

DEQ DIVISION 33 APPLICATION REVIEW SHEET

Recommendations for Water Right Applications that may affect the
Habitat of Sensitive, Threatened or Endangered Fish Species, OAR 690-33-310 through 340.

Application #: G 18378 Applicant's Name: Jeanette Garrison

1) Is there a connection to a 303(d) listed water quality limited water body? NO YES

Explain: Powell Creek is a tributary of the Williams Creek. The Applegate subbasin and tributaries have TMDLs or are identified as water quality limited and needing TMDLS as follows:

Applegate 2003 TMDL Parameter Reductions

Temperature:

The water temperature criteria indicates that an exceedance of the 64°F numeric trigger invokes a condition that requires “no measurable surface water temperature increases resulting from anthropogenic activities.” To meet the condition of no anthropogenic inputs, point source temperature inputs are set to “no measurable increase” and nonpoint source impacts are set to a natural conditions scenario known as system potential. For the Applegate Subbasin temperature TMDL there are 4 nonpoint source categories which may result in increased thermal loads:

1. Near stream vegetation disturbance/removal
2. Channel modifications and widening
3. Hydromodification - Water Withdrawals
4. Natural Sources

Stream Temperature period of primary interest: June 1 through September 30 defined as the Critical Period when numeric criteria are exceeded. Solar energy inputs are at a maximum and stream flows are at a minimum.

303(d) 2012 Water Quality Limitations

Water Body	River Miles	Parameter	Season	Criteria	Beneficial Use	Status
Powell Creek	0 to 2	Temperature	October 1 - May 31	Spawning: 12.8 C	Salmonid fish spawning	Cat 4A: Water quality limited, TMDL approved
Powell Creek	0 to 2	Temperature	Summer	Rearing: 17.8 C	Anadromous fish passage; Salmonid fish rearing	Cat 4A: Water quality limited, TMDL approved
Williams Creek	0 to 7.1	Dissolved Oxygen	Summer	Cool water: Not less than 8.0 mg/L or 90% of saturation	Cold-water aquatic life	Cat 5: 303(d) TMDL Needed
Williams Creek	0 to 7.1	Flow Modification	Undefined	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aquatic life	Cat 3: Insufficient data
Williams Creek	0 to 7.1	Temperature	Summer	Rearing: 17.8 C	Aquatic life	TMDL

2) What is the potential for this use to impact a water quality limited water body: HIGH MEDIUM LOW

Explain: The ground water review indicates that the proposed GW use will have the potential for substantial interference with surface water availability. Surface water is not available at any time of year. Withdrawal could affect quantity and quality in critical summer months when temperatures are already too warm. Powell Creek and Williams Creek have an ISWR. Based on water availability, the cumulative withdrawal is likely to cause ecological harm from June through October. Water managers have identified harm occurring when 6-35 percent of daily flow is withdrawn¹.

¹ Richter, B. D., Davis, M. M., Apse, C. and Konrad, C. (2012), A Presumptive Standard for Environmental Flow Protection. River Res. Applic., 28: 1312–1321. doi:10.1002/rra.1511

Water Availability - POWELL CR > WILLIAMS CR - AT MOUTH - ROGUE BASIN

Watershed ID	Exceedance Level	Month	Natural Stream Flow	Consumptive Use	Expected Stream Flow	Instream Requirement	Net Water Avail	Percent of flow
71026	50	JAN	24.6	0.184	24.4	24.6	-0.184	1
71026	50	FEB	27.7	0.207	27.5	27.7	-0.207	1
71026	50	MAR	22.9	0.172	22.7	22.9	-0.172	1
71026	50	APR	17.2	0.415	16.8	17.2	-0.415	2
71026	50	MAY	8.53	0.647	7.88	8.53	-0.647	8
71026	50	JUN	5.86	0.897	4.96	5.86	-0.897	15
71026	50	JUL	4.62	1.19	3.43	4.62	-1.19	26
71026	50	AUG	3.66	0.987	2.67	3.66	-0.987	27
71026	50	SEP	2.62	0.653	1.97	2.62	-0.653	25
71026	50	OCT	2.28	0.217	2.06	2.28	-0.217	10
71026	50	NOV	3.65	0.044	3.61	3.65	-0.044	1
71026	50	DEC	15.2	0.125	15.1	15.2	-0.125	1
71026	50	ANN	8330	348	7980	8330	0	4

Water Availability - WILLIAMS CR > APPLGATE R - AT MOUTH - ROGUE BASIN

Watershed ID	Exceedance Level	Month	Natural Stream Flow	Consumptive Use	Expected Stream Flow	Instream Requirement	Net Water Avail	Percent of flow
70981	50	JAN	175	1.17	174	110	63.8	1
70981	50	FEB	235	1.58	233	110	123	1
70981	50	MAR	173	1.17	172	110	61.8	1
70981	50	APR	111	3.75	107	110	-2.75	3
70981	50	MAY	45.9	5.83	40.1	65	-24.9	13
70981	50	JUN	18.4	8.11	10.3	40	-29.7	44
70981	50	JUL	6.26	10.8	-4.54	15	-19.5	173
70981	50	AUG	3.17	8.94	-5.77	5	-10.8	282
70981	50	SEP	2.37	5.92	-3.55	50	-53.6	250
70981	50	OCT	3.79	2.06	1.73	80	-78.3	54
70981	50	NOV	22.7	0.382	22.3	80	-57.7	2
70981	50	DEC	120	0.824	119	110	9.18	1
70981	50	ANN	54800	3060	52600	53300	15200	6

3) If the answer to question (2) is HIGH or MEDIUM, will the proposed use still result in diminution of water quality for the habitat of sensitive, threatened, or endangered fish species? NO YES

If YES, how?

Temperature and dissolved oxygen are a flow-related parameter. When streamflow is reduced, heat capacity is reduced. As a waterbody heats up, dissolved oxygen concentrations decline. By reducing streamflow, this use is likely to exacerbate the temperature and dissolved oxygen impairments. The assimilative capacity of a waterway is flow dependent.

The waterbody is already limited for temperature in critical summer months. Any additional heat would further impact this habitat. Flow reductions may impact the assimilative capacity of the waterbody, increasing the concentration of some TMDLs and 303(d) listings.

4) Can conditions be applied to mitigate the impact of the use?

NO YES; recommend from Menu of Conditions and skip to question 7.

Permit should not be issued without flow mitigation. Additional mitigation may be required from other IRT members (example: OWRD may require mitigation for periods when water is not available.)

Surface flow mitigation is unlikely to provide the same benefit groundwater provides to gaining stream reaches. However, if groundwater mitigation is unavailable within a mile of the well location, surface water mitigation will provide suitable mitigation.

Mitigation obligation: 0.05 CFS within the Williams Creek watershed. Mitigation water must be obtained for the June 1- September 30 time period. Applicant should contact the OWRD caseworker to discuss flow mitigation options.

Flow mitigation condition: Prior to water use under this permit, the applicant must provide surface water mitigation water that is of no less volume than the amount identified in the permit. The mitigation flow must be sourced upstream of the groundwater use and must affect the impacted reach for the June 1- September 30 time period.

WQ: The use may be restricted if the quality of the source stream or downstream waters decrease to the point that those waters no longer meet state or federal water quality standards due to reduced flows.

Prohibited Activities: If the Department of Environmental Quality notifies OWRD, the pollution of waters of the state is occurring and it is determined the permit holder is not in compliance with ORS 468B.025(1), OWRD shall withhold waters. Permittee may not cause pollution of any waters of the state, or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means, per ORS 468B.025(1).

Agricultural Management Plans: Permittee shall comply with basin specific Agricultural Management Plan rules in OAR 603-095.

Compliant Flow Restrictor: Applicant shall install an OWRD approved flow restrictor.

1200-C: Permittee shall obtain a valid 1200-C Stormwater Discharge Permit from the DEQ for construction projects that disturb an acre or more of land prior to project construction.

* If the application is amended in a way that may affect water quality, DEQ shall be notified and given the opportunity to submit updated comments and conditions.

5) If conditions cannot be identified to offset impacts, would the proposed use affect the Habitat of Sensitive, Threatened, or Endangered Fish Species? NO YES

If YES, please explain:

6) If a permit is issued, are there any conditions you would like to see included in the permit?

7) Your recommendation under OAR 690-033-0330 (2): Approval with conditions
 Approval without conditions
 Denial

DEQ Representative Signature: Heather Tugaw Date: May 23, 2017

WRD Contact: **Caseworker:** Barbara Poage, Water Rights Division, 503-986-0808 / Fax 503-986-0901

MENU OF CONDITIONS FOR WRD, ODFW, DEQ AND AG

The following condition will be included in any permit issued unless ODFW explicitly requests that it be omitted:

The permittee shall not construct, operate or maintain any dam or artificial obstruction to fish passage in the channel of the subject stream without providing a fishway to ensure adequate upstream and downstream passage for fish, unless the permittee has requested and been granted a fish passage waiver or exemption through the Oregon Department of Fish and Wildlife. The permittee is hereby directed to contact an Oregon Department of Fish and Wildlife Fish Passage Coordinator before beginning construction of any in-channel obstruction.

- fishself** The permittee shall install, maintain, and operate fish screening and by-pass devices consistent with current Oregon Department of Fish and Wildlife (ODFW) standards. Fish screening is to prevent fish from entering the proposed diversion while by-pass devices provide adequate upstream and downstream passage for fish. The required screen and by-pass devices are to be in place and functional prior to diversion of any water. Permittee shall obtain written approval from ODFW that the installation of the required screen and by-pass devices meets the state's criteria or the permittee shall submit documentation that ODFW has determined screens and/or by-pass devices are not necessary.
- fishapprove** The permittee shall install, maintain, and operate fish screening and by-pass devices consistent with current Oregon Department of Fish and Wildlife (ODFW) standards. Fish screening is to prevent fish from entering the proposed diversion while by-pass devices provide adequate upstream and downstream passage for fish. The required screen and by-pass devices are to be in place and functional, and approved in writing by ODFW prior to diversion of any water. The permittee may submit evidence in writing that ODFW has determined screens and/or by-pass devices are not necessary.
- fishdiv33** If the riparian area is disturbed in the process of developing a point of diversion, the permittee shall be responsible for restoration and enhancement of such riparian area in accordance with ODFW's Fish and Wildlife Habitat Mitigation Policy OAR 635-415. For purposes of mitigation, the ODFW Fish and Wildlife Habitat Mitigation Goals and Standards, OAR 635-415, shall be followed.
- The use may be restricted if the quality of the source stream or downstream waters decrease to the point that those waters no longer meet existing state or federal water quality standards due to reduced flows.
- The permittee shall install, maintain, and operate fish screening and by-pass devices consistent with current Oregon Department of Fish and Wildlife (ODFW) standards. Fish screening is to prevent fish from entering the proposed diversion while by-pass devices provide adequate upstream and downstream passage for fish. The required screen and by-pass devices are to be in place and functional, and approved in writing by ODFW prior to diversion of any water. The permittee may submit evidence in writing that ODFW has determined screens and/or by-pass devices are not necessary.
- fishmay** Notwithstanding that ODFW has made a determination that fish screens and/or by-pass devices are not necessary at the time of permit issuance, the permittee may be required in the future to install, maintain, and operate fish screening and by-pass devices to prevent fish from entering the proposed diversion and to provide adequate upstream and downstream passage for fish.
- b52** Water may be diverted only when Department of Environmental Quality sediment standards are being met.
- b5** The water user shall install and maintain adequate treatment facilities meeting current DEQ requirements to remove sediment before returning the water to the stream.
- b51a** The period of use has been limited to _____ through _____.
- b57** Before water use may begin under this permit, a totalizing flow meter must be installed at each diversion point.
- b58** Before water use may begin under this permit, a staff gage that measures the entire range and stage between full reservoir level dead pool storage must be installed in the reservoir. The staff gage shall be United States Geological Survey style porcelain enamel iron staff gage style A, C, E or I. Additionally, before water use may begin under this permit, if the reservoir is located in channel then weirs or other suitable measuring devices must be installed upstream and downstream of the reservoir, and, a gated valve outlet must be installed. A written waiver may be obtained from the local Watermaster if in his judgment the installation of the weir(s) will provide no public benefit.
- futile call** The use of water allowed herein may be made only at times when waters from the (NAME OF SURFACE WATER) would not otherwise flow into a tributary of the _____ River or sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.
- riparian** If the riparian area is disturbed in the process of developing a point of diversion, the permittee shall be responsible for restoration and enhancement of such riparian area in accordance with ODFW's Fish and Wildlife Habitat Mitigation Policy OAR 635-415. For purposes of mitigation, the ODFW Fish and Wildlife Habitat Mitigation Goals and Standards, OAR 635-415, shall be followed.
- wq** The use may be restricted if the quality of the source stream or downstream waters decrease to the point that those waters no longer meet existing state or federal water quality standards due to reduced flows.
- fence** The stream and its adjacent riparian area shall be fenced to exclude livestock.
- blv** Water must be diverted to a trough or tank through an enclosed water delivery system. The delivery system must be equipped with an automatic shutoff or limiting flow control mechanism or include a means for returning water to the stream source through an enclosed delivery system. The use of water shall not exceed 0.10 cubic feet per second per 1000 head of livestock.