

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 #: S-87675 Applicant's Name: Eugene Water and Electric Board

1) Is there a connection to a 303(d) listed water quality limited water body? **YES**

Explain: The Willamette River is listed for temperature from its mouth to River Mile 186. The Total Maximum Daily Load (TMDL), finalized by the Department in 2006 and approved by the U.S. EPA, established load allocations and wasteload allocations for temperature and demonstrates the connection between flow and river temperature in the Basin.

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

Explain: The Willamette River temperatures are influenced by natural and human caused sources of heating. During the development of the TMDL noted above, natural disturbances and processes are recognized and incorporated as the natural condition. However, stream heating caused by human activities such as the removal of riparian vegetation providing shade and water withdrawals for domestic and agricultural use are addressed in this TMDL. The Department's modeling indicates that river temperature is inversely related to flow during the summer. As flow is reduced by withdrawals, river temperatures are increased (see Willamette TMDL, Chapter 4 for a discussion of the sensitivity of the Willamette River to changes in flow).

Heat loads in the Willamette River resulting from nonpoint sources such as water withdrawals currently cause a substantial exceedance of the nonpoint heat load allocation. Although the proposed 30.9 cfs withdrawal from the Willamette River would not increase the combined maximum authorized rate of diversion under EWEB's existing water rights, this existing water right – regardless of the location of its point of diversion – contributes to the current nonpoint source heat loads that currently exceed the nonpoint source TMDL allocations. These nonpoint source allocations, established by the Department in the Willamette Basin TMDL, are designed to reduce thermal loading and achieve the water quality standards for temperature.

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? **YES**

If YES, how? Water withdrawals both current and proposed reduce the heat loading capacity of the Willamette River. This diminished heat loading capacity contributes to the 303(d) listing of the Willamette River for temperature. This listing for temperature is directly related to salmonid rearing, migration, and spawning.

4) Can conditions be applied to mitigate the impact of the use? **YES, potentially**

Which conditions are recommended? (select from Menu of Conditions)

The following standard conditions from the menu are recommended: "riparian" and "wq"

In addition to these standard conditions, EWEB would have to determine the precise impact of this withdrawal on river temperature by employing the Willamette temperature model which is available for download from DEQ's website in order to mitigate the impact of the 30.9 cfs of water withdrawal. The excess thermal load contribution by this withdrawal could be calculated by multiplying the river flow by the temperature increase caused by the flow reduction. This impact could then be mitigated via riparian restoration. Alternatively, EWEB could reduce the impact associated with the combined maximum rate of diversion of its existing water rights (30.9 cfs) on salmonid rearing, migration, and spawning or it could reduce the level of mitigation needed by taking action to encourage water conservation such as making adjustments in EWEB's consumption rate charges during the months when Willamette River flows are low. Such a measure could minimize nonessential, consumptive uses that make up a substantial percentage of EWEB's average customer use and contribute to the exceedance of the nonpoint source TMDL allocations.

5) If conditions cannot be identified to offset impacts, would the proposed use affect the Habitat of Sensitive, Threatened, or Endangered Fish Species? **YES**

If YES, please explain: See response to Number 3.

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

Yes. The Department would need to see some mechanisms to offset or reduce the impacts of this withdrawal on river temperature during the summer months when flows are low.

7) Your recommendation under OAR 690-033-0330 (2): **XX** Approval with conditions

Approval without conditions
 Denial

DEQ Representative signature:  Chris Bayham, Willamette Basin Coordinator Date: May 25, 2011

WRD Contact: **Caseworker:** Jeana Eastman, Water Rights Division, 503-986-0900 / Fax 503-986-0901

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.
- 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.