Northwest **Power** and **Conservation** Council

August 7, 2018

MEMORANDUM

TO: **Fish and Wildlife Committee Members**

FROM: **Mark Fritsch**

SUBJECT: **Response submittal Walla Walla Spring Chinook Hatchery Master Plan. Project #2000-038-00**

BACKGROUND:

Presenter: Brent Hall, attorney for the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and Gerald McClintock, contracting officer for Bonneville Power Administration.

Summary: Brent and Gerald will present an overview of their efforts over the past five years regarding their work on the Walla Walla Spring Chinook Hatchery Master Plan (MP). In addition, CTUIR has prepared a response to the last ISRP review (ISRP document 2015-7), associated with the draft monitoring and evaluation plan (M&E Plan) for the hatchery MP, and are prepared to submit their response to the Council for review and future recommendation.

Relevance: The CTUIR is proposing to add incubation, early rearing, and final rearing facilities to the existing South Fork Walla Walla Adult Holding and Spawning Facility (i.e., Umatilla Hatchery satellite facility under the Program that began operation in 1997) in order to produce 500,000 yearling spring Chinook smolts annually (at 12 fish per pound (fpp)) annually into the Walla Walla Basin - 400,000 in the South Fork Walla Walla River and 100,000 into the Touchet River.

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Executive Director

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The goals of the CTUIR for Spring Chinook in the Walla Walla subbasin are to provide in-basin harvest for treaty and non-treaty fisheries and restore natural spawning. The presence of naturally spawning salmon in the river in places and times where they spawned historically is of cultural value to the CTUIR. The long-term goal for the Walla Walla Basin is to reestablish a self-sustaining naturally spawning population of spring Chinook through an all-H approach that requires both habitat and passage improvements. The program will be implemented in three phases, shifting from one phase to another based on predefined observable criteria ("triggers"). The phases reflect different states of natural and hatchery survival conditions and therefore differ in purpose and in the disposition priority for the returning adults.

Background: On June 17, 2013, the CTUIR submitted a Step 1 (Master Plan) documents to the Council for the Walla Walla Spring Chinook Hatchery Master Plan, a component of Project #2000-038-00, Walla Walla Hatchery Final Design/Construction. On July 31, 2013 the ISRP requested additional information and data on the production levels and productivity for each phase, details on the expectations how long phase 1 and 2 will last, and clarification on the decision rules and guidelines used to transition from one phase to the next (ISRP document 2013-10). On August 18, 2013 the Council received from the CTUIR a response intended to address the information needs of the ISRP and on September 16, 2013 the Council received their review (ISRP document 2013-12). The ISRP found that the Walla Walla Spring Chinook Hatchery Master Plan meets scientific review criteria and stated that they appreciated the clarity and additional perspective provided during the ISRP's review process of the master plan. Though the ISRP did not qualify their review recommendation they requested that the CTUIR continue to refine and clarify analysis and provide additional information as raised in the ISRP's review (ISRP document 2013-12). These comments are outlined to the response loop topics as outlined in the response from CTUIR on August 18, 2013.

On October 8, 2013, based on the ISRP review, the Council approved the Master Plan (Step 1) for the Walla Walla Spring Chinook Hatchery. This recommendation conditioned on the CTUIR fully address the comments raised by the ISRP (ISRP document 2013-12) as part of the Step 2 submittal.

On June 1, 2015, the Council received a submittal from BPA and CTUIR intended to address the condition (i.e., M&E Plan) as part of the Council's October 8, 2013 recommendation. On August 11, 2015 the ISRP provided their review (ISRP document 2015-7) and requested a response.

WALLA WALLA SPRING CHINOOK HATCHERY

Presentation to NPCC

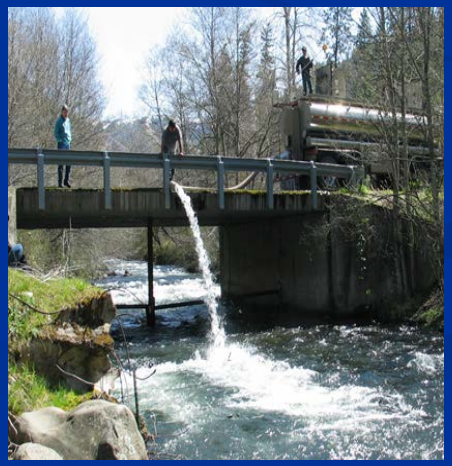
August 14, 2018

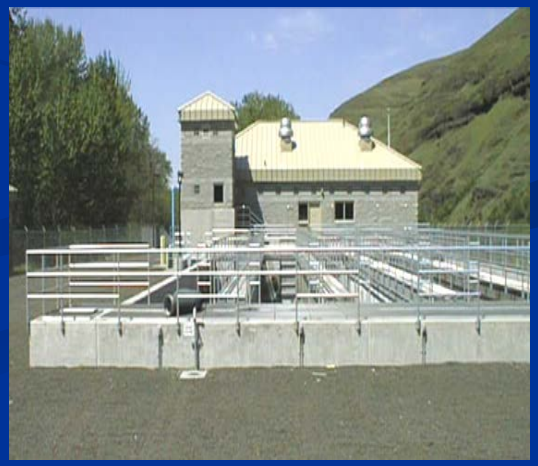
Presentation Topics

- **Project History and Background - CTUIR**
- **Existing and new facilities - CTUIR & BPA**
- **M&E Plan Overview - CTUIR**
- **Schedule and Costs - BPA**

Walla Walla Spring Chinook Hatchery Project History

- 1987 NEOH projects amended in F&W Program
- 1990-2018 Implement passage/habitat/flow projects
- 1996 South Fork WW adult facility completed
- 2000-2018 Pre-hatchery reintroduction & monitoring
- 2004 First salmon return
- Hatchery project planning process 2008 -2018
- 2018 Time ripe for hatchery construction





Walla Walla Hatchery Project Products and Schedule

Step 1

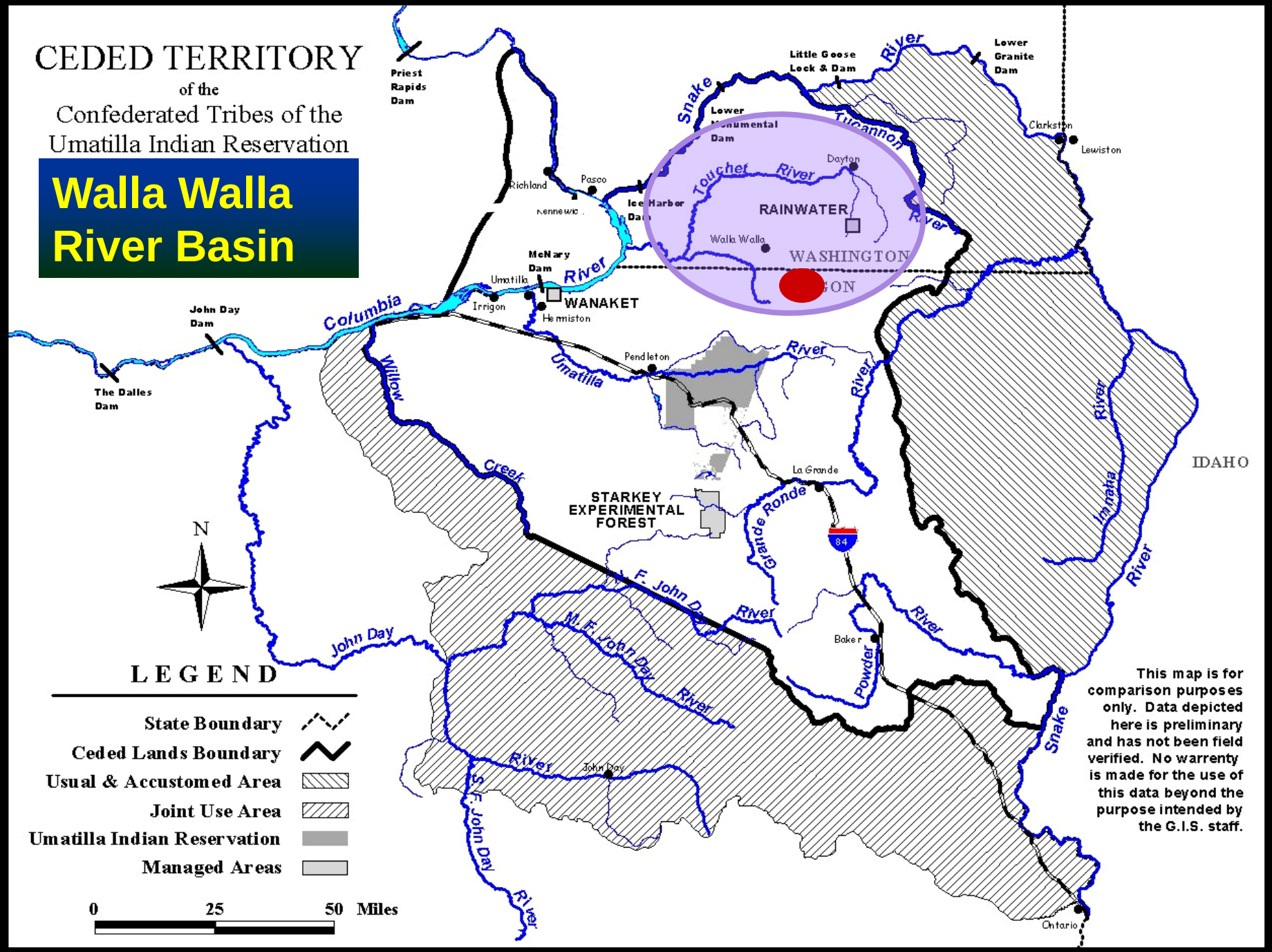
- Conceptual design May 2010 – June 2011
- Co-manager MOA and management guidelines signed Oct 2012
- Final HGMP to NOAA Dec 2012
- Council approved Master Plan October 2013

Step 2 and 3

- Preliminary designs & NEPA/EIS 2015 - 2016
- Final designs & NEPA/EIS 2017 – 2018
- M&E draft plan 2015; M&E final plan 2018

Construction and Operations Start-up

- Construct hatchery September 2018 – late 2019
- First brood 2019; first smolt release April 2021; first adult return 2023


CEDED TERRITORY
of the
Confederated Tribes of the
Umatilla Indian Reservation
Walla Walla
River Basin
Priest
Rapids
Dam
Little Goose
Lock & Dam
Lower
Granite
Dam
Snake
River
Lower
Monumental
Dam
Tucannon
River
Clarkston
Lewiston
Dayton
Touchet
River
Richland
Pasco
Kennewick
Ice Harbor
Dam
RAINWATER
Walla Walla
WASHINGTON
McNary
Dam
Umatilla
River
Irrigon
WANAKET
Hermiston
John Day
Dam
Columbia
River
Pendleton
Umatilla
River
Willow
Creek
The Dalles
Dam
STARKEY
EXPERIMENTAL
FOREST
La Grande
Grande Ronde
River
84
Imnaha
River
IDAHO
N
M. F. John Day
River
John Day
River
Baker
Powder
River
Snake
River
John Day
S. F. John Day
River
Ontario
LEGEND
State Boundary
Ceded Lands Boundary
Usual & Accustomed Area
Joint Use Area
Umatilla Indian Reservation
Managed Areas
0
25
50
Miles
This map is for comparison purposes only. Data depicted here is preliminary and has not been field verified. No warrenty is made for the use of this data beyond the purpose intended by the G.I.S. staff.

Satellite Hatchery Facility Locations

Columbia River

Three Mile Dam

Hermiston

South Fork Walla Walla

Umatilla River

Thornhollow

Minthorn

Imeques

Pendleton

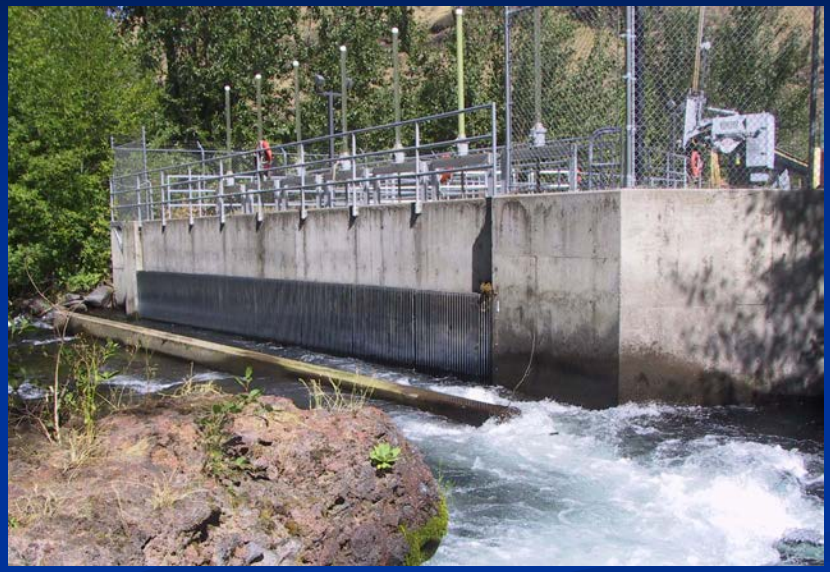
Bonifer

Comprehensive Walla Walla Spring Chinook Restoration Strategy

- Fish Passage Improvements
- Instream Flow Enhancement
- Floodplain Enhancement
- Monitoring and Evaluation
- Artificial Propagation – Salmon Reintroduction
- Harvest Management

Existing Facility (Ph I) Includes

Water intake, screens, and pumps



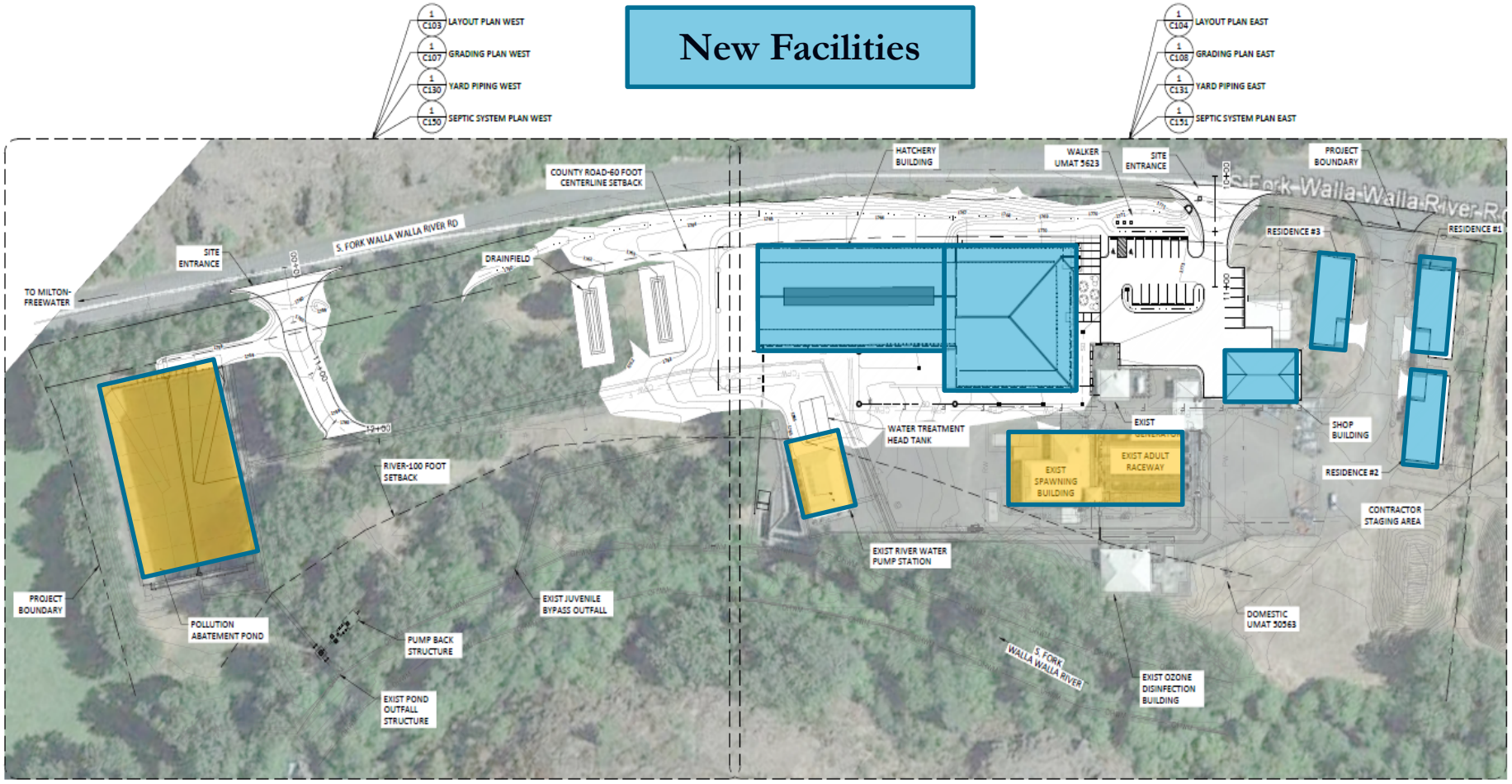
Existing Facility (Ph I) Includes

Adult holding and spawning

Proposed additional Ph II Facilities

Existing Facilities

New Facilities



OVERALL SITE KEY PLAN

SCALE: 1"= 50'

REV	DATE	BY	DESCRIPTION
F	07/25/18	DSN	90% DESIGN RE-SUBMITTAL
E	06/13/18	DSN	90% DESIGN SUBMITTAL
D	04/04/18	DSN	60% DESIGN RESUBMITTAL
C	03/02/18	DSN	60% DESIGN SUBMITTAL
B	01/05/18	DSN	30% DESIGN RESUBMITTAL
A	11/17/17	DSN	30% DESIGN SUBMITTAL

PRELIMINARY
NOT FOR CONSTRUCTION

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

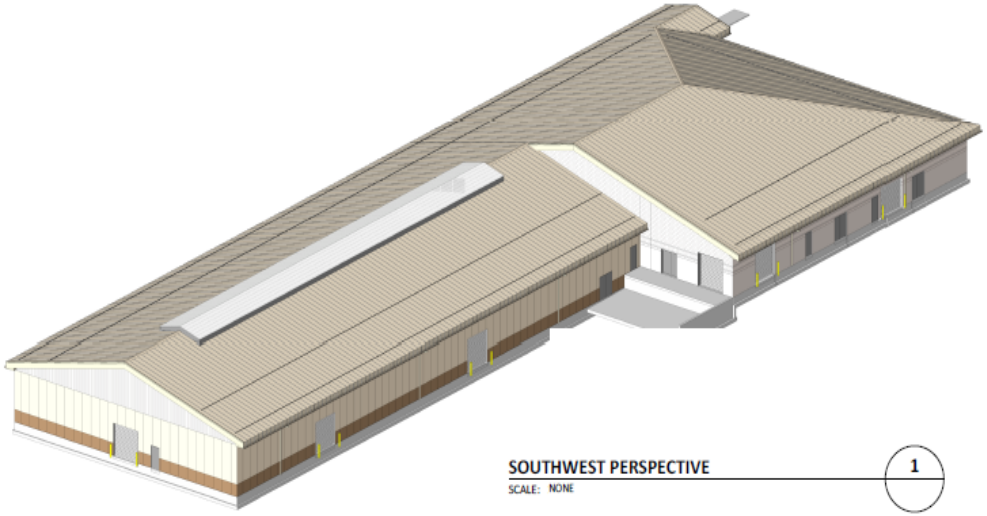
McMILLEN JACOBS ASSOCIATES

BONNEVILLE POWER ADMINISTRATION

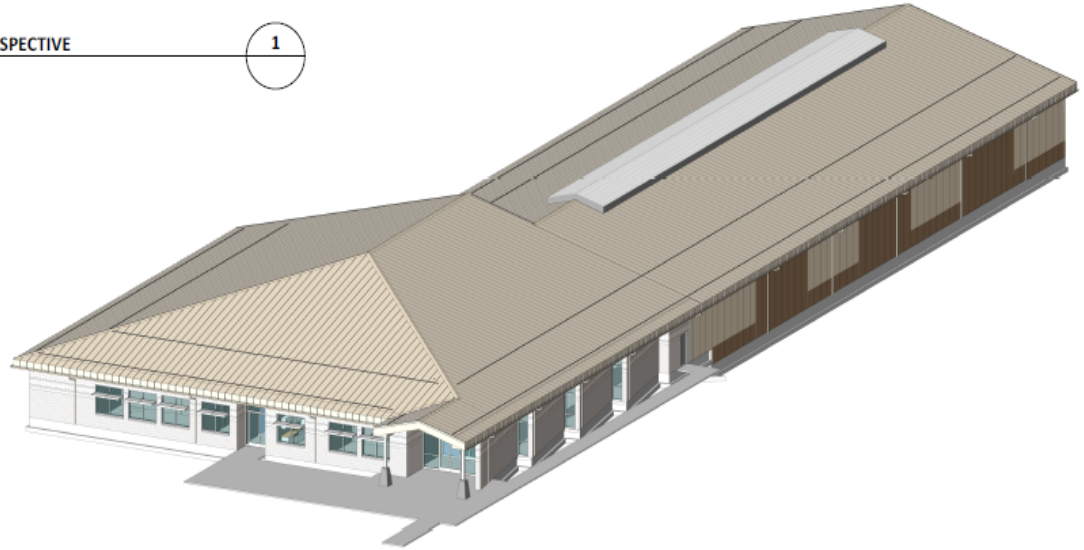
BPA AND CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION
WALLA WALLA HATCHERY ENGINEER, PROCURE, CONSTRUCT
OVERALL SITE KEY PLAN

DESIGNED O. WEICK
DRAWN W. OSTERMANN
CHECKED V. AUTIER
PROJECT DATE 07/25/18

DRAWING
C101



SOUTHWEST PERSPECTIVE 1
SCALE: NONE



NORTHEAST PERSPECTIVE 2
SCALE: NONE

PRELIMINARY NOT FOR CONSTRUCTION

REV	DATE	BY	DESCRIPTION
F	07/25/18	WH	90% DESIGN RESUBMITTAL
E	06/15/18	WH	90% DESIGN SUBMITTAL
D	04/04/18	WH	60% DESIGN RESUBMITTAL
C	03/02/18	WH	60% DESIGN SUBMITTAL
B	01/05/18	WH	30% DESIGN RESUBMITTAL
A	11/17/17	WH	30% DESIGN SUBMITTAL

LCA Architects, P.A.
ARCHITECTURE – PLANNING – INTERIOR DESIGN
1221 Shoreline Lane
Boise, Idaho 83702
PHONE: (208) 345-6677 – FAX: (208) 344-9002

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

BONNEVILLE POWER ADMINISTRATION

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION

BPA AND CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION
WALLA WALLA HATCHERY ENGINEER, PROCURE, CONSTRUCT

HATCHERY BUILDING EXTERIOR PERSPECTIVES

DESIGNED MH
DRAWN WH
CHECKED MH
ISSUED DATE 07/25/18

DRAWING
A434

LCA JOB NO: 17027.01

C:\Users\wherd\Documents\17027-01 Walla Walla Hatchery_CENTRAL_R18_wherd@lcarch.com.rvt

Walla Walla Hatchery Conceptual Drawings

WW Hatchery – Main New Facilities

- **New Hatchery Building**
  - Egg incubation
  - Early and final circular rearing tanks
  - Office and public viewing facilities
  - Feed storage
  - Research area
- **Intake and Treatment Improvements**
  - Pump upgrades
  - Pump-back system
- **Employee Housing**
  - 3 residences

CHS Adult Return Goals

	Hatchery	Natural	Harvest Component	Total Goals
MP Goals Upp. MS/ South Fork	2,750	1,100	-	3,850
Subbasin Goals*	2,500-3,000	2,000-3,000	2,000 - 2,500	5,000-5,500

* Goals from Tribal Restoration Plan (1996) and Subbasin Plans (2001 and 2004)

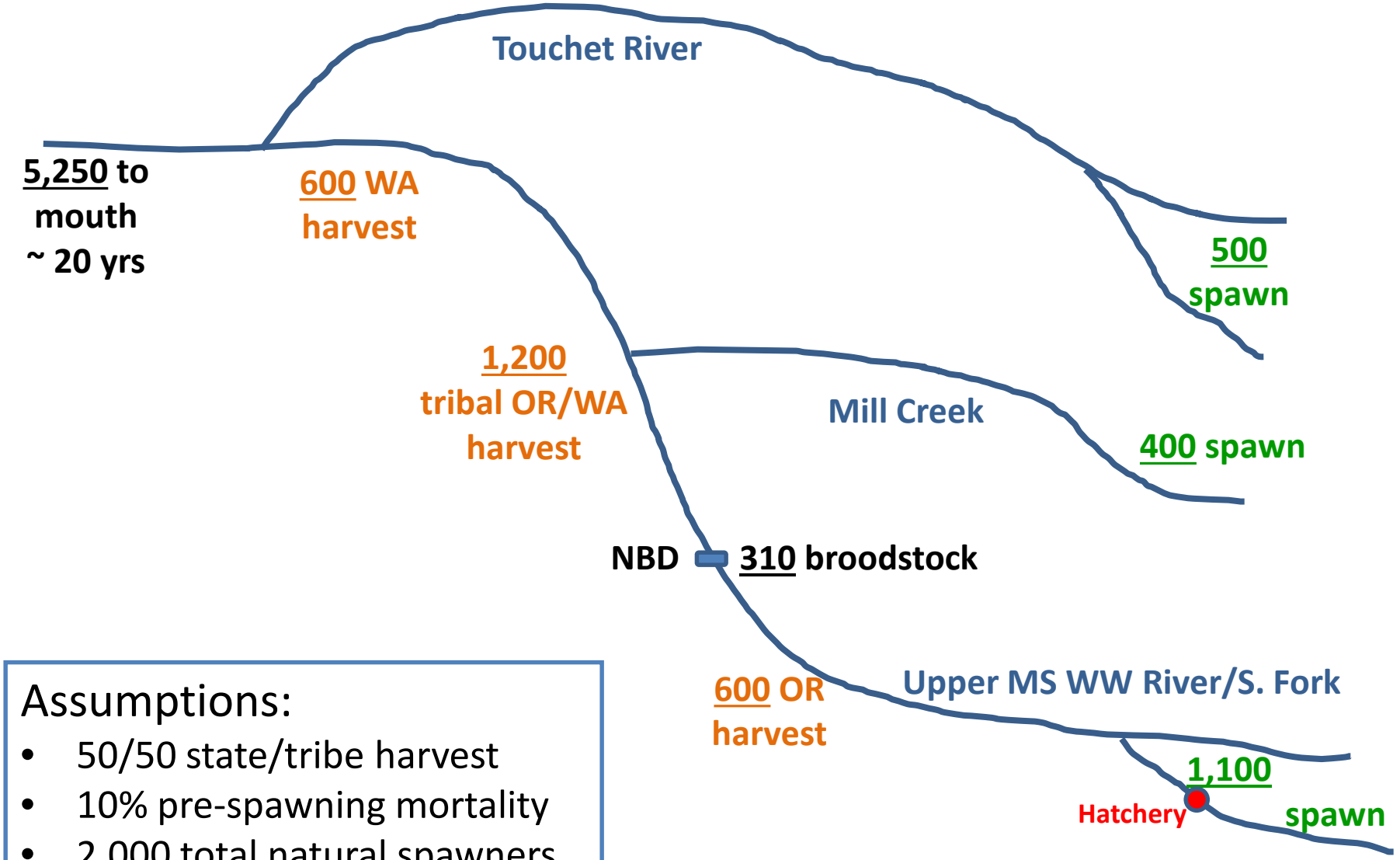
WW Hatchery Program Current vs. WW Hatchery

	Current Program	With WW Hatchery
Facility	Adult holding/spawning	Add incubation/rearing
Releases	250K in-river	500K acclimated
Production	Off-site (Carson NFH)	Localized
Hatchery Returns	400 (15% of H goal)	2,750 (100% of H goal)

Proposed Program

Walla Walla Basin Hatchery Program

Adult Spring Chinook "Full Goal" Return Projections & Expected Disposition



Assumptions:

- 50/50 state/tribe harvest
- 10% pre-spawning mortality
- 2,000 total natural spawners

Walla Walla Spring Chinook Returns

CTUIR/ODFW/WDFW MOA for Walla Walla Hatchery Design, Construction & Operations

MEMORANDUM OF AGREEMENT

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION DEPARTMENT OF NATURAL RESOURCES
and
OREGON DEPARTMENT OF FISH AND WILDLIFE
and
WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Regarding Walla Walla Spring Chinook Hatchery Design, Construction and Operations

Purpose

The Confederated Tribes of the Umatilla Indian Reservation's Department of Natural Resources (CTUIR DNR), Oregon Department of Fish and Wildlife (ODFW), and Washington Department of Fish and Wildlife (WDFW) are recognized as tribal and state co-managers of hatchery operations for salmon and steelhead in the Walla Walla River Basin. A Walla Walla Spring Chinook Hatchery Master Plan (WWHMP) was submitted to the Northwest Power and Conservation Council by CTUIR DNR in August 2008. The objective of this CTUIR-sponsored and BPA Fish Accord-funded project is to contribute to Walla Walla spring Chinook restoration by locally producing spring Chinook-smolts at a hatchery constructed on the South Fork Walla Walla River. The project is a key component in the overall Walla Walla spring Chinook restoration program that will complement other efforts such as flow, fish passage and stream habitat improvements. The project is expected to produce enough returning adults to provide for broodstock, supplementation and harvest throughout the Walla Walla Basin (upper mainstem and tributaries, Mill Creek and the Touchet River). The terms of this Agreement identify the Walla Walla Spring Chinook Hatchery design, construction and operations supported by the co-managers.

Terms

1. Hatchery Design and Construction
Co-managers support design and construction of incubation, early rearing, and final rearing facilities at the existing South Fork Walla Walla Adult Holding and Spawning Facility in order to accommodate a production capacity of 500,000 yearling spring Chinook smolts (as detailed in the WWHMP). This enhanced facility would then be known as the Walla Walla Hatchery.

2. Hatchery Production Level
Co-managers support annual production of up to 500,000 spring Chinook to be reared full term at the new facility (as per US v OR agreement Table B1. Footnote G). For purposes of developing the Hatchery Genetic Management Plan (HGMP) analysis, production would be split with up to 400,000 reared/acclimated on site and released directly into the South Fork Walla Walla River; up to 100,000 would be transported into the upper Touchet River. Actual and future adjustments in production levels and release location (as mentioned in WWHMP) will be made as per co-manager agreement through Annual Operations Plans (AOP's).

3. Management Guidelines for Fish Disposition
In contrast to initial management in the neighboring Umatilla Basin, brood collection, harvest, and escapement into the upper mainstem portion of the subbasin will be managed in an attempt to expedite the restoration of a naturally reproducing population. This natural production emphasis is incorporated into the WWHMP which allocates hatchery and natural origin adults for broodstock, natural spawning escapement, outplanting, and harvest.

In order to avoid annual negotiations regarding management decisions for spring Chinook returning to the Walla Walla River, co-managers will develop Walla Walla River Adult Spring Chinook Management Guidelines similar to those used successfully in the Umatilla Basin. Fish disposition such as harvest, broodstock collection, spawning escapement and adult outplanting will be determined based on these guidelines and sliding scale preseason run projections and then incorporated into AOP's. It is assumed that co-manager harvest planning would target an equal 50/50 tribal/state share. Any adjustments to the management guidelines would be made as per co-manager agreement during annual AOP discussions. The parties will work together in good faith to resolve any differences including elevating issues to CTUIR/ODFW/WDFW policy representatives as necessary.

4. Hatchery Effectiveness Monitoring and Evaluation
CTUIR DNR and WDFW will continue the BPA-funded project "Walla Walla Basin Collaborative Monitoring and Evaluation" to evaluate the hatchery and natural production effectiveness of the Walla Walla Hatchery project. The spring Chinook management approach in the Walla Walla Basin will allow for direct comparisons between restoration and supplementation strategies within the Walla Walla Subbasin as well as in neighboring subbasins.

5. HGMP/Federal Consultation
The parties to this agreement will propose to the federal government that all terms of agreement in this MOA be incorporated into the final Walla Walla Hatchery HGMP.

6. Modification and Withdrawal.
Modifications of this MOA can be made at any time as per written agreement of all parties. Any Party may withdraw from this Agreement at any time by serving written notice to the other Parties. Included in the notice shall be an explanation as to the reason for withdrawal. Upon withdrawal of any Party, any remaining Party may withdraw upon notice to the remaining Party.

Signatures:

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION, DEPARTMENT OF NATURAL RESOURCES

Date 9/5/12

Eric J. Quaempts, Director

OREGON DEPARTMENT OF FISH AND WILDLIFE

for Roy Elicker, Director

Date 10/30/12

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Date 10/30/12

Phillip Anderson, Director

Walla Walla Hatchery Spring Chinook Salmon Monitoring and Evaluation Plan

The purpose of the plan is to:

- Describe the scientific framework used to determine quantitative goals for the program.
- Evaluate performance relative to goals and expectations.
- Identify the key metrics that will be monitored.
- Describe how they will be monitored (in field and in hatchery).
- Explain how information will inform management actions such as harvest, escapement, trapping operations, and hatchery actions.
- Frame an adaptive management process (3-phased decision rules) to allow managers to adjust the program to ensure that harvest and conservation goals are met over time.

WW M&E Performance Indicators

(existing project #2000-039-00)

Adult abundance & performance

- Spawning escapement (spawning surveys and/or adult counts at dams, weirs and traps)
- Total population abundance
- Fish per redd
- Redds per mile
- Parent per progeny (P:P)

Juveniles abundance & performance

- Smolt production
- Smolts per redd
- Survival & run timing (in-basin and at Columbia R. dams)
- Smolt to adult return (SAR)

Walla Walla Hatchery Facility Costs

- $3.0M existing facility (Ph I completed 1996)
- $1.2M Existing broodstock collection incorporated into Nursery Bridge ladder (completed 2001)
- $14.2M proposed construction (Ph II)

Walla Walla Hatchery
General Timeline and Costs

Program Area	Occurrence	2013-14	2017	2018	2019	2020
Step 1 - Planning and Design	One Time					
Step 2 - Environmental Compliance	One Time	$420K				
Step 3 - Final Design	One Time		$1.2M			
Construction	One Time				$14.2M	
Annual Operations and Maintenance	Annual					→
Monitoring and Evaluation	Annual	→				

Note - Estimated costs are within the current Accord project budget

Cost Estimates

- Master Plan $75,000
- Environmental Impact Statement $420,000
  - BPA staff and subcontractor costs
- Planning & Design $1,200,000
- Construction $14,200,000
- Capital Equipment $260,000
  - Includes equipment for office, research room, fish rearing, fish transport, etc.

Total $16,155,000