

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 18307 Applicant's Name: Duane and Terise Paulsen

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

Explain: No data is available for Gore or the unnamed tributary. Bear Creek is listed for temperature, E. coli, pH, dissolved oxygen, aquatic weeds or algae, phosphorus, arsenic, flow modification, and habitat modification. A temperature and bacteria TMDL exists for the Bear Creek Watershed.

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

Explain: The initial review found the proposed groundwater use will have the potential for substantial interference with an unnamed tributary to Gore Creek, a tributary to Bear Creek. Surface water is not available at any time of year, additional water withdrawals could affect surface water quantity and quality in Bear Creek. Bear Creek has an instream water right that has the potential to be injured by the use.

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? Increases in temperature or a reduction in dissolved oxygen would impact sensitive, threatened, and endangered fish. Fish require different temperature and concentrations of dissolved oxygen based on their species and life history stage. Oregon's temperature and dissolved oxygen limits are based on the most sensitive species and life history stage at the location and season of concern. The temperature and dissolved oxygen concentrations of receiving waterbodies are already known to be insufficient for the habitat of sensitive, threatened, and endangered fish. Any additional heat or reduction in dissolved oxygen concentrations would further impact the habitat.

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

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

The initial review identifies that surface water is not available at any time of the year. The withdrawals may injure an instream water right and could affect surface water quantity and quality in Bear Creek.

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

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:

Oregon's stream temperature standards are based on the life cycle needs of salmonids and other resident fish and aquatic life. Stream temperatures that exceed the standards can disrupt the life cycle of a sensitive, threatened, or endangered fish species and may even cause death. Water temperatures are influenced by solar radiation, stream shade, ambient air temperatures, channel morphology, groundwater inflows, precipitation, and flow duration, timing, frequency and volume. Surface water temperatures may also be warmed by anthropogenic activities such as discharging heated water, changing stream width or depth, reducing stream shading, and water withdrawals. In waterbodies where temperatures are already known to exceed standards further withdrawals from the stream will reduce the stream's heat capacity and cause greater fluctuation in daytime and nighttime stream temperatures. This will result in the diminution of habitat of sensitive, threatened, or endangered fish species.

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

Flow for flow mitigation. If the facts of the application change, DEQ should be notified and given the opportunity to submit updated comments.

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

DEQ Representative signature: Heather Tugaw Date: September 27, 2016

WRD Contact: **Caseworker:** Barbara Park Water Rights Division, 503-986-0900 / 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.