

# 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 18290      Applicant's Name: Sean Spence

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

Explain: 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

**Sedimentation:**

No more than 33% cobble embeddedness for all streams in the Beaver Creek Analytical Watershed.

**Biological Criteria:**

In Beaver Creek the macroinvertebrate community impairments are the result of habitat limitations created by an excess of fine sediments and excessive summer temperatures (Schroeder P.C. 2002, USFS 1994). Beaver Creek is also on the 1998 303(d) list for temperature, sedimentation, habitat modification, and flow modification (Note: habitat modification and flow modification have been delisted on the 2002 303(d) list). The Applegate Subbasin TMDL allocations set to meet both the sedimentation and temperature TMDLs (riparian shade, streambank and channel restoration, stabilization of sediment sources) will restore the macroinvertebrate communities in Beaver Creek.

**Flow Modification:**

Flow modification is not the direct result of a pollutant although it does affect beneficial uses. Because a pollutant is not the cause, the concept of establishing a loading capacity and allocations does not apply.

**Habitat Modification:**

Habitat modification is not the direct result of a pollutant although it does affect beneficial uses. Because a pollutant is not the cause, the concept of establishing a loading capacity and allocations does not apply.

### 303(d) 2012 Water Quality Limitations – Applegate River

Water Body (Stream/Lake)	River Miles	Parameter	Season	Criteria	Beneficial Uses	Status
Applegate River	0 to 32.4	Dissolved Oxygen	October 15 - May 15	Spawning: Not less than 11.0 mg/L or 95% of saturation	Salmon and steelhead spawning	Cat 5: 303(d) TMDL needed
Applegate River	0 to 46.8	Flow Modification	Undefined	The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.	Resident fish and aquatic life; Salmonid fish rearing; Salmonid fish spawning	Cat 4C: Water quality limited, not a pollutant

Applegate River	0 to 46.8	pH	Summer	pH 6.5 to 8.5	Water contact recreation; Resident fish and aquatic life; Salmonid fish spawning; Salmonid fish rearing; Anadromous fish passage	Cat 5: 303(d) TMDL needed
Applegate River	0 to 46.8	Temperature	Summer	Rearing: 17.8 C	Anadromous fish passage; Salmonid fish rearing	Cat 4A: TMDL approved
Applegate River/Applegate Reservoir	46.8 to 51	Mercury	Year Round	To establish permit or other regulatory limits for toxic substances for which criteria are not included ... the department may use the guidance values ... public health advisories, and other published scientific literature.		Cat 5: 303(d) TMDL needed

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 is hydraulically connected to surface water. 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. The Applegate River has an ISWR. Based on water availability, the cumulative withdrawal is likely to cause the waterbody to exceed the load capacity or HUA for temperature or other flow dependent parameters February-April and July-September (Water Availability - APPLGATE R > ROGUE R - AT MOUTH - ROGUE BASIN)

Watershed ID	Exceedance Level	Month	Natural Stream Flow	Consumptive Use	Expected Stream Flow	Instream Requirement	Net Water Available	Percent of Flow
249	50	JAN	986	5.57	980	300	680	0.56
249	50	FEB	1220	439	781	300	481	35.98
249	50	MAR	1220	438	782	340	442	35.90
249	50	APR	987	460	527	340	187	46.61
249	50	MAY	885	42.1	843	360	483	4.76
249	50	JUN	406	57.2	349	360	-11.2	14.09
249	50	JUL	132	75.8	56.2	120	-63.8	57.42
249	50	AUG	66.7	63	3.73	120	-116	94.45
249	50	SEP	60.9	42.1	18.8	120	-101	69.13
249	50	OCT	106	15.4	90.6	360	-269	14.53
249	50	NOV	257	3.54	253	360	-107	1.38
249	50	DEC	676	4.61	671	300	371	0.68
249	50	ANN	421000	97700	323000	204000	160000	

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. Reduced flows can increase the concentrations parameters.

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.)

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:** 0.024 CFS within the Applegate watershed, above the POU. Mitigation water must be obtained for the February 1 - October 31 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 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 February 1- October 31 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:** 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). Permittee must comply with basin specific rules in OAR 603-695.

**Pond releases:** Permittee shall not release polluted stored water into waters of the state, unless under emergency situations. For routine maintenance, the Permittee must land apply stored water or provide treatment prior to releasing. Permittee must comply with OAR 340-041 and ensure that water quality standards are not violated by releases from storage.

**Limit Withdrawal:** Permittee must limit use of water when it interferes with any prior instream surface water rights. No water shall be diverted under this right unless the flow in the Applegate River is at or above the instream flow requirements, as determined at Gaging Station ID USGS 14369500 Applegate River near Wilderville, OR

Watershed ID	Application	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
249	MF249A	300	300	340	340	360	360	120	120	120	360	360	300

Instream Flow Requirements in Cubic Feet per Second

\* 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: March 1, 2017

WRD Contact: **Caseworker:** Lisa Graham, 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.