

# ODFW 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 87731 Applicant's Name: Roger & Debora Bothwell

1) Will the proposed use occur in an area that may affect the essential habitat of sensitive, threatened, or endangered fish species?  
[690-33-330(1)].

NO  YES Species: Coho Status:  Sensitive  Threatened  Endangered

If YES, continue to question (2). If NO, you may comment by completing the public interest review sheet on the back of this page.

2) Stage or value at risk (check all that apply):  Spawning,  Incubation  Rearing  Passage  Habitat Value

3) Will the proposed use result in a LOSS in the essential habitat of THREATENED OR ENDANGERED SPECIES or a NET LOSS in the essential habitat of a SENSITIVE SPECIES?  NO  YES

A) Standard of NET LOSS applies to sensitive species statewide. [690-33-330(2)(b)]

B) Standard of LOSS applies to T or E species outside the Columbia Basin. [690-33-330(2)(a)]

4) Can conditions be applied to mitigate the impact to the essential habitat of a S, T or E species?  
 NO; skip to question 6.  YES

Which conditions are recommended? (select from Menu of Conditions) fishdiv33

5) If conditions cannot be identified to offset impacts to the essential habitat of S, T or E species, would the proposed use harm the species?  NO  YES [690-33-330(4)]

If YES, please explain:

6) If WRD determines that it is in the public's interest to approve a permit even if the impact cannot be mitigated what conditions do you recommend? (select from Menu of Conditions)

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

ODFW Representative signature: Laura S. Jackson Date: 10-18-2011



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

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WATER RESOURCES DEPT  
SALEM, OREGON

No. 2947 P. 5

ROSEBURG  
ODFW

3:49PM  
2011  
Oct. 19.

# FISH SCREENING CRITERIA FOR WATER DIVERSIONS

This summary describes ODFW fish screening criteria for all fish species.

Screen material openings for ditch (gravity) and pump screens must provide a minimum of 27% open area:

**Perforated plate:** Openings shall not exceed  $3/32$  or 0.0938 inches (2.38 mm).

**Mesh/Woven wire screen:** Square openings shall not exceed  $3/32$  or 0.0938 inches (2.38 mm) in the narrow direction, e.g.,  $3/32$  inch x  $3/32$  inch open mesh.

**Profile bar screen/Wedge wire:** Openings shall not exceed 0.0689 inches (1.75 mm) in the narrow direction.

Screen area must be large enough to prevent fish impact. Wetted screen area depends on the water flow rate and the approach velocity.

**Approach velocity:** The water velocity perpendicular to and approximately three inches in front of the screen face.

**Sweeping velocity:** The water velocity parallel to the screen face.

**Bypass system:** Any pipe, flume, open channel or other means of conveyance that transports fish back to the body of water from which the fish were diverted.

**Active pump screen:** Self cleaning screen that has a proven cleaning system.

**Passive pump screen:** Screen that has no cleaning system other than periodic manual cleaning.

Screen approach velocity for ditch and active pump screens shall not exceed 0.4 fps (feet per second) or 0.12 mps (meters per second). The wetted screen area in square feet is calculated by dividing the maximum water flow rate in cubic feet per second (1 cfs = 449 gpm) by 0.4 fps.

Screen sweeping velocity for ditch screens shall exceed the approach velocity. Screens greater than 4 feet in length must be angled at 45 degrees or less relative to flow. An adequate bypass system must be provided for ditch screens to safely and rapidly collect and transport fish back to the stream.

Screen approach velocity for passive pump screens shall not exceed 0.2 fps or 0.06 mps. The wetted screen area in square feet is calculated by dividing the maximum water flow rate by 0.2 fps. Pump rate should be less than 1 cfs.

*For further information please contact:*

Statewide Fish Screening Coordinator  
Oregon Dept. Fish and Wildlife  
3406 Cherry Avenue NE  
Salem, OR 97303  
(503) 947-6229

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