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May 9, 2023

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch

SUBJECT: Update on Prosser Hatchery

BACKGROUND:

Presenter: Michael Fiander, hatchery manager; Joe Blodgett, project manager; Charlie Strom, Yakima Basin production coordinator, Yakama Nation Fisheries, Confederated Tribes and Bands of the Yakama Nation; Andy Traylor, fish and wildlife administrator, Bonneville Power Administration

Summary: Michael, Joe and Charlie will provide an overview of the new facilities at Prosser Hatchery, which supports coho and Chinook production goals. The Yakama Nation has operated facilities at Prosser for nearly three decades to demonstrate the site's feasibility to produce coho and Chinook and recondition steelhead kelts.

Relevance: In 2020, the Council approved the *Revised Master Plan for Yakima Subbasin Summer- and Fall-run Chinook, Coho Salmon and Steelhead (Project #1988-115-25, Yakima River Design and Construction-Yakima/Klickitat Fisheries Project)*, of which several artificial production programs are supported at Prosser Hatchery.

In addition, as part of *Project #2008-527-00, Zone 6 Fishery (Prosser Hatchery Upgrades)*, the Council approved capital improvements and upgrades to acclimation infrastructure at Prosser Hatchery to support fall Chinook production under contract by the U.S. Army Corps of Engineers

for hatchery mitigation associated with the John Day Dam and impacts to fish. These decisions will allow the Prosser Hatchery to support hatchery programs that serve to meet mitigation and conservation objectives.

Workplan: Fish and Wildlife Division work plan 2023; Program planning & coordination.

Background: Project #1988-115-25, Yakima River Design and Construction-Yakima/Klickitat Fisheries Project (YKFP)

On October 24, 2019, the Yakama Nation submitted a *revised master plan* addressing the proposed coho and summer-and fall-run Chinook programs, as well as proposed facility modifications to Prosser Hatchery.

The emphasis of the revised plan is to implement an in-basin segregated harvest coho program at Prosser Hatchery downstream of Prosser Dam. The segregated coho program will continue to reside at Prosser Hatchery with a smolt release goal of 500,000 fish, but with the updates, all fish culture activities from rearing to release will occur at Prosser Hatchery instead of relying on other facilities in the lower Columbia River.

The current summer Chinook reintroduction program is dependent on transfers of surplus fish from other hatchery facilities. The revised master plan aims to transition to an integrated production program at Prosser Hatchery, with the long-term goal of potential new facilities in the middle reaches of the Yakima River Basin.

All fish culture activities for the Yakima integrated fall Chinook program (i.e., funded through the Council's Fish and Wildlife Program) would continue to occur at Prosser Hatchery, with 500,000 subyearlings released in the Yakima and Naches rivers upstream of Prosser Dam. The Yakima segregated fall Chinook program (i.e., funded through the U.S. Army Corps of Engineers) will continue to release approximately 1.9 million Upriver Bright fall Chinook from Prosser Hatchery, with infrastructure modifications described below.

On December 16, 2020, the Council approved the *Revised Master Plan for Yakima Subbasin Summer- and Fall-run Chinook, Coho Salmon and Steelhead*, associated with *Project #1988-115-25, Yakima River Design and Construction-Yakima/Klickitat Fisheries Project*, subject to the condition that the Yakama Nation provide an update to the Council on the segregated coho program and the two Chinook programs (integrated summer/fall Chinook program and segregated upriver bright fall Chinook program) once funding, environmental compliance, and permitting have been secured.

Project #2008-527-00, Zone 6 Fishery (Prosser Hatchery Upgrades)

The Accord proposal was received on May 29, 2020 from the Bonneville Power Administration on behalf of the Columbia River Inter-Tribal Fish Commission and Yakama Nation. This 2008 Accord capital project addresses existing fall Chinook salmon production under contract by the U.S. Army Corps of Engineers, with consensus from the *U.S. v. Oregon* parties. The capital improvement proposal provides upgrades to acclimation conditions at Prosser Hatchery. Bonneville requested an expedited review by the ISRP since it relates to the *Revised Master Plan for Yakima Subbasin Summer-and Fall-run Chinook, Coho Salmon and Steelhead* (Project #1988-115-25).

The ISRP review provided a “Meets Scientific Review Criteria” recommendation but stated that the project was not *strictly amenable to scientific review*. Though the review is favorable, the ISRP found that the proposal would have benefitted from a better link to the master plan and expects that the monitoring of additional information to be tracked under Project #1995-063-25, *Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project*. In follow-up discussions with the Yakama Nation, they confirmed the project will be monitored through Project #1995-063-25 as defined in the revised master plan.

On July 15, 2020, based on the ISRP review, the Council recommended the proposal be implemented.

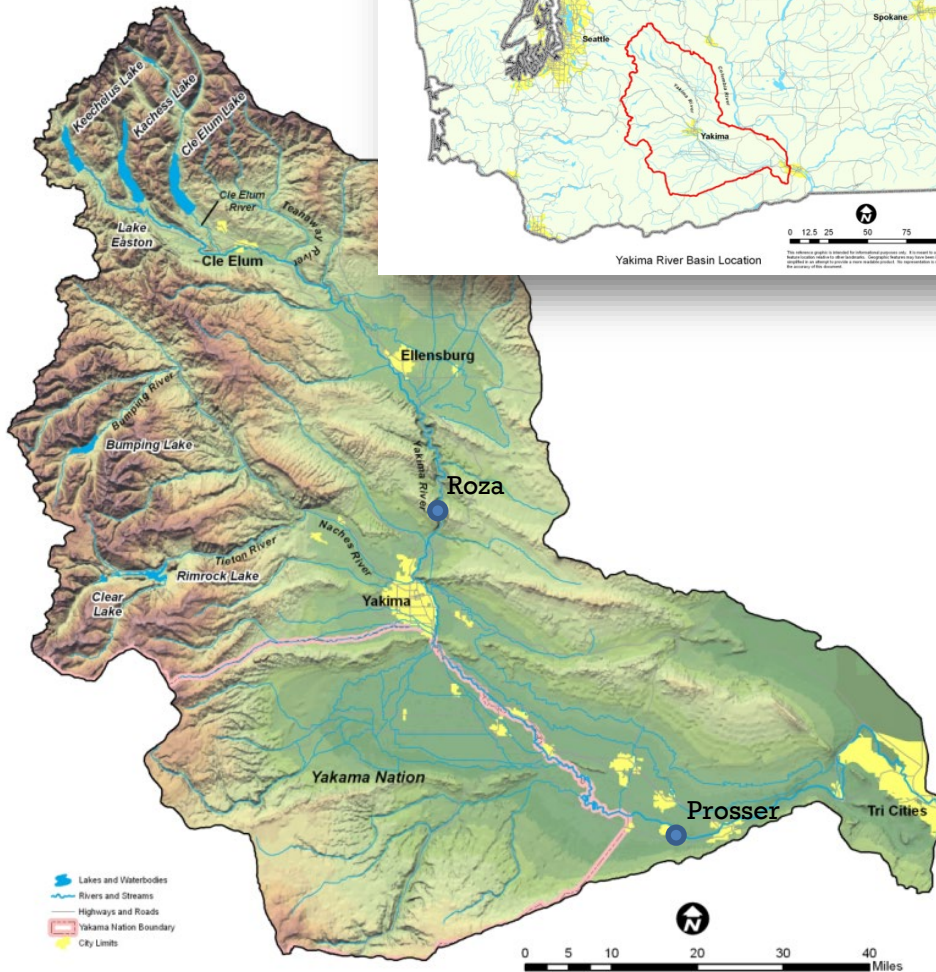
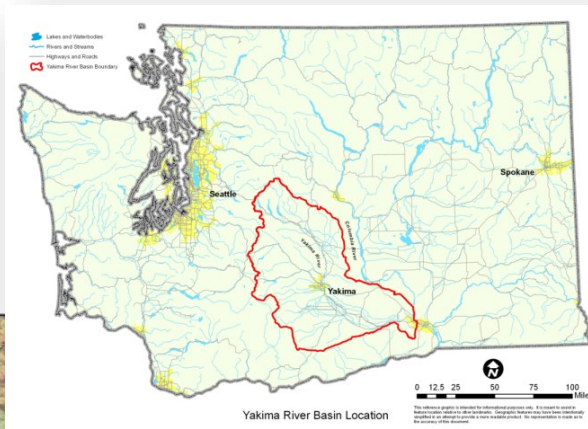
Overview of Updated of New Facilities at Prosser Hatchery

Presentation to
Northwest
Power and
Conservation
Council

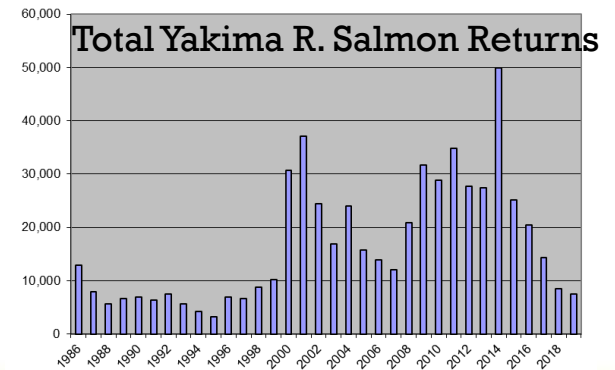
May 16, 2023



Basin Overview



- Basin size = 6,155 sq. miles
- Population = 360,000
- Irrigated Area = 464,000 acres
- Economic Benefits (USDA 2012)
 - Food Processing Industry = \$1.4B
 - Agricultural Production = \$1.8B
- Historically, second only to Snake River in supporting Columbia River salmon and steelhead runs



This reference graphic is intended for informational purposes only. It is meant to assist in feature location relative to other landmarks. Geographic features may have been intentionally simplified in an attempt to provide a more readable product. No representation is made as to the accuracy of this document.

Comprehensive Yakima Restoration Strategy



Yakima Basin Integrated Plan

- Fish Passage Improvements
- Instream Flow Enhancement
- Floodplain Enhancement
- Additional Habitat Restoration Actions

BPA Projects

- Habitat Restoration – 1997-051-00
- Monitoring & Evaluation – 1995-063-25
- Production Facility O&M – 1997-013-25
- Capital Construction – 1988-115-25
- Z6/CRITFC Accord – 2008-52-700

Harvest Management

- Co-managed under *U.S. v Oregon*
- BIA, BPA, and State funding for monitors

Prosser Hatchery Project History

- **Summer-run Chinook and Coho extirpated by 1980s**
- **1980s and early 1990s – YN works with BOR to begin use and development of current site to support *U.S. v OR / Col. R. Management Plan* fall Chinook and Coho operations**
- **1994 Subbasin and Master Planning efforts begin - All Stock Initiative**
- **1996 Final EIS for “Yakima Fisheries Project”**
- **2012 Step 1-2 Master Plan submitted**
- **2018 MRS Coho Hatchery ready to proceed**
- **2019 Revised Master Plan submitted**

Primary Objectives



- Increase Zone 6 and terminal harvest
- Increase natural production
- Re-establish summer run Chinook & Coho
- Increase long-term population viability
- Stronger, healthier fish to boost juv. surv.



Status Update



- **Improve facilities** to increase survival and better meet harvest and restoration goals
- In final design phase of Z6 CRITFC Accord – construction of JDM fall Chinook infrastructure
- Full Master Plan buildout pending final design and funding



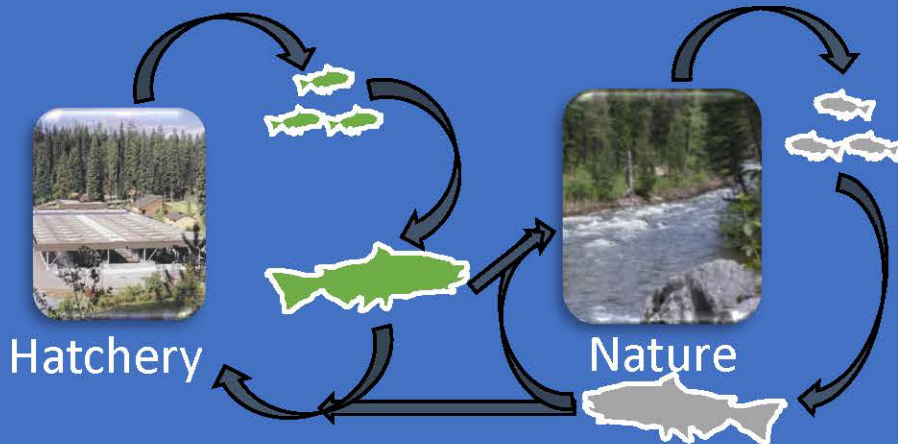
Management purpose of hatchery programs

Credit: M. Hess / B. Johnson

- 1.) Harvest Fishery – Fish for harvest
- 2.) Supplementation – Prevent extirpation, rebuild natural production
- 3.) Reintroduction – Restore extirpated populations

Two different management approaches

Supplementation & Reintroduction [Integrated management]



- Two environments, One population
- Support rebuilding natural production
- Prevent or restore extirpated populations

Harvest Fishery [Segregated management]

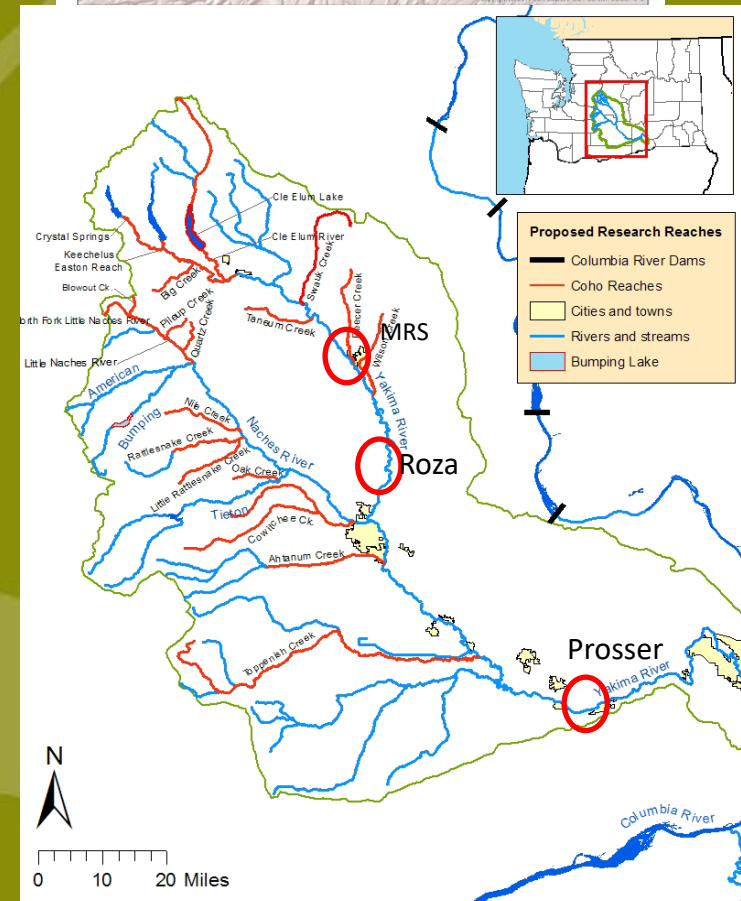
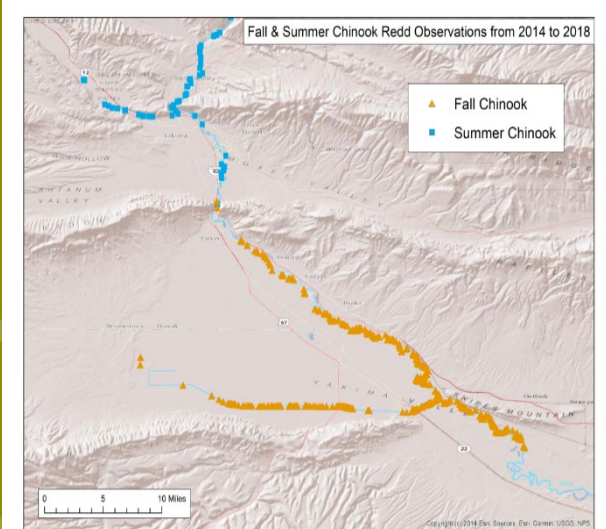
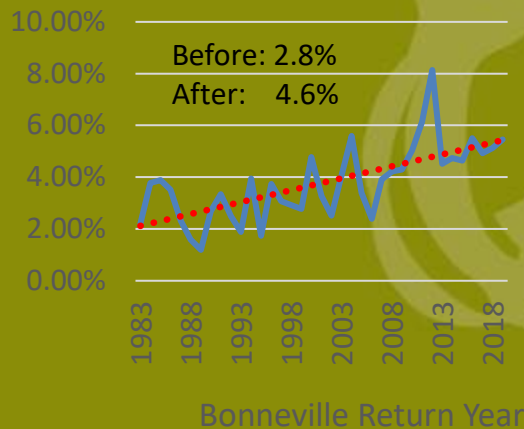


- Two environments, Two populations
- Promotes harvest of hatchery fish
- Managed to not impede recovery of natural populations

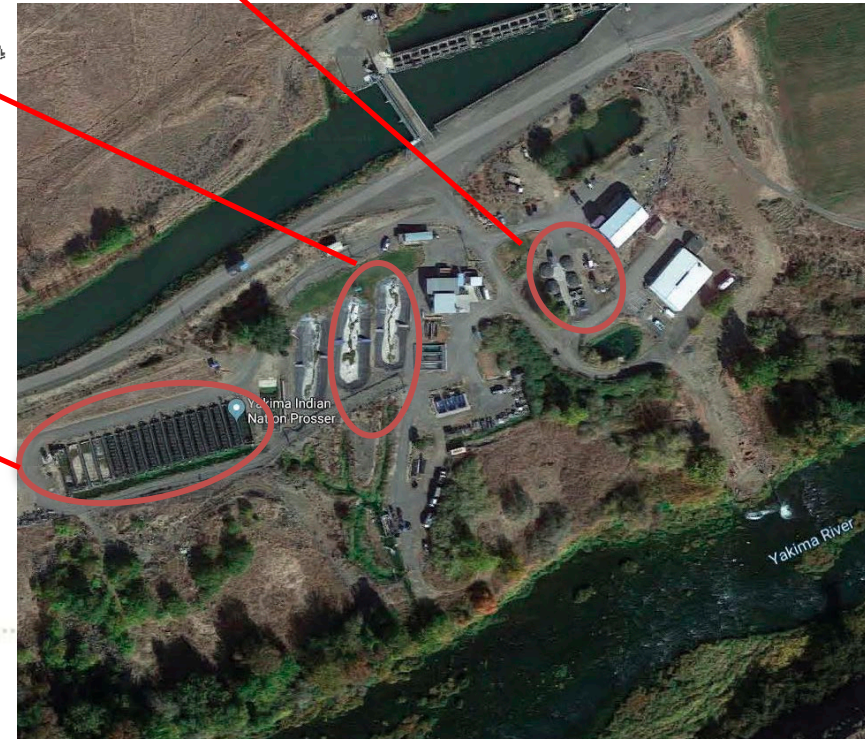
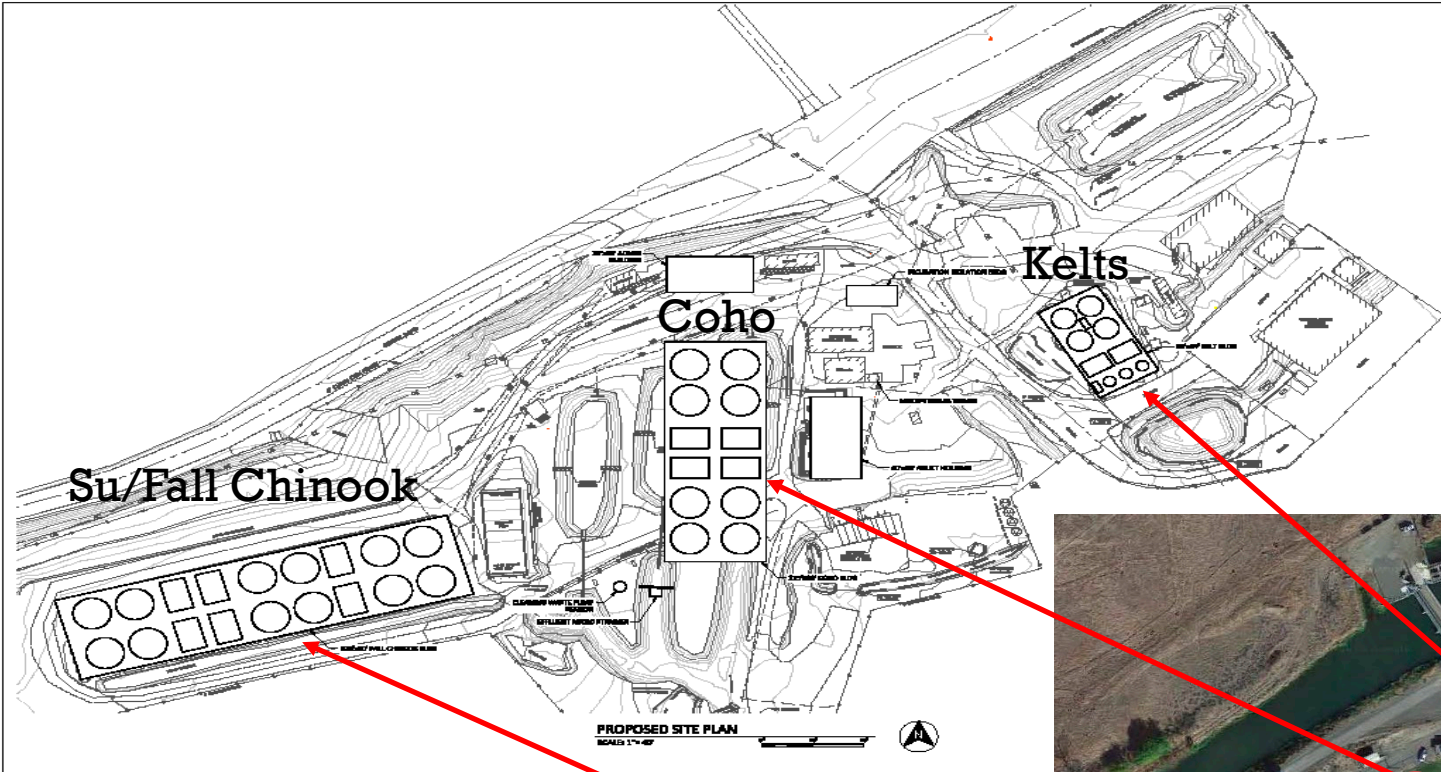
Program Summary

- Fall Chinook
 - U.S. v OR / John Day Mitigation
 - Prosser (local brood)
- Summer Chinook
 - Reintroduction
- Coho
 - MRS Integrated
 - Prosser Segregated
- Steelhead Kelt Reconditioning
 - Wild stock enhancement

Yakima
proportion of
Bonneville
Group A Wild



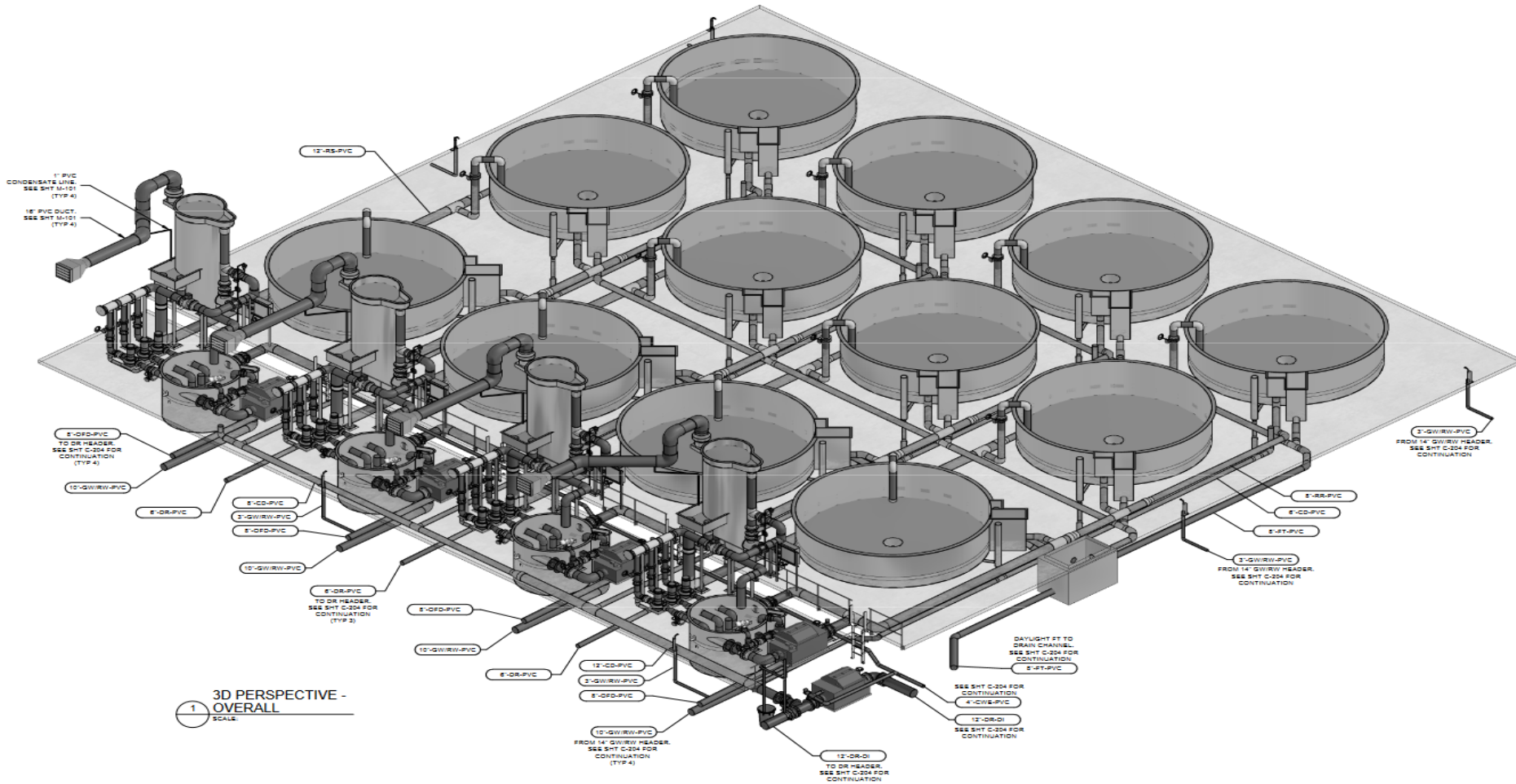
Prosser Hatchery



Z6/CRITFC Accord – 2008-52-700



Interior drawing of final design



NOTES:
1. VARIOUS ELEMENTS HIDDEN IN VIEW FOR CLARITY.

ISRP Review Summary

- **2012-13**: Review of 2012 MP submittal (qualified)
- **2013-8**: Response review of 2012 MP (qualified)
- **2014-9** and **2016-12**: Kelt Reconditioning (met scientific criteria and recommended to proceed)
- **2018-6**: Step 2/3 review of MRS coho (response request)
- **2020-3**: Review of 2019 Revised MP (response request)
- **2020-7**: Review of CRITFC Accord project (meets criteria)
- **2020-9**: Response review of 2019 MP (meets criteria)



Questions?



3-Ocean Adult Summer at Prosser, 7/1/2012