

# ODFW Job Safety Analysis Worksheet



**Date:** 12-29-2015

**Last Updated:** 1-13-16

**Title of Job/Operation:** Fish Salvage Operations

**PPE Equipment:** Personal Flotation Device, Gloves, Life Ring, Extension Ladder, Fall Protection and Hard Hat.

**Employee Name and Job Title:** Ken Taber, FWTS

**Supervisor/Manager:** Brett Boyd

**ODFW Facility:** South Santiam / Foster Fish Facility

**Approved By/ Date:** Brett Boyd 1/5/16

Sequence of Basic Job Steps	Potential Hazards or Accidents/Physical Demands/Environmental Hazards	Recommended Safe Job Procedures/PPE
Before Fish Salvage	<p><b>Potential Hazards:</b> Struck-By, Struck-Against, Contact-By, Contact-With, Caught-In, Caught-On, Caught-Between, Fall-To-Surface, Fall-To-Below, Overexertion, Bodily Reaction, Overexposure, Trip.</p> <p><b>Physical Demands:</b> Walking, Reaching Close-Up-Out, Standing, Grasping, Bending, Pushing, Pulling, Straining, Twisting, Climbing, Balance, Focus, Steering</p> <p><b>Environmental Hazards:</b> Cold, Weather, Heat, Uneven Ground.</p>	<ul style="list-style-type: none"> <li>Once salvage is scheduled, notify Rob Fitzmaurice USACE, Elise Kelly ODFW, and Hatchery Coordinator.</li> <li>The presort pool should be swept prior to a shutdown to try and remove as many fish as possible.</li> <li>Once the presort pool has been swept and cleared of fish, secure the brail and crowder in the up position.</li> <li>Insure that hatchery staff is current on the USACE-HECP Affected Person Training.</li> <li>Refer to relevant JHA's during safety meeting prior to salvage.</li> </ul> <p><i>(See Crowder Operations JHA)</i></p>
Lock Out / Tag Out HECP, Principal Authorized Individual	<p><b>Potential Hazards:</b> Contact-By, Contact-With, Caught-In, Caught-On, Fall-To-Surface, Fall-To-Below, Overexertion, Bodily Reaction, Overexposure, Trip.</p> <p><b>Physical Demands:</b> Walking, Reaching Close-Up-Out, Standing, Grasping, Bending, Twisting, Climbing, Balance, Pulling, Pushing, Squatting, Kneeling, Carrying, Focus.</p> <p><b>Environmental Hazards:</b> Cold, Weather, Heat, Uneven Ground, Dust, Vapors/Mist, Water, Wet, Insects/Animals, Slippery.</p>	<p>Rob Fitzmaurice from the USACE maintenance staff is the Principal Authorized Individual (PAI). ODFW staff is the Affected Person (AP). Once the PAI arrives at the trap, the AP will go around with the PAI and secure water sources valves, alarms, and the HMI panel. Once the items have been locked out tagged out, the AP must apply their personal lock on to the lock box and sign in to the Safe Clearance Sign in Sheet.</p> <p><b>Once the presort pool has been swept and cleared of fish, secure the brail and crowder in the up position. Once Locked out the equipment is in operational and the fish will be trapped behind the crowder.</b></p> <p><i>(See Vault Entry JHA, Ensure the equipment needed for fish salvage is in place before moving to the next step, Fall Protection, ladders are in place, buckets with rope, truck with portable tank, etc.)</i></p>

<p>Removing Fish from the Ladder / Entering/Exiting the fish ladder</p>	<p><b>Potential Hazards:</b> Contact-By, Contact-With, Caught-In, Caught-On, Fall-To-Surface, Fall-To-Below, Overexertion, Bodily Reaction, Overexposure, Trip.  <b>Physical Demands:</b> Walking, Reaching Close-Up-Out, Standing, Grasping, Bending, Twisting, Climbing, Balance, Pulling, Pushing, Squatting, Kneeling, Carrying, Focus.  <b>Environmental Hazards:</b> Cold, Weather, Heat, Uneven Ground, Dust, Vapors/Mist, Water, Wet, Insects/Animals, Slippery. Weather, Heat, Uneven Ground.</p>	<p>Entry into the lower fish ladder is located next to the entry gate inside the dam. An 8ft step ladder will be used to access the fish ladder. Two hatchery personnel will be present when entering the lower section. You must climb over the guard railing and grasp the ladder. The ladder will be fastened to the railing with rope or straps. Maintain three points of contact while using the ladder. Once entry has been made, communicate with the other staff member, and proceed with the fish salvage. A hard hat must be used during the salvage. Proceed up the ladder to the base of the new ladder, using a dip net to capture fish along the way. The person above will lower a bucket down on a rope to place the fish into.</p>
<p>Drain the presort pool</p>	<p><b>Potential Hazards:</b> Contact-By, Contact-With, Caught-In, Caught-On, Fall-To-Surface, Fall-To-Below, Overexertion, Bodily Reaction, Overexposure, Trip.  <b>Physical Demands:</b> Walking, Reaching Close-Up-Out, Standing, Grasping, Bending, Twisting, Climbing, Balance, Pulling, Pushing, Squatting, Kneeling, Carrying, Focus.  <b>Environmental Hazards:</b> Cold, Weather, Heat, Uneven Ground, Dust, Vapors/Mist, Water, Wet, Insects/Animals, Slippery. Weather, Heat, Uneven Ground.</p>	<ul style="list-style-type: none"> <li>• See Vault Entry JHA</li> <li>• After reviewing the JHA for vault entry, enter the west diffuser vault. The presort drain is located inside and is a wheeled handled valve. Open the valve to drain the presort pool.</li> <li>• The drain for the brail is located in the east diffuser vault. It is the Yellow handled ball valve, open to drain the brail channel.</li> </ul>
<p>Removing Fish from the Presort pool / Entering/Exiting the presort pool</p>	<p><b>Potential Hazards:</b> Contact-By, Contact-With, Caught-In, Caught-On, Fall-To-Surface, Fall-To-Below, Overexertion, Bodily Reaction, Overexposure, Trip.  <b>Physical Demands:</b> Walking, Reaching Close-Up-Out, Standing, Grasping, Bending, Twisting, Climbing, Balance, Pulling, Pushing, Squatting, Kneeling, Carrying, Focus.  <b>Environmental Hazards:</b> Cold, Weather, Heat, Uneven Ground, Dust, Vapors/Mist, Water, Wet, Insects/Animals, Slippery. Weather, Heat, Uneven Ground.</p>	<p>Entry into the presort pool will be near the head end of the pool. With the crowder forward, screen in the up position, and the brail secured in the up position. PPE will include a hard hat and fall protection. You must use a step ladder to climb onto the crowder. Before entering the crowder, the staff member must secure their fall protection lanyard. Step on to the crowder and locate the extension ladder towards the rear of the crowder. The extension ladder must be tied off at the top of the ladder. Maintain three points on contact and descend into the presort pool. Two staff members</p>

		<p>must be present when entering the pool. Maintain verbal communication. Once the staff member has reached the bottom, they may detach the lanyard and start the salvage operation. A dip net will be used to catch stranded fish. A bucket will be lowered down to place the fish into. Continue salvage until the all fish have been removed. When exiting, attach the lanyard, and use the extension ladder to climb out while maintaining three points of contact. Once exiting has been completed, remove the fall protection and proceed with salvage.</p>
<p>Post Fish Salvage / Clean up</p>	<p><b>Potential Hazards:</b> Contact-By, Contact-With, Caught-In, Caught-On, Fall-To-Surface, Fall-To-Below, Overexertion, Bodily Reaction, Overexposure, Trip.  <b>Physical Demands:</b> Walking, Reaching Close-Up-Out, Standing, Grasping, Bending, Twisting, Climbing, Balance, Pulling, Pushing, Squatting, Kneeling, Carrying, Focus.  <b>Environmental Hazards:</b> Cold, Weather, Heat, Uneven Ground, Dust, Vapors/Mist, Water, Wet, Insects/Animals, Slippery. Weather, Heat, Uneven Ground.</p>	<p>Remove the extension ladder and strap. Store fall protection in the locker, clean/dry as needed. Stow ladders, buckets, ropes, etc. Close the drains in the West and East Diffuser Vaults (<i>see Vault Entry JHA</i>). Ensure all equipment and tools have been cleared of the work area. Take your locks off the lock box and sign off of the Safe Clearance Sign in sheet. Notify the USACE PAI (Rob Fitzmaurice) of completion.</p>

Environmental Hazards

Inside X	Outside X	Cold X
Heat X	Wet X	Icy X
Dust	Vapors/Mist	Vibration X
Noise (>85dbTWA)	Noise(<85db TWA) X	Other

Physical Demands of Task(s)

Lifting X	Grasping X	Pushing X	Pulling X	Sitting	Reaching X	Climbing X
Stooping X	Bending X	Kneeling X	Standing X	Squatting X	Other	
Walking X	Throwing	Twisting X			Lift X	