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-87621 Applicant's Name: Greenberry Irrigation District

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

Explain: (See attached)

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

Explain: _____

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? (See attached)

4) Can conditions be applied to mitigate the impact of the use? ☐ NO ☐ YES

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

(See attached)

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: (See attached)

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

(See attached)

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

DEQ Representative signature: _____ Date: 11/22/10

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

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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 — Not withstanding 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.

DEQ Division 33 Application Review Sheet

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

   Yes. The Willamette River is listed for temperature from its mouth to RM 186. The Total Maximum Daily Load (TMDL), finalized by the DEQ in 2006 and approved by the U.S. EPA, establishes 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?

   Medium - High. DEQ's modeling indicates that river temperature is inversely related to flow during the summer. As flow is reduced, 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 due to nonpoint sources such as agriculture currently exceed the nonpoint allocations by quite a bit and the proposed 22 cfs flow withdrawal would add to this exceedance. It is likely that the potential for impact would be greatest during the months of September and October when flow is lower and salmon are rearing and/or spawning. The section of the Willamette River where the diversion will occur is designated salmon and steelhead spawning use from October 15 through May 15. The DEQ is more concerned about the use of "live flow" from the Willamette River than we would be for the use of stored water obtained via a contract with the Bureau of Reclamation.

3. Will the proposed use still result in diminution of water quality for the habitat of sensitive, threatened or endangered fish species?

   Yes. The 303(d) listing for temperature in the Willamette River is directly related to salmonid rearing, migration, and spawning. The river is currently too warm to fully support these beneficial uses.

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

   Potentially. In order to do so, the applicant would have to determine the precise impact of this proposed withdrawal on temperature by employing the Willamette temperature model which is available for download from DEQ's website. The Excess Thermal Load contributed by the withdrawal could be calculated by multiplying river flow by the temperature increase caused by the flow reduction. This impact could then be mitigated via riparian restoration or other mechanisms which would reduce the thermal load to the river. It is important to note that the impact of withdrawals tend to increase as on moves downstream. Therefore the maximum impact could be observed quite a bit downstream from the actual point of diversion.

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

   Yes. See response to #3.

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

   Yes. We would need to see some mechanisms to offset the impacts of this withdrawal on river temperature.

7. Your recommendation under OAR 690-033-0330(2)

   Approval with conditions. It is our preference that the applicant pursues the use of stored water via short or long-term contract with the Bureau of Reclamation before using this water right. If this water withdrawal request is approved by WRD, we recommend that it be for supplemental use only, to be used only if a short or long-term contract for stored water cannot be obtained from the Bureau of Reclamation.

   DEQ also recommends that if this water withdrawal request is approved by WRD, the water right be conditioned to allow diversion only when flows in the mainstem Willamette River exceed the ODFW recommended minimum flows.

Jeana Eastman

From: BAYHAM Chris [Bayham.Chris@deq.state.or.us]
Sent: Monday, November 22, 2010 10:17 AM
To: Jeana Eastman
Subject: S-87621 (Greenberry Irrigation District) Div. 33 Comments
Attachments: Div33Comment(DEQ)S-87621.pdf

Hi Jeana, here are our comments on S-87621. The hard copy will follow.

Chris Bayham | Willamette Basin Coordinator
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