

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 88368 Applicant's Name: David and Kristi Fazio

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

Explain: The application does not provide clear information about source of water to either POD and to downstream waterbody connections and DEQ was unable to obtain clarifying information from OWRD. Therefore, the following descriptions are DEQ's understanding of source water and downstream waterbody for each POD.

POD #1 is on the A-1 Canal. The A-1 Canal's source of water is the Multnomah Channel. The A-1 Canal is a source of water to the Marquam Dry Lake Canal. DEQ's assumption is that water entering the Marquam Dry Lake Canal will ultimately get pumped back to the Multnomah Channel at SIDIC's pumping station towards the mouth of the Multnomah Channel near the Columbia River confluence.

Requested rate: 3.43 cfs
Requested use: March 1 – Oct. 31

POD#2 (Charlton Linder) is on an unnamed ditch. The source of water is not stated in application, so DEQ assumed it was from the Multnomah Channel. This unnamed ditch is a tributary to the Mud Slough, which is a tributary to Sturgeon Lake. Sturgeon Lake water eventually gets pumped back to the Multnomah Channel at SIDIC's pumping station.

Requested rate: 3.43 cfs
Requested use: March 1 – Oct. 31

The Multnomah Channel does not meet state water quality standards for the following parameters: dissolved oxygen to support salmon and trout spawning requirements (Jan. 1 – May 15), mercury and temperature (year round salmon and trout rearing and migration). DEQ does not have data to indicate whether or not either of the POD diversion canals/waterbodies meets water quality standards. The Willamette Basin TMDL, which includes the Multnomah Channel and Sauvie Island waterbodies, established both nonpoint and point source allocations for temperature and demonstrated the connection between flow and river temperatures in the basin. The identified critical period is June – September. A TMDL has not yet been developed for dissolved oxygen and the current mercury TMDL will be updated by April 2019.

Water Body (Stream/Lake)	River Miles	Parameter	Season	Criteria	BeneficialUses	Status
Multnomah Channel	0 to 21.7	Dissolved Oxygen	January 1 - May 15	Spawning: Not less than 11.0 mg/L or 95% of saturation		Cat 5: Water quality limited, 303(d) list, TMDL needed
Multnomah Channel	0 to 21.7	Mercury	Year Round	Table 40 Human Health Criteria for Toxic Pollutants	Human health	Cat 5: Water quality limited, 303(d) list, TMDL needed
Multnomah Channel	0 to 21.7	Temperature	Year Round (Non-spawning)	Salmon and trout rearing and migration: 18.0 degrees Celsius 7-day-average maximum	Salmon and trout rearing and migration	Cat 4A: Water quality limited, TMDL approved

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

Explain: The applicant is requesting a flow rate of 3.43 cfs each for two points of diversion for irrigation use (approximately 274 acres) from March 1 through October 31. DEQ's modeling in the Willamette Basin TMDL shows that temperature is inversely related to flow during summer. Generally, water temperatures increase as flow decreases. Therefore, reducing flow in waterbodies impaired for temperature, such as the Multnomah Channel, particularly during the summer months with the lowest stream flow could result in higher stream temperatures, lower dissolved oxygen levels, and stressed conditions for aquatic life. Because there is no water availability report for this area, DEQ staff could not assess whether this water right request, in concert with other cumulative withdrawals from this area, could result in a lowering of water quality. The TMDL lists the critical period for temperature to be June – September.

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? The application does not provide sufficient information to determine impacts to water quality and OWRD does not have water availability information for this area to provide the necessary information to assess cumulative effects. DEQ recommends the mitigation measures described below under item 4, in addition to the standard conditions.

Citation from EPA website (<https://archive.epa.gov/water/archive/web/html/vms51.html>):

“Flow is a function of water volume and velocity. It is important because of its impact on water quality and on the living organisms and habitats in the stream. Large, swiftly flowing rivers can receive pollution discharges and be little affected, whereas small streams have less capacity to dilute and degrade wastes.

Stream velocity, which increases as the volume of the water in the stream increases, determines the kinds of organisms that can live in the stream (some need fast-flowing areas; others need quiet pools). It also affects the amount of silt and sediment carried by the stream. Sediment introduced to quiet, slow-flowing streams will settle quickly to the stream bottom. Fast moving streams will keep sediment suspended longer in the water column. Lastly, fast-moving streams generally have higher levels of dissolved oxygen than slow streams because they are better aerated”

Increases in temperature or a reduction in dissolved oxygen adversely impacts sensitive, threatened, and endangered fish. Fish require different temperature and concentrations of dissolved oxygen based on species and life history stage. Oregon’s temperature and dissolved oxygen limits are based on the most sensitive species and the life history stage of those species at the location and season of concern. The temperature and dissolved oxygen concentrations of hydrologically connected waterbodies are known to be insufficient for the habitat of sensitive, threatened, and endangered fish. Additional heat or reduction in dissolved oxygen concentrations will further impact these species 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.

PROCEED WITH APPLICATION ON THE CONDITION THAT THE APPLICANT PROVIDES SUITABLE MITIGATION WATER. DEQ recommends that the applicant mitigate anticipated impacts to water quality for the habitat of sensitive, threatened, or endangered fish species by providing suitable replacement water. 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 the same aquifer, surface water mitigation will provide suitable mitigation.

a) **Mitigation obligation:** Prior to water use under this permit, the applicant shall provide mitigation water that is of no less volume than the consumptive portion of the permitted use. Mitigation water shall be sourced upstream of the point of appropriation, or the uppermost point on the stream at which impact occurs. If surface water is used for mitigation, it shall be instream for the June 1 – September 30 time period. The applicant should contact their OWRD caseworker to discuss flow mitigation options.

b) **b57:** Before water use may begin under this permit, a totalizing flow meter must be installed at each diversion point.

c) **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.

d) **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.

e) **Prohibited Activities:** Permittee shall 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). If the Department of Environmental Quality determines that pollution of waters of the state is occurring, the permit holder is not in compliance with ORS 468B.025(1), DEQ shall notify OWRD of the violation.

f) **Agricultural Water Quality Management Area Rules:** Permittee must comply with basin-specific Agricultural Water Quality Management Area Rules in OAR 603-095. Livestock management and cropping must protect riparian areas on the property, allowing site capable vegetation along streams to establish and grow to provide the following functions: shade (on perennial and some intermittent streams), bank stability, and infiltration or filtration of overland runoff.

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?

Refer to question 4.

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

DEQ Representative signature: Andrea Matzke Date: April 30, 2018

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