

## **Environmental Regulatory Compliance Efforts by the Portland Water Bureau Briefing Overview for the Public Utility Board April 4, 2017**

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### **1. National Pollutant Discharge Elimination System (NPDES) Individual Wastewater Discharge Permit**

- Regulates the sporadic discharge of potable water into natural waterways from main breaks and dewatering/discharges for maintenance activities.
- PWB's permit is specific to potable water system -- independent of BES stormwater and wastewater treatment plant permits.
- Addresses permissible levels of Chlorine, pH and (for certain waterways), Phosphorus.
- Requires daily monitoring when discharging and onsite treatment to dechlorinate.
- Requires monthly reporting to DEQ.

### **2. Bull Run Water Supply Habitat Conservation Plan (HCP)**

#### **Background**

- From 1998 to 2005 five northwest anadromous fish species were listed as threatened in the Lower Columbia River Basin under the federal ESA (Chinook salmon, coho salmon, steelhead, chum salmon and Pacific Eulachon).
- PWB is subject to mitigation requirements because of the effects of the drinking water system on ESA-listed fish in the Bull Run basin.
- PWB is also subject to federal water quality standards for impacts of water system and operations on water temperature in the lower Bull Run River under the Clean Water Act.
- ESA Section 10 allows for a compliance approach which includes the creation of a habitat conservation plan (HCP).
- PWB began its pursuit of an HCP in late-1990's in anticipation of the listings.
- HCP provides the most control over compliance approach and long-term (50-year) regulatory certainty.
- Terms of HCP were negotiated with National Marine Fisheries Service, Department of Environmental Quality and Oregon Department of Fish and Wildlife.
- Several partner agencies and fisheries NGOs in the Sandy River Basin are party to the negotiations and approach (Sandy River Basin Partners).
- Proposed habitat benefits of mitigation measures and evaluation of measures accomplished via database and model called the Ecosystem Diagnosis and Treatment model EDT.
- Incidental Take Permit issued 2009, HCP implementation began Jan 1, 2010.

#### **HCP Elements**

- 49 measures to improve flow, temperature and habitat in lower Bull Run river and throughout Sandy River Basin.
- No fish passage into upper Bull Run, but obligation to make habitat improvements throughout Sandy River Basin outside of Bull Run drainage.
- One large capital project (Dam 2 Multi-level Intake Project), several smaller capital projects including engineered wood habitat structures, small fish passage projects and

land/conservation easements acquisitions throughout Sandy River Basin, and several O&M projects (gravel placement, monitoring, and partner projects like Sandy Delta restoration).

- Also cash obligations for projects throughout Sandy River Basin (\$9 million over 20 years).
- Projects front-loaded in first 15 years of the schedule to maximize benefits over the course of the plan.

## **Implementation**

- Full compliance with Incidental Take Permit conditions since HCP began in 2010

### Significant Bull Run Measures Implemented

- Meeting all minimum flow requirements in the lower Bull Run River.
- Walker Creek culvert replacement to improve fish passage in the lower Bull Run.
- Removed Dam 2 spillway rock weir improving water temperatures and fish passage.
- Placement of 1,200 cubic yards of gravel per year for the first five HCP years and 600 cubic yards of gravel per year since then to increase spawning habitat for fish.
- Dam 2 north tower improvements completed in 2014 enabling cold water temperature management for lower Bull Run and for distribution system.
- Acquired 33 acres of land in the lower Bull Run credited towards HCP easements targets

### Significant Sandy Basin Measures Implemented

- Established conservation easements on private land totaling 276 acres. Initial 2020 target was 281 acres and 2025 target was 373 acres but habitat values on acquired easements have been higher than planned and easements program will likely be completed by 2020.
- Finished 4 HCP measures for the placement of large wood structures to improve fish habitat. Monitoring streams before and after restoration work to determine project effectiveness.
- Provided funding (\$3.7 million) to complete fish passage improvements on Cedar Creek opening 12 miles of stream to fish access.
- Completed two fish ladders on Alder Creek opening 5.5 miles of stream for fish.
- Partnered with Corps of Engineers to remove the Sandy River Delta Dam to open the historic mile-long section of the Sandy River.
- \$880,000 of Habitat Fund dollars distributed to fund 12 restoration projects in basin.

## **3. Federal Energy Regulatory Commission Requirements for the Bureau of Hydroelectric Power**

The Portland Hydroelectric Project was constructed and currently operates under a license from the Federal Energy Regulatory Commission (FERC), and permits from both the Oregon Water Resources Department (OWRD) and the US Forest Service. As a condition of the FERC license, in 1984, the City also entered into an agreement with the Oregon Department of Fish and Wildlife (ODFW) to mitigate for the loss of fish habitat caused by the construction of the City's Headworks Diversion Dam in 1924. Through that agreement, the project pays the ODFW for the annual off-site rearing of 32,000 pounds of fish smolts at ODFW's Clackamas River Fish Hatchery. Those spring Chinook salmon and winter steelhead smolts are then released into the Sandy and/or Clackamas River systems at the ODFW's discretion.