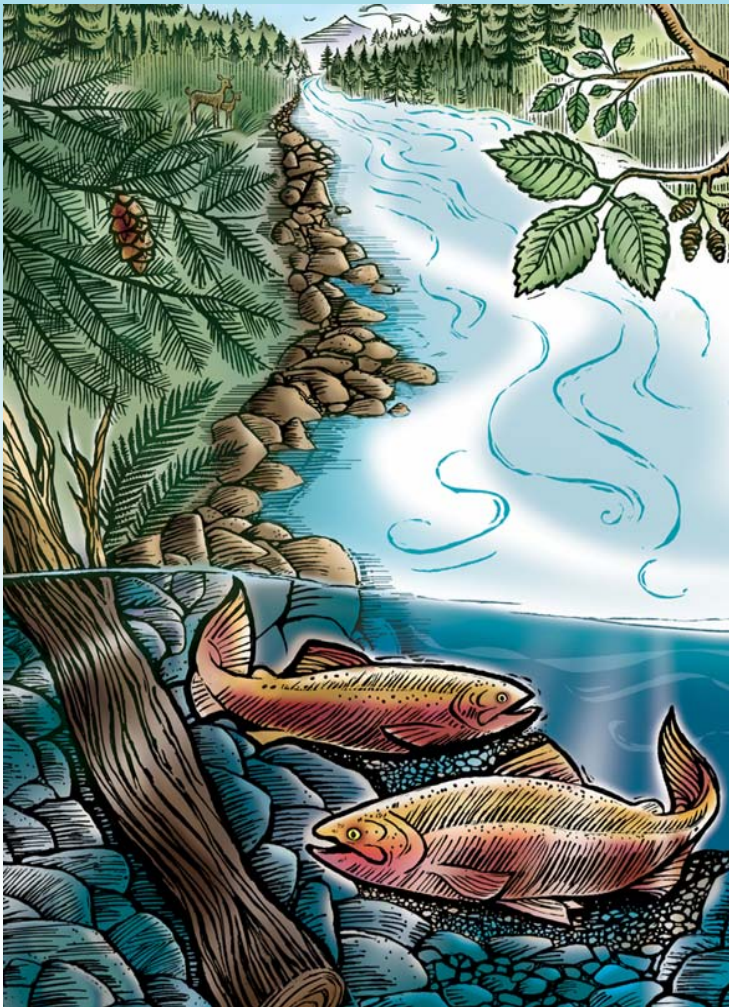


BULL RUN WATER SUPPLY HABITAT CONSERVATION PLAN



Edward Campbell
Resource Protection and
Planning Director

September 24, 2008

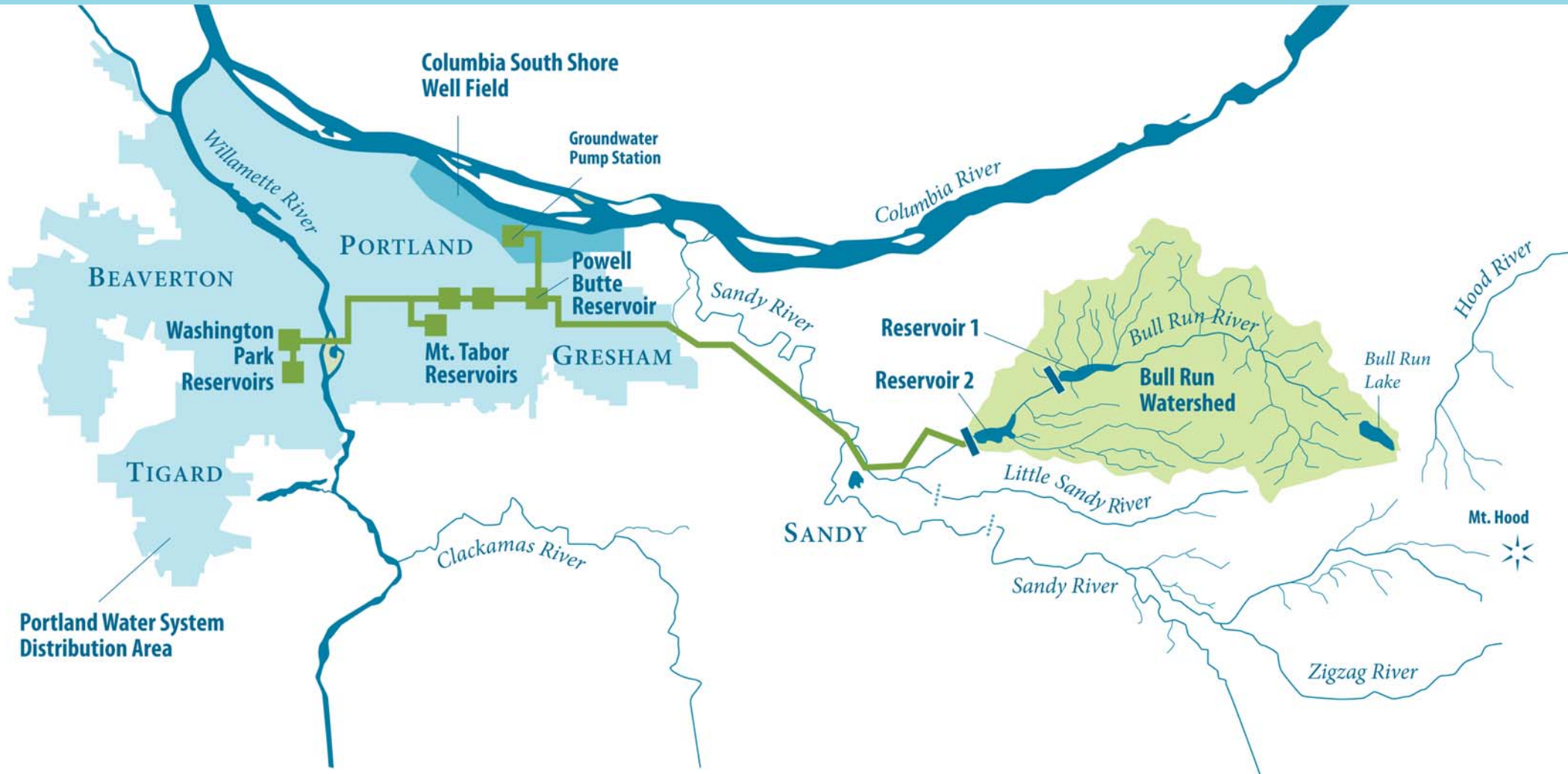


Today's Presentation

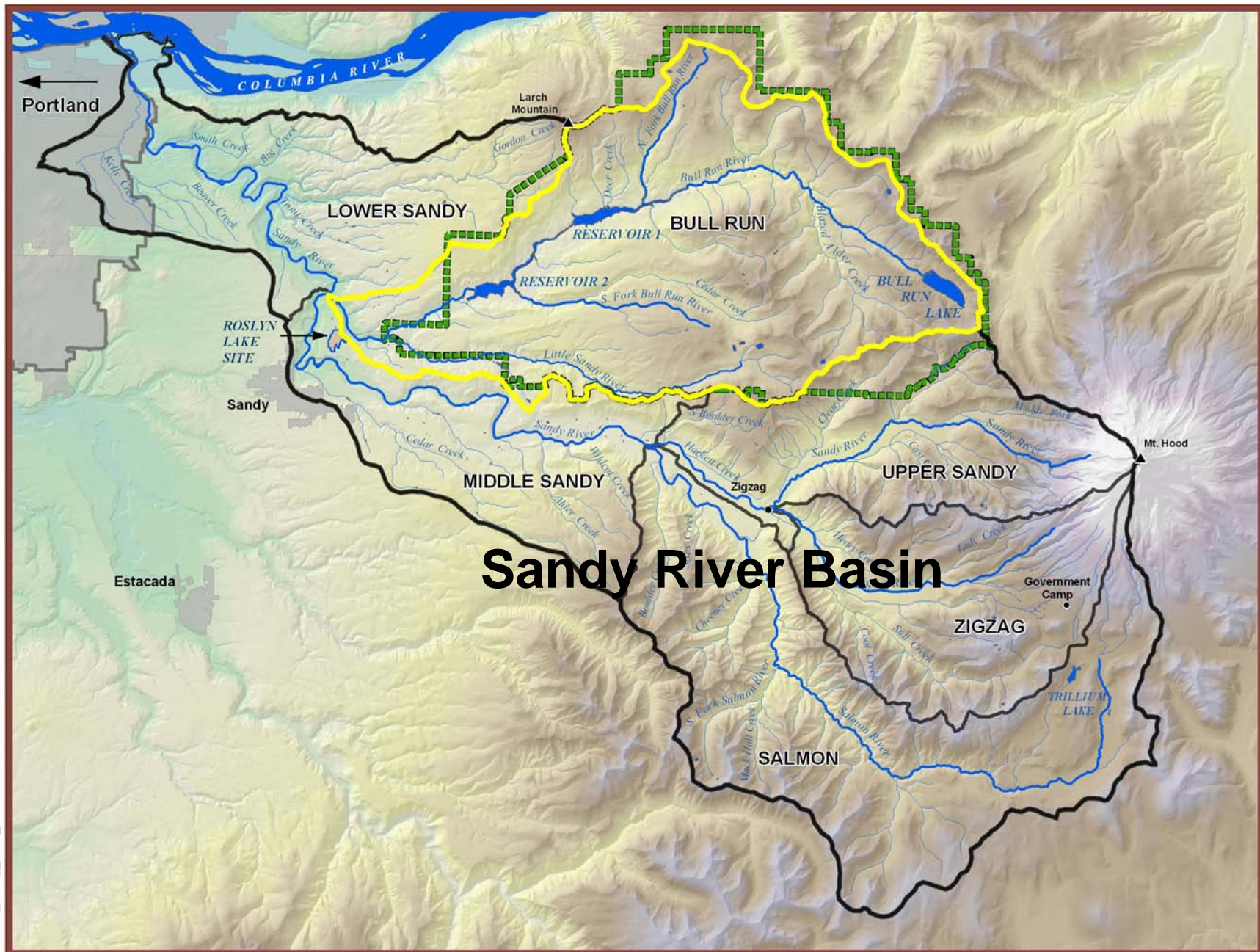


- **Portland's Role in the Sandy River Basin**
- **Why the City is implementing an HCP**
- **What's in the HCP**
- **Costs and Rate Impacts**
- **Collaborative Planning Approach**

Portland Water Supply System



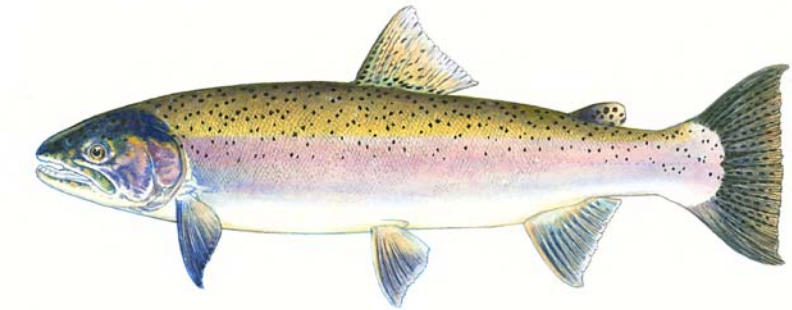
Bull Run and Sandy River Basin



Threatened Sandy River Basin Fish

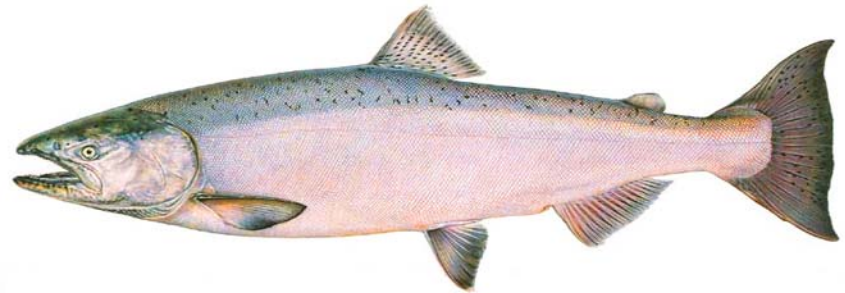
Steelhead

(listed in 1998)



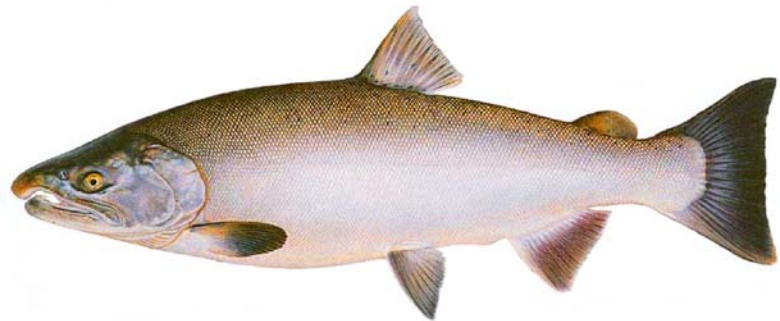
Fall & Spring Chinook Salmon

(listed in 1999)



Coho Salmon

(listed in 2005)



Bull Run Water System Impacts on Fish



FLOW - Water storage and summer diversions reduce stream flow

TEMPERATURE - Water temperatures are too high below the water intake



HABITAT – Dams block fish access, and capture spawning gravel and large woody debris

Portland's Regulatory Approach: a Habitat Conservation Plan



- 2005 Council directed PWB to develop
- 50-year agreement with the National Marine Fisheries Service (division of NOAA)
- City mitigation commitments in return for regulatory certainty – **Incidental Take Permit**

HCP Mitigation Measures

Flow – release water to support spawning and rearing of fish

Temperature – modify structures and operations to provide cooler water

Habitat – protect and restore habitat in and around the lower Bull Run River and other Sandy River basin streams--

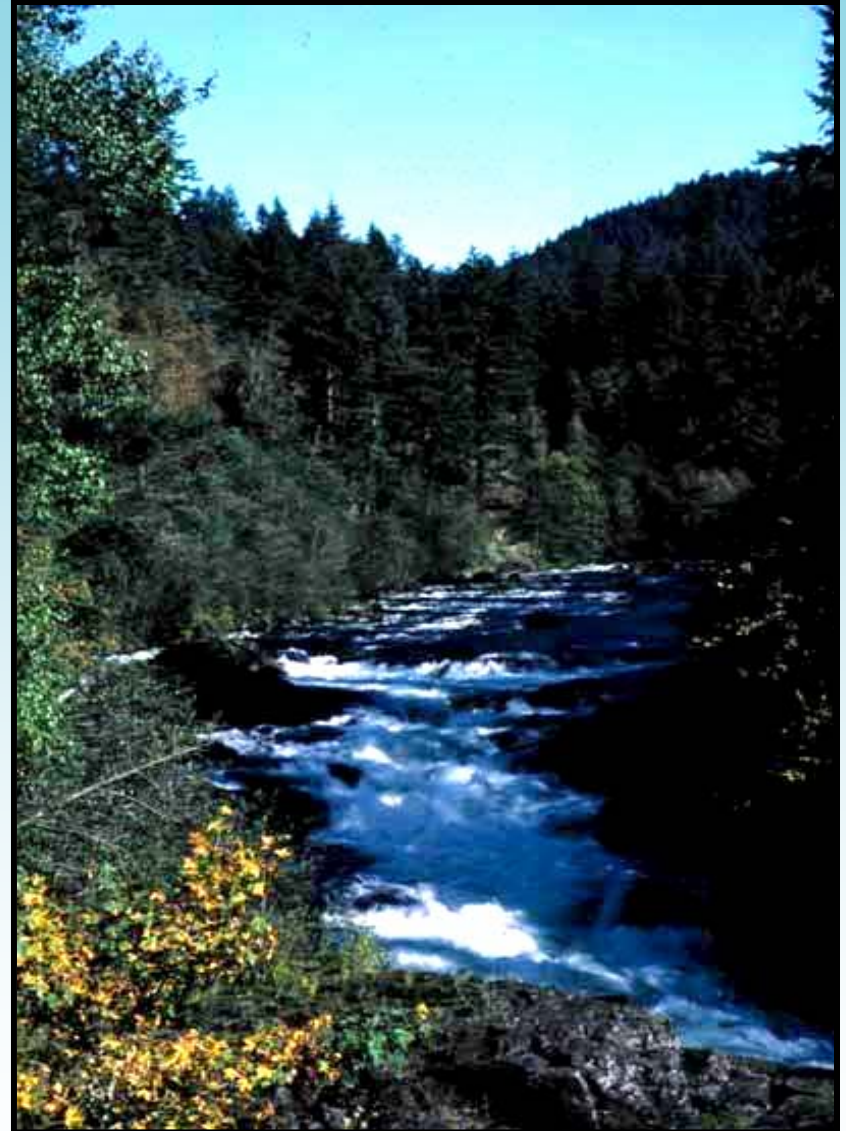
No fish passage into upper Bull Run



Summer flow releases provide habitat for fish rearing



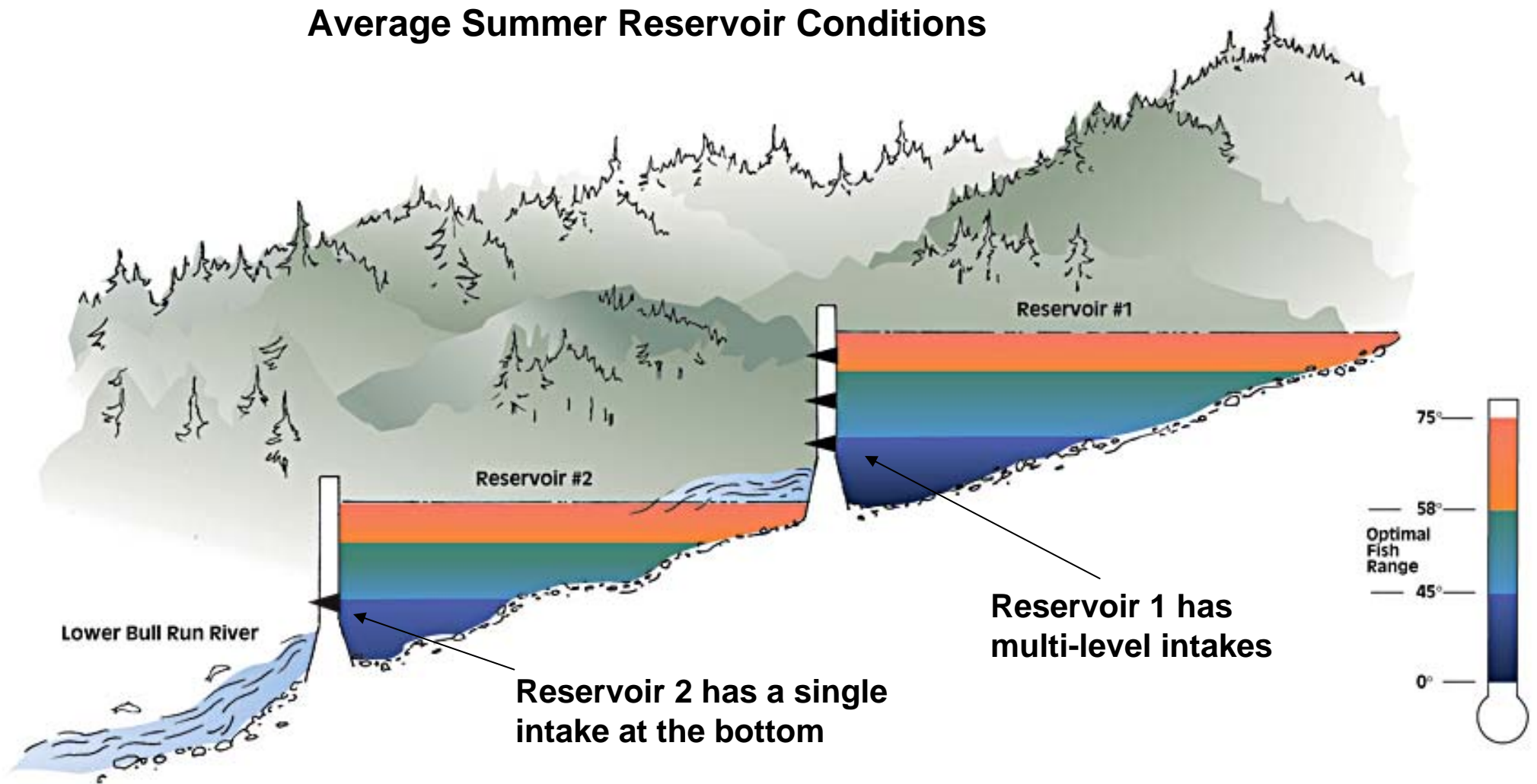
Before Flow Releases



After Flow Releases

Temperature Management Strategy — “Bank” cold water so it can reduce stream temperatures in late summer

Average Summer Reservoir Conditions



Habitat Restoration Projects

- Gravel and wood placements in lower Bull Run River and other Sandy Basin streams
- Fish passage projects outside of Bull Run
- Working with property owners to protect privately owned lands on streams with conservation easements



Evaluation and Monitoring



Monitoring:

Document compliance and verify progress

Research:

Assist in tracking fish population trends

Adaptive management:

Guide response if modified approach is needed

HCP Costs and Rate Impacts

TOTAL ESTIMATED COSTS IN 2008 DOLLARS	\$	93,208,477	
	Rate Impacts	50-YR Total	Annual Average
		2.08%	0.04%

CUSTOMER COSTS	50-YR Total	Annual	Monthly
Costs to Typical Residential Customer	\$94.02	\$1.81	\$0.15
Costs to Medium Commercial Customer	\$2,686.37	\$51.66	\$4.31
Costs to Low Income Residential Customer	\$40.30	\$0.77	\$0.06

Collaborative Approach: Sandy River Basin Partners



- 17 government & non-profit organizations
- Basin-wide characterization report
- Compile and share data
- Identify restoration actions
- Secure/leverage funding
- Coordinate on basin-wide mitigation

Sandy River Basin Partners



- **Clackamas County**
- **Columbia Land Trust**
- **East Multnomah Soil and Water Conservation District**
- **Multnomah County**
- **Nature Conservancy**
- **National Marine Fisheries Service**
- **Northwest Steelheaders**
- **Oregon Department of Fish and Wildlife**
- **Oregon Department of Environmental Quality**
- **Oregon Trout**
- **Portland General Electric**
- **Portland Water Bureau**
- **Sandy River Basin Watershed Council**
- **USDI Bureau of Land Management**
- **Mt. Hood National Forest, USDA Forest Service**
- **U.S. Fish and Wildlife Service**
- **Western Rivers Conservancy**

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www.portlandonline.com/water/hcp

www.sandyriverpartners.org

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