

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 #: R 88160 Applicant's Name: Iott, Gwen

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

Explain: The Yamhill Subbasin and tributaries are identified as water quality limited and needing TMDLs. A TMDL is established for phosphorous needed reductions. Salt Creek information is in Table 1.

Table 1 – TMDL & 303(d) Listings 2012

| Water Body | River Miles | Segment Length | Parameter | Season | Criteria | Beneficial Uses | Status | Supporting Data |
|------------|-------------|----------------|------------------|---------------------------|--|---|--|---|
| Salt Creek | 0 to 32.8 | 32.8 | Chlorophyll a | Summer | Reservoir, river, estuary, non-thermally stratified lake: 0.015 mg/l | Water supply; Water contact recreation; Aesthetics; Livestock watering; Fishing | Cat 5: Water quality limited, 303(d) list, TMDL needed | Summer values exceeded chlorophyll a standard (15 ug/l) |
| Salt Creek | 0 to 32.8 | 32.8 | 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 | 11.0 mg/l and < 95% saturation. 03/17/2007 to 04/27/2010, 20 of 21 3/16/07 and 4/27/10 at |
| Salt Creek | 0 to 32.8 | 32.8 | Dissolved Oxygen | Year Round (Non-spawning) | Cool water: Not less than 6.5 mg/l | Salmonid fish rearing; Resident fish and aquatic life | Cat 5: Water quality limited, 303(d) list, TMDL needed | < 6.5 mg/L. 06/21/2006 to 08/25/2008, 05/18/2007 to 05/26/2010, 08/18/2008 to 08/22/2008, May through October values exceeded dissolved oxygen standard |
| Salt Creek | 0 to 32.8 | 32.8 | Fecal Coliform | Fall Winter Spring | Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml | Water contact recreation | Cat 5: Water quality limited, 303(d) list, TMDL needed | exceeded fecal coliform standard (400) with a maximum value of 1600 |

| Water Body | River Miles | Segment Length | Parameter | Season | Criteria | Beneficial Uses | Status | Supporting Data |
|------------|-------------|----------------|-------------|--------------------|---|--|--|---|
| Salt Creek | 0 to 32.8 | 32.8 | Phosphorus | May 1 - October 31 | Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities. | Aesthetics | Cat 4A: Water quality limited, TMDL approved | May through October values exceeded TMDL phosphorus standard (70 ug/l) with a maximum of 330 ug/l |
| Salt Creek | 0 to 32.8 | 32.8 | Temperature | Summer | Rearing: 17.8 C | Anadromous fish passage; Salmonid fish rearing | Cat 5: Water quality limited, 303(d) list, TMDL needed | Summer |

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

Explain: Withdrawal could affect quantity and quality in critical summer months when temperatures are already too warm. Based on water availability, the cumulative withdrawal is likely to cause the waterbody to exceed temperature or other flow dependent parameters such as dissolved oxygen, and phosphorous Jul -Oct when water is not available and Jun when % natural stream flow is >25 cfs.

Table 2. Percent of natural flow (all values in cfs) 50% WAB 10/17/2017

| Watershed ID | Exceedance Level | Month | Natural Stream Flow | Consumptive Use | Con Use 5.8 AF | Con Use 5.8/% Natural Strm Flow | Expected Stream Flow | Reserved Stream Flow | Instream Requirement | Net Water Avail |
|--------------|------------------|------------|---------------------|-----------------|----------------|---------------------------------|----------------------|----------------------|----------------------|-----------------|
| 73562 | 50 | JAN | 345 | 18.7 | 19.07 | 6 | 326 | 0 | 0.4 | 326 |
| 73562 | 50 | FEB | 295 | 16.4 | 16.77 | 6 | 279 | 0 | 0.4 | 278 |
| 73562 | 50 | MAR | 239 | 13.8 | 14.17 | 6 | 225 | 0 | 0.4 | 224 |
| 73562 | 50 | APR | 142 | 6.1 | 6.47 | 5 | 136 | 0 | 0.4 | 135 |
| 73562 | 50 | MAY | 59.6 | 6.99 | 7.36 | 12 | 52.7 | 0 | 0.4 | 52.3 |
| 73562 | 50 | JUN | 29.5 | 14.5 | 14.87 | 50 | 15.1 | 0 | 0.4 | 14.7 |
| 73562 | 50 | JUL | 22.3 | 17.8 | not avail | not avail | 4.54 | 0 | 0.4 | 4.14 |
| 73562 | 50 | AUG | 11.9 | 14.2 | not avail | not avail | -2.3 | 0 | 0.4 | -2.7 |
| 73562 | 50 | SEP | 11.8 | 7.14 | not avail | not avail | 4.65 | 0 | 0.4 | 4.25 |
| 73562 | 50 | OCT | 16.1 | 1.18 | not avail | not avail | 14.9 | 0 | 0.4 | 14.5 |
| 73562 | 50 | NOV | 58.1 | 5.03 | 5.4 | 9 | 53 | 0 | 0.4 | 52.6 |
| 73562 | 50 | DEC | 314 | 17.3 | 17.67 | 6 | 297 | 0 | 0.4 | 296 |
| 73562 | 50 | ANN | 92900 | 8400 | 8405.8 | 9 | 84600 | 0 | 290 | 84300 |

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? Downstream impacts from diversion and release.

Temperature and dissolved oxygen are flow-related parameters. 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 phosphorus, and dissolved oxygen impairments. The assimilative capacity of a waterway is flow dependent. Reduced flows can increase the concentrations of parameters.

The waterbody is already limited for temperature in critical summer months(June-Sept). Any additional heat would further impact

this habitat. Flow reductions may impact the assimilative capacity of the waterbody, increasing the concentration of 303(d) listings such as dissolved oxygen, phosphorus.

The release of impounded water to surface waters may increase temperatures, impact levels of DO. The timing, duration and magnitude of such effects for temperature & DO is dependent on the season.

Release of impounded water must meet water quality standards (OAR 340-041) when discharged to surface waters. Water quality standards are developed for the protection of beneficial uses, such as, aquatic life, recreation, fish consumption.

Appropriation of reservoir fill is proposed for Nov 1 thru June 30. June is within the critical period for temperature. DEQ defines the critical period for temperature June 1 – September 30. Salt Creek is limited for Dissolved Oxygen Mar-Oct and Phosphorus May-Oct.

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

NO YES; recommend from Menu of Conditions

WRD Standard Conditions, such as, wq, b5, futile call, and riparian, are important for protecting water quality.

The standard available conditions do not protect water quality in full. Additional conditions follow:

1. 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).
2. **Applicaton Updates:** If the application is amended in a way that may limit water quality, DEQ shall be notified and given the opportunity to submit updated comments and conditions. DEQ shall be notified and given the opportunity to submit updated comments and conditions if applicant page 1 B. Description of Proposed Use Changes.
3. Livestock exclusion in support of bacteria reductions.
4. **DEQ 2300 :** Permittee is responsible for ensuring the pesticide application laws are met. A pesticide general permit, provides permit coverage for pesticide applications in or within three feet of water to control pests, weeds and algae, and nuisance animals. Entities with small-scale pesticide applications receive automatic coverage and only need to download a copy of the permit and adhere to the terms listed in order to satisfy permit terms. If contracted, applicators should be certified.
5. Water quality standards must not be violated by appropriation or releases from storage. Permittee must comply with OAR 340-041. A summary of the WQ standards and benchmarks are available upon request.
6. Permittee shall appropriate water during Nov 1 – May 31 and when the percent of natural or expected flow is <25.
7. Permittee should limit downstream release of impounded water to Nov 1 – Feb 28 and when Salt Creek instream flow requirement is met, unless under emergency situations.

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 4) above for 7) approval with conditions information.

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

DEQ Representative Signature: Nancy Gramlich Date: Oct 20, 2017

WRD Contact: Caseworker: Barbara Poage, 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.