

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 18008 Applicant's Name: Delma Sprauer

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

Explain: Butte Creek is listed for dissolved oxygen, temperature, biological criteria, *E. coli* and iron. A TMDL exists for the Molalla-Pudding subbasin and includes temperature, bacteria, pesticides, nitrate, and metals.

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

Explain: The groundwater review indicates that although the wells will be drawing from a confined aquifer, there is still hydraulic connection between the wells and Butte Creek. Since water is not available to be withdrawn from Butte Creek during much of the proposed months of use (June – November), withdrawals during that time could affect surface water quantity and quality in Butte Creek.

Temperature and dissolved oxygen are a flow-related parameter. 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 and dissolved oxygen impairments. The assimilative capacity of a waterway is flow dependent. Reduced flows can increase the concentrations of bacteria, pesticides, nitrate and metals.

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?

Threatened fish species potentially using Butte Creek during the proposed months of use for rearing and/or migration are Chinook, Coho, and Steelhead.

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 this waterbody 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.

The *E. coli* impacts may not result in the diminution of water quality for fish species. Oregon's *E. coli* concentration limits are based on human contact recreation standards, which is the most sensitive use for this parameter. Fish uses are less sensitive.

Flow reductions may impact the assimilative capacity of the waterbody, increasing the concentration of pesticides, nitrate and metals.

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 August 28, 2015 initial review conditions approval of the Well 3 but does not allow withdrawals from Well 1 or Well 2. This condition may be sufficient to protect water quality.

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 state or federal water quality standards due to reduced flows.

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?

The use is limited to Well 3 at a rate of 0.0977 CFS and does not allow additional withdrawals from Well 1 or Well 2.

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 state or federal water quality standards due to reduced flows.

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: October 20, 2015
Heather Tugaw

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