines will be compared. If a well listed on this permit displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the City shall discontinue use of, or reduce the rate or volume of withdrawal from, the well. Such action shall be taken until the water level recovers to above the 25-foot decline level or until the Department determines, based on the City or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The City shall in no instance allow excessive decline to occur within the aquifer as a result of use under this permit.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Within one year from the date the Water Resources Commission adopts rules describing the schedules, standards and procedures for water conservation management plans by water suppliers, the city shall submit a plan which is consistent with said rules.

Within one year of permit issuance, the city shall prepare a plan/timetable for the Water Resources Commission which shall indicate the steps which the City intends to pursue to obtain a long-term water supply.

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times. When required by the department, the permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before February 3, 1993, and shall be completed on or before October 1, 1994. Complete application of the water shall be made on or before October 1, 1995.
B+C ext to 10-1-99
Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

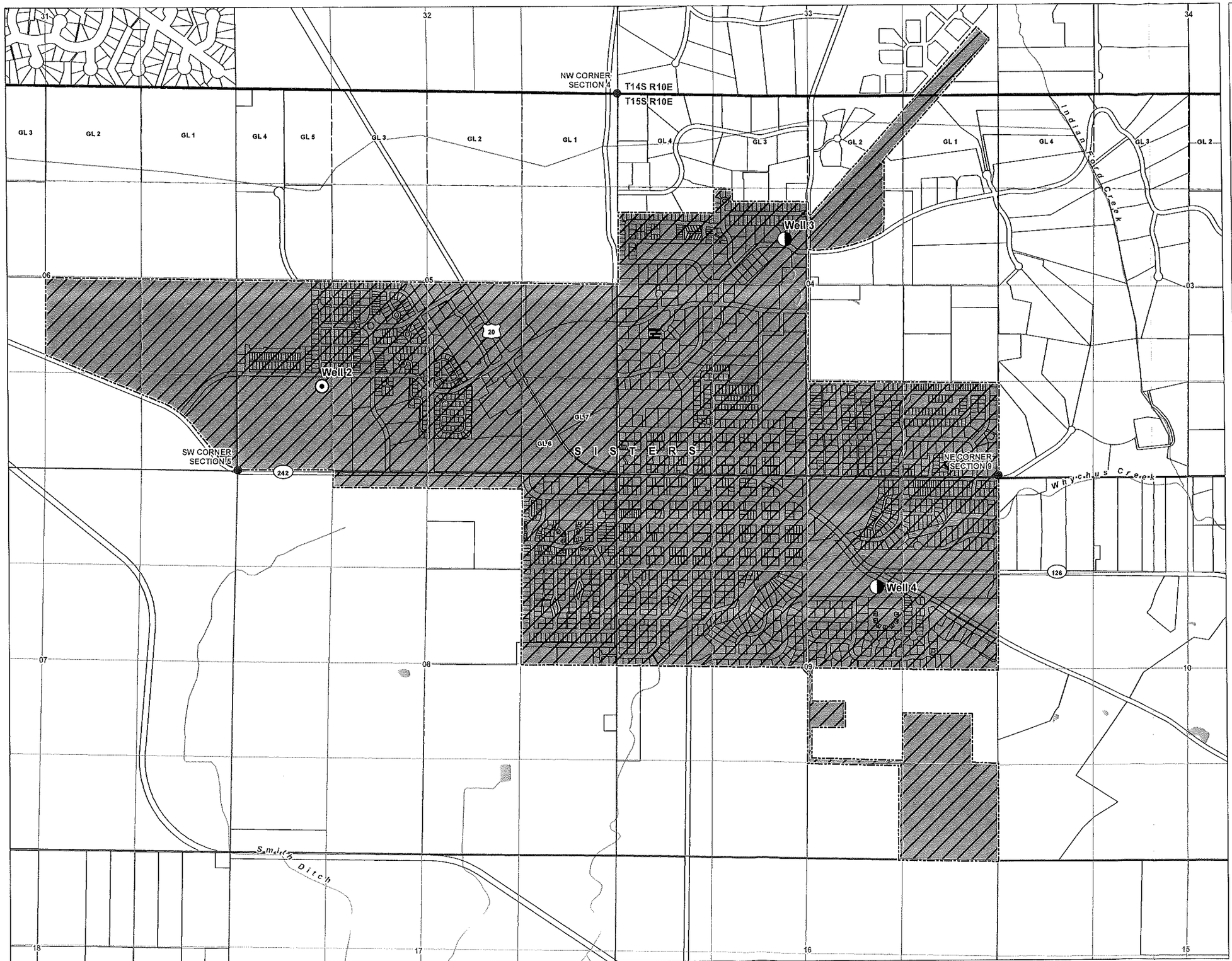
By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Issued this date, FEBRUARY 3, 1992.

/s/ WILLIAM H. YOUNG

Water Resources Department
William H. Young
Director



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Transfer Map
Proposed POU and Authorized and Proposed POAs
Certificate 93889
City of Sisters

Deschutes County, Oregon

Township 14 & 15 South, Range 10 East

LEGEND

- Authorized Point of Appropriation (POA)
- Proposed Additional Point of Appropriation (APOA)
- Proposed Place of Use (POU)
- Tax Lot
- Government Lot (GL)
- City Boundary
- Watercourse
- Waterbody

RECEIVED
OCT 06 2021
OWRD

CERTIFIED WATER RIGHTS EXAMINER STAMP

Certified Water Rights Examiner
#78208WRE
Bruce Brody-Heine
June 29, 2007
STATE OF OREGON
EXPIRES: 12-31-21

LOCATION DESCRIPTION

Well 2
Located 1,280 feet North and 1,175 feet East from the SW corner of Section 5, Township 15 South, Range 10 East (W.M.), being within Tax Lot 1510050000900

Well 3
Located 1,890 feet South and 2,325 feet East from the NW corner of Section 4, Township 15 South, Range 10 East (W.M.)

Well 4
Located 1,505 feet South and 1,715 feet West from the NE corner of Section 9, Township 15 South, Range 10 East (W.M.)

N

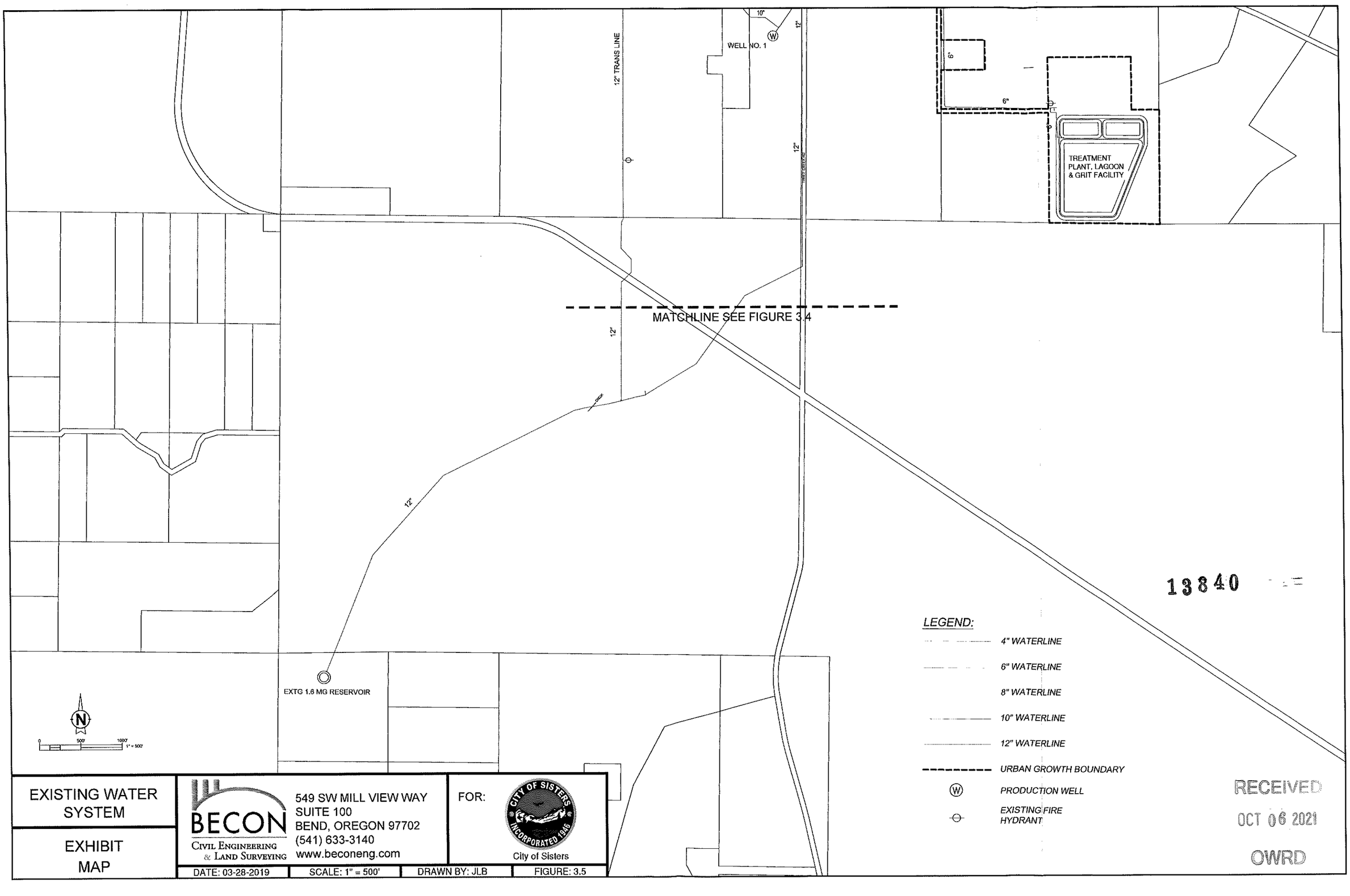
13840

0 660 1,320 1,980

1 inch equals 1,320 feet

DISCLAIMER
This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines.
Date: September 8, 2021
Data Sources: BLM, ESRI, OWRD, USGS

GSI Water Solutions, Inc.



EXISTING WATER SYSTEM

EXHIBIT MAP

BECON
CIVIL ENGINEERING & LAND SURVEYING

549 SW MILL VIEW WAY
SUITE 100
BEND, OREGON 97702
(541) 633-3140
www.beconeng.com

FOR: City of Sisters

DATE: 03-28-2019 | SCALE: 1" = 500' | DRAWN BY: JLB | FIGURE: 3.5

13840

SISTERS HIGH SCHOOL

SISTERS MIDDLE SCHOOL

WELL NO. 2

WELL NO. 3

WELL NO. 1

12" TRANS LINE

TREATMENT PLANT, LAGOON & GRIT FACILITY

TO BEND

0 500' 1000'
1" = 500'

LEGEND:

- 4" WATERLINE
- 6" WATERLINE
- 8" WATERLINE
- 10" WATERLINE
- 12" WATERLINE
- URBAN GROWTH BOUNDARY
- (W) PRODUCTION WELL
- EXISTING FIRE HYDRANT

13840

RECEIVED
OCT 06 2021
OWRD

EXISTING WATER SYSTEM

EXHIBIT
MAP

BECON
Civil Engineering & Land Surveying
549 SW MILL VIEW WAY
SUITE 100
BEND, OREGON 97702
(541) 633-3140
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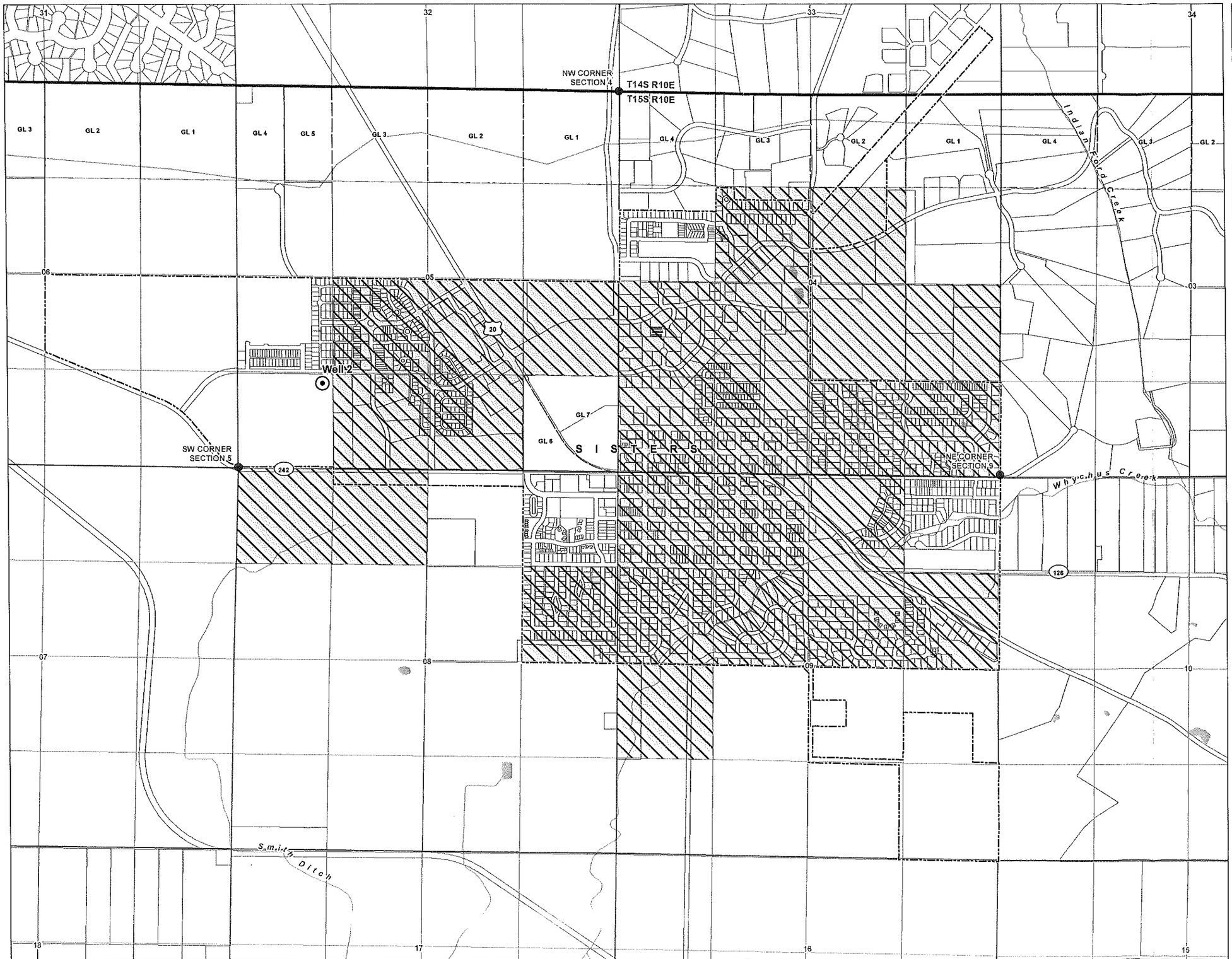
FOR: City of Sisters

DATE: 03-28-2019 | SCALE: 1" = 500' | DRAWN BY: JLB | FIGURE: 3.4



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Transfer Map
Authorized POU and
Authorized POAs
Certificate 93889
City of Sisters
Deschutes County, Oregon
Township 15 South, Range 10 East (W.M.)

LEGEND

- Authorized Point of Appropriation
- Existing Place of Use (POU)
- Tax Lot
- Government Lot (GL)
- City Boundary
- Watercourse
- Waterbody

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OCT 06 2021
OWRD

CERTIFIED WATER RIGHTS EXAMINER STAMP

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LOCATION DESCRIPTION
Well 2
Located 1,280 feet North and 1,175 feet East from the SW corner of Section 5, Township 15 South, Range 10 East (W.M.), being within Tax Lot 1510050000900

N

0 660 1,320 1,980
1 inch equals 1,320 feet

DISCLAIMER
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Date: September 8, 2021
Data Sources: BLM, ESRI, OWRD, USGS

GSI Water Solutions, Inc.

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-10766, Deschutes County	)	FINAL ORDER APPROVING CHANGES IN POINT OF APPROPRIATION AND PLACE OF USE

Authority

ORS 537.705 and 540.505 to 540.580 establish the process in which a water right holder may submit a request to transfer the point of appropriation, place of use, or character of use authorized under an existing water right. OAR Chapter 690, Division 380 implements the statutes and provides the Department's procedures and criteria for evaluating transfer applications.

Applicant

CITY OF SISTERS
EILEEN STEIN, CITY MANAGER
PO BOX 39
150 N FIR ST
SISTERS OR 97759

Findings of Fact

Background

1. On January 2, 2009, EILEEN STEIN filed an application on behalf of the City of Sisters to change the point of appropriation and place of use under Certificate 85243. The Department assigned the application number T-10766.

2. The right to be transferred is as follows:

   Certificate: 85243 in the name of CITY OF SISTERS (perfected under Permit G-11418)
   Use: MUNICIPAL USES
   Priority Date: JUNE 25, 1991
   Rate: 1.78 CUBIC FEET PER SECOND
   Source: WELL 2 in the WHYCHUS BASIN

This final order is subject to judicial review by the Court of Appeals under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482(1). Pursuant to ORS 536.075 and OAR 137-003-0675, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Authorized Point of Appropriation:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	5	SW SW	1,280 FEET NORTH AND 1,175 FEET EAST FROM THE SW CORNER OF SECTION 5

Authorized Place of Use:

MUNICIPAL USES				
Twp	**Rng**	**Mer**	**Sec**	**Q-Q**
15 S	10 E	WM	4	SW NE
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	SE SW
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	8	NW NW
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NW SW

3. Transfer Application T-10766 proposes to move the authorized point of appropriation approximately 1.25 miles northeast from the existing point of appropriation to:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15S	10E	WM	4	SE NW	1,890 FEET SOUTH AND 2,325 FEET EAST FROM THE NW CORNER OF SECTION 4

4. Transfer Application T-10766 also proposes to change the place of use of the right to:

MUNICIPAL USES				
Twp	**Rng**	**Mer**	**Sec**	**Q-Q**
15 S	10 E	WM	4	NE NW
15 S	10 E	WM	4	SW NW
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	SW NE
15 S	10 E	WM	5	SE NE
15 S	10 E	WM	5	SW NW
15 S	10 E	WM	5	SE NW
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15 S	10 E	WM	5	NW SW
15 S	10 E	WM	5	SW SW
15 S	10 E	WM	5	SE SW
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	6	NE SE
15 S	10 E	WM	6	NW SE
15 S	10 E	WM	6	SW SE
15 S	10 E	WM	6	SE SE
15 S	10 E	WM	8	NE NE
15 S	10 E	WM	8	NW NE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	9	NE NE
15 S	10 E	WM	9	NW NE
15 S	10 E	WM	9	SW NE
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NE NW
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NE SE
15 S	10 E	WM	9	NW SE
15 S	10 E	WM	9	SW SE
15 S	10 E	WM	9	SE SE

5. Notice of the application for transfer was published on January 13, 2009, pursuant to OAR 690-380-4000. No comments were filed in response to the notice.

6. On March 6, 2009, the Department mailed a copy of the draft Preliminary Determination proposing to approve Transfer Application T-10766 to the applicant. The cover letter for the draft Preliminary Determination set forth a deadline of April 9, 2009, for the applicant to respond. The applicant responded by the deadline, identified some minor clerical errors in the draft (that have been corrected in this document) and requested that the Department proceed with issuance of a Preliminary Determination.

7. On March 25, 2009, the Department issued a Preliminary Determination proposing to approve Transfer Application T-10766 and mailed a copy to the applicant. Additionally, notice of the Preliminary Determination for the transfer application was published on the Department's weekly notice on April 7, 2009, and in The Nugget newspaper on April 15, 22 and 29, 2009, pursuant to ORS 540.520 and OAR 690-380-4020. No protests were filed in response to the notice.

Transfer Review Criteria (OAR 690-380-4010)

8. Water has been used within the last five years according to the terms and conditions of the right. There is no information in the record that would demonstrate that the right is subject to forfeiture under ORS 540.610.

9. A pump and pipeline system sufficient to use the full amount of water allowed under the existing right was present within the five-year period prior to submittal of Transfer Application T-10766.

10. The proposed change would not result in enlargement of the right.

11. The proposed change would not result in injury to other water rights.

Conclusions of Law

The change in point of appropriation and change in place of use proposed in Transfer Application T-10766 are consistent with the requirements of ORS 537.705 and 540.505 to 540.580 and OAR 690-380-5000.

Now, therefore, it is ORDERED:

1. The change in point of appropriation and change in place of use proposed in application T-10766 are approved.

2. The right to the use of the water is restricted to beneficial use at the place of use described, and is subject to all other conditions and limitations contained in Certificate 85243 and any related decree.

3. Water right certificate 85243 is cancelled.

4. Any portions of the former place of use of the transferred right that are not included in the proposed place of use shall no longer receive water under the right.

5. Water shall be acquired from the same aquifer (water source) as the original point of appropriation.

6. The quantity of water diverted at the new point of appropriation shall not exceed the quantity of water lawfully available at the original point of appropriation.

7. Prior to diverting water, the water user shall install an in-line flow meter or other suitable device for measuring and recording the quantity of water diverted. The type and plans of the measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department. The water user shall maintain and operate the measuring device as required by the Department.

8. The approved changes shall be completed and full beneficial use of the water shall be made on or before **October 1, 2014**. A Claim of Beneficial Use prepared by a Certified Water Rights Examiner shall be submitted by the applicant to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.

9. When satisfactory proof of the completed changes is received, a new certificate confirming the right transferred will be issued.

Dated at Salem, Oregon this 1st day of June 2009.

Phillip C. Ward, Director

Mailing date: JUN 12 2009

Oregon Water Resources Department

Water Rights Section

Water Rights Application

Number G-17058

Superseding Final Order

Appeal Rights

Under the provisions of ORS 537.170 and ORS 537.622, the applicant may request a contested case hearing by submitting the information required for a protest under ORS 537.153(6) or ORS 537.621(7) to the Department within 14 days after the date of mailing of this order as shown below. If a contested case hearing is requested, the Department must schedule one. In the contested case hearing, however, only those issues based on the modifications to the Proposed Final Order may be addressed.

ORS 536.075 allows for additional appeal rights for other than contested case. This is a Final Order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

This statement of judicial review rights does not create a right to judicial review of this order, if judicial review is otherwise precluded by law. Where no changes have been made to a Proposed Final Order on a water right application and no protests have been filed during the protest period, the Final Order is not subject to judicial review.

Findings of Fact

On May 27, 2008, City of Sisters submitted an application to the Department for a water use permit.

The Department issued a Proposed Final Order on April 6, 2010, concluding that with the mitigation proposed by the applicant, water is available for the proposed use, and that the proposed use would ensure the preservation of the public welfare, safety and health. The protest period closed May 21, 2010, and no protest was filed.

As required by OAR 690-505-0615, the applicant must submit proposed mitigation that meets the requirements of OAR 690-505-0610(2)-(5). Pursuant to OAR 690-505-0620, a permit shall not be issued until the applicant provides documentary evidence that mitigation water, in an amount satisfying the mitigation obligation, is legally protected instream.

The applicant submitted a mitigation proposal to provide 241.8 acre-feet of mitigation water within the Whychus Creek Zone of Impact. The applicant is proposing to obtain mitigation by purchasing mitigation credits, completing a mitigation project, and/or through an offset. One mitigation credit is equivalent to one acre-foot of mitigation water.

The proposed use would not impair or be detrimental to the public interest, but the Department's continuing evaluation reveals that the Proposed Final Order requires modification to the following conditions:

> Within five years of permit issuance, the permittee shall submit a Water Management and Conservation Plan, addressing use under this permit, consistent with OAR 690-086. The Director may approve an extension of this time line to complete the required Water Management and Conservation Plan. The time line for submittal of a plan under this permit does not alter the time lines for submittal of a plan under any other order of the Department. No water may be diverted if a Water Management and Conservation Plan is not submitted within five years of permit issuance, unless an extension of this time has been approved.
>
> The permittee shall provide mitigation prior to each stage of development under the permit, as described in the incremental development mitigation plan on file with the Department, and in accordance with the standards of the Deschutes Ground Water Mitigation Rules, OAR Chapter 690, Division 505.
>
> The permittee shall not increase the rate or amount of water diverted, as described in the incremental development mitigation plan, prior to increasing the corresponding mitigation.
>
> The permittee shall seek and receive Departmental approval prior to changing the incremental mitigation development plan and related mitigation obligation for each stage of permit development.
>
> The permittee shall report to the Department the progress of implementing the incremental mitigation development plan and related mitigation no later than April 1 of each year. This annual notification is not necessary if the permittee has completed development and submitted a Claim of Beneficial Use to the Department.

On June 17, 2010, the Water Resources Department issued a Final Order approving Application G-17058 contingent upon the required mitigation being provided and the payment of permit recording fees.

Subsequently, the Department discovered the June 17, 2010 Final Order erroneously indicated all 241.8 permanent mitigation credits must be obtained prior to permit issuance, rather than only the first increment of mitigation consistent with an approved incremental development mitigation plan.

Conclusions of Law

The Department therefore concludes that water is available in the amount necessary for the proposed use; the proposed use will not result in injury to existing water rights; and the proposed

use would ensure the preservation of the public welfare, safety and health as described in ORS 537.525.

Order

The June 17, 2010 Final Order issued for Application G-17058 is superseded by this instrument and is of no further force or effect.

Application G-17058 is approved with the above modifications to the Proposed Final Order.

A permit consistent with the attached draft permit shall be issued upon:

a) the applicant providing satisfactory mitigation, by purchasing mitigation credits, completing a mitigation project, and/or through an offset, meeting the requirements of OAR 690-505-0610(2)-(5), according to an approved incremental development plan; and

b) the submission of permit recording fees in the amount of $600.

This Superseding Final Order is issued approving Application G-17058 contingent upon the required mitigation being provided, and permit recording fees paid before a permit may be issued. This Final Order shall expire 5 years after issuance unless the required mitigation is provided. OAR 690-505-0620(2).

DATED July 8 **, 2010**

E. Timothy Wall

for Phillip C. Ward, Director

Water Resources Department

This document was prepared by Jeana Eastman. If you have any questions about any of the statements contained in this document I am most likely the best person to answer your questions. You can reach me at 503-986-0859.

If you have previously filed a protest and want to know its status, please contact Patricia McCarty at 503-986-0820.

If you have other questions about the Department or any of its programs please contact our Customer Service Group at 503-986-0801.

Address all other correspondence to: Water Rights Section, Oregon Water Resources Department, 725 Summer St NE Ste A, Salem OR 97301-1266, Fax: 503-986-0901.

STATE OF OREGON

COUNTY OF DESCHUTES

DRAFT PERMIT TO APPROPRIATE PUBLIC WATERS

THIS DRAFT PERMIT IS HEREBY ISSUED TO:

CITY OF SISTERS
PO BOX 39 150 N FIR ST
SISTERS OR 97759

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-17058

SOURCE OF WATER: FOUR WELLS IN WHYCHUS CREEK BASIN

RATE: 2.0 CUBIC FEET PER SECOND, FURTHER LIMITED TO 604.6 ACRE FEET PER YEAR

DATE OF PRIORITY: MAY 27, 2008

USE: MUNICIPAL USE

PERIOD: YEAR ROUND

Authorized Points of Appropriation:

	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
WELL 1 (DESC 3023)	15 S	10 E	WM	9	NW SW	2950 FEET SOUTH AND 650 FEET EAST FROM NW CORNER, SECTION 9
WELL 2 (DESC 1034)	15 S	10 E	WM	5	NW SW	1335 FEET NORTH AND 1210 FEET EAST FROM SW CORNER, SECTION 5
WELL 3 (DESC 57902)	15 S	10 E	WM	4	SE NW	1890 FEET SOUTH AND 2325 FEET EAST FROM NW CORNER, SECTION 4
WELL 4	15 S	10 E	WM	8	SW SW	230 FEET NORTH AND 1125 FEET EAST FROM SW CORNER, SECTION 8

Authorized Place of Use: WITHIN THE CITY OF SISTERS SERVICE BOUNDARY, INCLUDING:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	NE NW
15 S	10 E	WM	4	SW NW
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	NE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
15 S	10 E	WM	5	SW NE
15 S	10 E	WM	5	SE NE
15 S	10 E	WM	5	SW NW
15 S	10 E	WM	5	SE NW
15 S	10 E	WM	5	NE SW
15 S	10 E	WM	5	NW SW

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	5	SW SW
15 S	10 E	WM	5	SE SW
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	6	NE SE
15 S	10 E	WM	6	NW SE
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15 S	10 E	WM	9	SW NW
15 S	10 E	WM	9	SE NW
15 S	10 E	WM	9	NE SE
15 S	10 E	WM	9	NW SE
15 S	10 E	WM	9	SW SE
15 S	10 E	WM	9	SE SE

Measurement, Recording and Reporting Conditions:

A. Before water use may begin under this permit, the permittee shall install a totalizing flow meter at each point of appropriation. The permittee shall maintain the meters in good working order.

B. The permittee shall keep a complete record of the amount of water used each month, and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water-use information, including the place and nature of use of water under the permit.

C. The permittee shall allow the watermaster access to the meters; provided however, where any meter is located within a private structure, the watermaster shall request access upon reasonable notice.

D. The Director may provide an opportunity for the permittee to submit alternative measuring and reporting procedures for review and approval.

The Department requires the water user to obtain, from a qualified individual (see below), and report annual static water levels for each well on the permit. The static water level shall be measured in the month of March. Reports shall be submitted to the Department within 30 days of measurement.

The permittee shall report an initial March static water-level measurement once well construction is complete and annual measurements thereafter. Annual measurements are required whether or not the well is used. The first annual measurement will establish a reference level against which future measurements will be compared. However, the Director may establish the reference level based on an analysis of other

water-level data. The Director may require the user to obtain and report additional water levels each year if more data are needed to evaluate the aquifer system.

All measurements shall be made by a certified water rights examiner, registered professional geologist, registered professional engineer, licensed well constructor or pump installer licensed by the Construction Contractors Board. Measurements shall be submitted on forms provided by, or specified by, the Department. Measurements shall be made with equipment that is accurate to at least the standards specified in OAR 690-217-0045. The Department requires the individual performing the measurement to:

A. Associate each measurement with an owner's well name or number and a Department well log ID; and

B. Report water levels to at least the nearest tenth of a foot as depth-to-water below ground surface; and

C. Specify the method of measurement; and

D. Certify the accuracy of all measurements and calculations reported to the Department.

The water user shall discontinue use of, or reduce the rate or volume of withdrawal from, the well(s) if any of the following events occur:

A. Annual water-level measurements reveal an average water-level decline of three or more feet per year for five consecutive years; or

B. Annual water-level measurements reveal a water-level decline of 15 or more feet in fewer than five consecutive years; or

C. Annual water-level measurements reveal a water-level decline of 25 or more feet; or

D. Hydraulic interference leads to a decline of 25 or more feet in any neighboring well with senior priority.

The period of restricted use shall continue until the water level rises above the decline level which triggered the action or the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or causing substantial interference with senior water rights. The water user shall not allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit. If more than one well is involved, the water user may submit an alternative measurement and reporting plan for review and approval by the Department.

Within five years of permit issuance, the permittee shall submit a Water Management and Conservation Plan, addressing use under this permit, consistent with OAR 690-086. The Director may approve an extension of this time line to complete the required Water Management and Conservation Plan. The time line for submittal of a plan under this permit does not alter the time lines for submittal of a plan under any other order of the Department. No water may be diverted if a Water Management and Conservation Plan is not submitted within five years of permit issuance, unless an extension of this time has been approved.

Ground Water Mitigation Conditions:

1. Mitigation Obligation: 241.8 acre-feet of mitigation water in the Whychus Creek Zone of Impact, located anywhere in the Whychus Creek Basin above river mile 16.
2. Mitigation Source: mitigation credits, a mitigation project, and/or offset.
3. Mitigation water must be legally protected instream in the Whychus Creek Zone of Impact for the life of the permit and subsequent certificate(s). Regulation of the use and/or cancellation of the permit, or subsequent certificate(s) will occur if the required mitigation is not maintained.

4. The permittee shall provide mitigation prior to each stage of development under the permit, as described in the incremental development mitigation plan on file with the Department, and in accordance with the standards of the Deschutes Ground Water Mitigation Rules, OAR Chapter 690, Division 505.
5. The permittee shall not increase the rate or amount of water diverted, as described in the incremental development mitigation plan, prior to increasing the corresponding mitigation.
6. The permittee shall seek and receive Departmental approval prior to changing the incremental mitigation development plan and related mitigation obligation for each stage of permit development.
7. The permittee shall report to the Department the progress of implementing the incremental mitigation development plan and related mitigation no later than April 1 of each year. This annual notification is not necessary if the permittee has completed development and submitted a Claim of Beneficial Use to the Department.
8. The permittee shall provide additional mitigation if the Department determines that average annual consumptive use of the subject appropriation has increased beyond the originally mitigated amount.
9. If mitigation is from a secondary right for stored water from a storage project not owned or operated by the permittee, the use of water under this right is subject to the maintenance and terms and conditions of a valid contract or satisfactory replacement, with the owner/operator of the storage project, a copy of which must be on file in the records of the Water Resources Department.
10. Failure to comply with these mitigation conditions shall result in the Department regulating the ground water permit, or subsequent certificate(s), proposing to deny any permit extension application for the ground water permit, and proposing to cancel the ground water permit, or subsequent certificate(s).

Scenic Waterway Condition:

Use of water under authority of this permit may be regulated if analysis of data available after the permit is issued discloses that the appropriation will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife in effect as of the priority date of the right, or as those quantities may be reduced subsequently. However, the use of ground water allowed under the terms of this permit will not be subject to regulation for Scenic Waterway flows, provided the required mitigation is maintained.

STANDARD CONDITIONS

1. Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.
2. If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may be subject to cancellation, unless the Department authorizes the change in writing.
3. If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.
4. The wells shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

5. Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.
6. Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.
7. This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best-practice technologies or conservation practices to achieve this end.
8. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged comprehensive land-use plan.
9. Completion of construction and complete application of the water to the use shall be made within 20 years of the date of permit issuance. If the water is not completely applied before this date, and the permittee wishes to continue development under the permit, the permittee must submit an application for extension of time, which may be approved based upon the merit of the application.
10. Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner.

Issued

DRAFT – NOT A PERMIT

_____

for Phillip C. Ward, Director
Water Resources Department

STATE OF OREGON

COUNTY OF DESCHUTES

PERMIT TO APPROPRIATE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO:

CITY OF SISTERS
PO BOX 39 150 N FIR ST
SISTERS OR 97759

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-17058

SOURCE OF WATER: FOUR WELLS IN WHYCHUS CREEK BASIN

RATE: 2.0 CUBIC FEET PER SECOND, FURTHER LIMITED TO 604.6 ACRE FEET PER YEAR

DATE OF PRIORITY: MAY 27, 2008

USE: MUNICIPAL USE

PERIOD: YEAR ROUND

Authorized Points of Appropriation:

	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
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Authorized Place of Use: WITHIN THE CITY OF SISTERS SERVICE BOUNDARY, INCLUDING:

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15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NE SE
15 S	10 E	WM	4	NW SE
15 S	10 E	WM	4	SW SE
15 S	10 E	WM	4	SE SE
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15 S	10 E	WM	5	NW SW
15 S	10 E	WM	5	SW SW
15 S	10 E	WM	5	SE SW
15 S	10 E	WM	5	NE SE
15 S	10 E	WM	5	NW SE
15 S	10 E	WM	5	SW SE
15 S	10 E	WM	5	SE SE
15 S	10 E	WM	6	NE SE
15 S	10 E	WM	6	NW SE
15 S	10 E	WM	6	SW SE
15 S	10 E	WM	6	SE SE
15 S	10 E	WM	8	NE NE
15 S	10 E	WM	8	NW NE
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	8	NE NW
15 S	10 E	WM	9	NE NE
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Measurement, Recording and Reporting Conditions:

A. Before water use may begin under this permit, the permittee shall install a totalizing flow meter at each point of appropriation. The permittee shall maintain the meters in good working order.

B. The permittee shall keep a complete record of the amount of water used each month, and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water-use information, including the place and nature of use of water under the permit.

C. The permittee shall allow the watermaster access to the meters; provided however, where any meter is located within a private structure, the watermaster shall request access upon reasonable notice.

D. The Director may provide an opportunity for the permittee to submit alternative measuring and reporting procedures for review and approval.

The Department requires the water user to obtain, from a qualified individual (see below), and report annual static water levels for each well on the permit. The static water level shall be measured in the month of March. Reports shall be submitted to the Department within 30 days of measurement.

The permittee shall report an initial March static water-level measurement once well construction is complete and annual measurements thereafter. Annual measurements are required whether or not the well is used. The first annual measurement will establish a reference level against which future measurements will be compared. However, the Director may establish the reference level based on an analysis of other water-level data. The Director may require the user to obtain and report additional water levels each year if more data are needed to evaluate the aquifer system.

All measurements shall be made by a certified water rights examiner, registered professional geologist, registered professional engineer, licensed well constructor or pump installer licensed by the Construction Contractors Board. Measurements shall be submitted on forms provided by, or specified by, the Department. Measurements shall be made with equipment that is accurate to at least the standards specified in OAR 690-217-0045. The Department requires the individual performing the measurement to:

A. Associate each measurement with an owner's well name or number and a Department well log ID; and

B. Report water levels to at least the nearest tenth of a foot as depth-to-water below ground surface; and

C. Specify the method of measurement; and

D. Certify the accuracy of all measurements and calculations reported to the Department.

The water user shall discontinue use of, or reduce the rate or volume of withdrawal from, the well(s) if any of the following events occur:

A. Annual water-level measurements reveal an average water-level decline of three or more feet per year for five consecutive years; or

B. Annual water-level measurements reveal a water-level decline of 15 or more feet in fewer than five consecutive years; or

C. Annual water-level measurements reveal a water-level decline of 25 or more feet; or

D. Hydraulic interference leads to a decline of 25 or more feet in any neighboring well with senior priority.

The period of restricted use shall continue until the water level rises above the decline level which triggered the action or the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or causing substantial interference with senior water rights. The water user shall not allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit. If more than one well is involved, the water user may submit an alternative measurement and reporting plan for review and approval by the Department.

Within five years of permit issuance, the permittee shall submit a Water Management and Conservation Plan, addressing use under this permit, consistent with OAR 690-086. The Director may approve an

extension of this time line to complete the required Water Management and Conservation Plan. The time line for submittal of a plan under this permit does not alter the time lines for submittal of a plan under any other order of the Department. No water may be diverted if a Water Management and Conservation Plan is not submitted within five years of permit issuance, unless an extension of this time has been approved.

Ground Water Mitigation Conditions:

1. Mitigation Obligation: 241.8 acre-feet of mitigation water in the Whychus Creek Zone of Impact, located anywhere in the Whychus Creek Basin above river mile 16.
2. Mitigation Source: Mitigation Credits from a chartered mitigation bank, or suitable replacement mitigation that meets the requirements of OAR 690-505-0610, in accordance with the incremental development plan on file with the Department, within the Whychus Creek Zone of Impact.
3. Mitigation water must be legally protected instream in the Whychus Creek Zone of Impact for the life of the permit and subsequent certificate(s). Regulation of the use and/or cancellation of the permit, or subsequent certificate(s) will occur if the required mitigation is not maintained.
4. The permittee shall provide mitigation prior to each stage of development under the permit, as described in the incremental development mitigation plan on file with the Department, and in accordance with the standards of the Deschutes Ground Water Mitigation Rules, OAR Chapter 690, Division 505.
5. The permittee shall not increase the rate or amount of water diverted, as described in the incremental development mitigation plan, prior to increasing the corresponding mitigation.
6. The permittee shall seek and receive Departmental approval prior to changing the incremental mitigation development plan and related mitigation obligation for each stage of permit development.
7. The permittee shall report to the Department the progress of implementing the incremental mitigation development plan and related mitigation no later than April 1 of each year. This annual notification is not necessary if the permittee has completed development and submitted a Claim of Beneficial Use to the Department.
8. The permittee shall provide additional mitigation if the Department determines that average annual consumptive use of the subject appropriation has increased beyond the originally mitigated amount.
9. If mitigation is from a secondary right for stored water from a storage project not owned or operated by the permittee, the use of water under this right is subject to the maintenance and terms and conditions of a valid contract or satisfactory replacement, with the owner/operator of the storage project, a copy of which must be on file in the records of the Water Resources Department.
10. Failure to comply with these mitigation conditions shall result in the Department regulating the ground water permit, or subsequent certificate(s), proposing to deny any permit extension application for the ground water permit, and proposing to cancel the ground water permit, or subsequent certificate(s).

Scenic Waterway Condition:

Use of water under authority of this permit may be regulated if analysis of data available after the permit is issued discloses that the appropriation will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife in effect as of the priority date of the right, or as those quantities may be reduced subsequently. However, the use of ground water allowed under the terms of this permit will not be subject to regulation for Scenic Waterway flows, provided the required mitigation is maintained.

STANDARD CONDITIONS

1. Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.
2. If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may be subject to cancellation, unless the Department authorizes the change in writing.
3. If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.
4. The wells shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.
5. Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.
6. Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.
7. This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best-practice technologies or conservation practices to achieve this end.
8. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged comprehensive land-use plan.
9. Completion of construction and complete application of the water to the use shall be made within 20 years of the date of permit issuance. If the water is not completely applied before this date, and the permittee wishes to continue development under the permit, the permittee must submit an application for extension of time, which may be approved based upon the merit of the application.
10. Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner.

Issued September 9, 2010

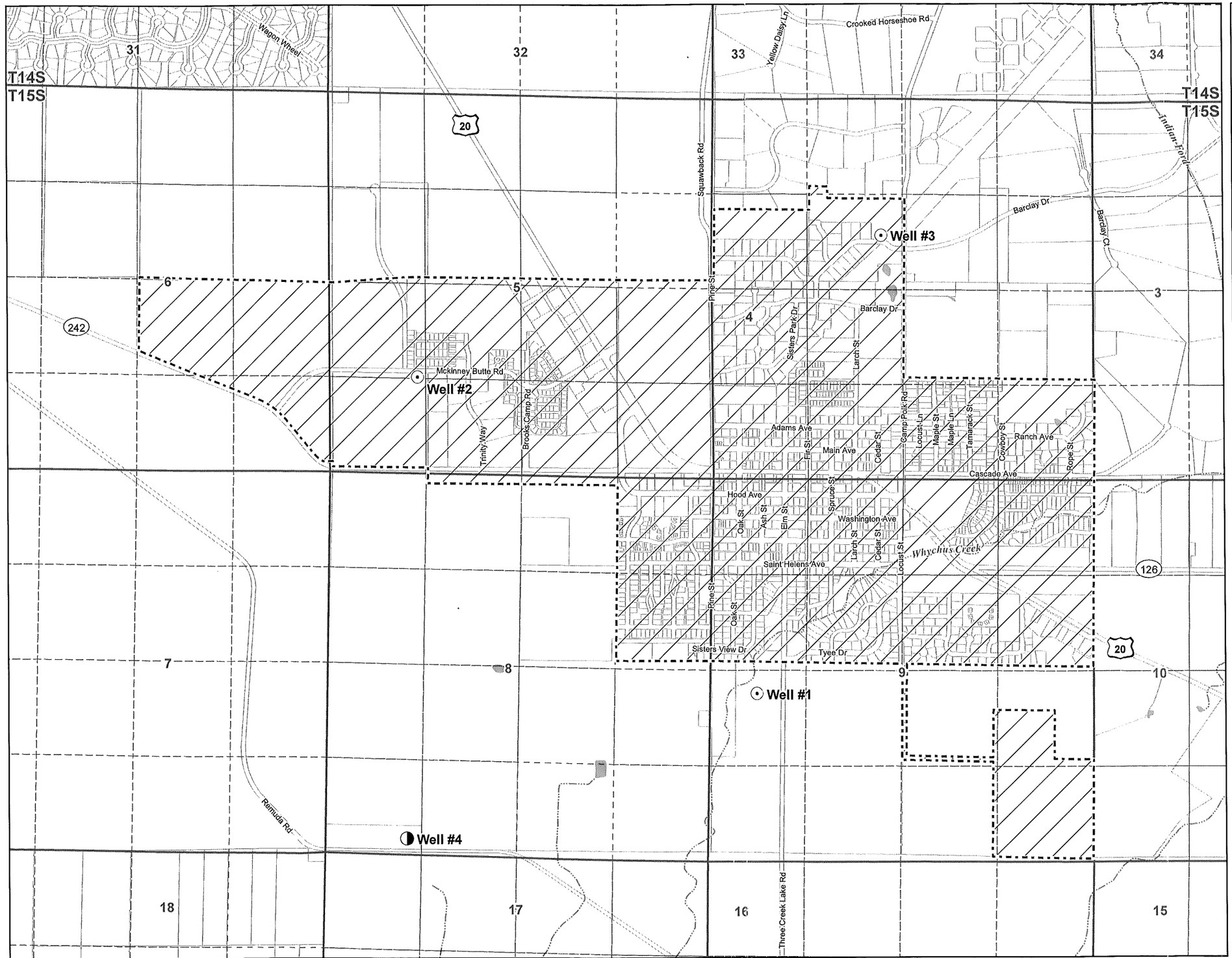
E. Timothy Wall

for Phillip C. Ward, Director
Water Resources Department

Groundwater Permit Application Map

City of Sisters
Deschutes County, Oregon

Township 15 South, Range 10 East (W.M.)



LEGEND

Proposed Points of Appropriation (POA)

- Existing Wells (constructed)
- Future Well (to be constructed)
- Proposed Place of Use (POU)
- Urban Growth Boundary
- Tax Lots
- Waterbodies
- Watercourses

RECEIVED
MAY 27 2008
WATER RESOURCES DEPT
SALEM, OREGON

POA LOCATION DESCRIPTIONS

Existing Well #1
Located 2,950 feet South and 650 feet East from the NW corner of Section 9, Township 15 South, Range 10 East (W.M.)

Existing Well #2
Located 1,335 feet North and 1,210 feet East from the SW corner of Section 5, Township 15 South, Range 10 East (W.M.)

Existing Well #3
Located 1,890 feet South and 2,325 feet East from the NW corner of Section 4, Township 15 South, Range 10 East (W.M.)

Future Well #4
Located 230 feet North and 1,125 feet East from the SW corner of Section 8, Township 15 South, Range 10 East (W.M.)

DISCLAIMER

This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines.

N

Scale
1:15,840

0 660 1,320 1,980 2,640
1 inch equals 1,320 feet

MAP NOTES:
Projection: Oregon State Plane South Zone
Datum: North American Datum of 1983
Date: May 23, 2008
Data Sources: Deschutes County GIS, Oregon Geospatial Data Clearinghouse

GSI Water Solutions, Inc.

File Path: \\gsi-sbs-001\Projects\283 - City of Sisters\001 - Water Rights Master Plan\Project_GIS\Project_mxds\GW_Permit_Application_Map_052308.mxd, Date: May 23, 2008 9:19:58 AM

App No G-17058

STATE OF OREGON

COUNTY OF DESCHUTES

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

CITY OF SISTERS
520 E CASCADE AVENUE
PO BOX 39
SISTERS, OR 97759

This superseding permit is issued to clarify a condition pertaining to the original well construction standards under Permit G-13316, and superseded by Permit G-18261 issued August 6, 2019. This permit correctly describes an amendment for a change in place of use and a change in point of appropriation under Permit Amendment Application T-12767 and approved by Special Order Vol. 113, Page 812-814, entered August 6, 2019 and Corrected by Special Order Vol. 113, Page 880, and to describe an extension of time for complete application of water approved June 8, 2012, and an assignment to a new permittee approved September 26, 2017. This permit supersedes Permit G-18261, originally G-13316.

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-14486

SOURCE OF WATER: 2 WELLS IN SQUAW CREEK BASIN

PURPOSE OR USE: QUASI-MUNICIPAL

MAXIMUM RATE: 2.15 CUBIC FEET PER SECOND

PERIOD OF USE: YEAR ROUND

DATE OF PRIORITY: MARCH 27, 1997

WELL LOCATIONS:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	8	SW SW	WELL 4 – 230 FEET NORTH AND 1125 FEET EAST FROM THE SW CORNER OF SECTION 8
15 S	10 E	WM	9	SW NE	EASTSIDE WELL - 1505 FEET SOUTH AND 1715 FEET WEST FROM THE NE CORNER OF SECTION 9

THE PLACE OF USE IS LOCATED AS FOLLOWS:

QUASI-MUNICIPAL
WITHIN THE SERVICE BOUNDARIES OF THE CITY OF SISTERS

Permit Amendment T-12767 Conditions

Measurement, recording and reporting conditions:

The combined quantity of water diverted at the new points of appropriation, together with that diverted at the old point of appropriation, shall not exceed the quantity of water lawfully available at the original point of appropriation.

Water use measurement conditions:

a. Before water use may begin under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device at each point of appropriation (new and existing)

b. The water user shall maintain the meters or measuring devices in good working order.

c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

Water shall be acquired from the same aquifer as the original point of appropriation.

Existing Permit Conditions

A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The water user shall develop a plan to monitor and report the impact of water use under this permit on water levels within the aquifer that provides water to the permitted well(s). The plan shall be submitted to the Department within one year of the date the permit is issued and shall be subject to the approval of the Department. At a minimum, the plan shall include a program to periodically measure static water levels within the permitted well(s) or an adequate substitute such as water levels in nearby wells. The plan shall also stipulate a reference water level against which any water-level declines will be compared. If a well listed on this permit (or replacement well) displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the water user shall discontinue use of, or reduce the rate or volume of withdrawal from, the well(s). Such action shall be taken until the water level recovers to above the 25-foot decline level or until the Department determines, based on the water user's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The water user shall in no instance allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Use of water under authority of this permit may be regulated if analysis of data available after permit issuance discloses that the appropriation will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife in effect as of the priority date of the right or as those quantities may be subsequently reduced.

The water user shall be responsible for updating the City of Sisters Water Management and Conservation Plan within one year of annexation into the City of Sisters. If annexation does not occur within one year of permit issuance, the water user shall submit a water management and conservation plan consistent with OAR Chapter 690, Division 86 within 2 years of permit issuance.

Original Well Conditions under Permit G-13316

The original well authorized under original Permit G-13316 identified as A Well in Squaw Creek Basin located at, SW ¼ NE ¼ , Section 8, T15S, R10E, W.M; 390 FEET NORTH AND 1509 FEET WEST FROM THE EAST ¼ CORNER OF SECTION 8, is conditioned as follows:

According to the well report, the well may not conform with the current construction standards, However, it appears that the well was constructed in accordance with the standards in effect at that time. If at any time, however, the well or its use:

a. acts as a conduit for groundwater contamination;
b. allows loss of artesian pressure;
c. allows waste of groundwater;
d. interferes with senior groundwater users; or
e. interferes with nearby surface water sources,

the Department may require that the well be repaired in accordance with the current well construction standards.

STANDARD CONDITIONS

The wells shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer..

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit. This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

The Director finds that the proposed use(s) of water described by this permit, as conditioned, will not impair or be detrimental to the public interest.

Actual construction of the well was to begin within one year from permit issuance (February 18, 1998). The complete application of the water to the use was to be made on or before October 30, 2002. By Extension of Time Final Order dated June 8, 2012, the completion of the application of water was extended to on or before October 1, 2023.

Issued AUG 16 2019

Lisa J Jaramillo, Transfer and Conservation Section Manager, for
Thomas M. Byler, Director
Oregon Water Resources Departmentheare

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Permit Amendment T-12767, Deschutes County	)	FINAL ORDER
	)	APPROVING A CHANGE IN POINT
	)	OF APPROPRIATION AND A
	)	CHANGE IN PLACE OF USE

Authority

Oregon Revised Statute (ORS) 537.211 establishes the process in which a water right permit holder may submit a request to change the point of appropriation and/or place of use authorized under an existing water right permit.

Applicant

CITY OF SISTERS
PAUL BERTAGNA
520 E. CASCADE AVE
PO BOX 39
SISTERS, OR 97759

Findings of Fact

1. On November 1, 2017, filed an application to change the point of appropriation and to change the place of use under Permit G-13316. The Department assigned the application number T-12767.

2. On June 8, 2012, the Department approved an extension of time for complete application of water to October 1, 2023.

3. On September 26, 2017, the Department approved an assignment of the permit to City of Sisters.

4. Notice of the application for the permit amendment was published in the Department's weekly notice on November 7, 2017, and in the Bend Bulletin newspaper on July 19 and 26, 2019, pursuant to ORS 540.520(5). No comments were filed in response to the notices.

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 and OAR 690-01-0005 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

5. Permit Amendment Application T-12767 proposes to move the authorized point of appropriation with approximate distances from the existing point of appropriation as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances	Distance from existing Well
15 S	10 E	WM	8	SW SW	WELL 4 – 230 FEET NORTH AND 1125 FEET EAST FROM THE SW CORNER OF SECTION 8	0.74 mile
15 S	10 E	WM	9	SW NE	EASTSIDE WELL - 1505 FEET SOUTH AND 1715 FEET WEST FROM THE NE CORNER OF SECTION 9	1.0 mile

6. Permit Amendment Application T-12767 also proposes to change the place of use of the permit to:

QUASI-MUNICIPAL
WITHIN THE SERVICE BOUNDARIES OF THE CITY OF SISTERS

Permit Amendment Review Criteria

7. The changes would not result in injury to other water rights.

8. The proposed place of use is owned and/or controlled by the permit holder.

9. The changes do not enlarge the permit.

10. The changes do not alter any other terms of the permit.

11. The proposed place of use is contiguous to the authorized place of use.

Conclusions of Law

The change in point of appropriation and change in place of use proposed by Permit Amendment Application T-12767 are consistent with the requirements of ORS 537.211.

Now, therefore, it is ORDERED:

1. The change in point of appropriation and change in place of use proposed by Permit Amendment Application T-12767 are approved.

2. Permit G-18261, in the name of City of Sisters, is issued to replace Permit G-13316, and incorporates the amendments approved by this order, the extension of time, the assignment, and the Water Management and Conservation Plan. Permit G-13316, in the name of CITY OF SISTERS, is no longer of any force or effect.

3. The combined quantity of water diverted at the new points of appropriation, together with that diverted at the old point of appropriation, shall not exceed the quantity of water lawfully available at the original point of appropriation.

4. Water use measurement conditions:
   a. Before water use may begin under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device at each point of appropriation (new and existing)
   b. The water user shall maintain the meters or measuring devices in good working order.
   c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.
5. Water shall be acquired from the same aquifer as the original point of appropriation.
6. The former place of use shall no longer be irrigated as part of this permit.
7. All other terms and conditions of Permit G-18261 remain the same.

Dated at Salem, Oregon this AUG 06 2019

Lisa J. Jaramillo, Transfer and Conservation Section Manager, for
Thomas M. Byler, Director
Oregon Water Resources Department

Mailing Date: AUG 07 2019

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Special Order Volume 113, Pages 812-814, approving Permit Amendment T-12767, Deschutes County	)))	CORRECTING ORDER

Authority

Oregon Revised Statute (ORS) 537.211 establishes the process in which a water right permit holder may submit a request to change the point of appropriation and/or place of use authorized under an existing water right permit.

Applicant

CITY OF SISTERS
PAUL BERTAGNA
520 E. CASCADE AVE
PO BOX 39
SISTERS, OR 97759

Findings of Fact

1. On August 6, 2019, the Department issued an order approving Permit Amendment Application T-12767. The order was recorded at Special Order Volume 113, Pages 812-814.

2. The order contained an error in the conditions to be applied to superseding permit G-18261, originally Permit G-13316, specifically condition number 6 which states "the former place of use shall no longer be irrigated as part of this permit." This condition does not apply to Quasi-Municipal use.

Now, therefore, it is ORDERED:

1. The change in point of appropriation and change in place of use proposed by Permit Amendment Application T-12767 are approved.

2. Permit G-18261, in the name of CITY OF SISTERS, is issued to replace Permit T-12767 and incorporates the amendments approved by this order, the extension of time, the assignment, and the Water Management and Conservation Plan. Permit T-12767, in the name of CITY OF SISTERS, is no longer of any force or effect.

3. The combined quantity of water diverted at the new points of appropriation, together with that diverted at the old point of appropriation, shall not exceed the quantity of water lawfully available at the original point of appropriation.

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 and OAR 690-01-0005 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

4. The order approving Permit Amendment Application T-12767 as recorded at Special Order Volume 113, Pages 812-814 is corrected to remove the erroneous condition to be applied to superseding permit G-18261, originally Permit G-13316.

5. Permit G-18270, in the name of CITY OF SISTERS in issued to replace Permit G-18261, originally Permit G-13316, and incorporates the amendments approved by this order, the extension of time, the assignment, and the Water Management and Conservation Plan. Permit G-18261, originally Permit G-13316, is no longer of any force or effect.

6. All other terms and conditions of Permit G-18261, originally G-13316 remain the same.

7. All other provisions of Special Order Volume 113, Pages 812-814 remain in effect.

Dated at Salem, Oregon this AUG 16 2019

Lisa J. Jaramillo, Transfer and Conservation Section Manager, for
Thomas M. Byler, Director
Oregon Water Resources Department

Mailing Date: AUG 19 2019

STATE OF OREGON

WATER DIVISION NO. COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

(For rights perfected under original, enlargement or secondary permits)

This is to Certify, *That* THE SISTERS DOMESTIC WATER USERS ASSOCIATION *of* Sisters, *State of* Oregon, *has made proof to the satisfaction of the STATE WATER BOARD of Oregon, of a right to the use of the waters of* Branton Ditch out of Squaw Creek, *a tributary of* Deschutes River, *for the purpose of* municipal supply for the Town of Siste-s, Oregon *under Permit No.* 3384 *of the State Engineer, and that said right to the use of said waters has been perfected in accordance with the laws of Oregon and duly confirmed by order of the STATE WATER BOARD of Oregon, made and entered of record in the Record of Proceedings of said Board, at Salem, in Volume* 1, *at page* 389, *on the* 13th *day of* April, 1921 *; that the priority of the right hereby confirmed dates from* May 18, 1917 *; that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed* 1.50 *cubic feet per second.*

A description of the lands under such right, and to which the water hereby confirmed is appurtenant, or, if for other purposes, the place where such water is put to beneficial use, is as follows : The Town of Sisters, in Deschutes County, Oregon.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described.

Rights to the use of water for power purposes are limited to a period of forty years from the date of priority of the right, as herein set forth, subject to a preference right of renewal under the laws existing at the date of the expiration of the right for power purposes, as hereby confirmed and limited.

Witness *the seal and signature of the STATE WATER BOARD affixed this* 13th *day of* April, 1921.

STATE WATER BOARD

(SEAL OF STATE WATER BOARD)

By PERCY A. CUPPER
State Engineer, President

Attest : R. W. POTTER
Secretary

Recorded in State Record of Water Right Certificates, Volume 4, *Page* 3227

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

This Is to Certify, *That* THE SISTERS WATER USERS ASSOCIATION

of Sisters , *State of* Oregon , *has made proof to the satisfaction of the STATE ENGINEER of Oregon, of a right to the use of the waters of* Springs *a tributary of* Squaw Creek *for the purpose of* Municipal supply *under Permit No.* 8906 *of the State Engineer, and that said right to the use of said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from* February 11, 1929;

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 0.2 cubic foot per second

The point of diversion is located in the $SE\frac{1}{4}SE\frac{1}{4}$ *of Section* 8 , *Township* 15 S , *Range* 10 E, *W. M. The use hereunder for irrigation shall conform to such reasonable rotation system as may be ordered by the proper state officer.*

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to one-eightieth of one cubic foot per second per acre, or its equivalent in case of rotation.

A description of the lands irrigated under the right hereby confirmed, and to which such right is appurtenant (if for irrigation, or any other purpose), is as follows:

PLACE OF USE:

Section 4,
Township 15 South, Range 10 East, W. M.,
being within the town of Sisters.

The right to the use of the water for any purpose is restricted to the lands or place of use herein described.

After the expiration of fifty years from the date of this certificate or on the expiration of any federal power license issued in connection with this right, and after not less than two years notice in writing to the holder hereof, the State of Oregon, or any municipality thereof, shall have the right to take over the dams, plants and other structures and all appurtenances thereto which have been constructed for the purpose of devoting to beneficial use the water rights specified herein, upon condition that before taking possession the State or municipality shall pay not to exceed the fair value of the property so taken, plus such reasonable damages, if any, to valuable, serviceable and dependable property of the holder of this certificate, not taken over, as may be caused by the severance therefrom of the property taken in accordance with the provisions of section 47-508, Oregon Code 1930.

WITNESS the signature of the State Engineer, affixed this 1st *day of* June , *193* 3

CHAS. E. STRICKLIN
State Engineer

Recorded in State Record of Water Right Certificates, Volume 9 , *page* 10028 .

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

This Is to Certify, *That* SISTERS DOMESTIC WATER DISTRICT

of Sisters, *State of* Oregon, *has made proof to the satisfaction of the STATE ENGINEER of Oregon, of a right to the use of the waters of* Pole Creek Swamp Springs *a tributary of* Squaw Creek *for the purpose of* Domestic and Municipal Supply *under Permit No.* 12597 *of the State Engineer, and that said right to the use of said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from* April 7, 1937;

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 1.25 cubic feet per second,

or its equivalent in case of rotation, measured at the point of diversion from the stream. The point of diversion is located in the SW¼SE¼, Section 35, Township 15 South, Range 9 East, W. M.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to of one cubic foot per second per acre,

and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right hereby confirmed, and to which such right is appurtenant, is as follows:

SW¼ of Section 4
NW¼ of Section 9
Township 15 South, Range 10 East, W. M.

5

The right to the use of the water for the purposes aforesaid is restricted to the lands or place of use herein described.

WITNESS the signature of the State Engineer, affixed this 1st *day of* May, 193/ 41

CHAS. E. STRICKLIN
State Engineer

Recorded in State Record of Water Right Certificates, Volume 12, *page* 13501

Permit A-1—500—6-30

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

This Is to Certify, That SISTERS DOMESTIC WATER DISTRICT

of Sisters, State of Oregon, has made proof to the satisfaction of the STATE ENGINEER of Oregon, of a right to the use of the waters of 9 springs

a tributary of Squaw Creek for the purpose of Municipal

under Permit No. 12869 of the State Engineer, and that said right to the use of said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from November 1, 1937;

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 1.25 cubic feet per second,

or its equivalent in case of rotation, measured at the point of diversion from the stream. The point of diversion is located in the $SW\frac{1}{4}SW\frac{1}{4}$, Section 3 and $NW\frac{1}{4}NW\frac{1}{4}$, Section 10, Township 16 South, Range 9 East, W. M.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to of one cubic foot per second per acre,

and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right hereby confirmed, and to which such right is appurtenant, is as follows:

$SW\frac{1}{4}SW\frac{1}{4}$
$SE\frac{1}{4}SW\frac{1}{4}$
$NW\frac{1}{4}SW\frac{1}{4}$
Section 4
$NE\frac{1}{4}NE\frac{1}{4}$
Section 8
$NW\frac{1}{4}NW\frac{1}{4}$
$NE\frac{1}{4}NW\frac{1}{4}$
Section 9
Township 15 South, Range 10 East, W. M.

The right to the use of the water for the purposes aforesaid is restricted to the lands or place of use herein described.

WITNESS the signature of the State Engineer, affixed

this 1st day of May, 193 41

CHAS. E. STRICKLIN
State Engineer

Recorded in State Record of Water Right Certificates, Volume 12, page 13509

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
SISTERS, OREGON 97759

confirms the right to use the waters of POLE CREEK AND SISTERS' RESERVOIR CONSTRUCTED UNDER PERMIT R-5054, a tributary of SQUAW CREEK, for the purpose of MUNICIPAL USE.

This right was perfected under Permit 32854. The date of priority is NOVEMBER 17, 1967. This right is limited to 1.45 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the point of diversion from the source.

The points of diversion are located as follows:

SE 1/4 NE 1/4, NE 1/4 NE 1/4, SECTION 19, T 15 S, R 10 E, W.M.; CREEK DIVERSION- 1810 FEET SOUTH AND 1100 FEET WEST, RESERVOIR OUTLET- 880 FEET SOUTH AND 750 FEET WEST, BOTH FROM THE NE CORNER OF SECTION 19.

This right shall conform to any reasonable rotation system ordered by the proper state officer.

A description of the place of use under this right, and to which this right is appurtenant, is as follows:

SW 1/4 NE 1/4
SE 1/4 NW 1/4
S 1/2
SECTION 4

E 1/2 SW 1/4
SE 1/4
SECTION 5

N 1/2 NE 1/4
SE 1/4 NE 1/4
SECTION 8

W 1/2 NE 1/4
SE 1/4 NE 1/4
NW 1/4
NW 1/4 SW 1/4
SECTION 9
TOWNSHIP 15 SOUTH, RANGE 10 EAST, W.M.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The right is subject to minimum flows established by the Water Resources Commission with an effective date prior to this right.

WITNESS the signature of the Water Resources Director, affixed JANUARY 3, 1991.

/s/ WILLIAM H. YOUNG

William H. Young

Recorded in State Record of Water Right Certificates numbered 65091.

44263.DLM

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Instream Lease Application IL-1243, Certificates 65091, 65090, 13509, 13501, 10028, and 3227, Deschutes County	)))	DETERMINATION and FINAL ORDER ON PROPOSED INSTREAM LEASE

Authority
ORS 537.348 establishes the process in which a water right holder may submit a request to lease an existing water right for instream purposes. OAR Chapter 690, Division 077 implements the statutes and provides the Department's procedures and criteria for evaluating instream lease applications.

Lessor
City of Sisters
PO Box 39
Sisters, OR 97759

Lessee
Deschutes River Conservancy (DRC)
P.O. Box 1560
Bend, Oregon 97709
gen@deschutesriver.org

Findings of Fact

1. On April 13, 2017, the City of Sisters and the DRC filed an application to renew instream lease IL-1243, involving all of Certificates 65091, 65090, 13509, 13501, 10028, and 3227 for instream use.

2. The first right to be leased is as follows:

Certificate: 65091 in the name of City of Sisters
Use: Municipal Use
Priority Date: November 17, 1967
Quantity: 1.45 Cubic Foot per Second (CFS)
Source: Pole Creek and Sisters Reservoir constructed under permit R-5054, tributary to Whychus Creek (formerly Squaw Creek)

Authorized Point of Diversion (POD):

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	19	SE NE	CREEK DIVERSION: 1810 FEET SOUTH AND 1100 FEET WEST FROM THE NE CORNER OF SECTION 19
15 S	10 E	WM	19	NE NE	RESERVOIR OUTLET: 880 FEET SOUTH AND 750 FEET WEST FROM THE NE CORNER OF SECTION 19

Authorized Place of Use:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	SW NE
15 S	10 E	WM	4	SE NW
15 S	10 E	WM	4	S ½

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	5	E ½ SW ¼
15 S	10 E	WM	5	SE ¼
15 S	10 E	WM	8	N ½ NE ¼
15 S	10 E	WM	8	SE NE
15 S	10 E	WM	9	W ½ NE ¼
15 S	10 E	WM	9	SE NE
15 S	10 E	WM	9	NW ¼
15 S	10 E	WM	9	NW SW

3. The second right to be leased is as follows:

Certificate: 65090 in the name of City of Sisters
Use: Storage of water for Municipal Use
Priority Date: August 10, 1967
Quantity: 6.3 Acre-Feet (AF)
Source: Pole Creek, tributary to Whychus Creek (formerly Squaw Creek)
Authorized Place of Use (Reservoir Location):

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	19	NE NE

4. Certificates 65091 and 65090 all describe points of diversion and a reservoir that are located on Pole Creek Ditch. Pole Creek has historically been diverted from its natural channel and into Pole Creek Ditch. Recent restoration efforts have resulted in the installation of a headgate and modification of the stream channel to allow water in Pole Creek to flow past the ditch and continue downstream in the natural stream channel. Pole Creek Ditch is the actual diversion point for water out of Pole Creek and into the ditch. The Department has determined that, for purposes of instream leasing and restoration of streamflows, the ditch location on the creek may be used as the start point for the instream use created as a result of the lease of Certificates 65091 and 65090 to instream use. The head of Pole Creek Ditch is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	19	SE NE	CREEK DIVERSION: 1810 FEET SOUTH AND 1100 FEET WEST FROM THE NE CORNER OF SECTION 19

5. The third right to be leased is as follows:

Certificate: 13509 in the name of Sisters Domestic Water District
Use: Municipal Use
Priority Date: November 1, 1937
Quantity: 1.25 Cubic Foot per Second (CFS)
Source: Nine Springs, tributaries to Whychus Creek (formerly Squaw Creek)
Authorized Points of Diversion (POD):

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
16 S	9 E	WM	3	SW SW	Not described in Certificate
16 S	9 E	WM	10	NW NW	Not described in Certificate

Authorized Place of Use:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	SW SW
15 S	10 E	WM	4	SE SW
15 S	10 E	WM	4	NW SW
15 S	10 E	WM	8	NE NE
15 S	10 E	WM	9	NW NW
15 S	10 E	WM	9	NE NW

6. Water was originally diverted from the Springs under Certificate 13509 into a pick-up ditch along the ridge between Pole Creek and Whychus Creek. The pick-up ditch diverted water from the springs over the ridge and into a small channel tributary to Pole Creek. The pick-up ditch still carries water from several of the springs over the ridge and into a tributary to Pole Creek. The Watermaster has identified that at least one of the springs flow into Whychus Creek. Other springs either only flow a few feet or flow into the pick-up ditch. The Watermaster has estimated that there may be as much as 1.5 CFS flowing down the pick-up ditch and over the ridge into the unnamed tributary to Pole Creek. The amount of water flowing down the pick-up ditch appears to be more than the amount authorized (1.25 CFS) under Certificate 13509.

   The Lessor and Lessee have requested that water from the springs be protected into Pole Creek. Certificate 13509 identifies that the springs are tributary to Whychus Creek (formerly Squaw Creek). However, the Department has determined that because there are sufficient flows in the pick-up ditch that, for purposes of the lease, the springs may be considered tributary to the unnamed tributary to Pole Creek.

7. The fourth right to be leased is as follows:

   Certificate: 13501 in the name of Sisters Domestic Water District
   Use: Domestic and Municipal Supply
   Priority Date: April 7, 1937
   Quantity: 1.25 Cubic Foot per Second (CFS)
   Source: Pole Creek Swamp Springs, tributary to Whychus Creek (formerly Squaw Creek)

   Authorized Points of Diversion (POD):

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	9 E	WM	35	SW SE	Not described in Certificate

   Authorized Place of Use:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	4	SW
15 S	10 E	WM	9	NW

8. Water was originally diverted from the Pole Creek Swamp Springs under Certificate 13501 into a pick-up ditch which delivered water into Pole Creek Ditch. The pick-up ditch has been abandoned and over the years has been disrupted by hikers. Presently the springs no longer flow down the pick-up ditch. Instead, they flow under natural conditions into the natural channel of Pole Creek, tributary to Whychus Creek.

9. The fifth right to be leased has been clarified from the lease application and is as follows:

Certificate: 10028 in the name of Sisters Water User Association
Use: Municipal Use
Priority Date: February 11, 1929
Quantity: 0.2 Cubic Foot per Second (CFS)
Source: Springs, tributary to Whychus Creek (formerly Squaw Creek)
Authorized Points of Diversion (POD):

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	8	SE SE	Not described in Certificate

Authorized Place of Use (within the town of Sisters):

Twp	Rng	Mer	Sec
15 S	10 E	WM	4

10. The Department has additional information indicating that the source of water for Certificate 10028 may not actually be springs but rather an overflow channel, which flows into Whychus Creek, for Pole Creek Ditch. According to the Watermaster, the point of diversion for Certificate 10028 is located within this overflow ditch. When water is diverted into Pole Creek Ditch by City of Sisters and Patterson Ranch any water that is not used flows into this overflow ditch and then into Whychus Creek. Water is only present at this location when there are unused flows from Pole Creek Ditch.

11. The seventh right to be leased is as follows:

Certificate: 3227 in the name of Sisters Domestic Water User Association
Use: Municipal Use
Priority Date: May 18, 1917
Quantity: 1.5 Cubic Foot per Second (CFS)
Source: Branton Ditch out of Whychus Creek (formerly Squaw Creek), tributary to the Deschutes River
Authorized Point of Diversion (POD): Branton Ditch
Authorized Place of Use: The Town of Sisters

12. Certificate 3227 does not describe the location of the Branton Ditch POD. However, the map associated with the water right shows the location of the POD as being within:

Twp	Rng	Mer	Sec	Q-Q
15 S	10 E	WM	9	SE NE

**The Watermaster has identified that this ditch and POD may no longer exist.*

13. The lease application includes the information required under OAR 690-077-0076(3). The Department provided notice of the lease application pursuant to OAR 690-077-0077(1). No comments were received.

14. The lease application requests to protect 1.45 CFS instream year round under Certificate 65091 and 6.3 AF (0.11 CFS) instream from April 1 through April 29 under Certificate 65090. The water stored in a reservoir under Certificate 65090 may be appropriated under Certificate 65091 as part of the maximum of 1.45 CFS authorized under that right. To prevent injury and enlargement, the Department has determined that up to 1.45 CFS may be protected instream with a portion of that being the 6.3 AF of stored water. 6.3 AF of stored water is equivalent to 0.009 CFS year round.

15. The lease application requests to protect water instream under Certificates 65091 and 65090 from Pole Creek into Whychus Creek. An instream reach is generally from the point of diversion to the mouth of the source stream (Pole Creek) but may be protected further if measurable in the receiving stream (Whychus Creek) (OAR 690-077-0015 (8)). The quantity that may be leased instream from Pole Creek is measurable into Whychus Creek and may be protected instream in Whychus Creek.

    The lease application requests to protect water instream under Certificate 13509 from the Springs into Pole Creek and into Whychus Creek. Certificate 13509 identifies that these springs are tributary to Whychus Creek. However, as identified in Finding of Fact #5, flows from several of the springs are carried through a pick-up ditch and over the ridge into the Pole Creek sub basin. An instream reach is generally from the point of diversion to the mouth of the source stream (the springs and into the pick-up ditch) but may be protected further if measurable in the receiving stream (unnamed tributary to Pole Creek) (OAR 690-077-0015 (8)). The quantity that may be leased instream from the springs (1.25 CFS), which flow into the pick-up ditch, is measurable into the unnamed tributary to Pole Creek. The quantity to be leased is also measurable into Pole Creek and then into Whychus Creek and may be protected instream in down to the mouth of Whychus Creek.

    The applicant requested to protect water instream under Certificate 13501 from the Pole Creek Swamp Springs into Pole Creek and then into Whychus Creek. The Pole Creek Swamp Springs, as described in Finding of Fact #8, are no longer physically diverted into Pole Creek Ditch but flow under natural conditions into Pole Creek Swamp, which is tributary to the natural channel of Pole Creek. An instream reach is generally from the point of diversion to the mouth of the source stream (Pole Creek Swamp Springs) but may be protected further if measurable in the receiving stream (Pole Creek) (OAR 690-077-0015 (8)). The quantity that may be leased instream from Pole Creek Swamp Springs is measurable into Pole Creek and may be protected instream in Pole Creek. The quantity proposed to be protected instream is also measurable into Whychus Creek.

    The lease application requests to protect water instream under Certificate 10028 from the Springs into Pole Creek and then into Whychus Creek. However, the Springs (or overflow channel) do no not flow under natural conditions into Pole Creek but rather flow (when water is present as described in Finding of Fact #10) into Whychus Creek. Water may not be protected instream in Pole Creek. For Whychus Creek, an instream reach is generally from the point of diversion to the mouth of the source stream (the Springs) but may be protected further if measurable in the receiving stream (Whychus Creek) (OAR 690-077-0015 (8)). The quantity that may be leased instream from the Springs (or overflow channel) is not measurable into Whychus Creek and may not be protected instream in Whychus Creek.

16. The instream use been modified from the lease application to prevent injury and enlargement and is as follows:

Springs, tributary to Whychus Creek (flow into a pick-up ditch, which then flows into an unnamed tributary to Pole Creek)

Certificate	Priority Date	Instream Rate (CFS)	Instream Volume (AF)	Period Protected Instream
Instream Reach: From the Springs to the mouth of the pick-up ditch in the NW SW of Sec 3, T16S, R9E, W.M.				
13509	11/1/1937	1.25	904.96	January 1 – December 31

Unnamed tributary to Pole Creek

Certificate	Priority Date	Instream Rate (CFS)	Instream Volume (AF)	Period Protected Instream
Instream Reach: From the confluence of the pick-up ditch with the unnamed tributary to Pole Creek to the mouth of the unnamed tributary to Pole Creek				
13509	11/1/1937	1.25	904.96	January 1 – December 31

Pole Creek Swamp Springs, tributary to Pole Creek

Certificate	Priority Date	Instream Rate (CFS)	Instream Volume (AF)	Period Protected Instream
Instream Reach: From Pole Creek Swamp Springs (as described in Finding of Fact #7) to mouth of spring channel (confluence with Pole Creek)				
13501	4/7/1937	1.25	904.96	January 1 – December 31

Pole Creek, tributary to Whychus Creek

Certificate	Priority Date	Instream Rate (CFS)	Instream Volume (AF)	Period Protected Instream
Instream Reach: From the confluence of the unnamed tributary to Pole Creek and Pole Creek to Pole Creek Ditch POD (as described in Finding of Fact #4)				
13509	11/1/1937	1.25	904.96	January 1 – December 31
Instream Reach: From Pole Creek Ditch POD (as described in Finding of Fact #4) to confluence with Pole Creek Swamp				
13509	11/1/1937	1.25	904.96	January 1 – December 31
65091 & 65090	11/17/1967	1.441	1043.24	
	8/10/1967	0.009	6.3	
	Totals	**2.7**	**1954.5**	
Instream Reach: In Pole Creek, from confluence with Pole Creek Swamp to mouth of Pole Creek				
13501	4/7/1937	1.25	904.96	January 1 – December 31
13509	11/1/1937	1.25	904.96	
65091 & 65090	11/17/1967	1.441	1043.24	
	8/10/1967	0.009	6.3	
	Totals	**3.95**	**2859.46**	

Springs, tributary to Whychus Creek

Certificate	Priority Date	Instream Rate (CFS)	Instream Volume (AF)	Period Protected Instream
Instream Reach: From POD (as described in Finding of Fact #9 to mouth of overflow channel (confluence with Whychus Creek)				
10028	2/11/1929	0.2	144.79	January 1 – December 31

Whychus Creek, tributary to the Deschutes River

Certificate	Priority Date	Instream Rate (CFS)	Instream Volume (AF)	Period Protected Instream
Instream Reach: From confluence of Pole Creek and Whychus Cr to POD for Cert 3227 (as described in Finding of Fact #12)				
13501	4/7/1937	1.25	904.96	January 1 – December 31
13509	11/1/1937	1.25	904.96	
65091 & 65090	11/17/1967	1.441	1043.24	
	8/10/1967	0.009	6.3	
	Totals	**3.95**	**2859.46**	
Instream Reach: From POD for Cert 3227 to mouth of Whychus Creek				
13501	4/7/1937	1.25	904.96	January 1 – December 31
13509	11/1/1937	1.25	904.96	
65091 & 65090	11/17/1967	1.441	1043.24	
	8/10/1967	0.009	6.3	
3227	5/18/1917	1.5	1085.95	
	Totals	**5.45**	**3945.41**	

17. If approved, this instream lease is not reasonably expected to affect land use significantly as prescribed by ORS 197.180, OAR Chapter 660, Divisions 30 and 31, and OAR Chapter 690, Division 5.

18. Based upon review of the application, comments received, information provided by the Department's Watermaster, and other available information, the Department finds that the lease will not result in injury or enlargement. This finding is made through an abbreviated review recognizing that the lease may be modified or revoked under OAR 690-077-0077 if the Department later finds that the lease is causing injury to any existing water right or enlargement of the original right.

19. If a right which has been leased is later proposed to be leased again or transferred to an instream use under ORS 537.348 and OAR 690-077-0070 or OAR 690-077-0075 a new injury review shall be required. Transfers will be subject to a full and complete review to determine consistency with the requirements of OAR Chapter 690, Division 380 and Division 077. Approval of this lease does not establish a precedent for approval of future leases or transfers.

20. The Lessor has requested that the lease terminate on December 31, 2021. The lease will commence the date the final order is signed and on January 1 of each succeeding calendar year the lease is in place.

21. The Lessor has requested the option of terminating the lease early with written notice to the Department.

CONCLUSIONS OF LAW

The Department concludes that the lease will not result in injury or enlargement, OAR 690-077-0077. The lease conforms to the applicable provisions of OAR 690-077-0015.

Therefore, it is ORDERED:

1. That the Lease as described herein is APPROVED.

2. The former place of use will no longer receive water as part of these rights, any supplemental rights, or any other layered water rights for irrigation use, including ground water registrations during the term of the lease.

3. The lease will terminate on December 31, 2021. For multiyear leases, the Lessor shall have the option of terminating the lease with written notice to the Department provided to both the Salem office and Watermaster office. Written notice of termination of a lease must be provided by all Lessors and the Lessee. The written notice to Salem office must include original signatures. The notice to the Watermaster office may be made by fax or e-mail. The lease may be terminated at any time during a calendar year. However, if the termination request is received less than 30-days prior to the period of allowed instream use (January 1 through December 31) or after the period of allowed use has begun for the water right(s) being leased, water may not be used under the right(s) leased until the following calendar year, unless the Director determines that enlargement would not occur.

Dated at Salem, Oregon this 26 day of May, 2017.

Dwight French, Water Right Services Administrator, for
THOMAS M. BYLER, DIRECTOR

This document was prepared by Joan Smith if you have any questions, please call 503-986-0892.

Mailing date: MAY 31 2017

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

LLOYD F. BROGAN
BOX 72
SISTERS OR 97759

confirms the right to use the waters of a WELL in the WHYCHUS CREEK (formerly known as Squaw Creek) Basin for SUPPLEMENTAL IRRIGATION of 19.7 ACRES.

This right was perfected under Permit G-3095. The date of priority is MAY 13, 1966. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 0.246 CUBIC FOOT PER SECOND or its equivalent in case of rotation, measured at the well.

The well is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Survey Coordinates
15 S	10 E	WM	10	SW SE	1290 FEET NORTH AND 20 FEET EAST FROM THE S 1/4 CORNER, SECTION 10

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 3 acre-feet per acre for each acre irrigated during the irrigation season of each year. The use shall conform to such reasonable rotation system as may be ordered by the proper state officer. The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described and is subject to the existing minimum flow policies established by the Water Policy Review Board.

A description of the place of use to which this right is appurtenant is as follows:

Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
15 S	10 E	WM	10	SW SE	704	19.7

This certificate describes that portion of the water right confirmed by Certificate 45033, State record of Water Right Certificates, NOT modified by the provisions of an order of the Water Resources Director entered October 12, 2005, approving Transfer Applications 8900 and 8902.

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate at any time before it has issued, and after the time has expired for the completion of the appropriation under the permit, or within three months after issuance of the certificate.

THIS CERTIFICATE IS ISSUED TO CORRECTLY IDENTIFY THE AMOUNT OF WATER TO WHICH THIS RIGHT IS ENTITLED AND SUPERSEDES CERTIFICATE 82873.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Issued DEC 2 6 2008.

Phillip C. Ward, Director
Water Resources Department

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
150 N FIR ST
SISTERS, OR 97759

WILLITTS LLC
16488 WILT RD
SISTERS, OR 97759

confirms the right to use the waters of THREE WELLS in the WHYCHUS CREEK (formerly known as Squaw Creek) BASIN for SUPPLEMENTAL IRRIGATION of 12.5 ACRES.

This right was perfected under Permit G-3095. The date of priority is MAY 13, 1966. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 0.157 CUBIC FOOT PER SECOND (IF AVAILABLE AT THE ORGINAL POINT OF APPROPRIATION BEING WITHIN THE SW ¼ SW ¼, SECTION 10, TOWNSHIP 15 SOUTH, RANGE 10 EAST, W.M.; 1290 FEET NORTH AND 20 FEET EAST FROM THE S ¼ CORNER OF SECTION 10) or its equivalent in case of rotation, measured at the well.

The wells are located as follows:

Well	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
Well 4	15 S	10 E	WM	9	SE NE	100 FEET NORTH AND 85 FEET WEST FROM THE WEST 1/4 CORNER, SECTION 10
Well 3	15 S	10 E	WM	10	SW NW	280 FEET NORTH AND 120 FEET EAST FROM THE WEST 1/4 CORNER, SECTION 10
Well 1	15 S	10 E	WM	10	SW SE	1290 FEET NORTH AND 20 FEET EAST FROM THE SOUTH 1/4 CORNER, SECTION 10

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 3 acre-feet per acre for each acre irrigated during the irrigation season of each year. The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described.

A description of the place of use to which this right is appurtenant is as follows:

SUPPLEMENTAL IRRIGATION - CITY OF SISTERS							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 1	15 S	10 E	WM	10	SW SE	704	7.3
Well 1	15 S	10 E	WM	10	SE SE	704	0.2

SUPPLEMENTAL IRRIGATION – WILLITS, LLC							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Wells 3 & 4	15 S	10 E	WM	10	SW NW	800	1.3
Wells 3 & 4	15 S	10 E	WM	10	NW SW	800	3.7

The quantity of water diverted from the additional and new points of appropriation, together with that diverted at the old points of diversion, shall not exceed the quantity of water lawfully available at the original points of appropriation.

When required by the Department, the water user shall install and maintain an in-line flow meter or other suitable device(s) for measuring and recording the quantity of water diverted. The types and plans of the measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department.

This certificate describes that portion of the water right confirmed by Certificate 85430, State Record of Water Right Certificates, NOT modified by the provisions of an order of the Water Resources Director entered DEC 09 2011, approving Transfer Application T-11201.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

WITNESS the signature of the Water Resources Director, affixed DEC 09 2011.

Dwight French, Water Right Services Administrator, for
PHILLIP C. WARD, DIRECTOR

 Recorded in State Record of Water Right Certificates numbered 87347.

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

SHARON AMESTOY
AMESTOY RANCH LLC
2955 NE 38TH AVE
PORTLAND, OR 97212

CITY OF SISTERS
150 N FIR ST.
SISTERS, OR 97759

STEVEN AND CINDY GREER
67315 BASS LANE
BEND, OR 97701

LAZY Z RANCH
c/o JAY POULOS
4389 CROISAN RIDGE WAY
SALEM, OR 97302

MURRAY GRAY LLC
c/o MURRAY HERMAN
1628 NW EVERETT ST.
PORTLAND, OR 97209-2109

SKI POND RANCH LLC
c/o DAVID HERMAN
1628 NW EVERETT ST.
PORTLAND, OR 97209-2109

confirms the right to use the waters of FOUR WELLS in the WHYCHUS CREEK (formerly known as Squaw Creek) BASIN for IRRIGATION OF 8.2 ACRES AND SUPPLEMENTAL IRRIGATION OF 95.6 ACRES.

This right was perfected under Permit G-4841. The date of priority is AUGUST 25, 1970. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 1.034 CUBIC FEET PER SECOND (cfs); being

Water User	Primary Rate (cfs)	Supplemental Rate (cfs)
Amestoy Ranch	0	0.206
City of Sisters	0	0.108
Steven & Cindy Greer	0.013	0
Lazy Z Ranch	0	0.101
Murray Gray, LLC	0.09	0
Ski Pond Ranch, LLC	0	0.516

(IF AVAILABLE AT THE ORIGINAL POINT OF APPROPRIATION, BEING WITHIN THE NW¼ NW¼ , SEC. 14, T15S, R10E, WM, 290 FEET SOUTH AND 140 FEET EAST FROM THE NW CORNER OF SECTION 14) or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Measured Distances
15 S	10 E	WM	10	NW SE	700	WELL 5 - 830 FEET SOUTH AND 350 FEET EAST FROM THE C¼ CORNER OF SECTION 10
15 S	10 E	WM	10	SW SE	704	WELL 1 - 1290 FEET NORTH AND 20 FEET EAST FROM THE SOUTH 1/4 CORNER OF SECTION 10
15 S	10 E	WM	14	NW NW	1900	WELL 2 - 290 FEET SOUTH AND 140 FEET EAST FROM THE NW CORNER OF SECTION 14
15 S	10 E	WM	25	NW SE	907	GREER WELL - 1460 FEET NORTH AND 1750 FEET WEST FROM THE SE CORNER OF SECTION 25

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year.

A description of the place of use to which this right is appurtenant is as follows:

IRRIGATION – MURRAY GRAY							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 2	15 S	10 E	WM	14	NW NW	1900	7.2

IRRIGATION – STEVEN AND CINDY GREER							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Greer Well	15 S	10 E	WM	25	NW SE	907	1.0

SUPPLEMENTAL IRRIGATION – AMESTOY RANCH							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 2	15 S	10 E	WM	10	SW NE	702	0.9
Well 2	15 S	10 E	WM	10	SE NE	702	6.8
Well 2	15 S	10 E	WM	10	NE SE	702	6.8
Well 2	15 S	10 E	WM	10	NW SE	702	2.0

SUPPLEMENTAL IRRIGATION – CITY OF SISTERS							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 2	15 S	10 E	WM	10	NE SW	704	0.9
Well 2	15 S	10 E	WM	10	SE SW	704	11.6
Well 1	15 S	10 E	WM	10	NW SE	704	2.4
Well 2	15 S	10 E	WM	10	SE SE	704	4.0
Well 2	15 S	10 E	WM	15	NE NE	704	10.8

SUPPLEMENTAL IRRIGATION – LAZY Z RANCH							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 5	15 S	10 E	WM	10	NE SW	700	8.1

SUPPLEMENTAL IRRIGATION – SKI POND RANCH							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 2	15 S	10 E	WM	14	NE NE	1700	1.9
Well 2	15 S	10 E	WM	14	NW NE	1700	6.3
Well 2	15 S	10 E	WM	14	SW NE	1700	24.7
Well 2	15 S	10 E	WM	14	SE NE	1700	8.4

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

The quantity of water diverted from the additional and new points of appropriation, together with that diverted at the old points of diversion, shall not exceed the quantity of water lawfully available at the original points of appropriation.

When required by the Department, the water user shall install and maintain an in-line flow meter or other suitable device(s) for measuring and recording the quantity of water diverted. The types and plans of the measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department.

This certificate describes that portion of the water right confirmed by Certificate 87345, State Record of Water Right Certificates, NOT modified by the provisions of an order of the Water Resources Director entered July 18th, 2016, approving Transfer Application T-12188.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described.

WITNESS the signature of the Water Resources Director, affixed July 18th, 2016.

Dwight French, Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-12188, Deschutes County	)))	FINAL ORDER APPROVING A CHANGE IN PLACE OF USE

Authority

Oregon Revised Statute (ORS) 537.705 and 540.505 to 540.580 establish the process in which a water right holder may submit a request to transfer the point of appropriation, place of use, or character of use authorized under an existing water right. Oregon Administrative Rule (OAR) Chapter 690, Division 380 implements the statutes and provides the Department's procedures and criteria for evaluating transfer applications.

Applicant

CITY OF SISTERS
PO BOX 39
SISTERS, OR 97759

Receiving Landowner

SKI POND RANCH, LLC
C/O DAVID HERMAN
1775 W. STATE ST.
BOISE, ID 83702

Findings of Fact

1. On October 26, 2015, CITY OF SISTERS filed an application to change the place of use under Certificate 87345. The Department assigned the application number T-12188.

2. Ski Pond Ranch, LLC (David Herman) is the receiving landowner who will be responsible for completion of the changes.

3. Notice of the application for transfer was published on November 3, 2015, pursuant to OAR 690-380-4000. No comments were filed in response to the notice.

4. On January 21, 2016, the Department sent a copy of the Draft Preliminary Determination proposing to approve Transfer Application T-12188 to the applicant. The Draft Preliminary Determination cover letter set forth a deadline of February 22, 2016, for the applicant to respond. The applicant requested that the Department proceed with issuance of a Preliminary Determination and provided the necessary information to demonstrate that the applicant is authorized to pursue the transfer.

This final order is subject to judicial review by the Court of Appeals under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482(1). Pursuant to ORS 536.075 and OAR 137-003-0675, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

5. On June 7, 2016, the Department issued a Preliminary Determination proposing to approve Transfer Application T-12188 and sent a copy to the applicant. Additionally, notice of the Preliminary Determination for the transfer application was published in the Department's weekly notice on July 14, 2016 pursuant to ORS 540.520 and OAR 690-380-4020. No protests were filed in response to the notice.

6. The portion of the right to be transferred is as follows:

Certificate: 87345 in the names of SHARON AMESTOY (AMESTOY RANCH LLC), CITY OF SISTERS, STEVEN AND CINDY GREER, LAXY Z RANCH (c/o JAY POULOS), MURRAY GRAY LLC (c/o MURRAY HERMAN), AND SKI POND RANCH LLC (c/o DAVID HERMAN) (perfected under Permit G-4841)
Use: IRRIGATION OF 3.1 ACRES
Priority Date: AUGUST 25, 1970
Rate: 0.039 CUBIC FOOT PER SECOND
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year.
Source: A WELL within the WHYCHUS CREEK BASIN

Authorized Point of Appropriation:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	14	NW NW	Well 2 - 290 FEET SOUTH AND 140 FEET EAST FROM THE NW CORNER OF SECTION 14

Authorized Place of Use:

IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
15 S	10 E	WM	15	NE NE	3.1

7. A scrivenor's error was found on Certificate 87345. Certificate 87345 describes the location of the City of Sisters irrigation as:

IRRIGATION – CITY OF SISTERS							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 2	15 S	10 E	WM	15	NE NE	200	5.0
Well 2	15 S	10 E	WM	15	SE NE	200	11.1

Special Order Volume 85 page 721 voluntarily canceled a portion of the irrigated acres. The City of Sisters canceled 1.9 acres in the NE NE and 11.1 acres in the SE NE of Section 15. Certificate 87345 should be described as:

IRRIGATION – CITY OF SISTERS							
Source	Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
Well 2	15 S	10 E	WM	15	NE NE	200	3.1

8. Transfer Application T-12188 proposes to change the place of use of the right to:

IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
15 S	10 E	WM	14	SW NE	3.1

Transfer Review Criteria (OAR 690-380-4010)

9. Water has been used within the last five years according to the terms and conditions of the right. There is no information in the record that would demonstrate that the right is subject to forfeiture under ORS 540.610.

10. A pump, pipeline, and sprinkler system sufficient to use the full amount of water allowed under the existing right were present within the five-year period prior to submittal of Transfer Application T-12188.

11. The proposed change would not result in enlargement of the right.

12. The proposed change would not result in injury to other water rights.

13. All other application requirements are met.

Conclusions of Law

The change in place of use proposed in Transfer Application T-12188 is consistent with the requirements of ORS 537.705 and 540.505 to 540.580 and OAR 690-380-5000.

Now, therefore, it is ORDERED:

1. The change in place of use proposed in Transfer Application T-12188 is approved.

2. The right to the use of the water is restricted to beneficial use at the place of use described, and is subject to all other conditions and limitations contained in Certificate 87345 and any related decree.

3. Water right Certificate 87345 is cancelled. A new certificate will be issued describing that portion of the right not affected by this transfer.

4. Water use measurement conditions:

   a. Before water use may begin under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device at each point of appropriation (new and existing).

   b. The water user shall maintain the meters or measuring devices in good working order.

   c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

5. The former place of use of the transferred right shall no longer receive water under the right.

6. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before **October 1, 2017**. A Claim of Beneficial Use prepared by a Certified Water Right Examiner shall be submitted by the applicant to the Department within one year after the deadline for completion of the change and full beneficial use of the water.

7. After satisfactory proof of beneficial use is received, a new certificate confirming the right transferred will be issued.

Dated at Salem, Oregon this 18 day of July, 2016.

Dwight French, Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

Mailing date: JUL 21 2016

Oregon Water Resources Department

Municipal Reclaimed Water Registration Form

*A water use permit may not be required if the water being used is reclaimed water as defined in ORS 537.131 **and** the reclaimed water use is both authorized by the Oregon Department of Environmental Quality (DEQ) **and registered** with Oregon Water Resources Department (WRD)*(ORS 537.132). *Currently there is no fee for registering.*

*Complete and send this Registration Form **to the DEQ permit writer** managing the wastewater treatment facility discharge permit. DEQ will review and sign this Registration Form prior to sending it on to WRD in Salem. A response letter will be sent by WRD to all parties within 60 days of receipt.*

Instructions are available to guide you. If you need assistance, please call 503-986-0900 and ask for the "Water Reuse Coordinator" or contact the local watermaster in your county. Insert "N/A" if the requested information does not apply to your situation.

1. Name of "Registrant". Who will use the reclaimed water?

Name of Reclaimed Water User: City of Sisters

County where reclaimed water use will occur: Deschutes

Mail Address: P.O. Box 39 (*Street/P.O. Box*) Sisters (*City*) Oregon (*State*) 97759 (*Zip*)

Daytime Telephone: (541) 549-6022 *E-mail:* pbertagna@ci.sisters.or.us

2. Does the reclaimed water user own the land where the use will occur?

☒ YES ☐ NO If no, provide the landowner's name and contact information.

Landowner Name: City of Sisters

Mail Address: P.O. Box 39 (*Street/P.O. Box*) Sisters (*City*) Oregon (*State*) 97759 (*Zip*)

Daytime Telephone: (541) 549-6022 *E-mail:* pbertagna@ci.sisters.or.us

3. Are there existing water rights on the same land where the use will occur?

☒ YES (provide information below) ☐ NO

Application No. See attached map *Permit No.* See attached map

Certificate No. _____ *Decree vol. & pg.* 95-141

*Will the reclaimed water be used **instead of** existing water rights OR used to **supplement** the continued use of the existing water rights?* Instead of

4. **Has DEQ issued a Municipal Wastewater Treatment Facility Discharge Permit authorizing the use of reclaimed water?** *(If yes, provide permit number)*

☒ YES *NPDES Permit No.* _____ or *WPCF Permit No.* 101779

Permit Effective Date: January 22, 2016 *Permit Expiration Date:* December 31, 2025

DEQ Region: (Check one) ☐ *Northwest Region* ☒ *Eastern Region* ☐ *Western Region*

☐ NO *Permit application was submitted to DEQ, but not yet issued.*

☐ NO *Permit application has not been submitted to DEQ.*

5. **Who is treating and supplying the reclaimed water to the user?**

Name of Supplier: City of Sisters *Telephone No.* (541) 549-6022

Treatment Facility Name: Sisters WWTP *Telephone No.* (541) 549-6022

Mail Address: P.O. Box 39 Sisters OR 97759
Street/P.O. Box *City* *State* *Zip*

6. **Which water provider supplies potable municipal water to the city/community that produces the sewage entering the treatment facility?**

Municipal Water Provider: City of Sisters *Telephone No.* (541) 549-6022

Source(s) of Municipal Water: Groundwater
(stream name, groundwater, and/or reservoir name)

7. **Will the use of reclaimed water occur inside or outside the water service boundaries of the potable municipal water provider identified above in Question 6?**

☐ INSIDE ☒ OUTSIDE

8. **What is the length in years of the agreement/contract between the reclaimed water user and the reclaimed water supplier?** N/A

Describe any conditions in the agreement that limit use of the reclaimed water.

No agreement is necessary because the reclaimed water user and the reclaimed water supplier are the same.

9. **Please describe the transmission system that delivers reclaimed water from the wastewater treatment facility to the place of reclaimed water use.**

Reclaimed water is pumped from the treatment facility to the place of reclaimed water use using two 100 HP, 1,000 gpm pumps, through an 18" HDPE pipe, 10,000 feet in length.

(Include type of construction of diversion works/pump capacity, length and dimensions of supply ditches/ pipelines)

10. What is the Intended Use(s) of Reclaimed Water?

Irrigation

(irrigation, aquifer recharge, wetlands, industrial, cooling, aquifer storage & recovery, etc.)

Irrigation Total Acres: 159.7 *What type of crop?* Combination of forest application and hay

(hay, pasture, golf course, wood fiber, etc.)

What is the irrigation application system? Overhead Irrigation - Multiple Sprinklers

(flood, center pivot, wheel line, drip, micro-sprinklers)

How much Reclaimed Water will be used? 257 gpm seasonal average, 1,000 gpm peak flow

(cubic feet per second, OR gallons per minute)

Date use began or will begin: June 2017 *Period of use (month/day): from* April *to* October

11. What are the water user's motivations to use reclaimed water?

- ☐ My existing water rights are "junior" and not always reliable.
- ☐ Another water source is available, but reclaimed water is less expensive.
- ☐ Reclaimed water is the only source available and enables the use listed in Question 10.
- ☑ Reclaimed water allows a WRD transfer of existing water rights to a different location.
- ☐ Reclaimed water use reduces demand on the local municipal water supply.
- ☑ To assist the treatment facility in meeting DEQ regulatory permit requirements.
- ☐ To recharge the aquifer or store water in the aquifer for future recovery.
- ☐ Other (describe): _____

12. Describe the historic reclaimed water disposal method.

A) Into which stream was the reclaimed water discharged? Not Applicable

B) Has the reclaimed water been discharged into the stream for 5 or more years?

☐ YES ☐ NO

C) Where did the treated wastewater historically enter the stream?

_____

(Township, Range and Section, or distance from landmark, or river mile, or Lat/Long)

D) Does the amount (rate in gpm or cfs) of reclaimed water proposed for use under this registration represent more than 50% of the total average annual flow of the stream?

☐ YES ☐ NO ☐ UNKNOWN

Source of information used to answer this? _____

13. Is the required map attached showing the reclaimed water transmission system and place of use? ■ YES ☐ NO (If No, please prepare and attach map).

The Registration Form is not complete without an adequate map.
See map requirement explanation on page 4.

14. MAP REQUIREMENTS:

This registration must be accompanied by a map, or maps, to show the location of the wastewater treatment facility, location of reclaimed water transmission system (pipelines, canals, etc.) and the place of reclaimed water use. Features of the map(s) should include the following:

- A north arrow.
- Drawn to scale at not less than 4" = 1 mile, with the scale identified.
- Township, Range, Section, Quarter-Quarters, and tax lot number(s).
- Place of use shown by Quarter-Quarter section with shading or diagonal lines.
- Acres, if land application, per Quarter-Quarter section (approximate if not certain).
- Location of main canals or pipelines to and within the reclaimed water use area.
- Streams and roads identified if they cross through the map.
- Other obvious features that would help someone in the field locate the place of use.
- A legend.

**A map showing the wastewater treatment facility, transmission system, and place of use at a scale of 4" = >1 mile is fine only if a second map is provided showing the place of use at not less than 4" = 1 mile.*

15. ADDITIONAL COMMENTS: Provide additional information here or attach additional pages.

16. Signatures of Registrant and Reclaimed Water Supplier:

I/We certify that the information provided in this Registration Form is an accurate representation of the proposed reclaimed water use to the best of my knowledge:

Registrant Printed Name: Paul Bertagna *Title:* Public Works Director

Registrant Signature: City Manager *Date:* 11/10/16

Supplier Printed Name: Paul Bertagna *Title:* Public Works Director

Supplier Signature: City Manager *Date:* 11/10/16

NOTE: Once completed and signed, keep a copy and send this form to the DEQ permit writer responsible for the wastewater treatment facility permit. DEQ will sign and forward the form to WRD in Salem. A response letter will be sent by WRD to all parties within 60 days.

This section is to be completed by DEQ

17. Signature of DEQ Water Quality Manager:

Date registration form received at DEQ: November 10, 2016

Pursuant to ORS 537.132 DEQ has:

a) **Authorized the use of reclaimed water (referred to by DEQ regulations as "recycled water") as evidenced by the NPDES or WPCF permit issued and described below.**

Permit Number: 101779 *DEQ File Number:* 81850

Printed DEQ Permit Writer's Name: Lawrence Brown REHS - Environmental Health Specialist

Mail Address: 475 NE Bellevue Drive - Suite 110; Bend OR 97701
Street/P.O. Box *City* *State* *Zip*

Telephone: (541) 633-2025 *E-mail:* brown.larry@deq.state.or.us

b) **Consulted with State Department of Fish and Wildlife and determined this use of reclaimed water shall not have a significant negative impact on fish or wildlife.**

ODFW contact name: Danette Faucera

ODFW contact phone number: (503) 947-6092

c) **Determined the use of reclaimed water is intended to improve the water quality of the receiving stream.**

The reclaimed water is (e.g. too warm for salmonids): Not applicable

I certify the provisions of ORS 537.132(1)(a)(b) and (c) for this application are satisfied.

Date Nov 15, 2016

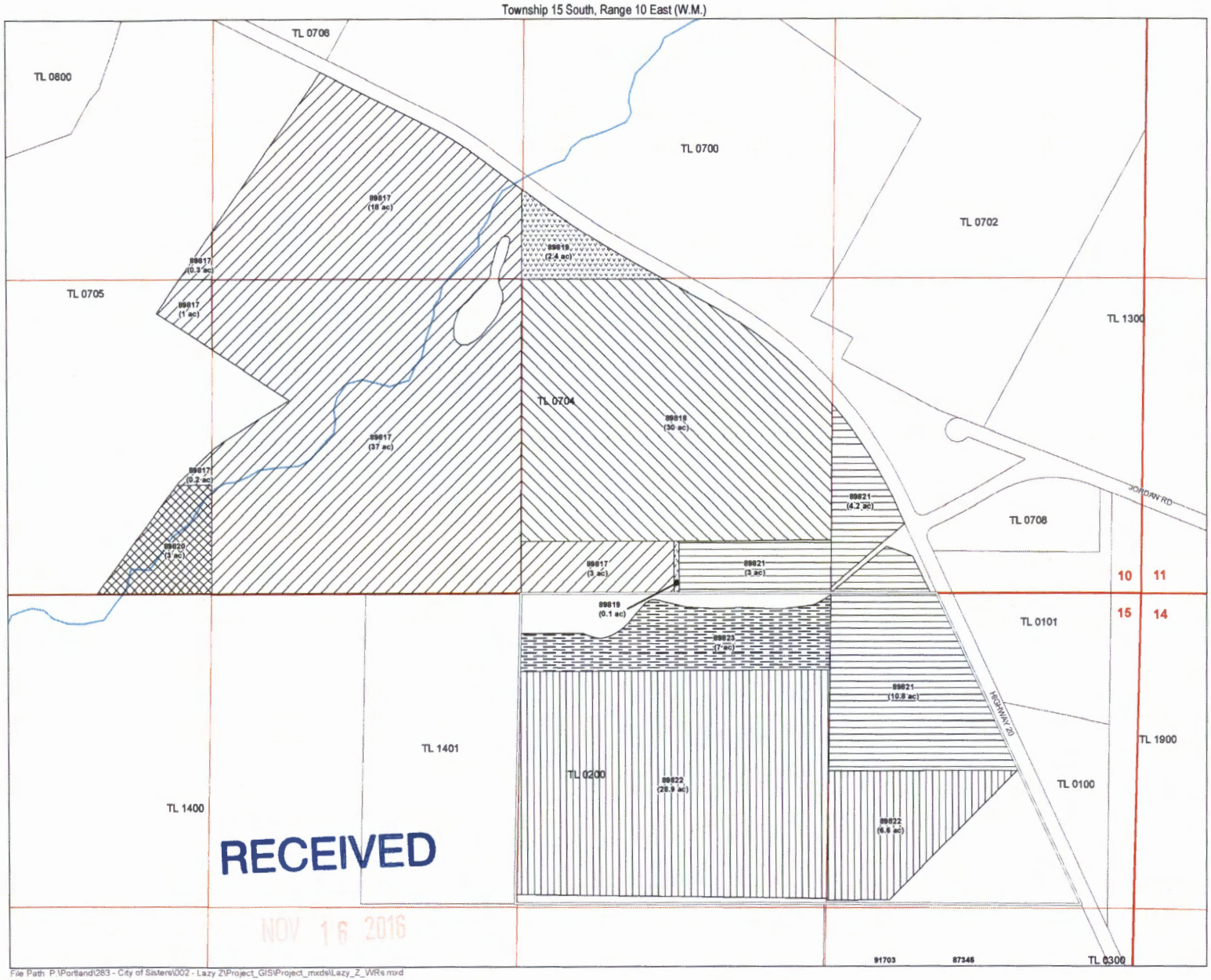
DEQ Water Quality Manager Signature

Don Butcher

DEQ Water Quality Manager's printed name

Once signed by DEQ, this completed form is to be sent to:

Oregon Water Resources Department
C/O Water Reuse Coordinator
725 Summer St. NE, Suite A
Salem, OR 97301-1266



Lazy Z Surface Water Rights
City of Sisters

LEGEND

- Area of Interest
- ~~89817~~ (CW 71, T-11318)
- ~~89818~~ (CW 71, T-11318)
- ~~89819~~ (CW 71, T-11318)
- ~~89820~~ (CW 71, T-11318)
- ~~89821~~ (CW 71, T-11318)
- ~~89822~~ (CW 71, T-11318)
- ~~89823~~ (CW 71, T-11318)

All Other Features

- City of Sisters UGB
- Tax Lots
- Uncle John Ditch

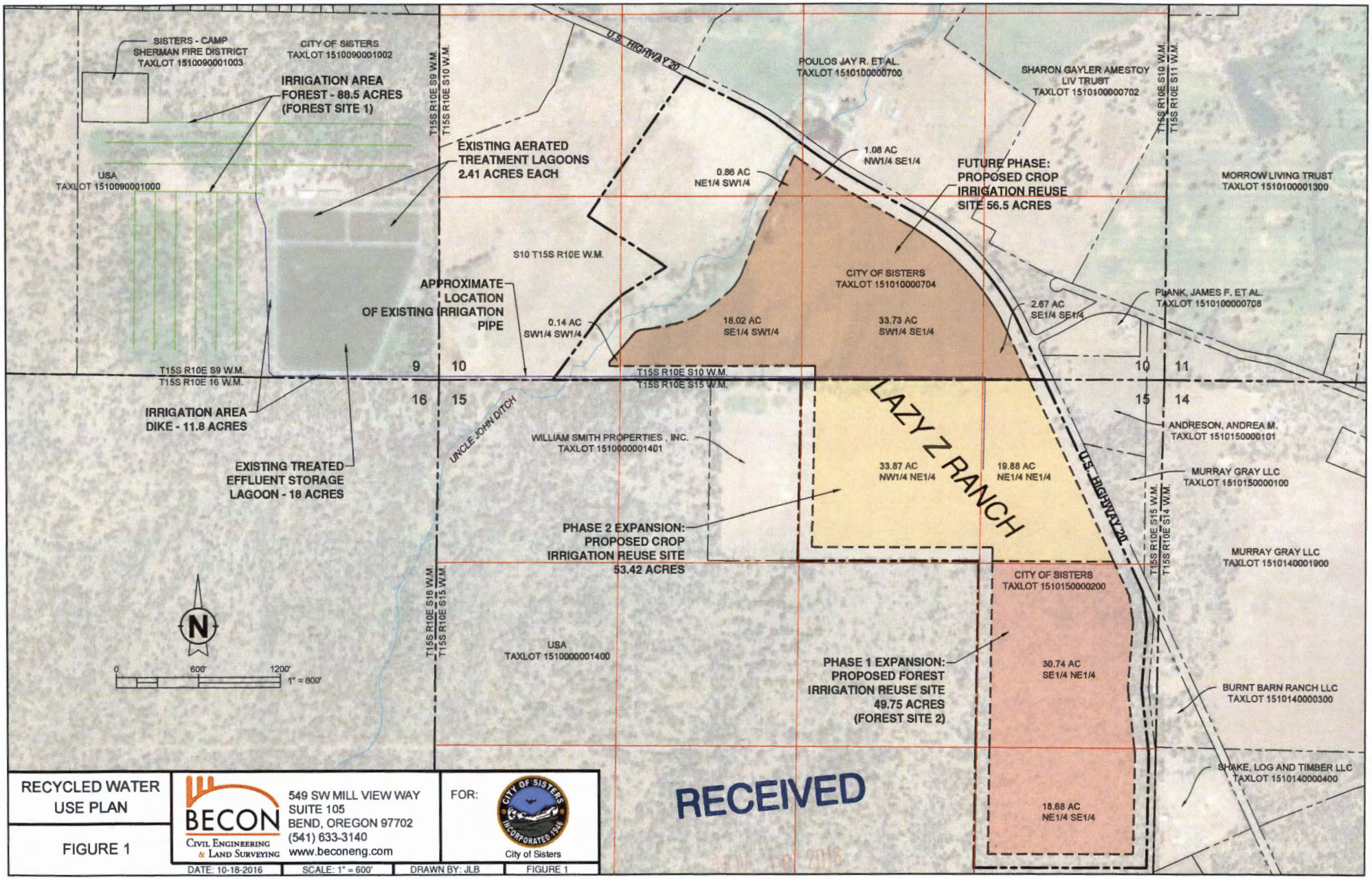
N

0 100 200 300 400
Feet
1" = 400 feet

MAP NOTES:
Date: January 24, 2013
Data Sources: Deschutes Co GIS, Deschutes River Conservancy

GSI Water Solutions, Inc.

File Path: P:\Portland\283 - City of Sisters\002 - Lazy Z\Project_GIS\Project_mxds\Lazy_Z_WRs.mxd



RECYCLED WATER USE PLAN

FIGURE 1

BECON
Civil Engineering & Land Surveying

549 SW MILL VIEW WAY
SUITE 105
BEND, OREGON 97702
(541) 633-3140
www.beconeng.com

FOR: City of Sisters

DATE: 10-18-2016	SCALE: 1" = 600'	DRAWN BY: JLB	FIGURE 1

RECEIVED

NOV 18 2016

WATER RESOURCES DEPT
SALEM, OREGON

Section 15: NENG, NWNG

Reclaimed Water Registration Checklist

RM (assigned by Kerri) - 211 County Deschutes Registrant (User of Water) City of Sisters

Place of Use: Township 15S Range 10E Section 10, 15 QQ's Section 10 = SESE, SWSE, SESW SWSW, NWSE, NESW NWSW, NW

Amount 0.57CFS Use Irrigation Acres (if for IR) 159.7 WM Dist. # 11

Supplier City of Sisters DEQ Muni WW Permit # (Source) 101779

Point of Diversion: Township 15S Range 10E Section 9 QQ SESE, SWSE

Contract Length in Years N/A

Agent (if any) N/A

☒ Property ownership: Does the Registrant own all the land for the proposed project? (Y) / N

If No:

☐ The affected landowner's name and mailing address must be listed

☒ The **map** must meet the following minimum requirements.

- ☒ Township, Range, Section
- ☒ Streams and road identified is they cross through the map
- ☒ Place of use, ¼-¼'s and tax lot clearly identified
- ☒ Even map scale not less than 4" = 1 mile (1"= 1320 ft.)
- ☒ Location of *each* diversion point (WW Treatment Plant)
- ☒ North Directional Symbol
- ☒ Number of acres per ¼-¼ if for irrigation, nursery, or agriculture
- ☒ Legend

A map showing the wastewater treatment facility, transmission system, and place of use at a scale of 4" = >1 mile is fine **only if a second map is provided showing the place of use at not less than 4" = 1 mile.*

☒ Signature of *all* Registrants and Reclaimed Water Supplier

☒ DEQ section (17) is completely filled out and signed.

☒ Existing Water Rights - 89817, 89819, 89820, 89818, 89821, 89822,

***Do not send registration back to applicant if it is not complete, ALL registrations go to Kerri Cope.**

Reviewed by: KHC Date: 11/28/16

*Remember there is no fee for Reclaimed Water Registrations

Oregon Department of Environmental Quality

RECYCLED WATER USE PLAN SUMMARY

Directions: Check (✓) appropriate boxes for tables and provide brief narrative where necessary. Submit with Recycled Water Use Plan to DEQ.

State of Oregon Department of Environmental Quality

APPLICANT INFORMATION

Facility Name: City of Sisters Waste Water Treatment Plant
Address: 912 S. Locust Street, Sisters OR 97759
Contact Name/Phone Number: Paul Bertagna/541-323-5212

TYPE OF WASTEWATER TREATMENT PLANT

☐	Activated Sludge	☐	Re-circulating Gravel/Sand Filter
☐	Mechanically Aerated Lagoon	☐	Rotating Biological Filter
☑	Aerated Lagoon	☐	Other (Specify):

Average Dry Weather Flow, million gallons per day (MGD): _____

TREATMENT CLASS IN ACCORDANCE WITH OAR 340-055-0012

☐	Class A	☐	Class C
☐	Class B	☑	Class D
☐	Non-Disinfected water		

TREATMENT EFFICIENCY CAPABILITY DURING REUSE

☐	Tertiary Treatment	☐	85% or more BOD/TSS removal
☐	95% or more BOD/TSS removal	☐	Rotating Biological Filter
☐	90% or more BOD/TSS removal	☑	Other (Specify): 80% TSS removal efficiency

DISINFECTION METHOD

☑	Chlorine injection just prior to irrigation
☐	Chlorine injection with storage of recycled water
☐	Chlorine injection after storage just prior to irrigation
☐	UV exposure just prior to irrigation
☐	UV exposure with storage of recycled water
☐	UV exposure after storage just prior to irrigation
☐	Other (specify):

STORAGE IMPOUNDMENT	Y	N
Is there a storage facility proposed for this project?	☐	☑
If yes, at the WWTP	☐	☑
If yes, located at a location other than the WWTP	☐	☑
If yes to either of the above, specify the location and length of time the storage facility will be used:		

ARE THERE ALARMS FOR VARIOUS UNIT PROCESSES?	Y	N
Are alarms independent of the normal power supply of the plant?	☐	☑
Failure of a disinfection treatment process?	☑	☐
Failure of a clarification process? N/A	☐	☐
Failure of a coagulation process? N/A	☐	☐
Failure of a filtration process? N/A	☐	☐
Are the alarms on separate circuit breakers from the reuse pumps?	☑	☐
Is the Recycled Water back-up generator tested regularly? N/A	☐	☐

IN THE EVENT OF POWER LOSS:	Y	N
Can the plant continue to discharge?	☐	☑
Can there be any irrigation of non-disinfected water?	☐	☑

If no to either of the above, specify control measures that will be in place to stop the irrigation as soon as possible.

The irrigation pumps cannot operate without power so the entire system will not run and the auto-dialer will call out to our on-call personnel that there has been a power outage.

RECYCLED WATER WILL BE BENEFICIALLY USED FOR THE FOLLOWING (CHECK ALL THAT APPLY):

✓	Beneficial Purpose	Class				
		A	B	C	D	ND
	Irrigation					
☑	Fodder, fiber, seed crops not intended for human ingestion, commercial timber	Y	Y	Y	Y	Y
☐	Firewood, ornamental nursery stock, Christmas trees	Y	Y	Y	Y	N
☐	Sod	Y	Y	Y	Y	N
☐	Pasture for animals	Y	Y	Y	Y	N
☐	Processed food crops	Y	Y	Y	N	N
☐	Orchards or vineyards if an irrigation method is used to apply recycled water directly to the soil	Y	Y	Y	N	N
☐	Golf courses, cemeteries, highway medians, industrial or business campuses	Y	Y	Y	N	N
☐	Any agricultural or horticultural use	Y	N	N	N	N
☐	Parks, playgrounds, school yards, residential landscapes, other landscapes accessible to the public	Y	N	N	N	N
☐	**Industrial, Commercial, or Construction**					
☐	Industrial cooling	Y	Y	Y	N	N
☐	Rock crushing, aggregate washing, mixing concrete	Y	Y	Y	N	N
☐	Dust control	Y	Y	Y	N	N
☐	Nonstructural fire fighting using aircraft	Y	Y	Y	N	N
☐	Street sweeping or sanitary sewer flushing	Y	Y	Y	N	N
☐	Stand alone fire suppression systems in commercial and residential buildings	Y	Y	N	N	N
☐	Non-residential toilet or urinal flushing, floor drain trap priming	Y	Y	N	N	N
☐	Commercial car washing	Y	N	N	N	N
☐	Fountains when the water is not intended for human consumption	Y	N	N	N	N

✓	Beneficial Purpose	Class				
		A	B	C	D	ND
☐	**Impoundments or Artificial Groundwater Recharge**					
☐	Water supply for landscape impoundments including, but not limited to, golf course water ponds and non-residential landscape ponds	Y	Y	Y	N	N
☐	Restricted recreational impoundments	Y	Y	N	N	N
☐	Nonrestricted recreational impoundments including, but not limited to, recreational lakes, water features accessible to the public, and public fishing ponds	Y	N	N	N	N
☐	Artificial groundwater recharge	Y	N	N	N	N
☐	**Other (describe):**					

PAGES 4 & 5 REQUIRED FOR IRRIGATION ONLY

THE IRRIGATION AREA WILL BE USED FOR THE FOLLOWING (CHECK ALL THAT APPLY):

☑	Crops (specify types): Orchard Grass
☐	Pasture
☑	Forest
☐	Public access areas (specify types):
☐	Natural areas (specify species or mix):
☐	Other (specify):

APPLICATION RATE	**Y**	**N**
Will irrigation be controlled not to exceed the water consumption rate of the crop being grown?	☑	☐
Will irrigation be controlled not to exceed the nutrient requirements of the crop being grown?	☑	☐

What is the proposed application rate of the recycled water? Varies, see RWUP Section 7.0

Acreage of irrigation site Varies, see RWUP Section 7.0

The months that irrigation will be permitted April to October

If irrigation occurs with Class C recycled water at nighttime, will the public access be restricted to allow for sunlight contact on irrigated water? ☐ Yes ☐ No N/A

If so, specify length of time _____

TRANSMISSION & DISTRIBUTION LINES/PIPES	**Y**	**N**
At the end of the irrigation day, will the transport lines/pipes be drained back to the wastewater treatment facility?	☐	☑
Is there a gate/ball shut off valve at the irrigation pump?	☑	☐
Is there an in line pressure relief valve to by-pass reuse water back into the source basin if there is a line transmission plug?	☐	☑
At the cessation of the irrigation season, will the transport lines/pipes be flushed and cleaned?	☐	☑
Is there a gate/ball shut off valve at the irrigation field, or at each irrigation zone?	☑	☐

ZONED LAND USE OF IRRIGATION SITE (CHECK ALL THAT APPLY)

☑	Exclusive Farm Use (EFU)	☐	Industrial
☐	Forestry	☐	State/Federal lands
☐	Rural Residential	☐	Other (Specify):

ZONED LAND USE OF AREA AROUND IRRIGATION SITE (CHECK ALL THAT APPLY)

☑	Exclusive Farm Use (EFU)	☐	Industrial
☐	Forestry	☐	State/Federal lands
☐	Rural Residential	☐	Other (Specify):

Prevailing wind direction during irrigation season (specify): North

Will irrigation be restricted when winds exceed 10 MPH?: Yes

THE NEAREST DEVELOPED PROPERTY FROM IRRIGATION SITE (ft):

North boundary: 1455' to TL 1510100000708
South boundary: 155' to TL 1510140000800 (SOUTHEAST)
East boundary: 120' to TL 1510140000400 AND TL 151040000300
West boundary: 1385' to TL 1510000001401 (NORTHWEST)
What is the nearest developed property downwind of irrigation site (specify type and distance): TL 1510100000708, Single Family Residence, zoned EFUSC.
Are there any playgrounds, schools, or public parks within ½ mile of irrigation site? (specify): No.

DOMESTIC WELLS	Y	N
Are there any domestic wells or other domestic water sources located within the irrigation site?	☐	☑
Are there any domestic wells or other domestic water sources located within 150', 100, or 50' of the irrigation site?	☐	☑
If yes to either of the above, identify the number of wells or sources and identify their location on the attached site plan.		

POTENTIAL RUN-OFF POINTS ARE LOCATED AT THE (CHECK ALL THAT APPLY):

☐	North boundary (specify): ALL RUNOFF WILL BE CONTROLLED ON SITE
☐	South boundary (specify):
☐	East boundary (specify):
☐	West boundary (specify):

PUBLIC ACCESS WILL BE CONTROLLED BY THE FOLLOWING (CHECK ALL THAT APPLY):

☑	No trespassing or warning signs (specify spacing): 200'
☑	Fencing (specify type): Barb Wire
☐	Other (specify):

BARRIERS ON BOUNDARIES THAT MAY MITIGATE AEROSOL DRIFT (CHECK ALL THAT APPLY)

☑	Natural vegetation (specify height and width): Ponderosa Pine and Juniper, up to 2' diameter, and 50' height.
☐	Natural topography (specify):
☐	Tree or fence row (specify height):
☑	Other (specify): native shrubs and grasses
☐	None:

IRRIGATION METHOD (CHECK ALL THAT APPLY)

☑	Set sprinkler heads with spray height of 20' and spray diameter of 140'
☐	Wheel irrigation line with spray height of _____ and spray diameter of _____
☐	Big gun irrigation with spray height of _____ and spray diameter of _____
☐	Other (specify):

IRRIGATION EQUIPMENT SPECIFICATIONS (insert more rows as needed)

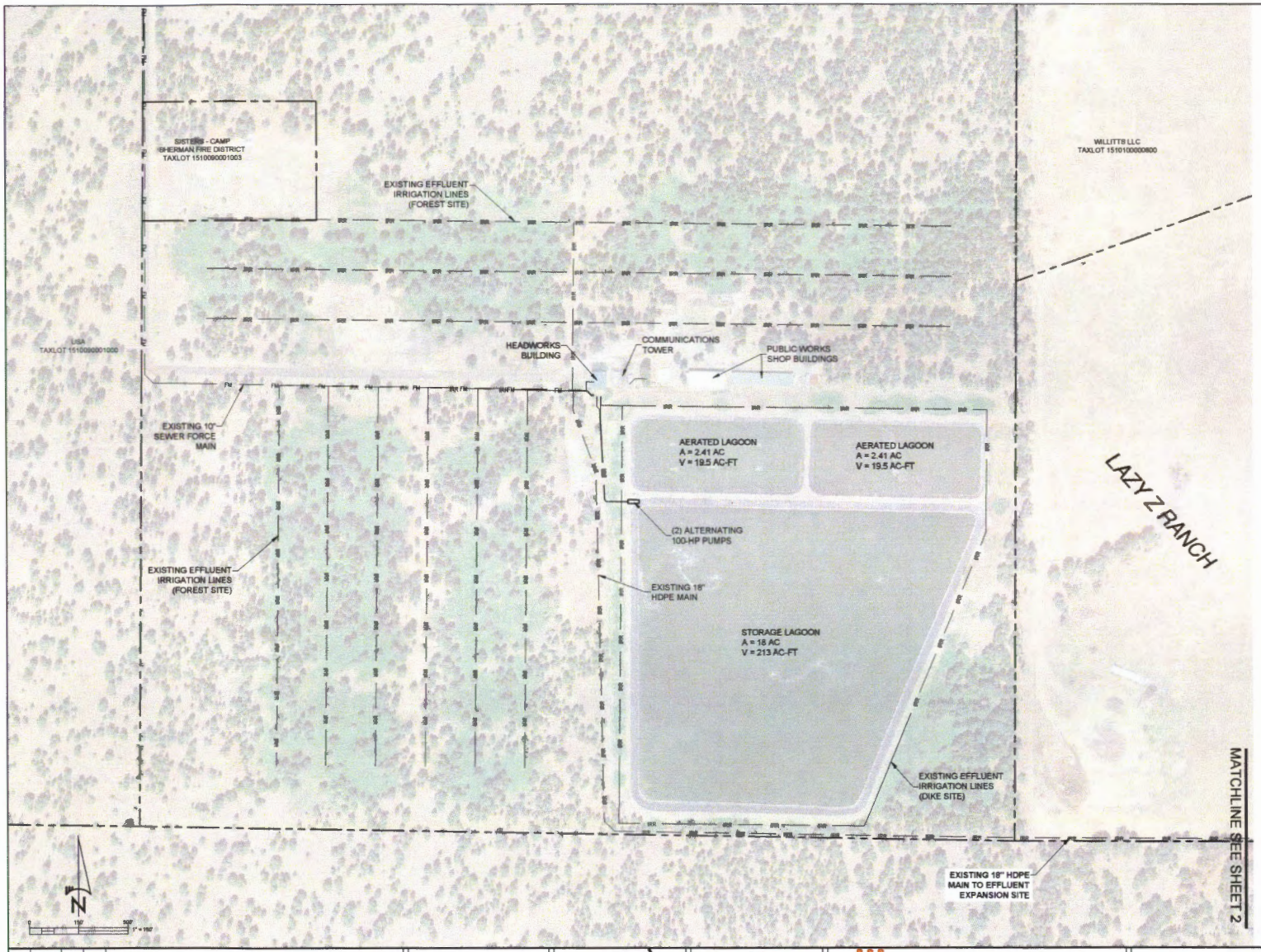
Sprinkler head types (brand and model)	Irrigation zones/cells	PSI operating ranges
RAINBIRD, RAIN GUN SR3003/F3002	4 - 6 Zones	40 TO 100 PSI

REQUIRED ATTACHEMENTS:

1. Overhead scale diagram/plan view of the wastewater treatment plant that identifies the treatment and disinfection components of the plant.
2. Overhead scale diagram/plan view of the transport line from wastewater treatment plant to the reuse area.
3. Overhead scale diagram/plan of the irrigation site showing surrounding properties and irrigation system layout.
4. A full copy of the Recycled Water Use Plan.

HEALTH DIVISION REVIEW COMMENTS:

Print Form



SITE NOTES:

GENERAL:

OWNER/APPLICANT:	CITY OF SISTERS
PROPERTY:	WASTE WATER TREATMENT PLANT
PROPERTY ADDRESS:	1000 SOUTH LOCUST ST., SISTERS, OR, 97759
PROPERTY SIZE:	108.60 ACRES
ZONING:	F1, PF, UAR10
TAXLOT NUMBER:	1510090001002

NOTE: SEE FIGURE 2: PROCESS SCHEMATIC IN THE RECYCLED WATER USE PLAN FOR TREATMENT AND DISINFECTION COMPONENTS OF THE PLANT.

LEGEND:

- PROPERTY LINE
- SETBACK LINE
- EXISTING IRRIGATION LINE
- EXISTING SEWER FORCE MAIN

PRELIMINARY - NOT FOR CONSTRUCTION

NO.	DATE	BY	APPR	REVISIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 21, 2001
E. J. HUFFMAN
PRELIMINARY
RENEWS: JUNE 30, 2017

CITY OF SISTERS INCORPORATED 1946

BECON
549 SW MILL VIEW WAY, SUITE 105
BEND, OREGON 97702
(541) 633-3140
www.beconeng.com

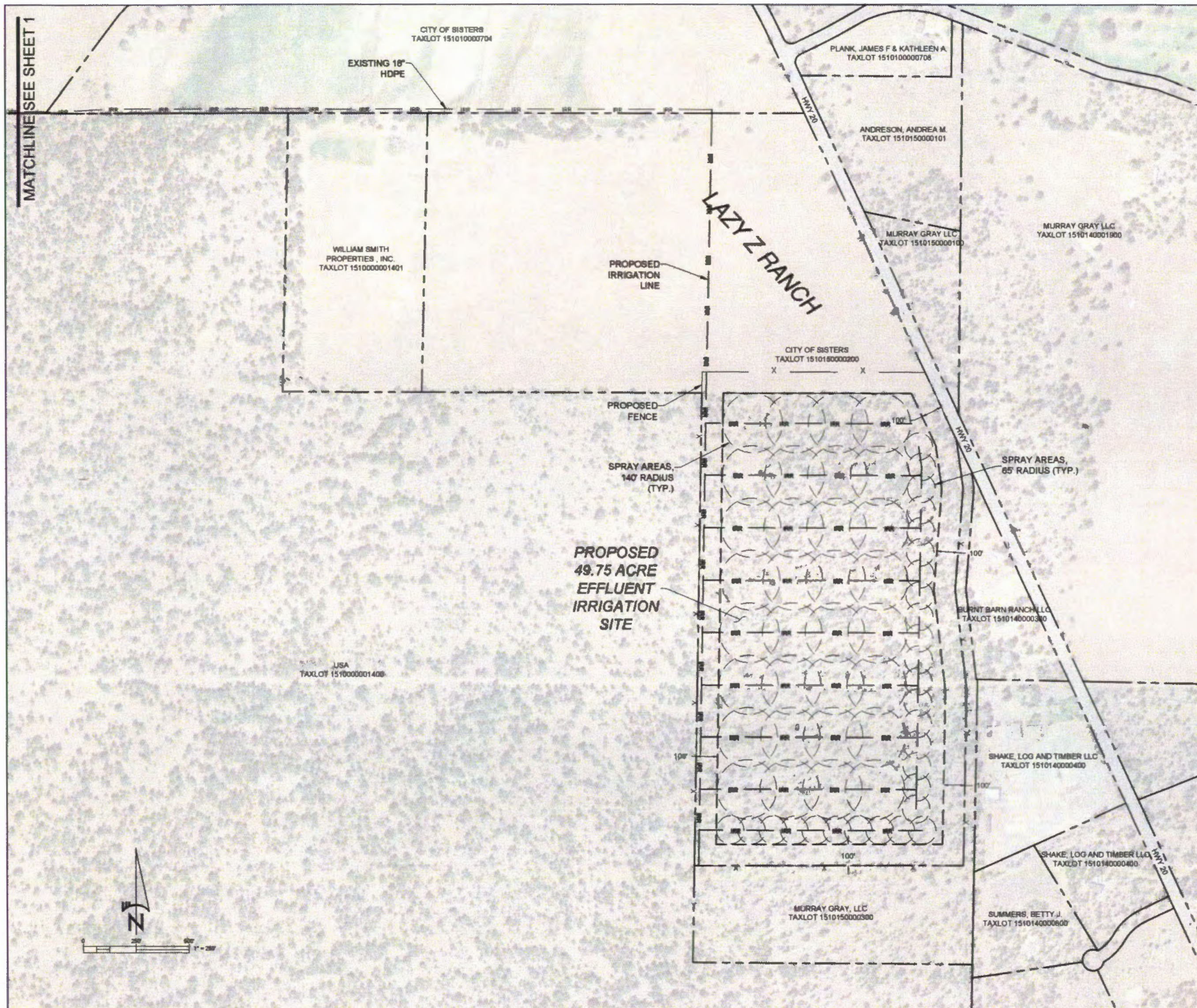
DESIGNED BY	DRAWN BY	CHECKED BY	SCALE
EJH	JLB	EJH	1" = 150'

DATE: 09 - 22 - 2016
PROJECT NO: 13702.118

CITY OF SISTERS
RECYCLED WATER USE PHASE 1 EXPANSION

WASTE WATER TREATMENT PLANT

DRAWING NO: P1
SHEET NO: 1 of 2



SITE NOTES

GENERAL:

OWNER/APPLICANT:	CITY OF SISTERS
PROPERTY:	LAZY Z RANCH
PROPERTY ADDRESS:	68355 HWY 20, SISTERS, OR, 97759
PROPERTY SIZE:	125.68 ACRES
ZONING:	EFUSC
TAXLOT NUMBER:	1510150000200

PHASE 1 EFFLUENT IRRIGATION EXPANSION:

PROJECT AREA:	49.75 ACRES
IRRIGATION PIPE:	≈ 12,660 - LF
PROPERTY LINE SETBACK:	100 - FT

LEGEND:

- PROPERTY LINE
- SETBACK LINE
- PROPOSED EFFLUENT IRRIGATION LINE
- PROPOSED FENCE
- EXISTING IRRIGATION LINE
- SPRAY AREA

PRELIMINARY - NOT FOR CONSTRUCTION

NO	DATE	BY	APPR	REVISIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PRELIMINARY
RENEWS: JUNE 30, 2017

CITY OF SISTERS INCORPORATED 1946

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549 SW MILL VIEW WAY, SUITE 105
BEND, OREGON 97702
(541) 633-3140
www.beconeng.com

DESIGNED BY	DRAWN BY	CHECKED BY	SCALE
EJH	JLB	EJH	1" = 250'
DATE: 09 - 22 - 2016		PROJECT NO: 13702.119	

CITY OF SISTERS
RECYCLED WATER USE PHASE 1 EXPANSION

SITE PLAN

DRAWING NO: P2

SHEET NO: 2 of 2

2016 Recycled Water Use Plan

City of Sisters, Oregon

October 2016

PREPARED BY:

BECON CIVIL ENGINEERING AND LAND SURVEYING

549 SW MILL VIEW WAY, 105

BEND, OREGON 97702

TABLE OF CONTENTS

Recycled Water Use Plan
For
City of Sisters
WPCF Permit No. 101779
File No. 81850

Facility: City of Sisters Wastewater Treatment Plant
912 S. Locust Street
Sisters, Oregon 97759

Physical Address:
1000 South Locust Street
Sisters, Oregon 97759

Mailing Address:
520 East Cascade, PO Box 39
Sisters, Oregon 97759

Contact: Paul Bertagna
Phone: 541.323.5212
Email: pbertagna@ci.sisters.or.us

October 2016

1.0 INTRODUCTION

1.1 OVERVIEW

The City of Sisters wastewater system operates under a Water Pollution Control Facilities Permit, Number 101779, which was last issued on January 22, 2016. An initial Wastewater Recycled Water use Plan was completed in April of 2002 by HGE Inc. for the irrigation of 100.3-Acres of land in the South ½ of Section 9. For future increase in flows the City is expanding their irrigation reuse sites to include the Lazy Z Ranch property. The property is City owned and includes both: T15, R10, S10; TL 704 (100.26 acres) and T15, R10, S15; TL 200 (125.68 acres) for a total of 225.64 acres. However, only TL 200 has received land use approval, to date, from Deschutes County - signed and dated August 6, 2008. The permit conditions require submission of an updated Recycled Water Use Plan (RWUP) prior to effluent discharge to the new site.

The City of Sisters 2016 Wastewater Capital Facilities plan identify the need to expand their effluent irrigation facilitates to obtain capacity for future flows. A wastewater reuse and conservation planning study, by Newton Consultants, Inc. (2013) was used to determine the feasibility for effluent irrigation in the Lazy Z property. Shown in Figure 1 are the City's existing wastewater system facilities and proposed irrigation expansion sites. Phase 1 (planned for 2017), Phase 2 (planned for 2031), and future phases (after 2035) are incorporated into this Recycled Water Use Plan update.

Recycled water usage of treated effluent will allow the City of Sisters to meet water quality standards of the State of Oregon, and to maintain compliance with conditions of the Water Pollution Control Facilities Permit. ***This RWUP supersedes any previous plans.***

1.2 CONTACTS

The City of Sisters is the end user and recycled water generator for the waste water treatment plant (WWTP), located at the following address:

1000 S Locust St.
Sisters, Oregon 97759

Paul Bertagna is the Public Works Director and WWTP operator, his contact information is listed below:

Director of Public Works
Paul Bertagna
(541) 323-5212
pbertagna@ci.sisters.or.us

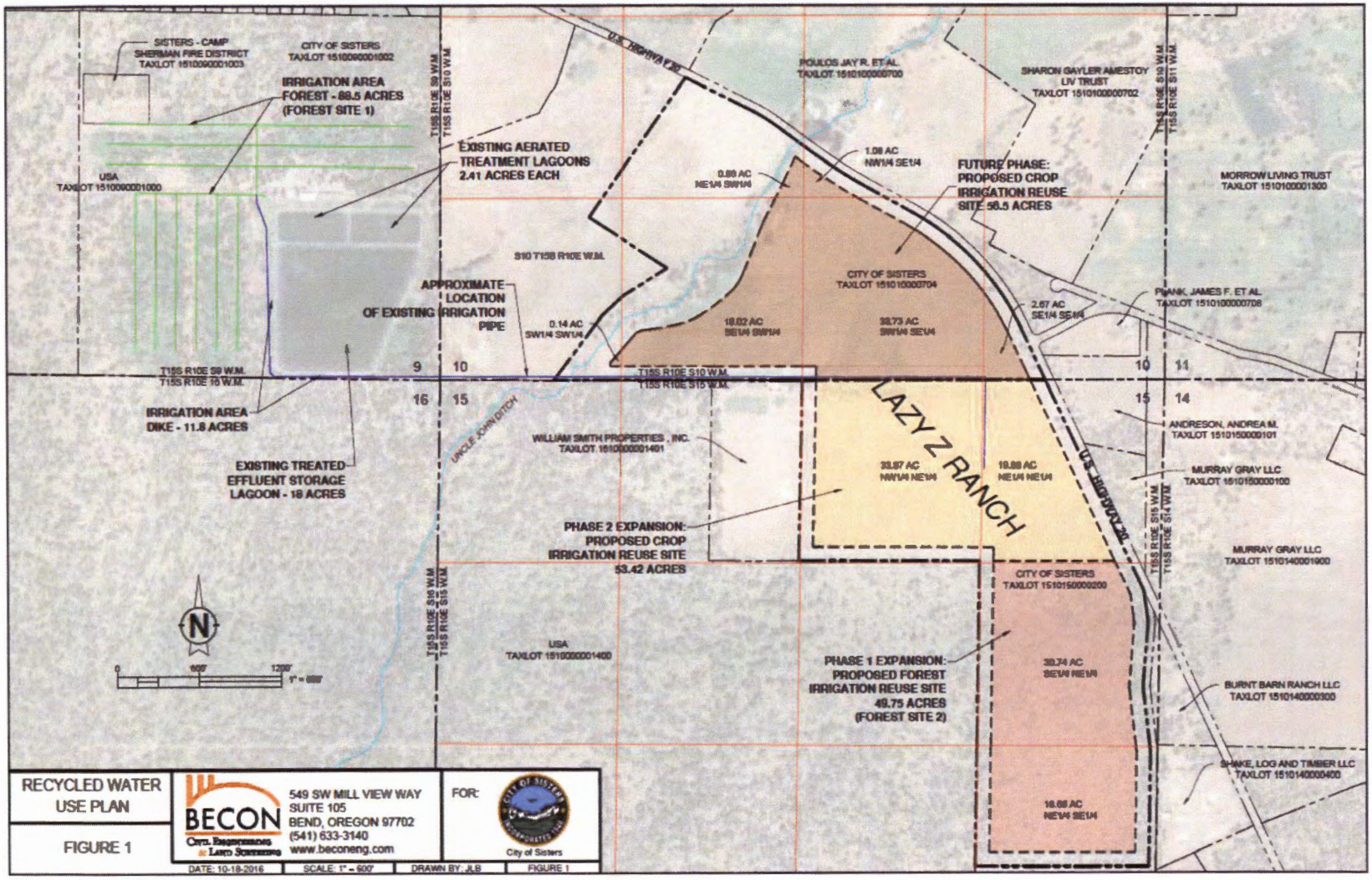

Figure 1: Recycled Water Use Plan Exhibit Map

2.0 BENEFICIAL PURPOSES

Beneficial purposes lie at the core of the recycled water use program and can influence wastewater treatment, monitoring, as well as public health and environmental concerns.

Beneficial Purpose	Class of Water	Quantity (mgd)	Frequency
• Irrigation of orchard grass • Compliance with WPCF permit, and to provide capacity for future wastewater flows.	D	0.522 mgd	April – October

3.0 WASTEWATER TREATMENT

3.1 EXISTING WASTEWATER SYSTEM

The City wastewater system has been operating since 2002. Gravity collection system piping varies from 6" to 24" diameter PVC wastewater mains, with four (4) wastewater pump stations. A 12" diameter pressure main of 9350 lineal feet carries wastewater flows from Pump Station # 1 in the City, directly to the Wastewater Treatment Plant. The wastewater treatment plant is a 3-cell aerated lagoon system with winter holding. Two aerated treatment cells are 2.41 acres, providing for a capacity of 19.5 Ac. Ft. An 18-acre aerated winter holding lagoon is provided for storage, containing 213 Ac. Ft. of storage.

Total inflow for the 2015 year was 70.8 million gallons, with a summer average of 233,570 gpd (gallons per day) and winter average of 153,770 gpd. Shown in Figure 2 is the process schematic for the City of Sisters WWTP.

3.2 EXISTING EFFLUENT IRRIGATION SYSTEM

The existing recycled water use irrigation site is a 108.60-Acre site on the South ½ of Section 9, T15S, 10E, W.M. Land reuse of the stored water is provided on 88.5 acres of natural forest and 11.8 acres of dike and lawn areas (100.3-Acres Total). Application is applied at agronomic rates. The existing (year 2002) recycled water use plan limits irrigation to 13.2 and 47.4 million gallons of dike and forest irrigation respectively. The treatment plant produces Class D quality for both the treated and recycled water. A full copy of the approved WPCF permit is in Appendix C of this document.

The irrigation site surrounds the wastewater treatment and holding ponds. Three separate irrigation systems are provided. Each of the two forest irrigation sites is served by a 10-inch diameter PVC irrigation header from the effluent pumps located in the control building. The dike irrigation system is fed through a looped 4-inch diameter irrigation system. A marking ribbon is buried with the pipe to indicate non-potable water. Two alternating 100 HP pumps are provided to deliver treated recycled water to the forest irrigation system, and a single 15 HP pump is provided to deliver water to the dike irrigation system. An existing pipeline exists on the Lazy Z Ranch property (see Figure I), which may be used for irrigation purposes.

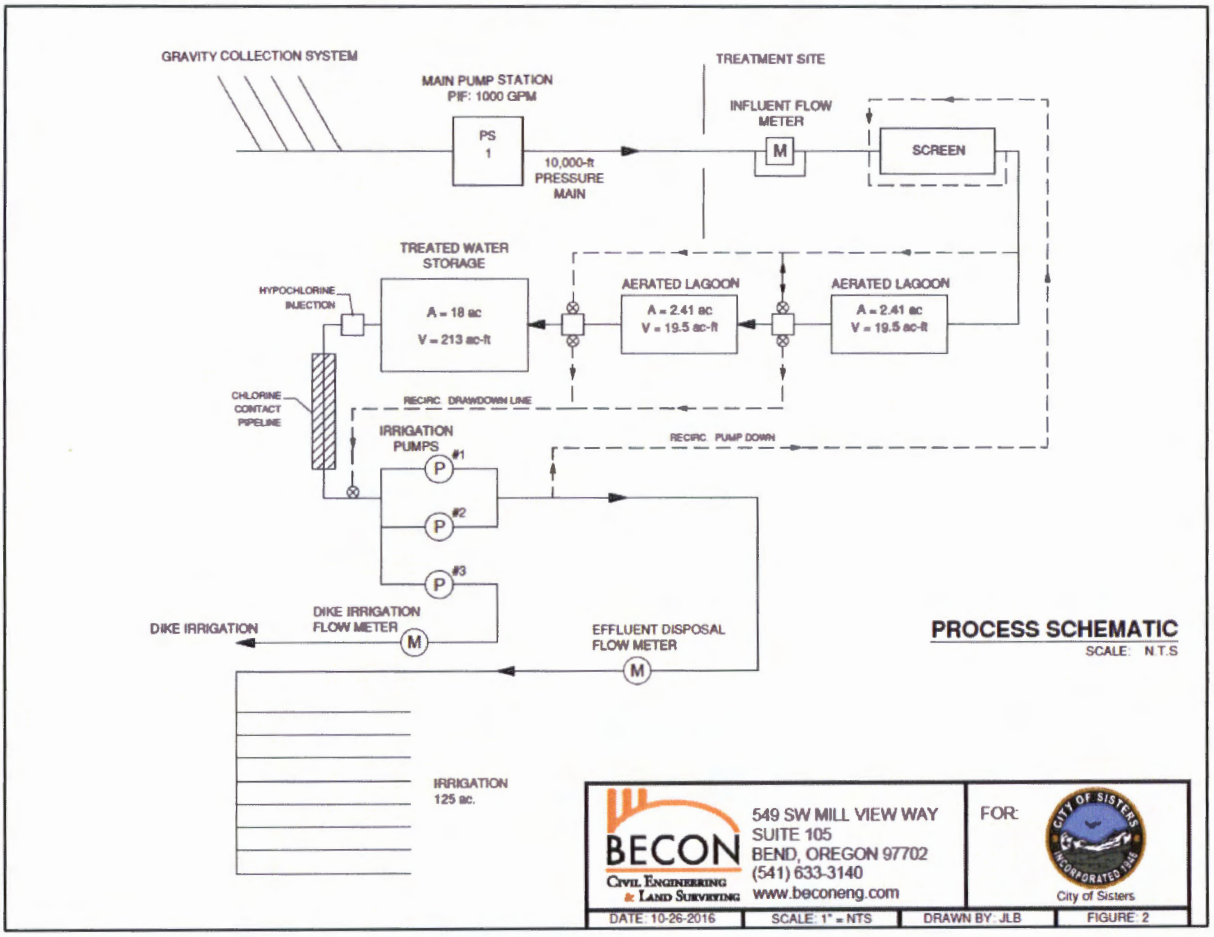

Figure 2: Water Treatment Plant Schematic

3.3 INFLUENT FLOW MEASUREMENT AND SAMPLING

Influent flow measurement is provided in the pump room of the control building for the wastewater treatment plant. The meter is an 8" ASA electromagnetic flow meter which has been calibrated annually since installation. Influent sampling is provided by an ISCO 3710FR refrigerated sampler located in the pump room of the control building at the treatment plant. This is a 24-hour composite sampler which provides composite data for influent BODs and TSS.

3.4 DISINFECTION FACILITIES

Disinfection of effluent at the Sisters plant is provided by chlorination, specifically through sodium hypo-chlorite. Equipment includes a Lightnin chemical mixer, a 500-gallon polyethylene sodium hypo-chlorite tank, a Wallace & Tiernan chemical feed pump, a Grundgs Fost back-up chemical feed pump, a Gas Mastrrr 3-hp flash mixer, a vacuum regulator, rate controller, ejector water supply system, and a chlorine contact pipeline. The chlorine contact pipeline is 1,140 feet of 36" PVC piping buried in the dike along the west side of lagoon # 1 and the holding pond. A Gas Mastrrr Series 32 chlorine induction feeder-flash mixer is provided in the transfer structure from the holding pond to the chlorine contact pipeline. This unit provides a positive flash mix of sodium hypo- chlorite solution which flows through the chlorine contact pipeline toward the land reuse system. A sampling tap is provided on the effluent

(reuse) piping to allow for sampling of effluent pumped from the reuse pumps to either of the two reuse systems provided. Disinfection facilities are controlled through the SCADA system with the PLC provided.

3.5 EFFLUENT REUSE SYSTEM

The effluent reuse facilities are intended to discharge treated and disinfected effluent for land reuse through irrigation of both forest land and lagoon dikes and lawns on the treatment plant site. The effluent reuse system that is in place includes a holding pond for storage, a chlorine contact line for effluent disinfection, three irrigation pumps, a re-circulation system, and a sprinkler system to provide reuse on treatment plant lagoon dikes and lawn areas, and on 88.5 acres of forest land. Additional area for reuse is set aside for buffer to adjacent properties on the North, East and South boundaries of the treatment plant site, in compliance with Oregon DEQ regulations.

Prior to land reuse, the effluent is disinfected in 1,140 feet of 36" chlorine contact line, which provides for a minimum detention time of 60 minutes at peak discharge flows of 1,000 gpm. Sodium hypochlorite from the 500 gallon HDPE storage tank is mixed with effluent from Lagoon No. 3, in the chlorine contact facility. Effluent is discharged to forest land and pond dikes and lawn areas from April 1 to October 31 and stored in the holding pond during the remaining months. The storage lagoon must be lowered sufficiently by the end of the irrigation season to ensure maximum practicable storage capacity during the no irrigation months.

The land reuse system diverts the majority of the effluent to 88.5 acres of forest land, and the remaining to the treatment plant lagoon dikes and lawn areas (11.8 acres). The effluent is pumped to these locations using three pumps. Two 100 HP, 1000 gpm capacity pumps transport effluent to the forest land, while one 15 HP, 125 gpm capacity pushes the water to the dike. The effluent is carried to the forest land in a 10" main line which branches out into 8" lines across the irrigation area. There are flow meters stationed after the pumping facility that are measuring the quantity of effluent traveling to both the forest land and dike.

Both effluent reuse systems provided for discharge from the Sisters WWTP are controlled through the SCADA system, with the Programmable Logic Controller provided. Both the SCADA system and the PLC have been in use since the plant became operational, and equipment of this type and age becomes outdated, is not supported and difficult to repair due to availability of parts. Both the SCADA system and the PLC will need to be replaced in the near future.

3.6 EFFLUENT FLOW MEASUREMENT AND SAMPLING

Effluent flow measurements are provided in the pump room of the control building for the WWTP. Two meters are provided, with one on the dike and lawn reuse system, and one on the forest reuse system. Each meter is an ASA model IF6 electromagnetic flow meter, which have been calibrated annually since installation. Grab samples are taken out of the transfer structure before the effluent enters the chlorine contact line. These samples are then tested for concentration of E.coli. Flow measurements are recorded in the SCADA system provided. Flowmeter performance has been excellent, all the units were rebuilt in 2007 due to the pump building inadvertently flooding. All flow meters are flow tested and calibrated annually to ensure accuracy within specifications.

4.0 RECYCLED WATER MONITORING AND SAMPLING

OAR 340-055 defines the regulations for land application of recycled water.

i. Prior to land application of the recycled water, it must receive at least Class D treatment as defined in OAR 340-055. Class D recycled water must not exceed a 30-day log mean day log mean of 126 E. coli organisms per 100 milliliters and 406 E. coli organisms per 100 milliliters in any single sample. Class C recycled water must not exceed a 7 day median of 23 organisms/100 milliliters and no two consecutive samples must exceed 240 organisms/100 milliliters.

ii. Irrigation must conform to a Recycled Water Use Plan approved by DEQ and meet the required setbacks as defined in OAR 340-055.

iii. The City of Sisters must restrict public access to the reuse site(s) for the protection of public health.

iv. Treated effluent may only be irrigated on land between April 1 through October 31 for dissipation by evapotranspiration and controlled seepage by following sound irrigation practices unless otherwise approved in writing by DEQ.

v. Recycled water equipment must be operated so as to prevent:

   a) Prolonged ponding of treated recycled water on the ground surface;

   b) Surface runoff or subsurface drainage through drainage tile;

   c) The creation of odors, fly and mosquito breeding or other nuisance conditions;

   d) The overloading of land with nutrients, organics, or other pollutant parameters; and

   e) Impairment of existing or potential beneficial uses of groundwater.

   f) Until otherwise approved in writing by the Department via a revised reclaimed water use plan, treated effluent must only be reused on Class D beneficial uses.

4.1 EFFLUENT MONITORING

Monthly discharge monitoring reports (DMR) are sent to the DEQ before the 15th day of the following month providing monitoring and sampling information for the WWTP including the reuse facility as required by the WPCF permit and summarized in Table 1. The recycled water applied to the irrigation field is measured daily when the system is in use. During the irrigation operation in 2015 there was a total of 5.46 and 72.57 million gallons applied to the dike and forest respectively.

Table 1: Recycled Monitoring Program

Item or Parameter	Minimum Frequency	Type of Sample
Total Inflow to WWTP	Daily	Measurement
Total reuse flows (recycled water)	Daily	Measurement
Flow Meter Verification	Annually	Verification
E. Coli	Weekly	Grab
Nitrogen Nitrate (NH_3-N)	Annually	Grab
Inspect Lagoon	Daily	Visual
Inspect Lagoon Liner	Daily	Visual

4.2 WATER QUALITY

Operations have experienced no problems in meeting permit conditions for E. coli. Effluent nutrient data for August 2015 indicated the following: Nitrate Nitrogen (NO_3-N): 0.03 mg/l. Nutrient levels are reasonable and do not raise concerns regarding system performance or effluent loadings.

5.0 SYSTEM MAINTENANCE AND CONTINGENCY PROCEDURES

The WWTP recycled water facilities will be maintained, per OAR 340-055-0025(1)(f), as well as a description of contingency procedures, per OAR 340-055-0025 (1)(d). The City of Sisters has submitted system maintenance and contingency procedures to Oregon DEQ as part of the submittal documents for the WPCF permit in 2002. The City maintains copies of the system maintenance and contingency procedures and are available upon request.

6.0 PUBLIC HEALTH AND ENVIRONMENTAL CONTROLS

6.1 ACCESS AND EXPOSURE CONTROLS

The irrigation sites are on City owned property with the required setbacks for Class D recycled water. Public access is prevented from entry into the existing and proposed area by barb wire fences around the irrigation site, a 6 foot chain link site with barb wire around the treatment plant site, and locked gates for both. Signs are posted around the perimeter of the irrigation field to indicate the water is not safe for drinking and that effluent is being applied as irrigation. Access and exposure are addressed as follows:

- Staff are the only people authorized to enter the site.
- The general public does not have access to the site.
- There are no grazing animals allowed on the site.
- The irrigation water is not used for sod, nursey stock or Christmas trees.
- The irrigation water is not used for commercial or industrial uses.
- The irrigation site is posted.
- All supervisors and staff working near the site are educated regarding access restrictions for this land application site.
- Irrigation over spray shall be monitored during windy days to ensure the buffer zones are not violated. When wind velocities exceed 10 mph, irrigation should stop or be reduced to prevent over spray on neighboring properties if this situation was to occur.
- When winds are high staff will assure that the buffer zones are not violated or the irrigation system will be turned off.
- The lagoon is fenced and gated.

6.2 SETBACKS

The required setbacks for Class D recycled water are as follows (per ORS 340-055-0012):

- 100 feet from the property line
- 100 feet from a water supply
- 70 feet from food preparation sites or drinking fountains.

6.3 NOTIFICATION

OAR 340-055 requires notification of recycled water use. There are two audiences for notification: personnel and the public. The notification methods used for each audience are as follows:

- Personnel:
  - Employees who will be working near the site are educated about the recycled water reuse program.
  - The irrigation site is posted with signs.
- The general public is notified through the WPCF permitting process through the Oregon Department of Environmental Quality.

6.4 SITE MANAGEMENT PRACTICES

Site management practices include the following:

- When using recycled water for irrigation, the perimeter of the site is posted with signs indicating that recycled water is not safe for drinking.
- When the ground is frozen, no irrigation is done.
- If the wind is high, no irrigation is done.
- Irrigation is done only when maintenance staff are on duty.
- Irrigation of fodder, fiber, seed crops not intended for human ingestion, sod, commercial timber, firewood, ornamental nursery stock, or Christmas trees is prohibited for three days before harvesting.

7.0 LAND APPLICATION PLAN

OAR 340-055-0025(2)(a) establishes additional requirements for recycled water use plans when conventional irrigation is used. In general, this includes a site characterization, description of the irrigation system, soils and crops, application rates, site management practices and public access control. Some of these items have already been described, such as the system description (Section 3), and site management and public access control (Section 6). The reader may refer to earlier sections of this plan for these items.

7.1 PROPOSED EFFLUENT IRRIGATION EXPANSION

The proposed recycled water use irrigation site, also known as the Lazy Z Ranch property, is approximately 225.6-Acres and located directly east from the existing Wastewater Treatment Plant. The site is divided into 2 lots, T15, R10, S10; TL (Taxlot) 704 (100.26 acres) and T15, R10, S15; TL 200 (125.68 acres) for a total of 225.64 acres (See Figure 1). The city anticipates using the 49.75-Acres forested area (Phase 1) and a 53.42-Acre crop land area (Phase 2) for effluent irrigation.

The Lazy Z Ranch property provides multiple possibilities for effluent reuse expansion. Both forest irrigation and crop irrigation sites are available. Both Phase 1 and Phase 2 have been incorporated into this Recycle Water Use Plan update.

A flow balance is provided in Table A and Table B (see Appendix B), considering available holding capacity and effluent reuse through the constructed irrigation systems described previously. The flow balance was developed assuming a lifetime for the effluent system of 10 and 20 years, to the year 2025 and 2035 respectively. Assuming that growth projections are accurate, and that estimated agronomic usage of the recycled water are accurate, the existing facilities cannot provide adequate area for disposal of flows.

In the 2025 water balance (Table A) the existing effluent irrigation system will continue to operate at threshold levels (see Table 1). The Phase 1 expansion site (Forest Site 2) will operate at irrigation rates necessary to lower the holding pond storage to the initial depth (6'). As shown in the 2035 water balance (Table B), the forest sites and the dike will operate at the irrigation application limit. The crop site will operate at irrigation rates required to lower the holding pond storage to the initial depth (6.0'). Irrigation discharge may be modified if necessary as long as the application rates in Table 2 are not exceeded on any give season, peak month, and peak day.

7.1.1 Phase 1 – Forest Irrigation Effluent Expansion – TL 200

A 49.75-Acre forested area is available for effluent irrigation at the southeast corner of the Lazy Z Ranch property. The Phase 1 effluent expansion will be fully implemented during 2017. Phase 1 is included in the 2025 and 2035 water balance computations for this Recycled Water Use Plan update (Table A and B).

7.1.2 Phase 2 – Future Crop Irrigation Effluent Expansion – TL 200

A 53.42-Acre crop land area is available for effluent irrigation in the southeast portion of the Lazy Z Ranch property. It is anticipated that this area would have a permitted application rate of 25.5 inches per

year and could be connected to the existing pipeline which terminates in the center of the site. A wastewater reuse study by Newton Consultants Inc., completed in June 2013, identified multiple crop irrigation applications, grass crop is assumed. The City anticipates to implement Phase 2 by 2031. Phase 2 was incorporated into the water balance computations for 2035 conditions. Phase 2 will conform to DEQ requirements for Class D recycled water.

7.1.3 Future Phase – Future Crop Irrigation Effluent Expansion – TL 704

An additional 56.5-Acres of land is available for crop irrigation. The wastewater reuse study by Newton Consultants Inc., identified multiple crop irrigation applications, all to take place after 2035. The Future Phase was included in the water balance computations for 2035 conditions. The future phase will conform to DEQ requirements for Class D recycled water.

7.2 SITE CHARACTERIZATION

A USGS topo map, NRCS soil maps, and soil series descriptions for the proposed area described are included in Appendix A. The proposed irrigation expansion site (TL 200 described above) is located at 68355 HWY 20, Sisters, Oregon 97759. The site has the following characteristics:

- Land Use Zone: Exclusive Farm Use (to be rezoned to Public Facilities prior to any irrigation expansion activity).
- Size: 125.68 Acres

Rain fall and evaporation data was obtained from the Western Regional Climate Center (WRCC 2016).

- Annual Average Rainfall: 13.5 inches
- Annual Evaporation: 51.68 inches
- Average Annual Temperatures: average annual max – 84.4°F, average annual Min – 20.9°F
- Topography: Slope is roughly 0 – 2.5%
- Elevation: 3180-FT to 3230-FT
- Setbacks from property Line: 100-FT
- Not located in a flood plain.
- Depth to Groundwater: Based on City well logs, depth varies from 63 – 113 feet.
- Winter ground can be frozen.
- Winds can be moderate. Prevailing wind direction is north per the National Oceanic and Atmospheric Administration (NOAA 2016).

The 2002 Wastewater Reclaimed Water Use Plan calculated an application rate of 28.79-in/acre per season in the Dike and 14.3-inches/acre per season in the forest (an efficiency coefficient of 70% was applied to compensate for evaporation losses during the application). The City now uses an efficiency coefficient of 75% for all future planning purposes. Application rate limits (using a 75% efficiency coefficient) per the Soil and Water Reuse Reports, prepared by Wert & Associates, Inc. (1998 and 2007) are shown in Table 2 below:

Table 2: Irrigation Application Rate Limits

Application	Dike	Forest	Crop
Seasonal Amount	34"	19.1"	34"

Peak Month (July)	8.3"	7.3"	8.3"
Peak Daily	0.4"	0.2"	0.4"

7.3 PHASE 1: FOREST EFFLUENT IRRIGATION EXPANSION

The City will expand their irrigation to the 49.75 – Acre site at the southeast corner of the Lazy Z Ranch Property. Using data from existing Lagoons, the wastewater will contain:

NO_3-	0.5 mg/l
NH_4	0.5 mg/l
TKN	9.0 mg/l
Total Nitrogen:	10 mg/l

- Water Application:
  - There are no Oregon State University extension bulletins for water consumption of the existing stand of ponderosa pine, lodgepole pine, pine-sage, and bitter brush. Literature review was made by Wert and Associates, Inc. (1998) to determine application rates.
  - Total Irrigated area is 49.75 – Acres with Setbacks.
  - See water balance computations in Appendix B for application rates per month.
  - The peak daily irrigation rate shall be 0.2", or 290,096 gpd.
  - The total irrigation volume is 19.10 inches over a 7-month period (April – October). The amount applied through irrigation is within the applications rate limits (see Table 2).
- Nitrogen Loading:
  - Based on literature and Wert and Associates, Inc. (1998) concluded that applying 1.3 Acre-Feet of wastewater to the existing forest will add 35 lbs of available nitrogen per acre. Based on this result, 2132 lbs of organic nitrogen loading will be applied to the site per year.
  - Total volume applied is 25,802,683 gallons or 97,637,780 liters.

    Nitrogen loading in mg: 967,060,000 mg

    Total concentration = 9.9 mg/l (less than 10 mg/L)
- Cropping Program:
  - The site will be mowed 2 to 3 times per irrigation season. Mowing's will be disposed of or moved to a non-irrigation site. Herbicides will be applied annually to control weeds.

7.4 PHASE 2: CROP EFFLUENT IRRGATION EXPANSION

The 53.42-Acre site will be planted with hay/alfalfa/grass. No other crops are proposed. Using data from existing Lagoons, the wastewater will contain:

NO3	0.5 mg/l
NH_4	0.5 mg/l
TKN	9.0 mg/l
Total Nitrogen:	10 mg/l

- Water Application:
  - Consumptive use rates by month for pasture grasses grown in the Bend/Sisters are were taken from Oregon State University Extension Bulletin 8530.
  - Total irrigated area is 53.42 – Acres (with setbacks).
  - The crop will require about 3" of water per month (see water balance computation in Appendix B).
  - The peak daily irrigation rate shall be 0.4 inches or 580,193 gpd (see Table 2).
  - The total irrigation volume is 19.50 inches over a 7-month period (April – October). The amount applied through irrigation is within the applications rate limits (see Table 2).
- Nitrogen Loading:
  - Per the 2007 Soil and Water Reuse Report by Wert and Associates, Inc., the average organic concentration of 10 mg/l or 27 lbs of nitrogen per 1 Acre-Foot of wastewater. Oregon State University recommends orchard grass for the site. For orchard grass, 3 Acre-Feet/Acre of wastewater will be applied which will contain 81 pounds of organic nitrogen per acre.
  - The calculated irrigation discharge is 19.5 inches per year, or 86.8 Acre-Feet, which is equivalent to 2344 lbs of organic nitrogen loading per year.
  - Total volume applied is 11,695,352 gallons or 44,271,723 liters.

    Nitrogen loading in mg: 1,063,200,000 mg

    Total concentration = 5.6 mg/l (less than 10 mg/L)
  - The orchard grass will need an additional 119 lb/acre of nitrogen fertilizer.
- Cropping Program:
  - The crop will absorb nutrients, be harvested and be removed from the site for beneficial use.

7.5 IRRIGATION MANAGEMENT AND SCHEDULING

7.5.1 Irrigation Site: Startup

During each startup of either irrigation system, the chief operator should make certain that disinfection facilities are fully operational, and should verify that water quality testing is provided to assure compliance with the WPCF permit conditions. This will require activation of the chlorination system provided, and testing to assure that permit conditions are being met prior to discharge of the treated effluent for reuse purposes.

7.5.2 Irrigation Site: Field Observations

During April through October, field observations should be made daily, or when effluent reuse is being utilized, of the site for evidence of runoff. All irrigation water must percolate into the ground for usage by the disposal site. The irrigation rate must be maintained at agronomic rates. Aerosol drift from the application site should be observed and reported if excessive distances are observed. A wind monitoring system is provided from the weather station, and should function to limit irrigation during periods when excessive wind conditions are experienced on site.

7.5.3 Recording: Verification of Permit Conditions prior to Disposal

The City should maintain records of water quality testing at any time that effluent reuse is anticipated for either of the irrigation sites provided. Compliance will be required for both E.coli, and for total coliform, and actual testing data should be reported on the Daily Monitoring Report, for submittal to the Oregon Department of Environmental Quality on a monthly basis.

7.5.4 Recording: Flow Meter Records, Pump Time and Rainfall

The City should maintain influent and effluent flow meter records for all flow meters provided, with information provided through physical measurements verified against records maintained in the SCADA system provided. Similar records should be maintained for daily pump times and rainfall monitored during the irrigation period. Operational records and rainfall shall be recorded in order to review final management of reclaimed water usage and potential operational requirements. Since irrigation needs will be limited to specific application periods, the irrigation equipment can be operated through the SCADA system to apply effluent reuse when irrigation can best be applied for beneficial usage, with storage being maintained in the interim.

7.5.5 Operational Conditions

City staff should maintain records for operational conditions on the effluent reuse sites. Records shall include: 1) amount of effluent applied to each irrigation site, 2) ability to control storage and irrigation needs, and 3) agricultural concerns or benefits with water available for effluent reuse.

7.5.6 Summary of Record-Keeping

Reporting of water quality testing as addressed by the WPCF permit, (E. coli and coliform), irrigation site field observations, and operational conditions will be important for long term operation of the reclaimed water use site. Effluent flow meter readings and rainfall will need to be recorded daily.

- A summary of the reporting needs is as follows:
- Daily influent flows, in gpd, into the Wastewater Treatment Facility
- Daily water quality E.coli numbers to show compliance with permit conditions
- Daily water quality coliform numbers to show compliance with permit conditions
- Daily effluent flow meter records for the effluent irrigation and disposal systems
- Daily pump records, in hours, for each of the irrigation pumps being utilized
- Daily rainfall volumes, in 1/100th inches
- Irrigation rates and volumes on a daily basis
- Field observations of potential locations for runoff, and photos of any runoff occurrences

7.6 SITE MONITORING PLAN

Soil sampling will be used to monitor the nutrient balance with regards to the soil fertility of the sites. Soil sampling will take place at all forest and crop effluent irrigation sites. The sampling procedure shall be per section 7.6.1, or per the latest Oregon State University (OSU) Extension Service soil sampling guide.

7.6.1 General Soil Sampling Procedures

On forest sites sampling shall be done along one irrigation line for uniformity and consistency. On crop sites sampling shall be done in a simple random pattern. At least 30 samples shall be taken from each effluent irrigation site. Sampling shall be conducted every two years in the forest sites and annually in the crop sites. Sampling will take place at the end of each irrigation season (November). The soil sampling process is listed below:

1. Proper information and materials shall be obtained (Education Extension from OSU).
2. Proper sampling tools/equipment shall be used (e.g. soil auger, shovel, bucket etc.). Equipment must be clean, specifically free of fertilizer. Galvanized buckets or rusted tools/equipment shall not be used. Tools shall be used properly.
3. Unusual areas shall be avoided. This includes but is not limited to abandoned farmsteads, feed lots, manure piles, fences eroded knolls, low areas, and salty or wet spots shall be avoided or sampled separately.
4. Sites shall be divided into areas for sampling. (i.e. Forest Site 1, Forest Site 2, Crop Site 1 etc.).
5. Samples shall be taken to a 3-ft depth at 1-ft increments (1st sample at 1-ft depth, 2nd sample at 2-ft depth etc.).
6. Composite samples shall be analyzed for each site. The composite sample is a mixture of all the samples within the site. The composite sample shall be well mixed.
7. Moist soil samples shall be kept cool at all times (during and after sampling). Samples can be frozen or refrigerated for extended periods of time without adverse effects. If samples cannot be refrigerated or frozen after collection, they shall be air dried or taken directly to the testing laboratory.
8. All data shall be collected, stored, and documented.

7.6.2 Soil Sample Analysis

The City shall sample for nitrate (NO_{3-}), nitrite (NO_{2-}), ammonia (NH_4), Total Kjeldahl Nitrogen (TKN), and phosphorus (P). Samples shall be sent to laboratories that are certified by the North American Proficiency Testing (NAPT) program. The NH_4 will be lost to vitalization when it is irrigated. Most of the nitrogen will be in the form of algae cells. When the algae is spread on the soil it will be mineralized into forms available to plants. (Wert, 2007).

REFERENCES

*References available upon request.

Huffman, E.J. "Wastewater System Capital Facilities Plan Update." *City of Sisters*. (February 2016).

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Nored, R.D. "Wastewater Reclaimed Water Use Plan." *HGE, Inc.* (April 2002).

Wert, S. "Soil and Water Reuse Report for Sister Wastewater Project." *Wert & Associates, Inc.* (February 1998).Print.

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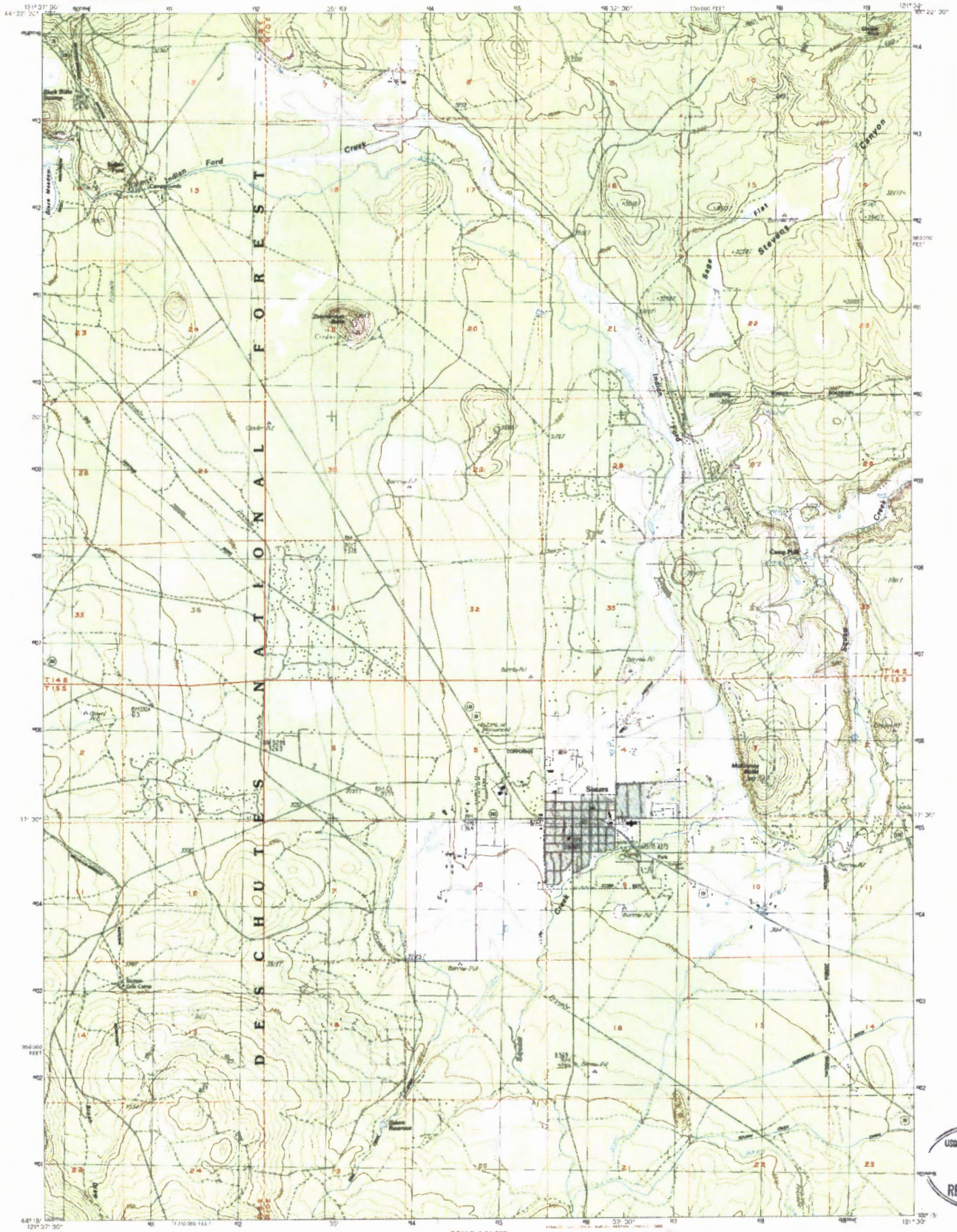
APPENDIX A

- USGS Topo Maps
- NRCS soil maps, and soil series descriptions

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SISTERS QUADRANGLE
OREGON—DESCHUTES CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY ..... USGS, NOAA/NOAA AND STATE OF OREGON
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1951
FIELD CHECKED 1956
LIMITED REVISION FROM AERIAL PHOTOGRAPHS TAKEN 1982 AND 84
FIELD CHECKED ..... 1985, MAP EDITED 1988
PROJECTION ..... LAMBERT CONFORMAL CONIC
GRID 1000-METER UNIVERSAL TRANSVERSE MERCATOR ..... ZONE 10
10000-FOOT STATE GRID TICKS ..... OREG. SOUTH ZONE
UTM GRID DESIGNATION 10T
1988 MAGNETIC NORTH DECLINATION ..... 17°09' EAST
VERTICAL DATUM ..... NATIONAL GEODETIC VERTICAL DATUM OF 1929
HORIZONTAL DATUM ..... 1927 NORTH AMERICAN DATUM

To place on the predicted North American Datum of 1983, move the projection lines as shown by dashed corner ticks (23 meters north and 92 meters east)

There may be private inholdings within the boundaries of any Federal and State Reservation shown on this map

Public Land Survey System is shown as published in 1959 and unified or supplemented in 1988

No distinction made between levees, berms, and other buildings

PROVISIONAL MAP
Produced from original manuscript drawings. Information shown as of date of field check.

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
SUPPLEMENTARY CONTOUR INTERVAL 10 FEET

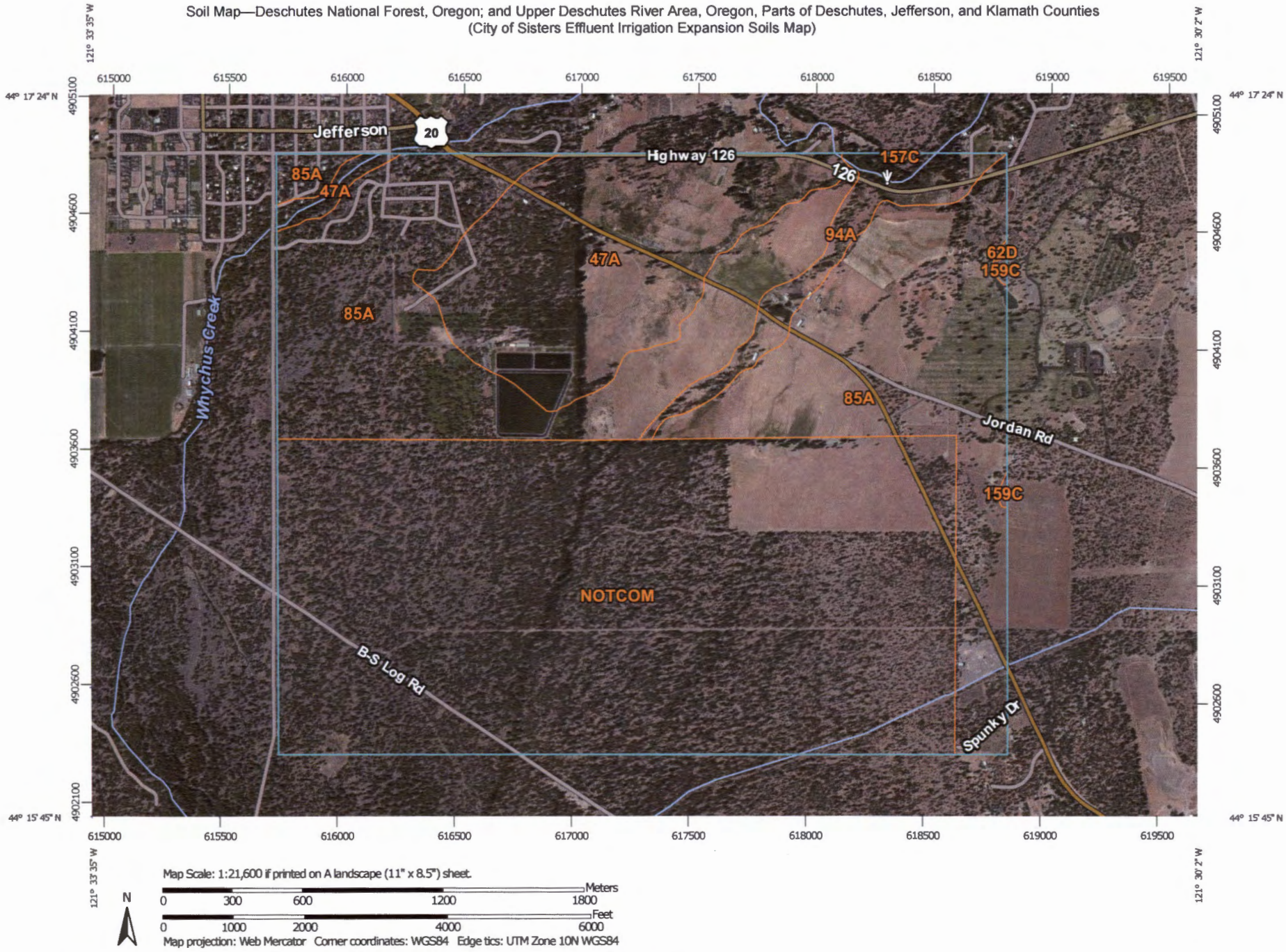
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

ADJOINING 7.5 QUADRANGLE NAMES
1. Black Butte
2. Little Squaw Back
3. Squaw Back Ridge
4. Black Canyon
5. Tumalo Butte
6. Grant Creek Butte
7. Three Creek Butte
8. Tumalo Basin

ROAD LEGEND
Improved Road .....
Unimproved Road .....
Trail .....
Interstate Route ○ U.S. Route ○ State Route

SISTERS, OREG.
PROVISIONAL EDITION 1988
46181-C3-TF-024

Soil Map—Deschutes National Forest, Oregon; and Upper Deschutes River Area, Oregon, Parts of Deschutes, Jefferson, and Klamath Counties
(City of Sisters Effluent Irrigation Expansion Soils Map)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Deschutes National Forest, Oregon
Survey Area Data: Version 2, Dec 5, 2013

Soil Survey Area: Upper Deschutes River Area, Oregon, Parts of Deschutes, Jefferson, and Klamath Counties
Survey Area Data: Version 11, Sep 18, 2015

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 20, 2010—Sep 4, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Deschutes National Forest, Oregon (OR605)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
NOTCOM	No Digital Data Available	960.8	48.8%
Subtotals for Soil Survey Area		**960.8**	**48.8%**
Totals for Area of Interest		**1,967.4**	**100.0%**

Upper Deschutes River Area, Oregon, Parts of Deschutes, Jefferson, and Klamath Counties (OR620)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
47A	Ermabell loamy fine sand, 0 to 3 percent slopes	283.0	14.4%
62D	Henkle-Lava flows-Fryrear complex, 15 to 50 percent slopes	0.7	0.0%
85A	Lundgren sandy loam, 0 to 3 percent slopes	658.1	33.5%
94A	Omahaling fine sandy loam, 0 to 5 percent slopes	61.9	3.1%
157C	Wanoga-Fremkle-Rock outcrop complex, 0 to 15 percent slopes	0.7	0.0%
159C	Wilt sandy loam, 0 to 15 percent slopes	2.2	0.1%
Subtotals for Soil Survey Area		**1,006.6**	**51.2%**
Totals for Area of Interest		**1,967.4**	**100.0%**

APPENDIX B

- Water balance computations for 2025 and 2035 conditions.

City of Sisters Recycled Water Use Plan

Table I

Water Balance for Aerated Treatment, Holding, and Irrigation (2025 Conditions) - Balance Including Evaporation on Treatment and Holding Ponds

Holding Pond Constants:
*Assume 6' Water on 10/01 for Start

Treatment Pond Constants:
Water Surface Area 4.82 ac

Annual Irrigation:

Forest Irrigation Site 1	88.5	ac
Forest Irrigation Site 2	49.75	ac
Dike Irrigation	11.8	ac

Crop: Forest Land With Dike Irrigation System

Crop Irrigation Req. Dike	25.5	in/acre
Forest Site 1	14.3	in/acre
Forest Site 2	10.5	in/acre

Mo.	Holding Pond Initial Volume (Ac-ft)	Initial Depth flow (ft) [1]	Influent Flow (gpd)	Monthly Influent Flow (Ac-ft)	Rainfall (in)	Evaporation from Ponds (in)	Net (in)	Net Ponds Evap. (Ac-ft)	Irrigation Discharge Forest Site 1 (Ac-ft)	Irrigation Discharge Forest Site 2 (Ac-ft)	Irrigation Discharge Dikes (Ac-ft)	Final Volume (Ac-ft)	Final Depth (ft)		Irrigation Discharge Forest Site 1 (in/acre)	Irrigation Discharge Forest Site 2 (in/acre)	Irrigation Discharge Dikes (in/acre)
Oct.	30.07	6.00	253833.49	24.15	0.95	3.29	-2.34	-3.92	0.00	0.00	2.95	47.35	7.12		0.00	0.00	3.00
Nov.	47.35	7.12	255011.19	23.48	2.10	1.80	0.30	0.51	0.00	0.00	0.00	71.34	8.65		0.00	0.00	0.00
Dec.	71.34	8.65	258576.80	24.60	2.27	0.00	2.27	3.91	0.00	0.00	0.00	99.86	10.42		0.00	0.00	0.00
Jan.	99.86	10.42	251085.03	23.89	2.24	0.00	2.24	3.94	0.00	0.00	0.00	127.69	12.12		0.00	0.00	0.00
Feb.	127.69	12.12	244023.90	20.97	1.45	0.00	1.45	2.60	0.00	0.00	0.00	151.25	13.51		0.00	0.00	0.00
Mar.	151.25	13.51	256936.59	24.45	1.12	0.00	1.12	2.04	0.00	0.00	0.00	177.74	15.05		0.00	0.00	0.00
Apr.	177.74	15.05	250384.62	23.05	0.79	5.26	-4.47	-8.27	7.38	4.15	2.95	178.05	15.07		1.00	1.00	3.00
May	178.05	15.07	259330.41	24.67	0.78	7.25	-6.47	-11.97	14.75	8.29	2.95	164.77	14.30		2.00	2.00	4.25
June	164.77	14.30	297566.50	27.40	0.61	8.70	-8.09	-14.84	25.81	14.51	4.18	132.82	12.42		3.50	3.50	5.50
July	132.82	12.42	303571.73	28.88	0.38	10.17	-9.79	-17.60	36.88	16.58	5.41	85.24	9.52		5.00	4.00	6.00
Aug.	85.24	9.52	288543.87	27.45	0.41	9.06	-8.65	-15.06	29.50	8.29	5.90	53.94	7.55		4.00	2.00	7.50
Sept.	53.94	7.55	278602.13	25.65	0.40	6.15	-5.75	-9.79	26.55	6.22	7.38	29.66	5.97		3.60	1.50	4.75
Total				298.65	13.5	51.68	-38.18	-68.44	140.9	58.0	31.7				19.1	14.0	34.0
														75% Efficiency	14.33	10.50	25.50

Notes: 1. Depth at deep end. 4.0 foot depth corresponds to 0.0 foot depth at shallow end of pond. The end of season depth is approximately 6 feet in order to keep the surface aerators in operation and to avoid the need for removing the unutilized aerators prior to the pond freezing over.
2. Application rates in water balance are lower than allowable rates. See Section 6.1 for allowable application rates in each area.

Table II

Water Balance for Aerated Treatment, Holding, and Irrigation (2035 Conditions) - Balance Including Evaporation on Treatment and Holding Ponds

Holding Pond Constants:
*Assume 6' Water on 10/01 for Start

Treatment Pond Constants:
Water Surface Area 4.82 ac

Annual Irrigation:

Forest Irrigation Site 1	88.5	ac
Forest Irrigation Site 2	49.75	ac
Dike Irrigation	11.8	ac
Crop	53.42	ac

Irrigation Required:

Dike	25.5	in/acre
Forest Site 1	14.3	in/acre
Forest Site 2	14.3	in/acre
Crop	14.6	in/acre

Mo.	Holding Pond Initial Volume (Ac-ft)	Initial Depth flow (ft) [1]	Influent Flow (gpd)	Monthly Influent Flow (Ac-ft)	Rainfall (in)	Evaporation from Ponds (in)	Net (in)	Net Ponds Evap. (Ac-ft)	Irrigation Discharge Forest Site 1 (Ac-ft)	Irrigation Discharge Forest Site 2 (Ac-ft)	Irrigation Discharge Dikes (Ac-ft)	Irrigation Discharge Crop (Ac-ft)	Final Volume (Ac-ft)	Final Depth (ft)		Irrigation Discharge Forest Site 1 (in/acre)	Irrigation Discharge Forest Site 2 (in/acre)	Irrigation Discharge Dikes (in/acre)	Irrigation Discharge Crop (in/acre) [2]
Oct.	30.07	6.00	348825.48	33.19	0.95	3.29	-2.34	-3.92	9.96	5.60	2.46	11.13	30.20	6.01		1.35	1.35	2.50	2.50
Nov.	30.20	6.01	350443.91	32.27	2.10	1.80	0.30	0.50	0.00	0.00	0.00	0.00	62.97	8.12		0.00	0.00	0.00	0.00
Dec.	62.97	8.12	355343.87	33.81	2.27	0.00	2.27	3.89	0.00	0.00	0.00	0.00	100.67	10.47		0.00	0.00	0.00	0.00
Jan.	100.67	10.47	345048.46	32.83	2.24	0.00	2.24	3.94	0.00	0.00	0.00	0.00	137.44	12.70		0.00	0.00	0.00	0.00
Feb.	137.44	12.70	335344.85	28.82	1.45	0.00	1.45	2.61	0.00	0.00	0.00	0.00	168.87	14.54		0.00	0.00	0.00	0.00
Mar.	168.87	14.54	353089.85	33.59	1.12	0.00	1.12	2.06	0.00	0.00	0.00	0.00	204.53	16.58		0.00	0.00	0.00	0.00
Apr.	204.53	16.58	344085.93	31.68	0.79	5.26	-4.47	-8.40	18.44	10.36	4.43	14.47	180.11	15.19		2.50	2.50	4.50	3.25
May	180.11	15.19	356379.50	33.91	0.78	7.25	-6.47	-11.98	22.13	12.44	4.43	13.36	149.69	13.42		3.00	3.00	5.00	3.00
June	149.69	13.42	408924.67	37.65	0.61	8.70	-8.09	-14.70	29.50	16.58	4.92	11.13	110.51	11.08		4.00	4.00	6.00	2.50
July	110.51	11.08	417177.24	39.69	0.38	10.17	-9.79	-17.34	36.88	20.73	5.90	12.24	57.11	7.75		5.00	5.00	8.00	2.75
Aug.	57.11	7.75	396525.50	37.73	0.41	9.06	-8.65	-14.76	18.44	10.36	7.87	12.24	31.16	6.07		2.50	2.50	6.00	2.75
Sept.	31.16	6.07	382863.27	35.25	0.40	6.15	-5.75	-9.63	5.53	3.11	5.90	12.24	30.00	6.00		0.75	0.75	2.00	2.75
Total				410.41	13.50	51.68	38.18	-67.73	140.9	79.2	35.9	86.8				19.10	19.10	34.00	19.50
															75% Efficiency	**14.33**	**14.33**	**25.50**	**14.63**

Notes: 1. Depth at deep end. 4.0 foot depth corresponds to 0.0 foot depth at shallow end of pond. The end of season depth is approximately 6 feet in order to keep the surface aerators in operation and to avoid the need for removing the unutilized aerators prior to the pond freezing over.
2. Application rates in water balance are lower than allowable rates. See Section 6.1 for allowable application rates in each area.

APPENDIX C

Water Pollution Control Facilities (WPCF) Permit No. 101779, Expires December 31, 2025.

WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
475 NE Bellevue Dr. Suite 110, Bend, OR 97701
Telephone: 541-388-6146
(541) 388-6146
Issued pursuant to ORS 468B.050

ISSUED TO:

City of Sisters
P.O. Box 39
Sisters, OR 97759

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Method of Disposal
Domestic Sewage	001	Recycled Water Reuse

SYSTEM TYPE AND LOCATION:

Domestic Sewage Lagoons
912 S. Locust Street
T15S, R10 EWM, S09; TL 1002
Longitude -121.538480;
Latitude 44.280506
Sisters, Oregon

RIVER BASIN INFORMATION:

Basin: Deschutes
Sub-Basin: Upper Deschutes
LLID: 1213357444600-20.47-N
County: Deschutes
Nearest surface stream which would receive waste if it were to discharge: Whychus Creek formally called Squaw Creek

Treatment System Class: I
Collection System Class: II

Issued in response to Application No. 968002 received December 17, 2010.

This permit is issued based on the land use findings in the permit record.

Don Butcher, Water Quality Permit Manager
Eastern Region

January 22, 2016
Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

All direct a discharge to surface waters is prohibited.

SCHEDULE A

Waste Disposal Limitations

1. The permittee is authorized to construct, operate, and maintain wastewater collection, treatment and disposal systems to serve the City of Sisters in accordance with the conditions set forth in this permit.

2. The wastewater collections, treatment and land application system must not be hydraulically or organically loaded in excess of their respective, DEQ approved design capacities. At full build-out, however, the annual average daily influent flow must not exceed 0.38 MGD.

3. All wastewater treatment and disposal systems must be operated in compliance with the following conditions:

   a. No discharge to state waters is permitted. All wastewater must be stored and treated for disposal by land application following sound irrigation practices.

   b. Recycled Wastewater
      i. Prior to land application of the recycled water, it must receive at least Class D treatment as defined in OAR 340-055. Class D recycled water must not exceed a 30-day log mean of 126 E. coli organisms per 100 milliliters and 406 E. coli organisms per 100 milliliters in any single sample. Class C recycled water must not exceed a 7 day median of 23 organisms/100 milliliters and no two consecutive samples must exceed 240 organisms/100 milliliters.
      ii. Irrigation must conform to a Recycled Water Use Plan approved by DEQ and meet the required setbacks as defined in OAR 340-055.
      iii. The City of Sisters must restrict public access to the reuse site(s) for the protection of public health.
      iv. Treated effluent may only be irrigated on land between April 1 through October 31 for dissipation by evapotranspiration and controlled seepage by following sound irrigation practices unless otherwise approved in writing by DEQ.
      v. Recycled water equipment must be operated so as to prevent:
         (A) Prolonged ponding of treated recycled water on the ground surface;
         (B) Surface runoff or subsurface drainage through drainage tile;
         (C) The creation of odors, fly and mosquito breeding or other nuisance conditions;
         (D) The overloading of land with nutrients, organics, or other pollutant parameters; and
         (E) Impairment of existing or potential beneficial uses of groundwater.
         (F) Until otherwise approved in writing by the Department via a revised reclaimed water use plan, treated effluent must only be reused on Class D beneficial uses.

4. The storage lagoon must be lowered sufficiently by the end of the irrigation season to ensure maximum practicable storage capacity during the non-irrigation months.

5. The permittee must, during all times of treatment and disposal, provide personnel whose primary responsibilities are to assure the continuous performance of the disposal system in accordance with the conditions of this permit.

6. No activities must be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater. All wastewater and process related residuals must be managed and disposed in a manner that will prevent a violation of the Groundwater Quality Protection Rules (OAR 340-040).

SCHEDULE B

1. System Monitoring Requirements

The permittee must monitor the operation and efficiency of all treatment and disposal facilities. Sampling and measurements taken as required herein must be representative of the nature of the wastewater, and must be taken under normal operating conditions. Unless otherwise agreed to in writing by the Department of Environmental Quality, data collected, and submitted must include but not necessarily be limited to the following parameters and minimum frequencies:

a. Influent Monitoring and Reporting Requirements

Table B 1: Influent Monitoring

Item or Parameter	Time Period	Minimum Frequency	Sample Type/Required Action	Report
Total Flow (MGD)	Year-round	Daily	Measurement	Daily totals Monthly maximum Monthly minimum Monthly average Monthly total
Flow Meter Verification	Year-round	Annually	Verification	Completed or not completed (Pass, Fail)
BOD_5 and TSS (mg/L)	Year-round	Weekly	Composite	Monthly averages Weekly values
pH (S.U.)	Year-round	3/week	Grab	Monthly maximum Monthly minimum Monthly average

b. Recycled Water Monitoring Requirements:

Table B2: Recycled Water Monitoring

Item or Parameter	Minimum Frequency	Sample Type/Required Action
Total Flow (MGD) or Quantity Irrigated (in/ac)	Daily	Measurement
Flow Meter Calibration	Annually	Verification
Chlorine, Total Residual (mg/L)	Daily	Grab
pH	3/Week	Grab
E. coli Bacteria	1/Week	Grab*
Total Coliform	1/Week	Grab*
Total P and Total N	Annually	Grab
Annual Irigation		

*The permittee is only required to sample for either E. coli or total coliform, but not both for an individual use. If the permittee is irrigating on crops requiring only Class D quality effluent, E. coli must be monitored. If the permittee irrigates/reuses effluent for Class C uses, total coliform must be monitored.

2. Reporting Procedures

a. Monitoring results must be reported on DEQ approved forms. Reports must be submitted to DEQ's Eastern Region – Bend office by the 15th day of the following month.

b. State monitoring reports must identify the name, certificate classification and grade level of each principal operator designated by the permittee as responsible for supervising the wastewater collection and treatment systems during the reporting period. Monitoring reports must also identify each system classification as found on page one of this permit.

c. Monitoring reports must also include a record of the quantity and method of use of all sludge removed from the treatment facility and a record of all applicable equipment breakdowns and bypassing.

d. The laboratory used by the permittee to analyze samples must have a quality assurance/quality control (QA/QC) program to verify the accuracy of sample analysis. If QA/QC requirements are not met for any analysis, the results must be included in the report, but not used in calculations required by this permit. When possible, the permittee must re-sample in a timely manner for parameters failing the QA/QC requirements, analyze the samples, and report the results.

e. By no later than January 15 of each year, the permittee must submit to DEQ an annual report describing the effectiveness of the recycle water system to comply with the approved recycle water use plan, the rules of Division 55, and the limitations and conditions of this permit applicable to reuse of recycled water. The review is to provide a summary of land application conducted at each site which is adequate to demonstrate that reuse water was applied agronomically and/or hydraulic loading rates, and that required site management practices were followed.

SCHEDULE C

Compliance Conditions and Schedules

a. Within 180 days the permittee must update their recycled water use plan for DEQ approval. A recycled water use plan must describe how the wastewater treatment system owner will comply with OAR 340-055 (refer to OAR 340-055-0025).

b. The permittee is expected to meet the compliance date that have been established in this schedule. Either prior to or no later than 14 days following any lapsed compliance date, the permittee shall submit to the Department a notice of compliance or noncompliance with the established schedule. The Director or his authorized representative may revise a schedule of compliance if he determines good and valid cause resulting from events over which the permittee has little or no control.

SCHEDULE D

Special Conditions

1. Prior to constructing or modifying any wastewater control facilities, detailed plans and specifications shall be approved in writing by DEQ. After approval of the plans, all construction shall be in strict conformance with the plans unless otherwise approved in writing by DEQ.

2. Within 6 months of such time as the sewage lagoons require removal of accumulated biosolids, the permittee shall submit a biosolids management plan that complies with the Department's biosolids management regulations as established in OAR 340-50.

3. This permit may be modified to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Clean Water Act, if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in this permit.

4. The permittee must, during all times of disposal, provide personnel to ensure the continuous performance of the disposal system within the limitations of this permit. In the event that any condition of this permit or DEQ rules are violated, the permittee must immediately take action to correct the violation and to notify DEQ **within 24 hours** at: DEQ's Eastern Region Water Quality Program Office (541) 388-6146.

   Response: In response to a notification, DEQ may conduct an investigation to evaluate the nature and extent of the problem, and may require additional corrective actions, as necessary. Compliance with this requirement does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

5. All materials and equipment, including but not limited to tanks, pumps, controls, valves, etc. must be installed, operated, and maintained in accordance with manufacturer's minimum specifications.

6. The permittee must immediately notify the DEQ Bend office (phone 388-6146) of any occurrence of surfacing sewage so corrective action can be coordinated between the permittee and DEQ. When the DEQ offices are not open, the permittee must report the incident to the Oregon Emergency Response System (phone 1-800-452-0311).

7. Emergency Response and Public Notification Plan

   a. The permittee must develop, and maintain and implement an Emergency Response and Public Notification Plan (the Plan) per Schedule F, Section B, and Conditions 5 & 6. The permit holder must develop the plan within six months of permit issuance and update the Plan annually to ensure that telephone and email contact information for applicable public agencies are current and accurate. An updated copy of the plan must be kept on file at the wastewater treatment facility for Department review. The latest plan revision date must be listed on the Plan cover along with the reviewer's initials or signature.

8. Recycled Water Use Plan

a. In order to distribute recycled water for reuse, the permittee must develop, have and maintain and implement a DEQ-approved Recycled Water Use Plan meeting the requirements in OAR 340-055-0025. The permittee must submit substantial modifications to an existing plan to DEQ for approval at least 60 days prior to making the proposed changes. Conditions in the Plan are enforceable requirements under this permit.

9. The permittee must meet the requirements for use of recycled water under Division 55, including the following:

a. All recycled water must be managed in accordance with the approved Recycled Water Use Plan. No substantial changes must be made in the approved plan without written approval by DEQ.

b. The permittee must notify DEQ within 24 hours if it is determined that the treated effluent is being used in a manner not in compliance with OAR 340-055. When the DEQ offices are not open, the permittee must report the incident of noncompliance to the Oregon Emergency Response System (Telephone Number 1-800-452-0311).

c. No recycled water must be made available to a person proposing to recycle unless that person certifies in writing that they have read and understand the provisions in Division 55. This written certification must be kept on file by the sewage treatment system owner and be made available to DEQ for inspection.

e. Treated effluent must not be irrigated on ground that is frozen, snow-covered, or saturated with water. The volume of irrigated effluent and its total nitrogen loading must not exceed that established in a DEQ-approved recycled water use plan.

f. Unless otherwise approved in writing by DEQ, a vegetative cover must be maintained on the land irrigation area at all times. Vegetation is to be periodically cut and removed to ensure maximum evapotranspiration and nutrient capture.

10. Operator Certification

The permittee must comply with Oregon Administrative Rules (OAR), Chapter 340, Division 49, "Regulations Pertaining To Certification of Wastewater System Operator Personnel" and designate a supervisor whose certification corresponds with the classification of the collection and/or treatment system as specified on page 1 of this permit.

a. Definitions

i. "Supervise" means to have full and active responsibility for the daily onsite technical operation of a wastewater treatment system or wastewater collection system.

ii. "Supervisor" or "designated operator", means the operator delegated authority by the permittee for establishing and executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system in accordance with the policies of the owner of the system and any permit requirements.

iii. "Shift Supervisor" means the operator delegated authority by the permittee for executing the specific practice and procedures for operating the wastewater treatment

system or wastewater collection system when the system is operated on more than one daily shift.

iv. "System" includes both the collection system and the treatment systems.

b. The permittee must have its system supervised by one or more operators who hold a valid certificate for the type of wastewater treatment or wastewater collection system, and at a grade equal to or greater than the wastewater system's classification as specified on page 1 of this permit.

c. The permittee's wastewater system may not be without the designated supervisor for more than 30 days. During this period, there must be another person available to supervisor who is certified at no more than one grade lower than the classification of the wastewater system. The permittee must delegate authority to this operator to supervise the operation of the system.

d. If the wastewater system has more than one daily shift, the permittee must have another properly certified operator available to supervisor operation of the system. Each shift supervisor, if any, must be certified at no more than one grade lower than the system classification.

e. The permittee is not required to have a supervisor on site at all times; however, the supervisor must be available to the permittee and operator at all times.

f. The permittee must notify DEQ in writing of the name of the system supervisor. The permittee may replace or re-designate the system supervisor with another properly certified operator at any time and must notify DEQ in writing within 30 days of replacement or re-designation of operator in charge. As of this writing, the notice of replacement or re-designation must be sent to Water Quality Division, Operator Certification Program, 2020 SW 4th Avenue, Suite 400, Portland, OR 97201. This address may be updated in writing by DEQ during the term of this permit.

g. When compliance with paragraph (c) of Item 8 in this section is not possible or practicable because the system supervisor is not available or the position is vacated unexpectedly, and another certified operator is not qualified to assume supervisory responsibility, the Director may grant a time extension for compliance with the requirements in response to a written request from the system owner. The Director will not grant an extension longer than 120 days unless the system owner documents the existence of extraordinary circumstances.

11. DEQ may reopen the Schedules in this permit, if necessary, to include new or revised conditions.

12. If warranted, at any time, DEQ may evaluate the need for or require a full assessment of the facilty's impact on groundwater quality.

SCHEDULE F

WPCF GENERAL CONDITIONS – DOMESTIC FACILITIES

SECTION A. STANDARD CONDITIONS

1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and grounds for an enforcement action. Failure to comply is also grounds for the Department to modify, revoke, or deny renewal of a permit.

2. Property Rights and Other Legal Requirements

Issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other rights, or any infringement of federal, tribal, state, or local laws or regulations.

3. Liability

The Department of Environmental Quality or its officers, agents, or employees may not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities or systems because of this permit.

4. Permit Actions

After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:

a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

5. Transfer of Permit

This permit may not be transferred to a third party without prior written approval from the Department. The Department may approve transfers where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

6. Permit Fees

The permittee must pay the fees required by Oregon Administrative Rules.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

At all times the permittee must maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to comply with the terms and conditions of this permit.

2. Standard Operation and Maintenance

All waste collection, control, treatment, and disposal facilities or systems must be operated in a manner consistent with the following:

a. At all times, all facilities or systems must be operated as efficiently as possible in a manner that will prevent discharges, health hazards, and nuisance conditions.

b. All screenings, grit, and sludge must be disposed of in a manner approved by the Department to prevent any pollutant from the materials from reaching waters of the state, creating a public health hazard, or causing a nuisance condition.

c. Bypassing untreated waste is generally prohibited. Bypassing may not occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. Noncompliance and Notification Procedures

If the permittee is unable to comply with conditions of this permit because of surfacing sewage; a breakdown of equipment, facilities or systems; an accident caused by human error or negligence; or any other cause such as an act of nature, the permittee must:

a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.

b. Immediately notify the Department's Regional office so that an investigation can be made to evaluate the impact and the corrective actions taken, and to determine any additional action that must be taken.

c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee must submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of waste discharged, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or liability for failure to comply.

4. Wastewater System Personnel

The permittee must provide an adequate operating staff that is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

5. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entities (e.g., public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed under General Condition B.6. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

6. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from overflows, bypasses or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
e. Provide emergency operations; and
f. Ensure that DEQ is notified of the public notification steps taken.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry

The permittee must at all reasonable times allow authorized representatives of the Department to:

a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required by this permit;

c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or

d. Sample or monitor any substances or permit parameters at any location at reasonable times for the purpose of assuring permit compliance or as otherwise authorized by state law...

2. Averaging of Measurements

Calculations of averages of measurements required for all parameters except bacteria must use an arithmetic mean; bacteria must be averaged as specified in the permit.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures specified in the most recent edition of **Standard Methods for the Examination of Water and Wastewater**, unless other test procedures have been approved in writing by the Department and specified in this permit.

4. Representative Sampling

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge when discharging or land applying. Monitoring points must not be changed without notification to and the approval of DEQ.

5. Retention of Records

The permittee must retain records of all monitoring and maintenance information, including all calibrations, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. The Department may extend this period at any time.

SECTION D. REPORTING REQUIREMENTS

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, construction, installation, or modification of disposal systems, treatment works, or sewerage systems may not commence until plans and specifications are submitted to and approved in writing by the Department. All construction, installation, or modification shall be in strict conformance with the Department's written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is expected to result in a change in the character of pollutants to be discharged or in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. A change may not be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports, or information submitted to the Department must be signed and certified by the official applicant of record (owner) or authorized designee.

4. Twenty-Four Hour Reporting

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) to DEQ or to the Oregon Emergency Response System (1-800-452-0311) as specified below within 24 hours from the time the permittee becomes aware of the circumstances.

a. Overflows.

(1) Oral Reporting within 24 hours.

i. For overflows other than basement backups, the following information must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311. For basement backups, this information should be reported directly to DEQ.

a) The location of the overflow;
b) The receiving water (if there is one);
c) An estimate of the volume of the overflow;
d) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe); and
e) The estimated date and time when the overflow began and stopped or will be stopped.

ii. The following information must be reported to the Department's Regional office within 24 hours, or during normal business hours, whichever is first:

a) The OERS incident number (if applicable) along with a brief description of the event.

(2) Written reporting within 5 days.

i. The following information must be provided in writing to the Department's Regional office within 5 days of the time the permittee becomes aware of the overflow:

a) The OERS incident number (if applicable);
b) The cause or suspected cause of the overflow;
c) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
d) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps; and
e) (for storm-related overflows) The rainfall intensity (inches/hour) and duration of the storm associated with the overflow.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

b. Other instances of noncompliance.

(1) The following instances of noncompliance must be reported:

i. Any unanticipated bypass that exceeds any effluent limitation in this permit;
ii. Any upset that exceeds any effluent limitation in this permit;
iii. Violation of maximum daily discharge limitation for any of the pollutants listed by the Department in this permit; and
iv. Any noncompliance that may endanger human health or the environment.

(2) During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

(3) A written submission must be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:

i. A description of the noncompliance and its cause;
ii. The period of noncompliance, including exact dates and times;
iii. The estimated time noncompliance is expected to continue if it has not been corrected;
iv. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
v. Public notification steps taken, pursuant to General Condition B.6.

(4) The Department may waive the written report on a case-by-case basis if the oral report has been received
within 24 hours.

SECTION E. DEFINITIONS

1. *BOD_5* means five-day biochemical oxygen demand.
2. *TSS* means total suspended solids.
3. *FC* means fecal coliform bacteria.
4. *NH_3-N* means Ammonia Nitrogen.
5. *NO_3-N* means Nitrate Nitrogen.
6. *NO_2-N* means Nitrite Nitrogen.
7. *TKN* means Total Kjeldahl Nitrogen.
8. *Cl* means Chloride.
9. *TN* means Total Nitrogen.
10. "*Bacteria*" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
11. *Total residual chlorine* means combined chlorine forms plus free residual chlorine.
12. *mg/l* means milligrams per liter.
13. *ug/l* means micrograms per liter.
14. *kg* means kilograms.
15. *GPD* means gallons per day.
16. *MGD* means million gallons per day.
17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. *Composite sample* means a combination of samples collected, generally at equal flow or time intervals over a 24-hour period.
19. *Week* means a calendar week of Sunday through Saturday.
20. *Month* means a calendar month.
21. *Quarter* means January through March, April through June, July through September, or October through December.

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
SISTERS, OREGON 97759

confirms the right to store the waters of POLE CREEK, a tributary of SQUAW CREEK, in SISTERS' RESERVOIR, appropriated under Permit 32854, for the purpose of MUNICIPAL USE.

The right to store these waters has been perfected under Reservoir Permit R-5054. The date of priority is AUGUST 10, 1967. The amount of water entitled to be stored each year under such right is not more than 6.3 ACRE FEET.

The reservoir is located as follows:

NE 1/4 NE 1/4
SECTION 19
TOWNSHIP 15 SOUTH, RANGE 10 EAST, W.M.

The dam is to be operated and maintained in accordance to the approved plans and specifications.

The right to store and use the water for the above purpose is restricted to beneficial use at the place of use described.

WITNESS the signature of the Water Resources Director, affixed JANUARY 3, 1991.

/s/ WILLIAM H. YOUNG

William H. Young

Recorded in State Record of Water Right Certificates numbered 65090.

R-43919 DLM

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS, OR 97759

confirms the right to use the waters of WHYCHUS CREEK, a tributary to DESCHUTES RIVER for IRRIGATION of 113 ACRES.

This right was confirmed by decree of the Circuit Court of the State of Oregon for Crook County. The decree is of record at Salem, in the Order Record of the Water Resources Director in Volume 1 at Page 120. The date of priority is 1880.

The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 2.028 CUBIC FOOT PER SECOND, (if available at the original point of diversion) or its equivalent in case of rotation, if available at the original point of diversion.

The original point of diversion is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	21	SW SW	140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

The new Point of Diversion is located:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	21	SW SW	998 FEET NORTH AND 1211 FEET EAST FROM THE SW CORNER OF SECTION 21

:

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

A description of the place of use to which this right is appurtenant is as follows:

	IRRIGATION					
Twp	**Rng**	**Mer**	**Sec**	**Q-Q**	**Tax Lot**	**Acres**
15 S	10 E	WM	10	NE SW	704	18.0
15 S	10 E	WM	10	NW SW	704	0.3
15 S	10 E	WM	10	SW SW	704	4.2
15 S	10 E	WM	10	SE SW	704	37.0
15 S	10 E	WM	10	NW SE	704	2.4
15 S	10 E	WM	10	SW SE	704	36.1
15 S	10 E	WM	10	SE SE	704	4.2
15 S	10 E	WM	15	NE NE	200	10.8
						113.0

The water user shall install and maintain an in-line flow meter or other suitable device for measuring and recording the quantity of water diverted.

This certificate confirms a change in point of diversion approved by the provisions of an Order of the Water Resources Director entered February 26, 2015, approving Transfer Application T-11318, and supersedes Certificates 89817, 89818, 89819, 89820, and 89821.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described and is subject to all other conditions and limitations contained in said decree.

WITNESS the signature of the Water Resources Director, affixed March 14, 2018.

Dwight French,
Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

 Recorded in State Record of Water Right Certificates numbered 93680.

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS, OR 97759

confirms the right to use the waters of WHYCHUS CREEK, a tributary to the DESCHUTES RIVER for IRRIGATION of 35.5 ACRES.

This right was confirmed by decree of the Circuit Court of the State of Oregon for Crook County. The decree is of record at Salem, in the Order Record of the Water Resources Director in Volume 1 at Page 120. The date of priority is 1881.

The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 0.554 CUBIC FOOT PER SECOND, (if available at the original point of diversion) or its equivalent in case of rotation, measured at the point of diversion.

The original point of diversion is located as follows:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH: 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER, SECTION 21

The new Point of Diversion is located:

Twp	**Rng**	**Mer**	**Sec**	**Q-Q**	**Measured Distances**
15 S	10 E	WM	21	SW SW	998 FEET NORTH AND 1211 FEET EAST FROM THE SW CORNER OF SECTION 21

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

IRRIGATION AND DOMESTIC						
Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
15 S	10 E	WM	15	NE NE	200	6.6
15 S	10 E	WM	15	NW NE	200	28.9

The water user shall install and maintain an in-line flow meter or other suitable device for measuring and recording the quantity of water diverted.

This certificate confirms a change in point of diversion approved by the provisions of an Order of the Water Resources Director entered February 26, 2015, approving Transfer Application T-11318, and supersedes Certificate 89822.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described and is subject to all other conditions and limitations contained in said decree.

WITNESS the signature of the Water Resources Director, affixed March 14, 2018.

Dwight French,
Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

STATE OF OREGON

COUNTY OF DESCHUTES

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CITY OF SISTERS
PO BOX 39
SISTERS, OR 97759

confirms the right to use the waters of WHYCHUS CREEK, a tributary to the DESCHUTES RIVER for IRRIGATION of 7.0 ACRES.

This right was confirmed by decree of the Circuit Court of the State of Oregon for Crook County. The decree is of record at Salem, in the Order Record of the Water Resources Director in Volume 1 at Page 120. The date of priority is 1886.

The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 0.109 CUBIC FOOT PER SECOND, (if available at the original point of diversion) or its equivalent in case of rotation, measured at the point of diversion.

The original point of diversion is located:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH: 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

The new Point of Diversion is located:

Twp	**Rng**	**Mer**	**Sec**	**Q-Q**	**Measured Distances**
15 S	10 E	WM	21	SW SW	998 FEET NORTH AND 1211 FEET EAST FROM THE SW CORNER OF SECTION 21

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

IRRIGATION – CITY OF SISTERS						
Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
15 S	10 E	WM	15	NW NE	200	7.0

The water user shall install and maintain an in-line flow meter or other suitable device for measuring and recording the quantity of water diverted.

This certificate confirms a change in point of diversion approved by the provisions of an Order of the Water Resources Director entered February 26, 2015, approving Transfer Application T-11318, and together with Certificate 93682 supersedes Certificate 89823.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described and is subject to all other conditions and limitations contained in said decree.

WITNESS the signature of the Water Resources Director, affixed March 14, 2018.

Dwight French,
Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-11318, Deschutes County	))	FINAL ORDER APPROVING A CHANGE IN POINTS OF DIVERSION

Authority

ORS 540.505 to 540.580 establishes the process in which a water right holder may submit a request to transfer the point of diversion, place of use, or character of use authorized under an existing water right. OAR Chapter 690, Division 380 implements the statutes and provides the Department's procedures and criteria for evaluating transfer applications.

Applicant
THREE SISTERS IRRIGATION DISTRICT
Attn: MARC THALACKER, MANAGER
PO BOX 2230
SISTERS, OR 97759

Co-Applicants
CITY OF SISTERS
Attn: EILEEN STEIN, CITY MANAGER
PO BOX 39
SISTERS, OR 97759

RICHARD MORROW
PO BOX 1671
SISTERS, OR 97759

SHARON AMESTOY
7209 SE MADISON
PORTLAND, OR 97215

DAVID HERMAN
57735 WHITEHORSE RANCH LANE
FIELDS, OR 97710

Agent
DESCHUTES RIVER CONSERVANCY
ATTN: GEN HUBERT, AGENT
700 NW HILL STREET
BEND, OR 97701

Co-Applicants
WILLIAM WILLITTS
251 S. ELM STREET
SISTERS, OR 97759-1079

JAY R. POULOS
4389 CROISAN RIDGE WAY S.
SALEM, OR 97302

BRUCE ROGNLIEN
1679 ALTA MURA RD.
PACIFIC PALISADES, CA 90272

This final order is subject to judicial review by the Court of Appeals under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482(1). Pursuant to ORS 536.075 and OAR 137-003-0675, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Findings of Fact

Background

1. On November 17, 2011, Three Sisters Irrigation District, and co-applicants listed above, filed an application to change the points of diversion under Certificates 86824, 83355, 85389, 85391, 86828, 86826, 85392, 85386, 85393, 85387 and 85388. The application also contained a request for a fee waiver under OAR 690-380-3400 (3) and a request for a map waiver under OAR 690-380-3410 (1)(c), and supplied the appropriate documentation from the Oregon Department of Fish & Wildlife. The Department approved the requests. The Department assigned the transfer application number T-11318.

2. Transfer application was filed in conjunction with Conserved Water Application CW-71.

3. On February 24, 2015, the Department issued an Order approving CW-71. As a result of the CW-71 Order, reduced rate certificates were issued which supersede the following certificates involved in this transfer.

Original Certificate	Original Rate	Superseding Certificate	Reduced Rate
86824	1.230	89817	0.959
83355	0.620	89818	0.484
85389	0.080	89819	0.062
85391	0.100	89820	0.078
86828	0.570	89821	0.445
86826	0.710	89822	0.554
85392	0.600	89823	0.468
85386	0.800	89824	0.624
85393	0.492	89825	0.384
85393	0.682	89844*	0.682

*- remaining right, not reduced in rate

4. Certificates 85387 and 85388 were superseded by Certificates 87243 and 87242 and inchoate portions under Transfer T-10907. The inchoate portions of Certificates 85387 and 85388 were confirmed under a Determination of Satisfactory Proof, recorded in Special Order Volume 91, Pages 428-430. As a result of the CW-71 Order, reduced rate certificates were issued which supersede 87243 and 87242 and the confirmed inchoate portions of the certificates under T-10907.

Original Certificate	Original Rate	Superseding Certificate	Reduced Rate
85387/87243	0.966	89826	0.753
85387/T-10907	0.474	89827	0.370
85388/87242	0.180	89828	0.140
85388/T-10907	0.190	89829	0.148

5. The first right to be transferred is as follows:

   Certificate: 89817 in the name of CITY OF SISTERS and LAZY Z MEADOWS, LLC (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)

Use: IRRIGATION of 59.5 ACRES
Priority Date: 1880
Rate: 0.959 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	600 FEET NORTH AND 1100 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	NE SW	704	18.0
15 S	10 E	WM	10	NW SW	704	0.3
15 S	10 E	WM	10	SW SW	704	1.2
15 S	10 E	WM	10	SE SW	704	37.0
15 S	10 E	WM	10	SW SE	704	3.0

6. The second right to be transferred is as follows:

Certificate: 89818 in the name of G.W. McFARLANE (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)
Use: IRRIGATION of 30.0 ACRES
Priority Date: 1880
Rate: 0.484 CUBIC FOOT PER SECOND
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-FIFTIETH of one cubic foot per second, or its equivalent for each acre irrigated during the irrigation season of each year.
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Place of Use:

IRRIGATION						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW SE	704	30.0

7. Certificate 83355 does not describe the location of the point of diversion, however information is available from the transfer application, indicating that the point of diversion is located as follows:

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

8. The third right to be transferred is as follows:

Certificate: 89819 in the name of CITY OF SISTERS (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)

Use: IRRIGATION of 2.5 ACRES
Priority Date: 1880
Rate: 0.062 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	NW SE	704	2.4
15 S	10 E	WM	10	SW SE	704	0.1

9. The fourth right to be transferred is as follows:

Certificate: 89820 in the name of CITY OF SISTERS (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)
Use: IRRIGATION of 3.0 ACRES
Priority Date: 1880
Rate: 0.078 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW SW	704	3.0

10. The fifth right to be transferred is as follows:

Certificate: 89821 in the name of CITY OF SISTERS and LAZY Z MEADOWS, LLC (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)
Use: IRRIGATION of 18.0 ACRES
Priority Date: 1880
Rate: 0.445 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW SE	704	3.0
15 S	10 E	WM	10	SE SE	704	4.2
15 S	10 E	WM	15	NE NE	200	10.8

11. The sixth right to be transferred is as follows:

Certificate: 89822 in the name of CITY OF SISTERS and LAZY Z MEADOWS, LLC (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)
Use: IRRIGATION of 35.5 ACRES
Priority Date: 1881
Rate: 0.554 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	15	NE NE	200	6.6
15 S	10 E	WM	15	NW NE	200	28.9

12. The seventh right to be transferred is as follows:

Certificate: 89823 in the name of CITY OF SISTERS and HAWK'S HAVEN RESERVE, LLC, BRUCE & MARLEEN ROGNLIEN (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)
Use: IRRIGATION of 30.0 ACRES
Priority Date: 1886
Rate: 0.468 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION - HAWK'S HAVEN RESERVE, LLC						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW NW	706	9.9
15 S	10 E	WM	10	SE NW	706	12.6
15 S	10 E	WM	10	NE SW	706	0.3
15 S	10 E	WM	10	NW SW	706	0.2

IRRIGATION - CITY OF SISTERS						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	15	NW NE	200	7.0

13. The eighth right to be transferred is as follows:

Certificate: 89824 in the name of HAWK'S HAVEN RESERVE, LLC, BRUCE and MARLEEN ROGNLIEN (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)

Use: IRRIGATION of 40.0 ACRES

Priority Date: 1895

Rate: 0.624 CUBIC FOOT PER SECOND

Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION - HAWK'S HAVEN RESERVE						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW NE	706	3.6
15 S	10 E	WM	10	SW NW	706	18.8
15 S	10 E	WM	10	SE NW	706	16.1
15 S	10 E	WM	10	NE SW	706	1.5

14. The ninth right to be transferred is as follows:

Certificate: 89825 in the name of SHARON AMESTOY, AMESTOY RANCH, LLC; LAZY Z RANCH c/o JAY POULOS (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)

Use: IRRIGATION of 24.6 ACRES

Priority Date: 1900

Rate: 0.384 CUBIC FOOT PER SECOND (if available at the original point of diversion being within the NW¼ SW¼, Section 9, Township 15 South, Range 10 East, W.M.; 910 Feet South and 160 Feet East from the W¼ Corner of Section 9) or its equivalent in case of rotation, measured at the point of diversion

Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION – AMESTOY RANCH						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW NE	702	0.9
15 S	10 E	WM	10	SE NE	702	6.8
15 S	10 E	WM	10	NE SE	702	6.8
15 S	10 E	WM	10	NW SE	702	2.0

IRRIGATION – LAZY Z RANCH						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	NE SW	700	8.1

15. The tenth right to be transferred is as follows:

Certificate: 89844 in the name of SKI POND RANCH, LLC, c/o DAVID HERMAN (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)

Use: IRRIGATION of 34.1 ACRES

Priority Date: 1900

Rate: 0.682 CUBIC FOOT PER SECOND (if available at the original point of diversion being within the NW¼ SW¼, Section 9, Township 15 South, Range 10 East, W.M.; 910 Feet South and 160 Feet East from the W¼ Corner of Section 9) or its equivalent in case of rotation, measured at the point of diversion

Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION – SKI POND RANCH, LLC						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	14	NE NE	1700	1.1
15 S	10 E	WM	14	NW NE	1700	6.3
15 S	10 E	WM	14	SW NE	1700	24.7
15 S	10 E	WM	14	SE NE	1700	2.0

16. The eleventh right to be transferred is as follows:

Certificate: 89826 in the name of SHARON AMESTOY, AMESTOY RANCH, WILLITTS, LLC, R & B RANCH, LLC, c/o RICK MORROW (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)

Use: IRRIGATION of 48.3 ACRES

Priority Date: 1908

Rate: 0.753 CUBIC FOOT PER SECOND

Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION – WILLITTS, LLC						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SW NW	800	1.3
15 S	10 E	WM	10	NW SW	800	3.7

IRRIGATION – AMESTOY RANCH						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	NE SE	702	17.8
15 S	10 E	WM	10	SW SE	702	0.3
15 S	10 E	WM	10	SE SE	702	8.9

IRRIGATION – R & B RANCH, LLC						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	11	NW SW	1300	10.0
15 S	10 E	WM	11	SW SW	1300	6.3

17. The twelfth right to be transferred is as follows:

Certificate: 89827 in the name of R & B RANCH, LLC, c/o RICK MORROW (confirmed by Decree of the Circuit Court of the State of Oregon for Deschutes County)
Use: IRRIGATION of 23.7 ACRES
Priority Date: 1908
Rate: 0.37 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION – R & B RANCH, LLC					
Twp	Rng	Mer	Sec	Q - Q	Acres
15 S	10 E	WM	11	SW NE	5.6
15 S	10 E	WM	11	SE NE	5.5
15 S	10 E	WM	11	NE SE	12.4
15 S	10 E	WM	11	SE SE	0.2

18. The thirteenth right to be transferred is as follows:

Certificate: 89828 the name of SHARON AMESTOY, AMESTOY RANCH, LLC (perfected under Permit E-176)
Use: IRRIGATION of 14.5 ACRES
Priority Date: October 7, 1912

Rate: 0.14 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION – AMESTOY RANCH						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	10	SE NE	702	11.9
15 S	10 E	WM	10	NE SE	702	2.6

19. The fourteenth right to be transferred is as follows:
Certificate: 89829 the name of R & B RANCH, LLC, c/o RICK MORROW (perfected under Permit E-176)
Use: IRRIGATION of 14.9 ACRES
Priority Date: October 7, 1912
Rate: 0.148 CUBIC FOOT PER SECOND
Source: WHYCHUS CREEK (formerly known as Squaw Creek), tributary to the DESCHUTES RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	UNCLE JOHN DITCH - 140 FEET NORTH AND 1190 FEET EAST FROM THE SW CORNER OF SECTION 21

Authorized Place of Use:

IRRIGATION – R & B RANCH, LLC						
Twp	Rng	Mer	Sec	Q - Q	Tax Lot	Acres
15 S	10 E	WM	11	SW NE	1300	10.8
15 S	10 E	WM	11	SE NE	1300	4.1

20. Transfer Application T-11318 proposes to change the point of diversion for the above described rights downstream approximately 1400 feet to the Three Sisters Irrigation District main diversion:

Proposed Point of Diversion:

Twp	Rng	Mer	Sec	Q - Q	Measured Distances
15 S	10 E	WM	21	SW SW	998 FEET NORTH AND 1211 FEET EAST FROM THE SW CORNER OF SECTION 21

21. Notice of the application for transfer was published on November 22, 2011, pursuant to OAR 690-380-4000. No comments were filed in response to the notice.

22. The Oregon Department of Fish and Wildlife has determined that a fish screen is necessary at the new point of diversion and that the diversion is currently equipped with an appropriate fish screen.

23. On November 27, 2012, the Department sent a copy of the draft Preliminary Determination proposing to approve Transfer Application T-11318 to the applicants. The draft Preliminary Determination cover letter set forth a deadline of December 28, 2012, for the applicants to respond. The applicants requested clarification on Condition #7 of the final page of the draft Preliminary Determination. OWRD confirmed that the CWRE will review the new POD for capacity and the District may request a waiver to provide self-certification maps from the District for the places of use. The applicants requested that the Department proceed with issuance of a Preliminary Determination and provided the necessary information to demonstrate that the applicants are authorized to pursue the transfer.

24. On January 10, 2013, the Department issued a Preliminary Determination proposing to approve Transfer Application T-11318 and sent a copy to the applicants. Additionally, notice of the Preliminary Determination for the transfer application was published on the Department's weekly notice on January 15, 2013, and in *The Bulletin* newspaper on January 17, 24, and 31, 2013, pursuant to ORS 540.520 and OAR 690-380-4020. No protests were filed in response to the notices.

Transfer Review Criteria [OAR 690-380-4010(2)]

25. Water has been used within the five-year period prior to submittal of the transfer application according to the terms and conditions of the rights. There is no information in the records that would demonstrate that the rights are subject to forfeiture under ORS 540.610.

26. A diversion structure and ditch sufficient to use the full amount of water allowed under the existing rights were present within the five-year period prior to submittal of Transfer Application T-11318.

27. The proposed changes would not result in enlargement of the rights.

28. The proposed changes would not result in injury to other water rights.

Conclusions of Law

The changes in points of diversion proposed in Transfer Application T-11318 appear be consistent with the requirements of ORS 540.505 to 540.580 and OAR 690-380-5000. If protests are not filed pursuant to OAR 690-380-4030, the transfer application will be approved.

Now, therefore, it is ORDERED:

1. The changes in points of diversion proposed in application T-11318 are approved.

2. The right to the use of the water is restricted to beneficial use at the place of use described, and is subject to all other conditions and limitations contained in Certificates 89817, 89818, 89819, 89820, 89821, 89822, 89823, 89824, 89825, 89826, 89827, 89828, 89829, 89844, and any related decree.

3. Water right Certificates 89817, 89818, 89819, 89820, 89821, 89822, 89823, 89824, 89825, 89826, 89827, 89828, 89829, and 89844 are cancelled.

4. The quantity of water diverted at the new point of diversion shall not exceed the quantity of water lawfully available at the original points of diversion.

5. The water users shall maintain and operate the existing measuring device and shall make such improvements as may be required by the Department.

6. The water users shall maintain and operate a fish screen at the point of diversion consistent with the Oregon Department of Fish and Wildlife's operational and maintenance standards.

7. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before **October 1, 2016**. A Claim of Beneficial Use prepared by a Certified Water Right Examiner shall be submitted by the applicant to the Department within one year after the deadline for completion of the changes and full beneficial use of the water. (See clarification in Finding of Fact #23 above.)

8. After satisfactory proof of beneficial use is received, new certificates confirming the rights transferred will be issued.

Dated at Salem, Oregon this 26th day of February, 2015.

Dwight French, Water Right Services Administrator, for
THOMAS M. BYLER, DIRECTOR

Mailing date: FEB 27 2015

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE STATE OF OREGON

In the Matter of Application for Extension of Time for Transfer Application T-11318, Deschutes County	)))	FINAL ORDER APPROVING AN EXTENSION OF TIME

Applicant

PAUL BERTAGNA, DIRECTOR
PUBIC WORKS DEPARTMENT
CITY OF SISTERS
PO BOX 39
SISTERS, OR 97759

Agent

GENEVIEVE HURBERT
DESCHUTES RIVER CONSERVANCY, AGENT
700 NW HILL ST STE 1
BEND, OR 97703

Authority

OAR 690-380-6020 establishes an application process and criteria for the review of extensions of time for the completion of changes authorized under water right transfer applications.

Findings of Fact

1. On June 5, 2017, the Department received an application for extension of time for Transfer Application T-11318.

2. The Department issued an order approving Transfer Application T-11318 on February 26, 2015. The order was recorded in Special Order Volume 95, Pages 141-151. The order set a transfer completion date of October 1, 2016.

3. To fully complete the change, the applicant needs to make beneficial use from the new point of diversion authorized in T-11318 on an approximately 20 acre portion held by the City of Sisters.

4. The applicant has requested that the time for completion of beneficial use be extended to October 1, 2017.

Conclusions of Law

Pursuant to OAR 690-380-6020, the Director of the Water Resources Department concludes the applicant has shown reasonable diligence to complete the transfer within the time period established by the order approving Transfer Application T-11318.

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Now, therefore, it is ORDERED:

The time for completion of the changes authorized by Transfer Application T-11318 shall be extended to October 1, 2017.

Dated at Salem, Oregon this 12 day of June, 2017.

Dwight French, Water Right Services Administrator, for
Thomas M. Byler, Director

Mailing date: JUN 14 2017

APPENDIX F
Inspection Memo - 1.6 MG Prestressed Concrete Water Storage Tank

INSPECTION MEMO

1.6MG Prestressed Concrete Water Storage Tank

Water Reservoir
Sisters, OR

Prepared for:

City of Sisters, OR
Anderson Perry & Associates

Prepared by:

DN TANKS
Concrete Tank Services
Inspection | Rehab | Retrofit

INSPECTION MEMO
1.6 MG PRESTRESSED CONRETE
WATER STORAGE TANK

Sisters, OR – Water Storage Tank

On Monday, May 16th, 2022, an interior and exterior inspection was conducted at the water storage reservoir, located near Peterson Burn Rd, in Sisters, Oregon. The interior and exterior inspection was performed on the existing concrete water storage tank. Prior to mobilizing for the inspection, the City of Sisters set up confined space for the interior inspection. The inspection was performed by Daniel Gancher, Western Regional Manager, Nick Belmont, Pacific Northwest Regional Manager, and Adam Blaser, Central Regional Manager.

Description of Services Provided

Prior to the May 16th mobilization, DN Tanks met with Anderson Perry and the City of Sisters at the existing reservoir location, and a exterior walk was performed around the existing reservoir. We walked onto the roof to look at the condition of roof joints, hatches, and concrete surface condition of the roof. We then did an exterior walk around the reservoir sidewalls, and a hammer was used to sound the shotcrete/gunite. This is a common inspection practice, to identify signs of delamination. Delamination is identified by this method by hearing a hollow sound with the hammer on the shotcrete/gunite material. There were several hollow spots identified during this sounding, at varying elevations and locations on the reservoir. This prompted the City of Sisters to request DN Tanks to perform a more thorough interior and exterior inspection. The exterior inspection services included chipping and cutting into the shotcrete/gunite wall in the hollow spots that were identified, to examine the condition of the prestressing reinforcement. With presence of exterior cracks and delaminated shotcrete/gunite, there could be the potential for corroded prestressing reinforcement. An interior inspection was also performed during the same mobilization, which was accomplished by floating in the reservoir with a disinfected raft. The water elevation was temporarily lowered, to allow more visible concrete surfaces during this inspection.

Existing Prestressed Concrete Tank Information

DN Tanks has been provided original bidding documents from Anderson Perry and the City of Sisters. Per the construction documents, and the conditions discovered during the inspection, the reservoir appears to be a prestressed concrete tank, with a reinforced concrete corewall. The bid documents are dated 1993, so it can be assumed the reservoir was constructed sometime between 1993-1995. The roof consists of

precast pie-shaped "T" slabs. As noted in the photographs shown below, the exterior shotcrete is approximately 3" thick. The existing prestressing strand was measured to be approximately ½" in diameter, and the construction window showed two strands grouped closely together. There were slight bulges in the wall, which may indicate the location of the prestressing strand locations. If this is accurate, the prestressing strands are spaced approximately 2'-0" on-center.

Exterior Wall Findings

The exterior shotcrete/gunite materials was chipped in multiple locations. In several of the locations, no prestressing reinforcement was identified, and the shotcrete/gunite material was chipped back to the reinforced concrete corewall. A location on the North side of the wall, approximately 4' from finished grade, prestressing reinforcement was discovered. As mentioned previously, this discovered at a hollow spot. The shotcrete/gunite material was bonded very well around the prestressing reinforcement, and the reinforcement showed no signs of corrosion. The prestressing reinforcement was in excellent condition. At this location, as show on the following pictures, there were two galvanized prestressing strands that was fully encased in shotcrete. There was small visible cracking in the shotcrete/gunite, with visible efflorescence. This could possibly be able removed from a pressure washing. Based on the condition of the shotcrete/gunite at the multiple locations that were chipped, and the condition of the prestressing strand that was exposed, no repairs are recommended on the exterior walls.

Interior Findings

The visible interior walls were in excellent condition. There were no visible signs of cracking nor spalling concrete. No further action nor repair is recommended.

The interior column was in good location, with no visible deficiencies identified.

The interior floor was difficult to see, due to the fact the reservoir was in service. There was a previous repair that was visible, with a white substance that looks to have been placed to fill in a crack. It is likely that this was an epoxy material. The coating is showing signs of failure, with visible loss of material in middle of the repair material. It would be recommended to remove and replace this coating with an elastomeric coating. There were no other sings of distress in the floor that were visible from the raft.

The underside of the roof showed signs of possible water intrusion at the existing construction joints on the pie-shaped precast panels. The pictures below show efflorescence at several locations at the existing construction joints, which would indicate moisture is getting through the existing construction joints. In one location, the filler material used in the construction joint has come loose, and was hanging from the interior roof. There are several locations that look have small spalls, with potentially exposed rebar. From the elevation of the raft, it was difficult to identify. There were a few locations that daylight was visible from the underside of the roof. The existing concrete spalls are recommended to be repaired. The construction joints and daylight locations are recommended to be repaired.

Exterior Roof Condition

The exterior roof is in fair condition. The exterior construction joints are showing signs of failure with visible cracks in between the construction joints. There appears to be an existing coating that was placed on the exterior concrete surface, that is showing signs of wear and tear. A coating would be recommended on the exterior roof surface, and a construction joint replacement would be recommended to prevent water intrusion.

Overall, the prestressed concrete reservoir is in very good condition. The repairs noted in this inspection memo could help preserve the condition of the reservoir, to help extend the surface life and avoid potential water quality concerns with water intrusion. The City of Sisters noted that they are not aware of the existing concrete reservoir having any active leaks. It would be recommended to perform a leak test to confirm existing conditions.

Photographs

Figure 1: Exterior View of Reservoir

Figure 2: Exterior View of Reservoir Wall

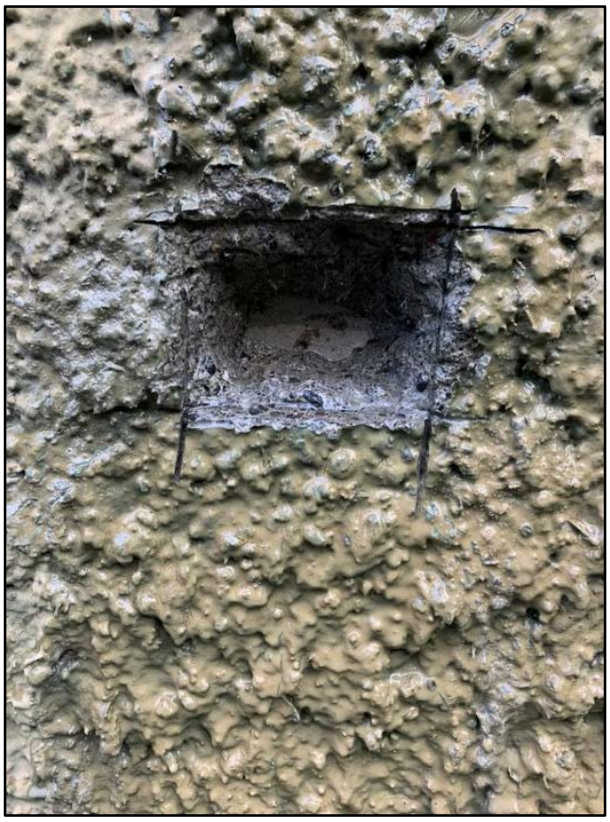


Figure 3: Exterior inspection window with no prestressing

Figure 4: Exterior inspection window with no prestressing

Figure 5: Exposed prestressing strand

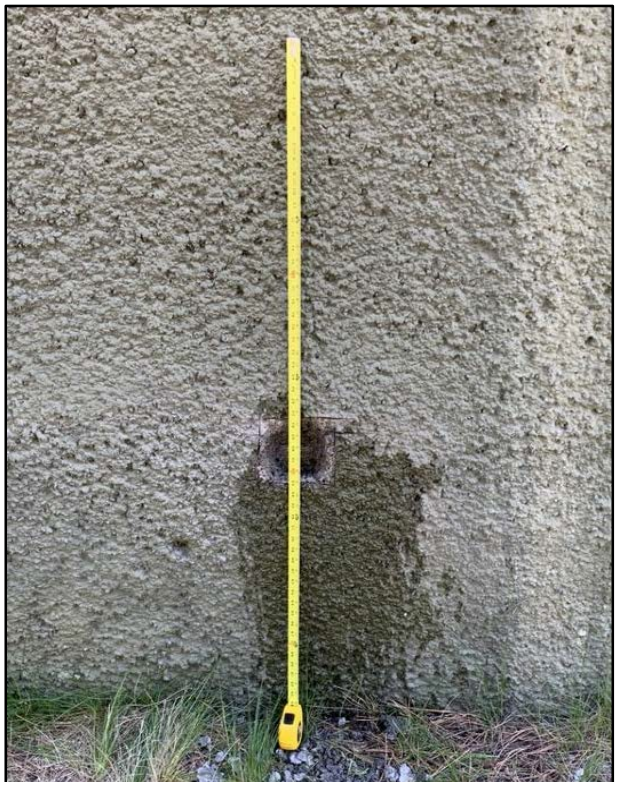


Figure 6: Exposed prestressing strand – 3'-6" from finished grade

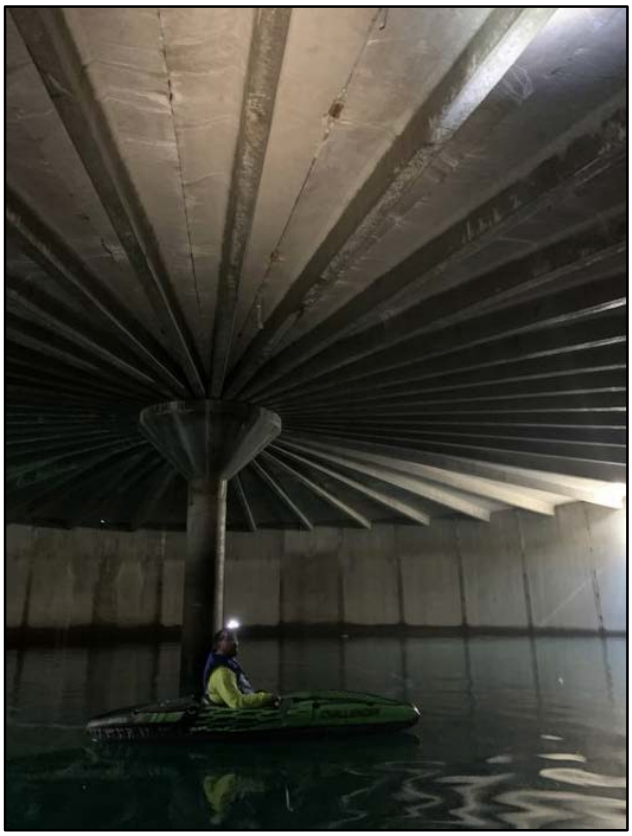


Figure 7: Interior view – Float inspection

Figure 8: Interior view – note construction joints with existing spalls

Figure 9: Interior View of Column

Figure 10: Interior view – Note potential daylight – found in several locations

Figure 11: Exterior Roof – Note construction joints and existing coating

Figure 11: Exterior Roof – Note construction joints and existing coating

APPENDIX G
Public Protection Classification Summary Report - Sisters Camp Sherman FD - Oregon

1000 Bishops Gate Blvd. Ste 300
Mt. Laurel, NJ 08054-5404

t1.800.444.4554 Opt.2
f1.800.777.3929

March 27, 2017

Mr. Chuck Newport, Board Chairman
Sisters Camp Sherman FD
PO Box 1509
Sisters, Oregon, 97759

RCVD 3.28.17 PU#
ACCT#
CAPT. INITIALS
CHIEF INITIALS 3-28-17

RE: Sisters Camp Sherman Fd, Deschutes, Jefferson Counties, Oregon
Public Protection Classification: 03/10
Effective Date: July 01, 2017

Dear Mr. Chuck Newport,

We wish to thank you and Chief Roger Johnson for your cooperation during our recent Public Protection Classification (PPC) survey. ISO has completed its analysis of the structural fire suppression delivery system provided in your community. The resulting classification is indicated above.

If you would like to know more about your community's PPC classification, or if you would like to learn about the potential effect of proposed changes to your fire suppression delivery system, please call us at the phone number listed below.

ISO's Public Protection Classification Program (PPC) plays an important role in the underwriting process at insurance companies. In fact, most U.S. insurers – including the largest ones – use PPC information as part of their decision- making when deciding what business to write, coverage's to offer or prices to charge for personal or commercial property insurance.

Each insurance company independently determines the premiums it charges its policyholders. The way an insurer uses ISO's information on public fire protection may depend on several things – the company's fire-loss experience, ratemaking methodology, underwriting guidelines, and its marketing strategy.

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new classifications will improve the predictive value for insurers while benefiting both commercial and residential property owners. We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently graded as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9."
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B."

- Communities graded with single "9" or "8B" classifications will remain intact.
- Properties over 5 road miles from a recognized fire station would receive a class 10.

PPC is important to communities and fire departments as well. Communities whose PPC improves may get lower insurance prices. PPC also provides fire departments with a valuable benchmark, and is used by many departments as a valuable tool when planning, budgeting and justifying fire protection improvements.

ISO appreciates the high level of cooperation extended by local officials during the entire PPC survey process. The community protection baseline information gathered by ISO is an essential foundation upon which determination of the relative level of fire protection is made using the Fire Suppression Rating Schedule.

The classification is a direct result of the information gathered, and is dependent on the resource levels devoted to fire protection in existence at the time of survey. Material changes in those resources that occur after the survey is completed may affect the classification. Although ISO maintains a pro-active process to keep baseline information as current as possible, in the event of changes please call us at 1-800-444-4554, option 2 to expedite the update activity.

ISO is the leading supplier of data and analytics for the property/casualty insurance industry. Most insurers use PPC classifications for underwriting and calculating premiums for residential, commercial and industrial properties. The PPC program is not intended to analyze all aspects of a comprehensive structural fire suppression delivery system program. It is not for purposes of determining compliance with any state or local law, nor is it for making loss prevention or life safety recommendations.

If you have any questions about your classification, please let us know.

Sincerely,

Alex Shubert

Alex Shubert
Manager -National Processing Center

cc: Mr. Tony Salamone, Water Superintendent, Caldera Water Company
Mr. Dale Cooper, Water Resources Director, Cascade Meadow Ranch Water Company
Mr. Lynn Lounsbury, Water Resources Director, Indian Meadow Water Company
Mr. Ed Young, Water Superintendent, Metolius Meadows
Mr. Sean Croson, Water Resources Director, Rim at Aspen Lakes Water Company
Mr. Paul Bertagna, Director of Public Works, Sisters Water Company
Mr. Tom Meese, Water Resources Director, Sno Cap Vista Water Company
Mr. Ron Remund, Water Resources Director, Squaw Creek Canyon Water Company
Mr. Butch Rogers, Water Resources Director, The Ridge at Indian Ford
Mr. Lynn Lousbury, Water Resources Director, Tollgate Water Company
Chief Roger Johnson, Chief, SISTERS CAMP SHERMAN FIRE DEPARTMENT
Mr. Steve Reinke, Director, Deschutes County 911 Center

Public Protection Classification

(PPC™)

Summary Report

Sisters Camp Sherman FD

OREGON

Prepared by

Insurance Services Office, Inc.
1000 Bishops Gate Blvd., Ste. 300
P.O. Box 5404
Mt. Laurel, New Jersey 08054-5404
1-800-444-4554

Report Created March 2017

Effective July 1, 2017

Background Information

Introduction

ISO collects and evaluates information from communities in the United States on their structure fire suppression capabilities. The data is analyzed using our Fire Suppression Rating Schedule (FSRS) and then a Public Protection Classification (PPC™) grade is assigned to the community. The surveys are conducted whenever it appears that there is a possibility of a PPC change. As such, the PPC program provides important, up-to-date information about fire protection services throughout the country.

The FSRS recognizes fire protection features only as they relate to suppression of first alarm structure fires. In many communities, fire suppression may be only a small part of the fire department's overall responsibility. ISO recognizes the dynamic and comprehensive duties of a community's fire service, and understands the complex decisions a community must make in planning and delivering emergency services. However, in developing a community's PPC grade, only features related to reducing property losses from structural fires are evaluated. Multiple alarms, simultaneous incidents and life safety are not considered in this evaluation. The PPC program evaluates the fire protection for small to average size buildings. Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual PPC grade.

A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses. So, insurance companies use PPC information for marketing, underwriting, and to help establish fair premiums for homeowners and commercial fire insurance. In general, the price of fire insurance in a community with a good PPC grade is substantially lower than in a community with a poor PPC grade, assuming all other factors are equal.

ISO is an independent company that serves insurance companies, communities, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a PPC grade – a number from 1 to 10. Class 1 represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. A community's PPC grade depends on:

- **Needed Fire Flows**, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- **Emergency Communications**, including emergency reporting, telecommunicators, and dispatching systems.
- **Fire Department**, including equipment, staffing, training, geographic distribution of fire companies, operational considerations, and community risk reduction.
- **Water Supply**, including inspection and flow testing of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

Data Collection and Analysis

ISO has evaluated and classified over 46,000 fire protection areas across the United States using its FSRS. A combination of meetings between trained ISO field representatives and the dispatch center coordinator, community fire official, and water superintendent is used in conjunction with a comprehensive questionnaire to collect the data necessary to determine the PPC grade. In order for a community to obtain a grade better than a Class 9, three elements of fire suppression features are reviewed. These three elements are Emergency Communications, Fire Department, and Water Supply.

A review of the **Emergency Communications** accounts for 10% of the total classification. This section is weighted at **10 points,** as follows:

- Emergency Reporting 3 points
- Telecommunicators 4 points
- Dispatch Circuits 3 points

A review of the **Fire Department** accounts for 50% of the total classification. ISO focuses on a fire department's first alarm response and initial attack to minimize potential loss. The fire department section is weighted at **50 points,** as follows:

- Engine Companies 6 points
- Reserve Pumpers 0.5 points
- Pump Capacity 3 points
- Ladder/Service Companies 4 points
- Reserve Ladder/Service Trucks 0.5 points
- Deployment Analysis 10 points
- Company Personnel 15 points
- Training 9 points
- Operational considerations 2 points
- Community Risk Reduction 5.5 points (in addition to the 50 points above)

A review of the **Water Supply** system accounts for 40% of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire suppression purposes. The water supply system is weighted at **40 points,** as follows:

- Credit for Supply System 30 points
- Hydrant Size, Type & Installation 3 points
- Inspection & Flow Testing of Hydrants 7 points

There is one additional factor considered in calculating the final score – **Divergence**.

Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment or personnel to use the water. The FSRS score is subject to modification by a divergence factor, which recognizes disparity between the effectiveness of the fire department and the water supply.

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

PPC Grade

The PPC grade assigned to the community will depend on the community's score on a 100-point scale:

PPC	Points
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0.00 to 9.99

The classification numbers are interpreted as follows:

- Class 1 through (and including) Class 8 represents a fire suppression system that includes an FSRS creditable dispatch center, fire department, and water supply.
- Class 8B is a special classification that recognizes a superior level of fire protection in otherwise Class 9 areas. It is designed to represent a fire protection delivery system that is superior except for a lack of a water supply system capable of the minimum FSRS fire flow criteria of 250 gpm for 2 hours.
- Class 9 is a fire suppression system that includes a creditable dispatch center, fire department but no FSRS creditable water supply.
- Class 10 does not meet minimum FSRS criteria for recognition, including areas that are beyond five road miles of a recognized fire station.

New PPC program changes effective July 1, 2014

We have revised the PPC program to capture the effects of enhanced fire protection capabilities that reduce fire loss and fire severity in Split Class 9 and Split Class 8B areas (as outlined below). This new structure benefits the fire service, community, and property owner.

New classifications
Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new PPC classes will improve the predictive value for insurers while benefiting both commercial and residential property owners. Here are the new classifications and what they mean.

Split classifications
When we develop a split classification for a community — for example 5/9 — the first number is the class that applies to properties within 5 road miles of the responding fire station and 1,000 feet of a creditable water supply, such as a fire hydrant, suction point, or dry hydrant. The second number is the class that applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply. We have revised the classification to reflect more precisely the risk of loss in a community, replacing Class 9 and 8B in the second part of a split classification with revised designations.

What's changed with the new classifications?
We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently displayed as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9".
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B".
- Communities graded with single "9" or "8B" classifications will remain intact.

Prior Classification	New Classification
1/9	1/1X
2/9	2/2X
3/9	3/3X
4/9	4/4X
5/9	5/5X
6/9	6/6X
7/9	7/7X
8/9	8/8X
9	9

Prior Classification	New Classification
1/8B	1/1Y
2/8B	2/2Y
3/8B	3/3Y
4/8B	4/4Y
5/8B	5/5Y
6/8B	6/6Y
7/8B	7/7Y
8/8B	8/8Y
8B	8B

What's changed?
As you can see, we're still maintaining split classes, but it's how we represent them to insurers that's changed. The new designations reflect a reduction in fire severity and loss and have the potential to reduce property insurance premiums.

Benefits of the revised split class designations

- To the fire service, the revised designations identify enhanced fire suppression capabilities used throughout the fire protection area
- To the community, the new classes reward a community's fire suppression efforts by showing a more reflective designation
- To the individual property owner, the revisions offer the potential for decreased property insurance premiums

New water class
Our data also shows that risks located more than 5 but less than 7 road miles from a responding fire station with a creditable water source within 1,000 feet had better loss experience than those farther than 5 road miles from a responding fire station with no creditable water source. We've introduced a new classification —10W — to recognize the reduced loss potential of such properties.

What's changed with Class 10W?
Class 10W is property-specific. Not all properties in the 5-to-7-mile area around the responding fire station will qualify. The difference between Class 10 and 10W is that the 10W-graded risk or property is within 1,000 feet of a creditable water supply. Creditable water supplies include fire protection systems using hauled water in any of the split classification areas.

What's the benefit of Class 10W?
10W gives credit to risks within 5 to 7 road miles of the responding fire station and within 1,000 feet of a creditable water supply. That's reflective of the potential for reduced property insurance premiums.

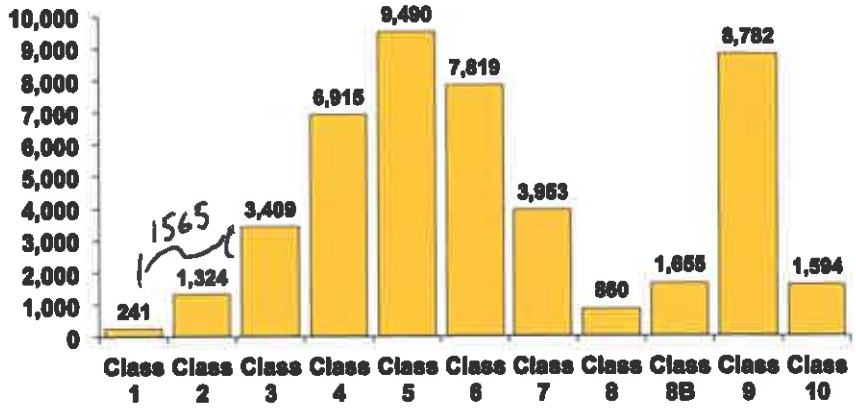
What does the fire chief have to do?
Fire chiefs don't have to do anything at all. The revised classifications went in place automatically effective July 1, 2014 (July 1, 2015 for Texas).

What if I have additional questions?
Feel free to contact ISO at 800.444.4554 or email us at PPC-Cust-Serv@iso.com.

Distribution of PPC Grades

The 2017 published countrywide distribution of communities by the PPC grade is as follows:

Countrywide



Assistance

The PPC program offers help to communities, fire departments, and other public officials as they plan for, budget, and justify improvements. ISO is also available to assist in the understanding of the details of this evaluation.

The PPC program representatives can be reached by telephone at (800) 444-4554. The technical specialists at this telephone number have access to the details of this evaluation and can effectively speak with you about your questions regarding the PPC program. What's more, we can be reached via the internet at www.isomitigation.com/talk/.

We also have a website dedicated to our Community Hazard Mitigation Classification programs at www.isomitigation.com. Here, fire chiefs, building code officials, community leaders and other interested citizens can access a wealth of data describing the criteria used in evaluating how cities and towns are protecting residents from fire and other natural hazards. This website will allow you to learn more about the PPC program. The website provides important background information, insights about the PPC grading processes and technical documents. ISO is also pleased to offer Fire Chiefs Online — a special, secured website with information and features that can help improve your PPC grade, including a list of the Needed Fire Flows for all the commercial occupancies ISO has on file for your community. Visitors to the site can download information, see statistical results and also contact ISO for assistance.

In addition, on-line access to the FSRS and its commentaries is available to registered customers for a fee. However, fire chiefs and community chief administrative officials are given access privileges to this information without charge.

To become a registered fire chief or community chief administrative official, register at www.isomitigation.com.

PPC Review

ISO concluded its review of the fire suppression features being provided for Sisters Camp Sherman FD. The resulting community classification is **Class 03/10**.

If the classification is a single class, the classification applies to properties with a Needed Fire Flow of 3,500 gpm or less in the community. If the classification is a split class (e.g., 6/XX):

- The first class (e.g., "6" in a 6/XX) applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water supply.
- The second class (XX or XY) applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.
- Alternative Water Supply: The first class (e.g., "6" in a 6/10) applies to properties within 5 road miles of a recognized fire station with no hydrant distance requirement.
- Class 10 applies to properties over 5 road miles of a recognized fire station.
- Class 10W applies to properties within 5 to 7 road miles of a recognized fire station with a recognized water supply within 1,000 feet.
- Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

FSRS Feature	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.20	4
432. Credit for Dispatch Circuits	1.80	3
440. Credit for Emergency Communications	8.00	10
Fire Department		
513. Credit for Engine Companies	5.67	6
523. Credit for Reserve Pumpers	0.36	0.50
532. Credit for Pump Capacity	3.00	3
549. Credit for Ladder Service	1.64	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.50
561. Credit for Deployment Analysis	3.40	10
571. Credit for Company Personnel	10.26	15
581. Credit for Training	6.19	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	32.52	50
Water Supply		
616. Credit for Supply System	25.17	30
621. Credit for Hydrants	2.25	3
631. Credit for Inspection and Flow Testing	3.88	7
640. Credit for Water Supply	31.30	40
Divergence	-2.64	–
1050. Community Risk Reduction	4.93	5.50
Total Credit	74.11	105.50

Emergency Communications

Ten percent of a community's overall score is based on how well the communications center receives and dispatches fire alarms. Our field representative evaluated:

- Communications facilities provided for the general public to report structure fires
- Enhanced 9-1-1 Telephone Service including wireless
- Computer-aided dispatch (CAD) facilities
- Alarm receipt and processing at the communication center
- Training and certification of telecommunicators
- Facilities used to dispatch fire department companies to reported structure fires

	Earned Credit	Credit Available
414. Credit Emergency Reporting	**3.00**	3
422. Credit for Telecommunicators	**3.20**	4
432. Credit for Dispatch Circuits	**1.80**	3
Item 440. Credit for Emergency Communications:	**8.00**	**10**

Item 414 - Credit for Emergency Reporting (3 points)

The first item reviewed is Item 414 "Credit for Emergency Reporting (CER)". This item reviews the emergency communication center facilities provided for the public to report fires including 911 systems (Basic or Enhanced), Wireless Phase I and Phase II, Voice over Internet Protocol, Computer Aided Dispatch and Geographic Information Systems for automatic vehicle location. ISO uses National Fire Protection Association (NFPA) 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems* as the reference for this section.

Item 410. Emergency Reporting (CER)	Earned Credit	Credit Available
A./B. Basic 9-1-1, Enhanced 9-1-1 or No 9-1-1 For maximum credit, there should be an Enhanced 9-1-1 system, Basic 9-1-1 and No 9-1-1 will receive partial credit.	20.00	20
1. E9-1-1 Wireless Wireless Phase I using Static ALI (automatic location identification) Functionality (10 points); Wireless Phase II using Dynamic ALI Functionality (15 points); Both available will be 25 points	25.00	25
2. E9-1-1 Voice over Internet Protocol (VoIP) Static VoIP using Static ALI Functionality (10 points); Nomadic VoIP using Dynamic ALI Functionality (15 points); Both available will be 25 points	25.00	25
3. Computer Aided Dispatch Basic CAD (5 points); CAD with Management Information System (5 points); CAD with Interoperability (5 points)	15.00	15
4. Geographic Information System (GIS/AVL) The PSAP uses a fully integrated CAD/GIS management system with automatic vehicle location (AVL) integrated with a CAD system providing dispatch assignments. The individual fire departments being dispatched do not need GIS/AVL capability to obtain this credit.	15.00	15
Review of Emergency Reporting total:	100.00	100

Item 422- Credit for Telecommunicators (4 points)

The second item reviewed is Item 422 "Credit for Telecommunicators (TC)". This item reviews the number of Telecommunicators on duty at the center to handle fire calls and other emergencies. All emergency calls including those calls that do not require fire department action are reviewed to determine the proper staffing to answer emergency calls and dispatch the appropriate emergency response. NFPA 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems,* recommends that ninety-five percent of emergency calls shall be answered within 15 seconds and ninety-nine percent of emergency calls shall be answered within 40 seconds. In addition, NFPA recommends that ninety percent of emergency alarm processing shall be completed within 60 seconds and ninety-nine percent of alarm processing shall be completed within 90 seconds of answering the call.

To receive full credit for operators on duty, ISO must review documentation to show that the communication center meets NFPA 1221 call answering and dispatch time performance measurement standards. This documentation may be in the form of performance statistics or other performance measurements compiled by the 9-1-1 software or other software programs that are currently in use such as Computer Aided Dispatch (CAD) or Management Information System (MIS).

Item 420. Telecommunicators (CTC)	Earned Credit	Credit Available
A1. Alarm Receipt (AR) Receipt of alarms shall meet the requirements in accordance with the criteria of NFPA 1221	20.00	20
A2. Alarm Processing (AP) Processing of alarms shall meet the requirements in accordance with the criteria of NFPA 1221	20.00	20
B. Emergency Dispatch Protocols (EDP) Telecommunicators have emergency dispatch protocols (EDP) containing questions and a decision-support process to facilitate correct call categorization and prioritization.	0.00	20
C. Telecommunicator Training and Certification (TTC) Telecommunicators meet the qualification requirements referenced in NFPA 1061, *Standard for Professional Qualifications for Public Safety Telecommunicator,* and/or the Association of Public-Safety Communications Officials - International (APCO) *Project 33.* Telecommunicators are certified in the knowledge, skills, and abilities corresponding to their job functions.	20.00	20
D. Telecommunicator Continuing Education and Quality Assurance (TQA) Telecommunicators participate in continuing education and/or in-service training and quality-assurance programs as appropriate for their positions	20.00	20
Review of Telecommunicators total:	80.00	100

Item 432 - Credit for Dispatch Circuits (3 points)

The third item reviewed is Item 432 "Credit for Dispatch Circuits (CDC)". This item reviews the dispatch circuit facilities used to transmit alarms to fire department members. A "Dispatch Circuit" is defined in NFPA 1221 as "A circuit over which an alarm is transmitted from the communications center to an emergency response facility (ERF) or emergency response units (ERUs) to notify ERUs to respond to an emergency". All fire departments (except single fire station departments with full-time firefighter personnel receiving alarms directly at the fire station) need adequate means of notifying all firefighter personnel of the location of reported structure fires. The dispatch circuit facilities should be in accordance with the general criteria of NFPA 1221. "Alarms" are defined in this Standard as "A signal or message from a person or device indicating the existence of an emergency or other situation that requires action by an emergency response agency".

There are two different levels of dispatch circuit facilities provided for in the Standard – a primary dispatch circuit and a secondary dispatch circuit. In jurisdictions that receive 730 alarms or more per year (average of two alarms per 24-hour period), two separate and dedicated dispatch circuits, a primary and a secondary, are needed. In jurisdictions receiving fewer than 730 alarms per year, a second dedicated dispatch circuit is not needed. Dispatch circuit facilities installed but not used or tested (in accordance with the NFPA Standard) receive no credit.

The score for Credit for Dispatch Circuits (CDC) is influenced by monitoring for integrity of the primary dispatch circuit. There are up to 0.90 points available for this Item. Monitoring for integrity involves installing automatic systems that will detect faults and failures and send visual and audible indications to appropriate communications center (or dispatch center) personnel. ISO uses NFPA 1221 to guide the evaluation of this item. ISO's evaluation also includes a review of the communication system's emergency power supplies.

Item 432 "Credit for Dispatch Circuits (CDC)" = 1.80 points

Fire Department

Fifty percent of a community's overall score is based upon the fire department's structure fire suppression system. ISO's field representative evaluated:

- Engine and ladder/service vehicles including reserve apparatus
- Equipment carried
- Response to reported structure fires
- Deployment analysis of companies
- Available and/or responding firefighters
- Training

	Earned Credit	Credit Available
513. Credit for Engine Companies	5.67	6
523. Credit for Reserve Pumpers	0.36	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	1.64	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	3.40	10
571. Credit for Company Personnel	10.26	15
581. Credit for Training	6.19	9
730. Credit for Operational Considerations	2.00	2
Item 590. Credit for Fire Department:	**32.52**	**50**

Basic Fire Flow

The Basic Fire Flow for the community is determined by the review of the Needed Fire Flows for selected buildings in the community. The fifth largest Needed Fire Flow is determined to be the Basic Fire Flow. The Basic Fire Flow has been determined to be 3500 gpm.

Item 513 - Credit for Engine Companies (6 points)

The first item reviewed is Item 513 "Credit for Engine Companies (CEC)". This item reviews the number of engine companies, their pump capacity, hose testing, pump testing and the equipment carried on the in-service pumpers. To be recognized, pumper apparatus must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* which include a minimum 250 gpm pump, an emergency warning system, a 300 gallon water tank, and hose. At least 1 apparatus must have a permanently mounted pump rated at 750 gpm or more at 150 psi.

The review of the number of needed pumpers considers the response distance to built-upon areas; the Basic Fire Flow; and the method of operation. Multiple alarms, simultaneous incidents, and life safety are not considered.

The greatest value of A, B, or C below is needed in the fire district to suppress fires in structures with a Needed Fire Flow of 3,500 gpm or less: **3 engine companies**

a) **3 engine companies** to provide fire suppression services to areas to meet NFPA 1710 criteria or within 1½ miles.

b) **3 engine companies** to support a Basic Fire Flow of 3500 gpm.

c) **3 engine companies** based upon the fire department's method of operation to provide a minimum two engine response to all first alarm structure fires.

The FSRS recognizes that there are **3 engine companies** in service.

The FSRS also reviews Automatic Aid. Automatic Aid is considered in the review as assistance dispatched automatically by contractual agreement between two communities or fire districts. That differs from mutual aid or assistance arranged case by case. ISO will recognize an Automatic Aid plan under the following conditions:

- It must be prearranged for first alarm response according to a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to all reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.

FSRS Item 512.D "Automatic Aid Engine Companies" responding on first alarm and meeting the needs of the city for basic fire flow and/or distribution of companies are factored based upon the value of the Automatic Aid plan (up to 1.00 can be used as the factor). The Automatic Aid factor is determined by a review of the Automatic Aid provider's communication facilities, how they receive alarms from the graded area, inter-department training between fire departments, and the fire ground communications capability between departments.

For each engine company, the credited Pump Capacity (PC), the Hose Carried (HC), the Equipment Carried (EC) all contribute to the calculation for the percent of credit the FSRS provides to that engine company.

Item 513 "Credit for Engine Companies (CEC)" = 5.67 points

Item 523 - Credit for Reserve Pumpers (0.50 points)

The item is Item 523 "Credit for Reserve Pumpers (CRP)". This item reviews the number and adequacy of the pumpers and their equipment. The number of needed reserve pumpers is 1 for each 8 needed engine companies determined in Item 513, or any fraction thereof.

Item 523 "Credit for Reserve Pumpers (CRP)" = 0.36 points

Item 532 – Credit for Pumper Capacity (3 points)

The next item reviewed is Item 532 "Credit for Pumper Capacity (CPC)". The total pump capacity available should be sufficient for the Basic Fire Flow of 3500 gpm. The maximum needed pump capacity credited is the Basic Fire Flow of the community.

Item 532 "Credit for Pumper Capacity (CPC)" = 3.00 points

Item 549 – Credit for Ladder Service (4 points)

The next item reviewed is Item 549 "Credit for Ladder Service (CLS)". This item reviews the number of response areas within the city with 5 buildings that are 3 or more stories or 35 feet or more in height, or with 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria. The height of all buildings in the city, including those protected by automatic sprinklers, is considered when determining the number of needed ladder companies. Response areas not needing a ladder company should have a service company. Ladders, tools and equipment normally carried on ladder trucks are needed not only for ladder operations but also for forcible entry, ventilation, salvage, overhaul, lighting and utility control.

The number of ladder or service companies, the height of the aerial ladder, aerial ladder testing and the equipment carried on the in-service ladder trucks and service trucks is compared with the number of needed ladder trucks and service trucks and an FSRS equipment list. Ladder trucks must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* to be recognized.

The number of needed ladder-service trucks is dependent upon the number of buildings 3 stories or 35 feet or more in height, buildings with a Needed Fire Flow greater than 3,500 gpm, and the method of operation.

The FSRS recognizes that there are **0 ladder companies** in service. These companies are needed to provide fire suppression services to areas to meet NFPA 1710 criteria or within 2½ miles and the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, or the method of operation.

The FSRS recognizes that there are **3 service companies** in service.

Item 549 "Credit for Ladder Service (CLS)" = 1.64 points

Item 553 – Credit for Reserve Ladder and Service Trucks (0.50 points)

The next item reviewed is Item 553 "Credit for Reserve Ladder and Service Trucks (CRLS)". This item considers the adequacy of ladder and service apparatus when one (or more in larger communities) of these apparatus are out of service. The number of needed reserve ladder and service trucks is 1 for each 8 needed ladder and service companies that were determined to be needed in Item 540, or any fraction thereof.

Item 553 "Credit for Reserve Ladder and Service Trucks (CRLS)" = 0.00 points

Item 561 – Deployment Analysis (10 points)

Next, Item 561 "Deployment Analysis (DA)" is reviewed. This Item examines the number and adequacy of existing engine and ladder-service companies to cover built-upon areas of the city.

To determine the Credit for Distribution, first the Existing Engine Company (EC) points and the Existing Engine Companies (EE) determined in Item 513 are considered along with Ladder Company Equipment (LCE) points, Service Company Equipment (SCE) points, Engine-Ladder Company Equipment (ELCE) points, and Engine-Service Company Equipment (ESCE) points determined in Item 549.

Secondly, as an alternative to determining the number of needed engine and ladder/service companies through the road-mile analysis, a fire protection area may use the results of a systematic performance evaluation. This type of evaluation analyzes computer-aided dispatch (CAD) history to demonstrate that, with its current deployment of companies, the fire department meets the time constraints for initial arriving engine and initial full alarm assignment in accordance with the general criteria of in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.*

A determination is made of the percentage of built upon area within 1½ miles of a first-due engine company and within 2½ miles of a first-due ladder-service company.

Item 561 "Credit Deployment Analysis (DA)" = 3.40 points

Item 571 – Credit for Company Personnel (15 points)

Item 571 "Credit for Company Personnel (CCP)" reviews the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the city.

The on-duty strength is determined by the yearly average of total firefighters and company officers on-duty considering vacations, sick leave, holidays, "Kelley" days and other absences. When a fire department operates under a minimum staffing policy, this may be used in lieu of determining the yearly average of on-duty company personnel.

Firefighters on apparatus not credited under Items 513 and 549 that regularly respond to reported first alarms to aid engine, ladder, and service companies are included in this item as increasing the total company strength.

Firefighters staffing ambulances or other units serving the general public are credited if they participate in fire-fighting operations, the number depending upon the extent to which they are available and are used for response to first alarms of fire.

On-Call members are credited on the basis of the average number staffing apparatus on first alarms. Off-shift career firefighters and company officers responding on first alarms are considered on the same basis as on-call personnel. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm.

The number of Public Safety Officers who are positioned in emergency vehicles within the jurisdiction boundaries may be credited based on availability to respond to first alarm structure fires. In recognition of this increased response capability the number of responding Public Safety Officers is divided by 2.

The average number of firefighters and company officers responding with those companies credited as Automatic Aid under Items 513 and 549 are considered for either on-duty or on-call company personnel as is appropriate. The actual number is calculated as the average number of company personnel responding multiplied by the value of AA Plan determined in Item 512.D.

The maximum creditable response of on-duty and on-call firefighters is 12, including company officers, for each existing engine and ladder company and 6 for each existing service company.

Chief Officers are not creditable except when more than one chief officer responds to alarms; then extra chief officers may be credited as firefighters if they perform company duties.

The FSRS recognizes **5.57 on-duty personnel** and an average of **9.00 on-call personnel** responding on first alarm structure fires.

Item 571 "Credit for Company Personnel (CCP)" = 10.26 points

Item 581 – Credit for Training (9 points)

Training	Earned Credit	Credit Available
A. Facilities, and Use For maximum credit, each firefighter should receive 18 hours per year in structure fire related subjects as outlined in NFPA 1001.	18.0(	35
B. Company Training For maximum credit, each firefighter should receive 16 hours per month in structure fire related subjects as outlined in NFPA 1001.	25.00	25
C. Classes for Officers For maximum credit, each officer should be certified in accordance with the general criteria of NFPA 1021. Additionally, each officer should receive 12 hours of continuing education on or off site.	8.00	12
D. New Driver and Operator Training For maximum credit, each new driver and operator should receive 60 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.	4.17	5
E. Existing Driver and Operator Training For maximum credit, each existing driver and operator should receive 12 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.	3.33	5
F. Training on Hazardous Materials For maximum credit, each firefighter should receive 6 hours of training for incidents involving hazardous materials in accordance with NFPA 472.	0.67	1
G. Recruit Training For maximum credit, each firefighter should receive 240 hours of structure fire related training in accordance with NFPA 1001 within the first year of employment or tenure.	5.00	5
H. Pre-Fire Planning Inspections For maximum credit, pre-fire planning inspections of each commercial, industrial, institutional, and other similar type building (all buildings except 1-4 family dwellings) should be made annually by company members. Records of inspections should include up-to date notes and sketches.	4.56	12

Item 580 "Credit for Training (CT)" = 6.19 points

Item 730 – Operational Considerations (2 points)

Item 730 "Credit for Operational Considerations (COC)" evaluates fire department standard operating procedures and incident management systems for emergency operations involving structure fires.

Operational Considerations	Earned Credit	Credit Available
Standard Operating Procedures The department should have established SOPs for fire department general emergency operations	50	50
Incident Management Systems The department should use an established incident management system (IMS)	50	50
Operational Considerations total:	100	100

Item 730 "Credit for Operational Considerations (COC)" = 2.00 points

Water Supply

Forty percent of a community's overall score is based on the adequacy of the water supply system. The ISO field representative evaluated:

- the capability of the water distribution system to meet the Needed Fire Flows at selected locations up to 3,500 gpm.
- size, type and installation of fire hydrants.
- inspection and flow testing of fire hydrants.

	Earned Credit	Credit Available
616. Credit for Supply System	25.17	30
621. Credit for Hydrants	2.25	3
631. Credit for Inspection and Flow Testing	3.88	7
Item 640. Credit for Water Supply:	31.30	40

Item 616 – Credit for Supply System (30 points)

The first item reviewed is Item 616 "Credit for Supply System (CSS)". This item reviews the rate of flow that can be credited at each of the Needed Fire Flow test locations considering the supply works capacity, the main capacity and the hydrant distribution. The lowest flow rate of these items is credited for each representative location. A water system capable of delivering 250 gpm or more for a period of two hours plus consumption at the maximum daily rate at the fire location is considered minimum in the ISO review.

Where there are 2 or more systems or services distributing water at the same location, credit is given on the basis of the joint protection provided by all systems and services available.

The supply works capacity is calculated for each representative Needed Fire Flow test location, considering a variety of water supply sources. These include public water supplies, emergency supplies (usually accessed from neighboring water systems), suction supplies (usually evidenced by dry hydrant installations near a river, lake or other body of water), and supplies developed by a fire department using large diameter hose or vehicles to shuttle water from a source of supply to a fire site. The result is expressed in gallons per minute (gpm).

The normal ability of the distribution system to deliver Needed Fire Flows at the selected building locations is reviewed. The results of a flow test at a representative test location will indicate the ability of the water mains (or fire department in the case of fire department supplies) to carry water to that location.

The hydrant distribution is reviewed within 1,000 feet of representative test locations measured as hose can be laid by apparatus.

For maximum credit, the Needed Fire Flows should be available at each location in the district. Needed Fire Flows of 2,500 gpm or less should be available for 2 hours; and Needed Fire Flows of 3,000 and 3,500 gpm should be obtainable for 3 hours.

Item 616 "Credit for Supply System (CSS)" = 25.17 points

Item 621 – Credit for Hydrants (3 points)

The second item reviewed is Item 621 "Credit for Hydrants (CH)". This item reviews the number of fire hydrants of each type compared with the total number of hydrants.

There are a total of 502 hydrants in the graded area.

620. Hydrants, - Size, Type and Installation	Number of Hydrants
A. With a 6 -inch or larger branch and a pumper outlet with or without 2½ -inch outlets	333
B. With a 6 -inch or larger branch and no pumper outlet but two or more 2½ -inch outlets, or with a small foot valve, or with a small barrel	3
C./D. With only a 2½ -inch outlet or with less than a 6 -inch branch	144
E./F. Flush Type, Cistern, or Suction Point	22

Item 621 "Credit for Hydrants (CH)" = 2.25 points

Item 630 – Credit for Inspection and Flow Testing (7 points)

The third item reviewed is Item 630 "Credit for Inspection and Flow Testing (CIT)". This item reviews the fire hydrant inspection frequency, and the completeness of the inspections. Inspection of hydrants should be in accordance with AWWA M-17, *Installation, Field Testing and Maintenance of Fire Hydrants.*

Frequency of Inspection (FI): Average interval between the 3 most recent inspections.

Frequency	Points
1 year	30
2 years	20
3 years	10
4 years	5
5 years or more	No Credit

Note: The points for inspection frequency are reduced by 10 points if the inspections are incomplete or do not include a flushing program. An additional reduction of 10 points are made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, or back-flushing for dry hydrants, 20 points are deducted.

Total points for Inspections = 2.14 points

Frequency of Fire Flow Testing (FF): Average interval between the 3 most recent inspections.

Frequency	Points
5 years	40
6 years	30
7 years	20
8 years	10
9 years	5
10 years or more	No Credit

Total points for Fire Flow Testing = 1.74 points

Item 631 "Credit for Inspection and Fire Flow Testing (CIT)" = 3.88 points

Divergence = -2.64

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

Community Risk Reduction

	Earned Credit	Credit Available
1025. Credit for Fire Prevention and Code Enforcement (CPCE)	**2.03**	2.2
1033. Credit for Public Fire Safety Education (CFSE)	**1.87**	2.2
1044. Credit for Fire Investigation Programs (CIP)	**1.03**	1.1
Item 1050. Credit for Community Risk Reduction	**4.93**	**5.50**

Item 1025 -- Credit for Fire Prevention Code Adoption and Enforcement (2.2 points)	Earned Credit	Credit Available
Fire Prevention Code Regulations (PCR) Evaluation of fire prevention code regulations in effect.	10.00	10
Fire Prevention Staffing (PS) Evaluation of staffing for fire prevention activities.	8.00	8
Fire Prevention Certification and Training (PCT) Evaluation of the certification and training of fire prevention code enforcement personnel.	4.36	6
Fire Prevention Programs (PCP) Evaluation of fire prevention programs.	14.50	16
Review of Fire Prevention Code and Enforcement (CPCE) subtotal:	36.86	40

Item 1033 -- Credit for Public Fire Safety Education (2.2 points)	Earned Credit	Credit Available
Public Fire Safety Educators Qualifications and Training (FSQT) Evaluation of public fire safety education personnel training and qualification as specified by the authority having jurisdiction.	5.00	10
Public Fire Safety Education Programs (FSP) Evaluation of programs for public fire safety education.	29.00	30
Review of Public Safety Education Programs (CFSE) subtotal:	34.00	40

Item 1044 -- Credit for Fire Investigation Programs (1.1 points)	Earned Credit	Credit Available
Fire Investigation Organization and Staffing (IOS) Evaluation of organization and staffing for fire investigations.	8.00	8
Fire Investigator Certification and Training (IQT) Evaluation of fire investigator certification and training.	4.80	6
Use of National Fire Incident Reporting System (IRS) Evaluation of the use of the National Fire Incident Reporting System (NFIRS) for the 3 years before the evaluation.	6.00	6
Review of Fire Investigation Programs (CIP) subtotal:	18.80	20

Summary of PPC Review
for
Sisters Camp Sherman FD

FSRS Item	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.20	4
432. Credit for Dispatch Circuits	1.80	3
440. Credit for Emergency Communications	8.00	10
Fire Department		
513. Credit for Engine Companies	5.67	6
523. Credit for Reserve Pumpers	0.36	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	1.64	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	3.40	10
571. Credit for Company Personnel	10.26	15
581. Credit for Training	6.19	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	32.52	50
Water Supply		
616. Credit for Supply System	25.17	30
621. Credit for Hydrants	2.25	3
631. Credit for Inspection and Flow Testing	3.88	7
640. Credit for Water Supply	31.30	40
Divergence	-2.64	–
1050. Community Risk Reduction	4.93	5.50
Total Credit	74.11	105.5

Final Community Classification = 03/10

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City Sisters Camp Sherman Fd

County Oregon(Deschutes, Jefferson), State OREGON (36) Witnessed by: Insurance Services Office Date: Dec 13, 2016

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q=(29.83(C(d^2)p^{0.5}))$ INDIVIDUAL HYDRANTS			TOTAL	PRESSURE PSI STATIC	RESID.	FLOW -AT 20 PSI NEEDED **	AVAIL.	REMARKS***	MODEL TYPE
1		North Locust Lane & CASCADE AVE	Sisters Water Company, MAIN	1260	0	0	1260	80	66	5000	2800		
10		West Adams Street & OAK ST	Sisters Water Company, MAIN	710	0	0	710	75	66	2250	1900		
11		Saddle & TOLLGATE RD	Tollgate Water Company, MAIN	810	0	0	810	71	38	750	1000		
12		16085 FOX RIDGE CIRCLE	The Ridge at Indian Ford, Main	750	0	0	750	76	63	500	1700		
13		OLD WAGON WHEEL	Indian Meadow Water Company, MAIN	380	0	0	380	108	84	500	750		
14		MOUNTAIN VIEW	Squaw Creek Canyon Water Company, MAIN	300	0	0	300	90	45	750	400		
15		31500 SW Blue Lake Dr	Caldera Water Company, Main	990	0	0	990	77	73	500	4200		
16		69305 Hawksflight	Rim at Aspen Lakes Water Company, Main	800	0	0	800	70	48	500	1200	(B)-(371 gpm)	
17		15123 Windigo Trail	Cascade Meadow Ranch Water Company, Zone 2	610	0	0	610	52	32	500	800	(B)-(450 gpm)	
1A		East Cascade Avenue & LOCUST ST	Sisters Water Company, MAIN	1260	0	0	1260	80	66	1750	2800		
1B		Maple Street & CASCADE AVE	Sisters Water Company, MAIN	1260	0	0	1260	80	66	750	2800		
2		West Mckenzie Highway & TRINITY WAY	Sisters Water Company, MAIN	1070	0	0	1070	68	65	3500	4800		
3		West Rte 20 & BARCLAY DR	Sisters Water Company, MAIN	1070	0	0	1070	80	65	4500	2300		
3.2			Sisters Water Company, MAIN	0	0	0	0	0	0	2000	0		
4		South Pine Street & HOOD AVE	Sisters Water Company, MAIN	1820	0	0	1820	79	50	3500	2700		
5		Desperado Trail & HWY 20	Sisters Water Company, MAIN	860	0	0	860	80	74	3000	3000		

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE *NOT* INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION.

THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

***Comm = Commercial; Res = Residential.**

****Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.**

***** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus consumption for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.**

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City Sisters Camp Sherman Fd

County Oregon(Deschutes, Jefferson), State OREGON (36) Witnessed by: Insurance Services Office Date: Dec 13, 2016

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM				PRESSURE PSI		FLOW -AT 20 PSI		REMARKS***	MODEL TYPE
				INDIVIDUAL HYDRANTS			TOTAL	STATIC	RESID.	NEEDED **	AVAIL.		
6		South Elm Street & WASHINGTON AVE	Sisters Water Company, MAIN	1950	0	0	1950	74	55	3000	3400		
7		West Sisters Park Drive & PINE ST	Sisters Water Company, MAIN	2020	0	0	2020	79	50	3000	3000		
8		West Barclay Drive & PINE ST	Sisters Water Company, MAIN	2050	0	0	2050	84	55	2500	3100		
9		East Cascade Avenue & FIR ST	Sisters Water Company, MAIN	790	0	0	790	72	62	2500	1900		
HW 1		25737 Suttle Sherman Road	Fire Department Supply	0	0	0	700	0	0	1750	700		CTR
HW 2		13375 SW Forest Service Road	Fire Department Supply	0	0	0	950	0	0	1500	950		
HW 3		70936 Indian Ford Road	Fire Department Supply	0	0	0	800	0	0	500	800		CTR
HW 4		70162 Doggie Drive	Fire Department Supply	0	0	0	700	0	0	500	700		CTR
HW 5		14873 Remuda Road	Fire Department Supply	0	0	0	750	0	0	500	750		CTR

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE *NOT* INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION.

THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

*Comm = Commercial; Res = Residential.

**Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.

*** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus consumption for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City Sisters Camp Sherman Fd

County Oregon(Deschutes, Jefferson) State OREGON (36) Witnessed by: Insurance Services Office Date: Dec 13, 2016

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q=(29.83(C(d^2)p^{0.5}))$ INDIVIDUAL HYDRANTS			TOTAL	PRESSURE PSI STATIC	RESID.	FLOW -AT 20 PSI NEEDED **	AVAIL.	REMARKS***	MODEL TYPE
1		North Locust Lane & CASCADE AVE	Sisters Water Company, MAIN	1260	0	0	1260	80	66	5000	2800		
10		West Adams Street & OAK ST	Sisters Water Company, MAIN	710	0	0	710	75	66	2250	1900		
11		Saddle & TOLLGATE RD	Tollgate Water Company, MAIN	810	0	0	810	71	38	750	1000		
12		16085 FOX RIDGE CIRCLE	The Ridge at Indian Ford, Main	750	0	0	750	76	63	500	1700		
13		OLD WAGON WHEEL	Indian Meadow Water Company, MAIN	380	0	0	380	108	84	500	750		
14		MOUNTAIN VIEW	Squaw Creek Canyon Water Company, MAIN	300	0	0	300	90	45	750	400		
15		31500 SW Blue Lake Dr	Caldera Water Company, Main	990	0	0	990	77	73	500	4200		
16		69305 Hawksflight	Rim at Aspen Lakes Water Company, Main	800	0	0	800	70	48	500	1200	(B)-(371 gpm)	
17		15123 Windigo Trail	Cascade Meadow Ranch Water Company, Zone 2	610	0	0	610	52	32	500	800	(B)-(450 gpm)	
1A		East Cascade Avenue & LOCUST ST	Sisters Water Company, MAIN	1260	0	0	1260	80	66	1750	2800		
1B		Maple Street & CASCADE AVE	Sisters Water Company, MAIN	1260	0	0	1260	80	66	750	2800		
2		West Mckenzie Highway & TRINITY WAY	Sisters Water Company, MAIN	1070	0	0	1070	68	65	3500	4800		
3		West Rte 20 & BARCLAY DR	Sisters Water Company, MAIN	1070	0	0	1070	80	65	4500	2300		
3.2			Sisters Water Company, MAIN	0	0	0	0	0	0	2000	0		
4		South Pine Street & HOOD AVE	Sisters Water Company, MAIN	1820	0	0	1820	79	50	3500	2700		
5		Desperado Trail & HWY 20	Sisters Water Company, MAIN	860	0	0	860	80	74	3000	3000		

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THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

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*** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus consumption for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City Sisters Camp Sherman Fd

County Oregon(Deschutes, Jefferson), State OREGON (36) Witnessed by: Insurance Services Office Date: Dec 13, 2016

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM INDIVIDUAL HYDRANTS			FLOW - GPM TOTAL	PRESSURE PSI STATIC	PRESSURE PSI RESID.	FLOW -AT 20 PSI NEEDED **	FLOW -AT 20 PSI AVAIL.	REMARKS***	MODEL TYPE
6		South Elm Street & WASHINGTON AVE	Sisters Water Company, MAIN	1950	0	0	1950	74	55	3000	3400		
7		West Sisters Park Drive & PINE ST	Sisters Water Company, MAIN	2020	0	0	2020	79	50	3000	3000		
8		West Barclay Drive & PINE ST	Sisters Water Company, MAIN	2050	0	0	2050	84	55	2500	3100		
9		East Cascade Avenue & FIR ST	Sisters Water Company, MAIN	790	0	0	790	72	62	2500	1900		
HW 1		25737 Suttle Sherman Road	Fire Department Supply	0	0	0	700	0	0	1750	700		CTR
HW 2		13375 SW Forest Service Road	Fire Department Supply	0	0	0	950	0	0	1500	950		
HW 3		70936 Indian Ford Road	Fire Department Supply	0	0	0	800	0	0	500	800		CTR
HW 4		70162 Doggie Drive	Fire Department Supply	0	0	0	700	0	0	500	700		CTR
HW 5		14873 Remuda Road	Fire Department Supply	0	0	0	750	0	0	500	750		CTR

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE *NOT* INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION.

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*** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus consumption for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

APPENDIX H
2022 Camp Sherman Fire District Fire Hydrant Capacity Flow Test Results

2022 SISTERS - CAMP SHERMAN FIRE DISTRICT FIRE HYDRANT CAPACITY FLOW TEST

Hydrant ID	Test Date	Time	Tester	Static	Resid.	Pitot	Testing Device	Flow GPM	Flow @ 20psi Resid.	Location
S208	1/11/22	9:28	JA	56	21	16	4.5" HOSE MONSTER	1324	**1344**	MCKINNEY BUTTE RD (N OF SMS)
		9:29		56	22	17		1365	**1408**	BTWN REED ST & MCKINNEY RANCH RD
		9:30		56	22	17		1365	**1408**	(WELLS OFF & RESERVOIR AT 20.1')
S106	1/11/22	9:46	JA	64	29	23	4.5" HOSE MONSTER	1588	**1797**	USFS HOUSING LOOP RD# 2058-030
		9:47		64	29	23		1588	**1797**	(WELLS OFF & RESERVOIR AT 20.1')
		9:48		64	29	23		1588	**1797**	
S248	1/11/22	10:03	JA	73	32	25	4.5" HOSE MONSTER	1656	**1902**	295 W LUNDGREN MILL DR
		10:04		73	32	25		1656	**1902**	(WELLS OFF & RESERVOIR AT 19.9')
		10:05		73	32	25		1656	**1902**	
S160	1/11/22	10:25	JA	92	37	30	4.5" HOSE MONSTER	1814	**2098**	N ROPE PL @ ALLEY/NORTH DEAD END
		10:26		92	38	30		1814	**2119**	(WELLS OFF & RESERVOIR AT 19.8')
		10:27		92	37	30		1814	**2098**	
S43	1/11/22	10:47	JA	59	26	22	4.5" HOSE MONSTER	1553	**1700**	E TYEE DR @ S ELM ST
		10:48		59	26	21		1517	**1660**	(WELLS OFF & RESERVOIR AT 19.6')
		10:49		59	26	22		1553	**1700**	

PERTINENT NOTES REGARDING THE ABOVE FLOW TEST DATA:

1) FLOW GPM DERIVED FROM THE HYDRO FLOW PRODUCTS HOSE MONSTER FLOW CHART FOR THE 4.5" ORIFICE.

2) THESE TESTS WERE CONDUCTED TO SOLELY REPRESENT THE HYDRANT FLOW CAPACITIES OF THE INDIVIDUAL HYDRANTS THAT WERE TESTED. THESE TESTS DO NOT REPRESENT MAIN CAPACITY TESTS, AS ALL PRESSURE AND FLOW READINGS WERE OBTAINED FROM THE SINGLE HYDRANTS THAT WERE TESTED.

3) DURING THESE TESTS, THE CITY'S RESERVOIR LEVEL WAS BETWEEN 19.6' TO 20.1', WITH ALL WELLS OFF, PER JOSH STOTTS WITH THE CITY OF SISTERS. SEE NOTES FOR RESERVOIR LEVEL FOR EACH TEST. CONTACT THE CITY FOR ADDITIONAL INFORMATION THAT MAY BE NECESSARY FOR FLOW MODELING, ETC. JOSH STOTTS MONITORED THE SYSTEM STATUS BY COMPUTER DURING THE TESTS.

4) AFTER OPENING THE HYDRANTS TO FULL FLOW, PITOT AND RESIDUAL PRESSURE READINGS WERE TAKEN AT ONE MINUTE INTERVALS FROM THE TEST HYDRANTS (LISTED ABOVE) TO ALLOW FOR SYSTEM PERFORMANCE & STABILIZATION. THE SYSTEM STATIC PRESSURES WERE TAKEN IMMEDIATELY FOLLOWING THE FLOW TESTS, BUT ARE ASSUMED AS THE STATIC PRESSURES FOR ALL READINGS DURING THE GIVEN TEST.

5) THE SISTERS-CAMP SHERMAN FIRE DISTRICT AND ITS AGENTS ASSUME NO LIABILITY FOR THE ACCURACY OF THE FLOW TESTING EQUIPMENT OR THE HYDRANT FLOW DATA PROVIDED HEREIN.

2022 SISTERS - CAMP SHERMAN FIRE DISTRICT FIRE HYDRANT CAPACITY FLOW TEST

Hydrant ID	Test Date	Time	Tester	Static	Resid.	Pitot	Testing Device	Flow GPM	Flow @ 20psi Resid.	Location
S208	1/10/22	13:55	JA	75	36	27	4.5" HOSE MONSTER	1720	**2071**	MCKINNEY BUTTE RD (N OF SMS)
		13:56		75	37	29		1783	**2177**	BTWN REED ST & MCKINNEY RANCH RD
		13:57		75	37	29		1783	**2177**	(WELL #4 ON & RESERVOIR AT ~22.6')
S106	1/10/22	14:14	JA	81	44	33	4.5" HOSE MONSTER	1902	**2491**	USFS HOUSING LOOP RD# 2058-030
		14:15		81	45	34		1931	**2567**	(WELL #4 ON & RESERVOIR AT ~22.6')
		14:15		81	45	34		1931	**2567**	
S248	1/10/22	14:31	JA	90	43	33	4.5" HOSE MONSTER	1902	**2358**	295 W LUNDGREN MILL DR
		14:32		90	47	36		1987	**2585**	(WELL #4 ON & RESERVOIR AT ~22.7')
		14:33		90	46	35		1959	**2517**	
		14:34		90	46	35		1959	**2517**	
S160	1/10/22	14:49	JA	104	52	39	4.5" HOSE MONSTER	2068	**2679**	N ROPE PL @ ALLEY/NORTH DEAD END
		14:50		104	55	42		2146	**2871**	(WELL #4 ON & RESERVOIR AT ~22.7')
		14:51		104	55	42		2146	**2871**	
S43	1/10/22	15:09	JA	76	38	28	4.5" HOSE MONSTER	1752	**2160**	E TYEE DR @ S ELM ST
		15:10		76	42	32		1873	**2452**	(WELL #4 ON & RESERVOIR AT ~22.8')
		15:11		76	42	32		1873	**2452**	

PERTINENT NOTES REGARDING THE ABOVE FLOW TEST DATA:

1) FLOW GPM DERIVED FROM THE HYDRO FLOW PRODUCTS HOSE MONSTER FLOW CHART FOR THE 4.5" ORIFICE.

2) THESE TESTS WERE CONDUCTED TO SOLELY REPRESENT THE HYDRANT FLOW CAPACITIES OF THE INDIVIDUAL HYDRANTS THAT WERE TESTED. THESE TESTS DO NOT REPRESENT MAIN CAPACITY TESTS, AS ALL PRESSURE AND FLOW READINGS WERE OBTAINED FROM THE SINGLE HYDRANTS THAT WERE TESTED.

3) DURING THESE TESTS, THE CITY'S RESERVOIR LEVEL WAS BETWEEN 22.6'-22.8', WITH WELL #4 OPERATING, PER JOSH STOTTS WITH THE CITY OF SISTERS. CONTACT THE CITY FOR ADDITIONAL INFORMATION THAT MAY BE NECESSARY FOR FLOW MODELING, ETC. SEE EACH TEST FOR +/- RESERVOIR LEVEL.

4) AFTER OPENING THE HYDRANTS TO FULL FLOW, PITOT AND RESIDUAL PRESSURE READINGS WERE TAKEN AT ONE MINUTE INTERVALS FROM THE TEST HYDRANTS (LISTED ABOVE) TO ALLOW FOR SYSTEM PERFORMANCE & STABILIZATION. THE SYSTEM STATIC PRESSURES WERE TAKEN IMMEDIATELY FOLLOWING THE FLOW TESTS, BUT ARE ASSUMED AS THE STATIC PRESSURES FOR ALL READINGS DURING THE GIVEN TEST.

5) THE SISTERS-CAMP SHERMAN FIRE DISTRICT AND ITS AGENTS ASSUME NO LIABILITY FOR THE ACCURACY OF THE FLOW TESTING EQUIPMENT OR THE HYDRANT FLOW DATA PROVIDED HEREIN.