



## OREGON DEPARTMENT of FISH and WILDLIFE

### FISH SCREENING PROGRAM

#### SMALL PUMP SCREEN SELF CERTIFICATION

**FOR PERMITS OR TRANSFERS ISSUED PRIOR TO FEBRUARY 1, 2011**

**If the permit or transfer final order was issued on or after February 1, 2011, you are required to have your fish screen inspected and approved by Oregon Department of Fish and Wildlife staff.**

The Oregon Water Resources Department in coordination and cooperation with the Oregon Department of Fish and Wildlife includes screen requirements on pumps to protect fish as a condition of many surface water and/or reservoir water right permits. This is done in accordance with ORS 537.153.

The Oregon Department of Fish and Wildlife does not usually inspect small pump screens at **pumped diversions less than 225 gpm** (gallons per minute), but furnishes the following general fish screening criteria information to the water right permit holder:

- **Screen material open area** must be at least 27% of the total wetted screen area.
- **Perforated plate:** Circular screen face openings must not exceed 3/32 or 0.0938 inch (2.38 mm) in diameter.
- **Mesh/Woven wire screen:** Square screen face openings must not exceed 3/32 or 0.0938 inch (2.38 mm) on a diagonal.
- **Profile bar screen/Wedge wire:** Slotted screen face openings must not exceed 0.0689 inch (1.75 mm) in the narrow direction.
- **Screen area** must be large enough not to cause fish impact. The wetted screen area required depends on the water approach velocity.
- **Approach velocity** is the water velocity perpendicular to and upstream of the vertical projection of the screen face.
- **An Active pump screen** is a self-cleaning screen that has a proven automatic cleaning system. The **screen approach velocity for active pump screens** must not exceed 0.4 ft/s (feet per second) or 0.12 m/s (meters per second). The minimum wetted screen area needed in square feet is calculated by dividing the maximum water flow rate in cubic feet per second (1 cfs = 449 gpm) by 0.4 ft/s.
- **A Passive pump screen** is a screen that has no automated cleaning system. **Screen approach velocity for passive pump screens** must not exceed 0.2 ft/s or 0.06 m/s. The minimum wetted screen area needed in square feet is calculated by dividing the maximum water flow rate in cubic feet per second by 0.2 ft/s.
- **Pump screen depth:** The screen must be submerged at least one screen radius below the minimum water surface with a minimum of one screen radius between the screen bottom and the water bottom or constructed surface.

*For further information on fish screening please contact:*

Alan Ritchey: 503-947-6229  
Alan.D.Ritchey@state.or.us



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As evidence of having met fish screen installation requirements, please provide the information requested below, sign the certification, and send copies to:

**Oregon Water Resources Department, and  
Water Rights Section,  
725 Summer Street NE, Suite A,  
Salem, OR 97301-1271.**

**Alan Ritchey  
Oregon Dept. Fish and Wildlife  
3406 Cherry Ave NE  
Salem, OR 97303**

Water right permit/certificate number: \_\_\_\_\_ Amount of water diverted \_\_\_\_\_  
Stream: \_\_\_\_\_ Tributary to: \_\_\_\_\_  
Location (GPS if available): \_\_\_\_\_  
Screen Length: \_\_\_\_\_ Screen Diameter: \_\_\_\_\_  
Is pump screen self-cleaning: \_\_\_\_\_

If screen is not a cylinder shape, please provide a diagram and measurements.

**Certification:**

I certify that my permit or transfer final order was issued prior to February 1, 2011.

I certify that my small pumped diversion of less than 225 gpm meets fish screening criteria, and that I will maintain it to comply with regulatory criteria. I also understand that should fish screening standards change, I may be required to modify my installation to meet applicable standards.

Applicant Signature: \_\_\_\_\_ Date: \_\_\_ / \_\_\_ / \_\_\_ WRD File #: \_\_\_\_\_

Printed Name and Address: \_\_\_\_\_

Phone: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_