Willapa Bay Hatchery Evaluation



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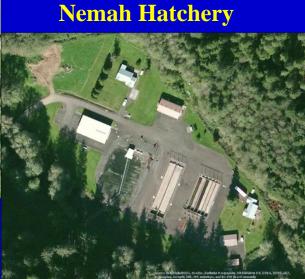
Presentation Overview

- Background
- Production
- Infrastructure needs
- Hatchery reform
- Opportunities
- Summary

Willapa Bay Hatcheries - Background



Naselle Hatchery



Forks Creek Hatchery

Hatchery	Year Built	FTE's	Biennial Budget	Funding Source (GF-S/DJ)	Capitol Assessment
Naselle	1980	3.5	\$1.2 M	78%/22%	Completed
Nemah	1953	2.39	\$545 K	85%/15%	2021-2023
Forks Creek	1899	2.41	\$518 K	86%/14%	Completed

Willapa Bay Hatcheries - Production

Species	Naselle	Nemah	Forks Creek	Total
Chinook	2,500,000	3,300,000	350,000	6,150,000
Coho	1,400,000	-	300,000	1,700,000
Chum	300,000	300,000	300,000	900,000
Steelhead	75,000	-	40,000	115,000
Rainbow Trout	-	19,000	4,000	23,000









Commission Presentation August 5, 2016

Willapa Bay Hatcheries - Production

Volunteer Cooperatives

Species	Naselle	Forks Creek	Total
Chinook			
Coho	450,000	750,000	1,200,000
Chum		200,000	200,000
Steelhead		25,000	25,000

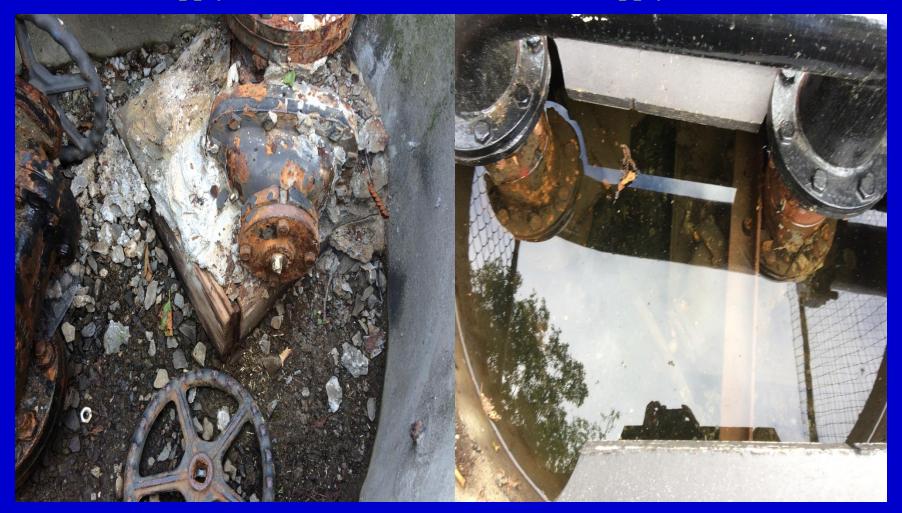
Naselle Hatchery - Needs

- High risk for catastrophic failure due to failing infrastructure
 - Crusher Creek and Naselle River intakes and supply lines
 - Sediment removal ponds
 - Water pumping inefficiencies
 - Adult holding
 - Fish ladder and weir
 - Incubation/Office building
 - Raceways and ½ acre ponds
 - Pollution abatement pond

Naselle Hatchery - Issues

Water Supply Valve Pond #5

Water Supply Valve Pond #1



Naselle Hatchery - Renovation

- Final report for renovation sent to OFM in June 2016
 - Initial cost estimates prepared in 2007, \$14 M
 - Predesign phase
 - Cost ~ \$23 M
 - Funding to move to design and permitting phase
 - Rebuild
 - New intakes, screening, pumps, settling ponds, and supply lines
 - (14)10'x100' and (10) 20'x120' raceways
 - Incubation room and abatement pond
 - Bridge weir, fish ladder with sampling and presorting area, and adult pond
 - Reuse and recycled water

Nemah Hatchery - Issues

- Weir
- Intake
- Adult holding pond
- Adult trapping
- Upgrade supply lines
- Bridge
- Raceways
- Scheduled for predesign in 2021-23 fiscal years
- Low stream flow in summer months

Nemah Hatchery - Issues

Nemah Weir



Forks Creek Hatchery – Issues

- Possible weir on mainstem Willapa River
- Supply lines to raceways
- Replace fiberglass raceways
- Upgrade pump intake, remove siphon intake and adjacent barrier dam
 - WCRI project \$4.4 M
- Adult holding, trapping, sorting, and pollution abatement ponds upgraded in 2014

Hatchery Reform

- Integration rates
- Proportion of hatchery fish on spawning grounds for Chinook stocks
- Monitoring and evaluation

Willapa Bay

Chum

- Low cost
- Rearing space
- Off station releases and/or increased RFEG participation
- Prey base for Chinook, Coho and Steelhead
- Spring Chinook
 - Provide spring and early summer fisheries
 - Net pen release
 - Impacts to native species

Summary

- Infrastructure
 - Naselle Hatchery
 - Renovation
 - Nemah Hatchery
 - Forks Creek Hatchery
 - Evaluation of weir for mainstem Willapa River
- Hatchery reform
- Other opportunities
 - Chum
 - Spring Chinook

