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-88155 **Applicant's Name:** Waibel Ranches, LLC

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

Explain: The applicant proposes to divert water from Sarvis Creek to store 108 AF in Sarvis Creek Reservoir. This in an enlargement over permit R-15534 which allows the diversion of water from Sarvis Creek to store 35.95 AF in Sarvis Creek Reservoir. Sarvis Creek, below the reservoir, flows half a mile before merging with the Crooked River. The Crooked River, below the confluence with Sarvis Creek, is 303d listed for dissolved oxygen (year round) and biological criteria (year round).

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

Explain: The reservoir is located in the channel of Sarvis Creek. By impounding and altering the flow regime of Sarvis Creek, the reservoir directly impacts Sarvis Creek. The reservoir is a half mile from the confluence of Sarvis Creek and The Crooked River. Diversion of flows from Sarvis Creek directly affects the flows on the Crooked River.

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 73.05 AF of proposed new storage is equivalent to .81 cfs diverted from March 1st through April 14th. This withdrawal rate represents less than 1% of the flow in the Crooked River (CROOKED R > DESCHUTES R - AB SAND CR) during this time period.

Water quality monitoring by the DEQ and others have identified the following impairments on the Crooked River below the withdrawal. Other impairments may also exist.

Dissolved Oxygen
Fish and other aquatic organisms require different concentrations of dissolved oxygen based on their species and life history stage. Oregon's dissolved oxygen standards are based on the most sensitive species and life history stage at the location and season of concern. Dissolved oxygen levels are affected by temperature, flow, nutrient loading, algae growth, and other factors. If dissolved oxygen drops to low enough levels, it can result in fish kills. In waterbodies where dissolved oxygen concentrations are known to be insufficient for the habitat of sensitive, threatened, and endangered fish, any additional reduction in dissolved oxygen concentrations would result in the diminution of habitat.

Biological Criteria
Oregon's biological criteria standards are based on the assemblage of species needed to maintain a healthy resident biological community. Resident biological communities are the local food webs that support fish. An altered flow regime may degrade the biological community and therefore result in the diminution of habitat of sensitive, threatened, or endangered fish species.

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

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

Because the amount of water to be diverted is de minimus, DEQ recommends approval with conditions. DEQ recommends that the applicant adhere to the following best management practices for reservoir management and maintenance.

Applicant shall maintain a **vegetated buffer strip** above the reservoir to trap sediment, nutrients and other pollutants before they enter the reservoir.

Applicant shall **limit polluting activities** near the reservoir or in areas that drain into the reservoir.

Applicant shall **exclude livestock** from the reservoir. The applicant may choose exclusion method. Alternative watering systems are available and may include access ramps, gravity flow, utility power, solar or wind power, and nose pumps.

Applicant shall carefully read and **follow label directions** when using aquatic herbicides.

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?

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

DEQ Representative signature: Date: 3/16/2016

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