

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 18386 Applicant's Name: Teresa Halverson

The application proposed the appropriation of groundwater for an annual total of 1.0 acre-feet for year-round irrigation on 0.25 acres.

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

Explain: Groundwater well (well ID L84361) has been determined to be hydraulically connected to the McKenzie River. The McKenzie River has 303(d) listings for the following parameters: dissolved oxygen, lead, mercury, and iron. The McKenzie River has a TMDL for temperature.

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

- The groundwater review indicates that although the well will be drawing from a confined aquifer, there is still hydraulic connection between the well and a water quality limited waterbody.
- **While surface water is available in the amount and for the full period requested, the McKenzie Subbasin Plan does not allow for irrigation (OAR 690-502-0080(e)), which is the use identified in the application.**
- **Per the OWRD Initial Review and email communications, application G18386 is to be evaluated based on the allowed use identified as “agricultural uses” for the amount of 0.006 cfs.**
 - Question to OWRD: Has the applicant identified that they want to pursue application for a water right other than what they identified in application G18386?
 - Comment: It is difficult to assess the application for a use other than what the applicant originally identified, as the information the applicant gave in the application is specific to irrigation.
 - Question to OWRD: How will the applicant meet the 0.006 cfs limit using the pump identified in the application, which is a 10gpm pump?

The McKenzie temperature TMDL is focused on the protection of cold water salmonids, specifically salmon and steelhead. The salmonid spawning, rearing and migration season occurs from September 1 to June 15 depending on the stream segment. Groundwater withdrawals result in a reduction in heat loading capacity and stream velocity and greater exposure to solar radiation in unshaded or partially shaded stream reaches. By reducing streamflow, the proposed use may impact stream temperature as well as dissolved oxygen and other impairments. Temperature and dissolved oxygen are flow-related parameters. When streamflow is reduced, assimilative capacity is reduced. As a waterbody heats up, dissolved oxygen concentrations decline.

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 hydrologically connected 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.

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?

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

Irrigation use not allowed per McKenzie Subbasin Plan. If “agricultural use” of 0.006cfs is approved, recommend including the conditions identified below.

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

Flow mitigation obligation equals amount requested for water quality-limited periods.

Mitigation obligation: 0.006 CFS of surface water within the McKenzie watershed. Mitigation water must be obtained for the September 1-June 15 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 April 1- September 30 time period.

Flow meter condition: Prior to water use under this permit, the applicant must install a totalizing flow meter and be required to track and report all water usage.

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?

Flow mitigation
WQ
B5
B57

7) Your recommendation under OAR 690-033-0330 (2): ☐ Approval with conditions
☐ Approval without conditions
☒ Denial, unless flow mitigation condition is met

DEQ representative signature: Priscilla Woolverton Date: March 16, 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.