



YAKAMA NATION SOCKEYE RESTORATION PROJECT

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Spawning Sockeye
Cle Elum River

achxilpanisha ishchit "making a way"





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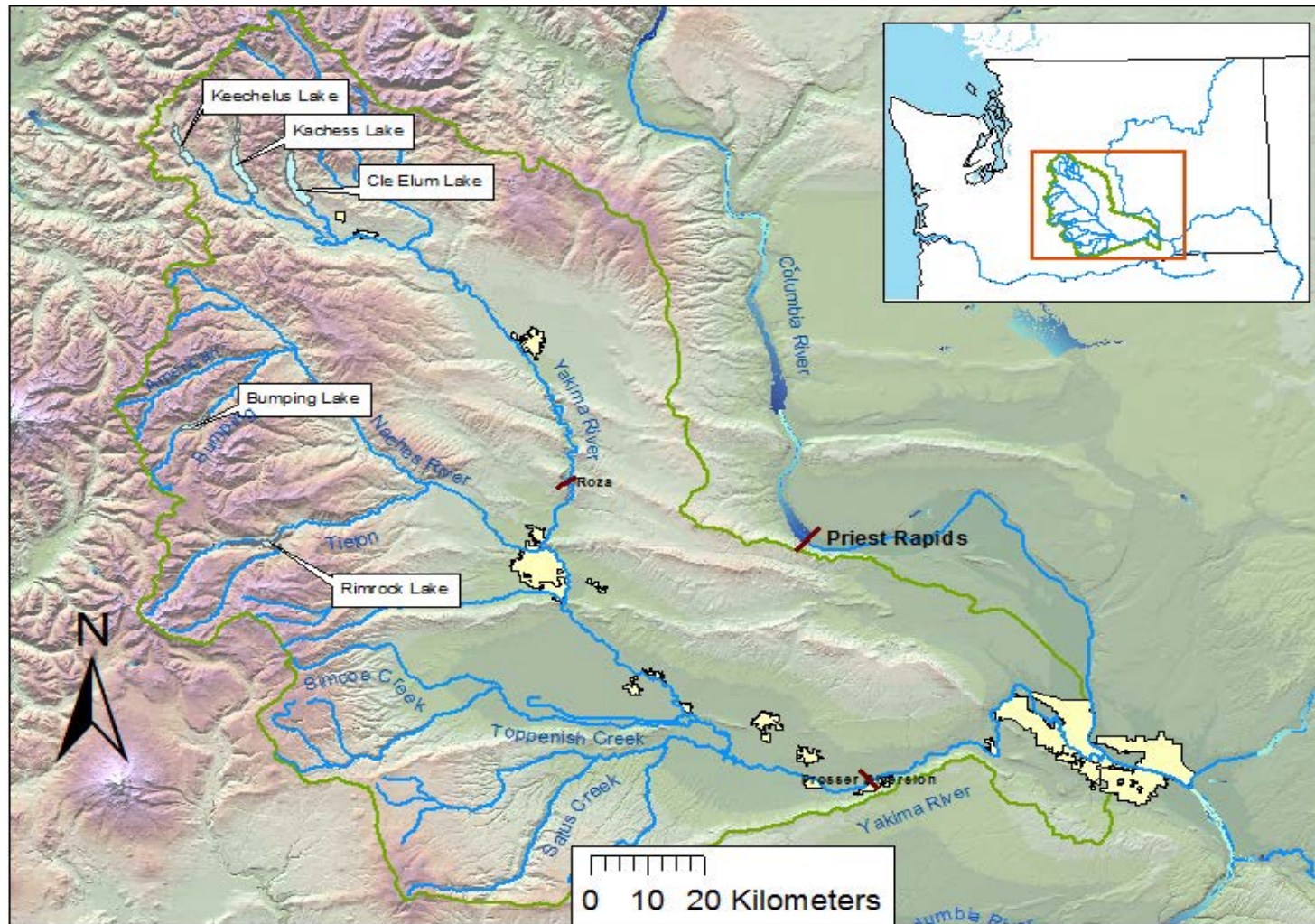


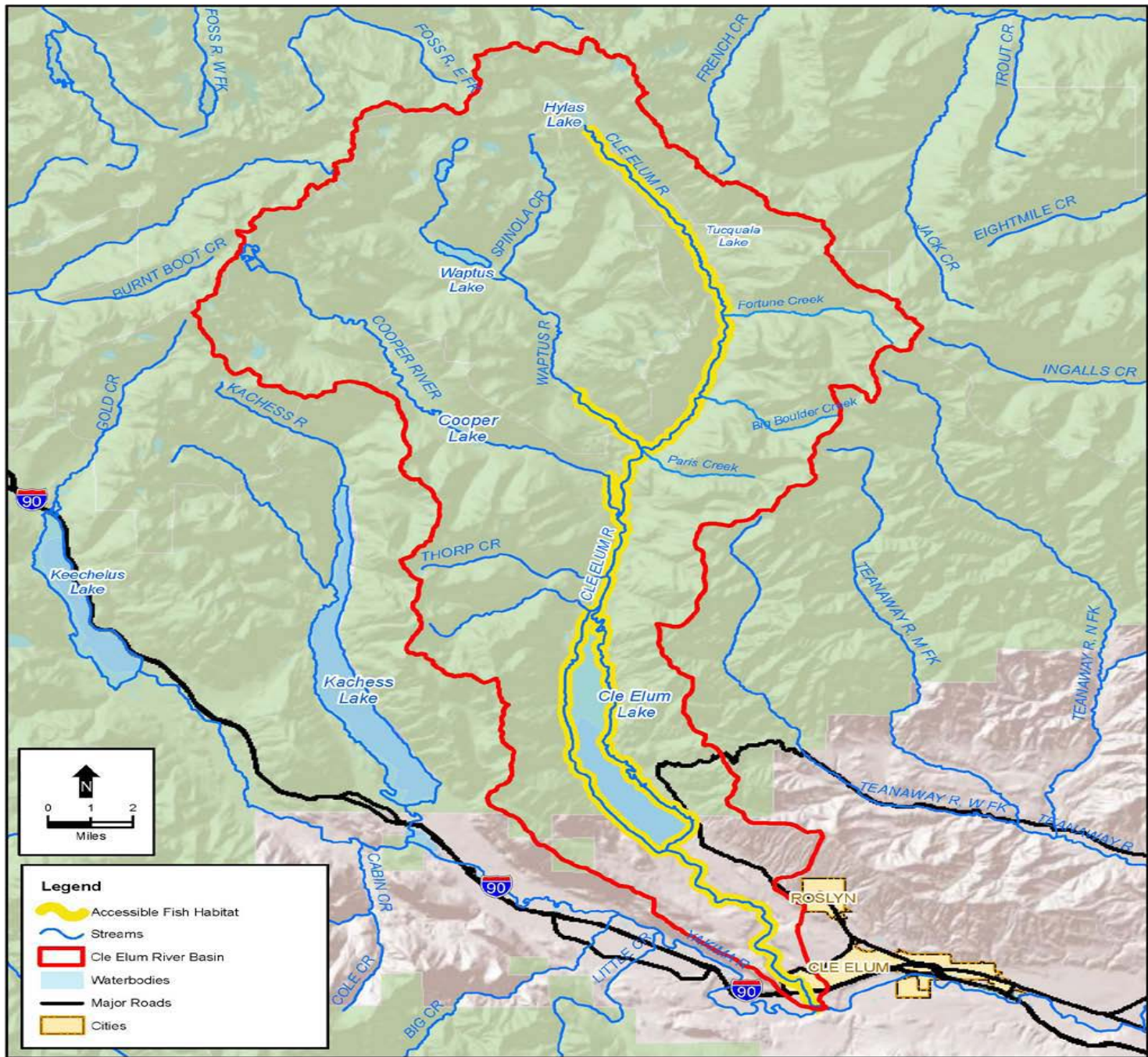
WHAT'S GONNA BE COVERED

- Where is the Yakima Basin?
- What Happened to the Yakima Basin Sockeye?
- How did we get here?
- Sockeye Reintroduction...
- What else is being reintro'd?
- What is being outro'd?
- What's happening next?



- Where is the Yakima Basin?





- What Happened to the Yakima Basin Sockeye?

Timber crib dams constructed by local loggers between 1904-1910 at the outlet of these five natural glacial lakes blocked fish passage to tributaries upstream from the dams.

Timber dams were followed by the larger Reclamation storage dams, eliminated access to previously productive spawning and rearing habitat for anadromous salmonids and resident fish and inundated a considerable amount of pristine, high-quality habitat.



• How did we get here?

- IN 2002 THE YAKAMA NATION FILED A LAWSUIT
- 2003 YN FILED A APPEAL
- BOR AND YN ENTERED A SETTLEMENT AGREEMENT
 - CONGRESSIONAL AUTHORITY AND FUNDING
 - BOTH TO DEVELOP AND STUDY FEASIBILITY MEASURES
 - IMPLEMENT INTERIM DOWN STREAM PASSAGE AT CLE ELUM DAM
 - RECLAMATION AGREED TO PROVIDE FUNDING TO THE YN
 - RECLAMATION AGREED TO PREPARE PLANNING REPORT
 - BOTH AGREED TO ASSEMBLE A TECHNICAL WORKING GROUP





Kálux

Sockeye



• Sockeye Reintroduction...

- CURRENTLY, ADULT REINTRODUCTION PROJECT ONLY, NO HATCHERY PROCESS
- TWO DONOR STOCKS LAKE WENATCHEE AND LAKE OSOYOOS
- LETTER TO GRANT COUNTY PUBLIC UTILITIES DISTRICT (GCPUD) REQUESTING TO USE OFF-LADDER ADULT FISH TRAP (OLAFT) AT PRIEST RAPIDS DAM
- RECEIVE ANNUAL TRANSPORT PERMIT FROM WASHINGTON DEPARTMENT FISH & WILDLIFE (WDFW)
- CONTACTED LOCAL LAND OWNER ON LAKE CLE ELUM TO ACCESSING HIS PROPERTY TO RELEASE SOCKEYE
- TO WORK AT THE OLAFT, YN CREW MUST COMPLETE SECURITY AND SAFETY TEST TO RECEIVE CLEARANCE BADGE TO ACCESS FACILITY



• Sockeye Reintroduction...

AFTER ESCAPEMENT GOALS ARE REACHED AT BONNEVILLE DAM OF 80,000 RETURNING SOCKEYE, COLLECTION CAN BEGIN AT PRIEST RAPIDS DAM

THE ADULT TAKE STARTS AT 1000 AND CAN INCREASE TO 10,000 BASED ON A PAC APPROVED SLIDING SCALE

GENETIC SAMPLING OF SOCKEYE HELPS DETERMINE WHICH STOCK IS THE MOST SUCCESSFUL OF THE TWO DONOR STOCKS USED, LAKE WENATCHEE OR LAKE OSOYOOS, THIS OCCURS AT FOUR DIFFERENT STAGES OF THE PROCESS:

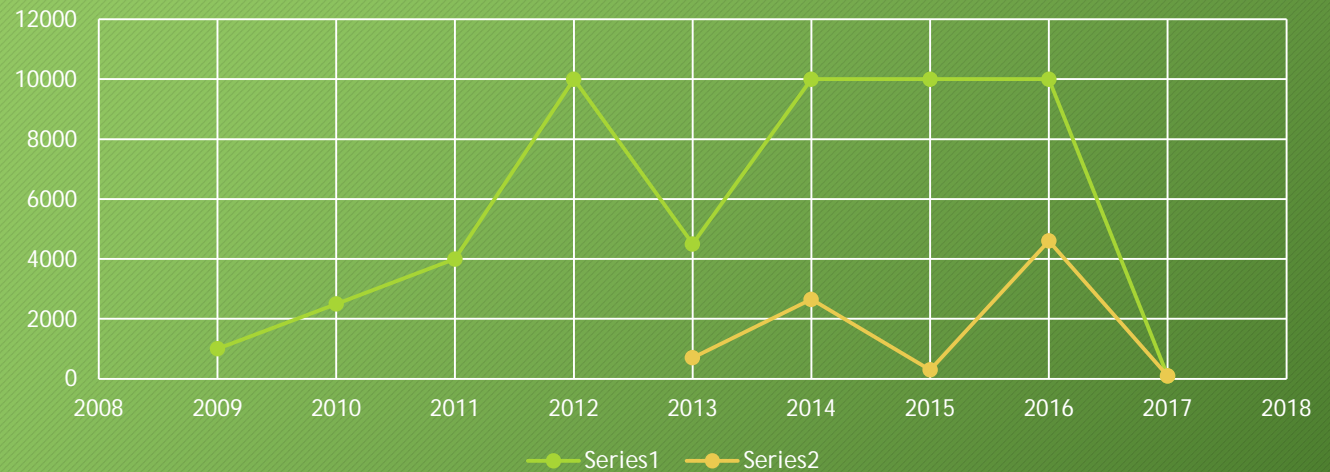
- 1.) PRIEST RAPIDS DAM ADULT COLLECTION
- 2.) ON SPAWNING GROUNDS (CARCASS SURVEYS)
- 3.) SMOLT MIGRATION AT ROZA DAM AND CHANDLER JV
- 4.) RETURNING ADULTS BACK TO THE YAKIMA BASIN



Broodyear	Bonneville Dam Count	Trap & Haul to Cle Elum Lake	Natural Production Returnees
2009	177,823	1,000	
2010	386,525	2,500	
2011	185,796	4,000	
2012	515,673	10,000	
2013	185,505	4,500	703
2014	614,179	10,000	2653
2015	510,706	10,000	300
2016	342,498	10,000	4600
2017	87,693	1,000	1000

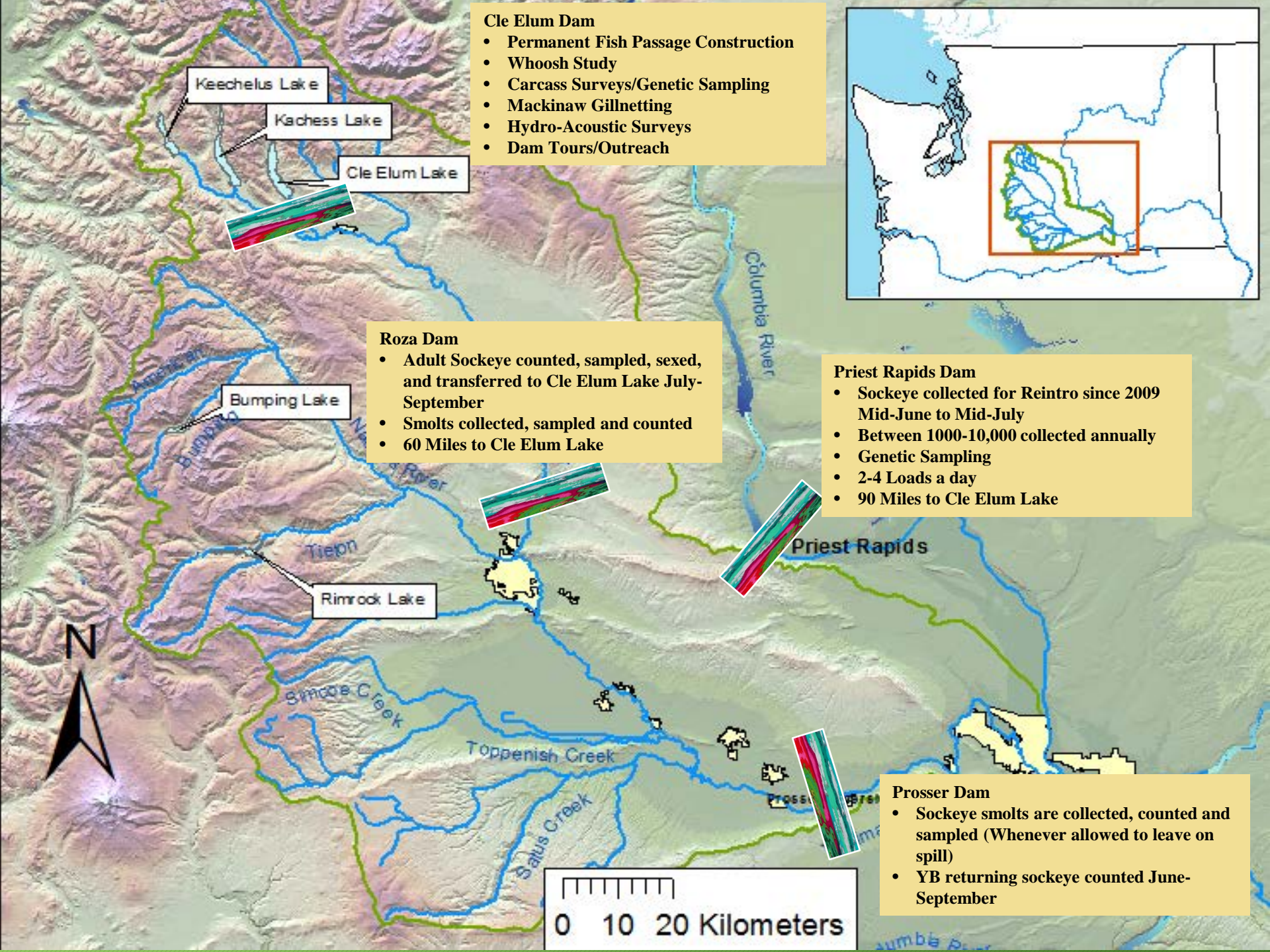


Sockeye Numbers



AFS Kelowna 2018





- Cle Elum Dam**
- Permanent Fish Passage Construction
 - Whoosh Study
 - Carcass Surveys/Genetic Sampling
 - Mackinaw Gillnetting
 - Hydro-Acoustic Surveys
 - Dam Tours/Outreach



- Roza Dam**
- Adult Sockeye counted, sampled, sexed, and transferred to Cle Elum Lake July-September
 - Smolts collected, sampled and counted
 - 60 Miles to Cle Elum Lake

- Priest Rapids Dam**
- Sockeye collected for Reintro since 2009 Mid-June to Mid-July
 - Between 1000-10,000 collected annually
 - Genetic Sampling
 - 2-4 Loads a day
 - 90 Miles to Cle Elum Lake

- Prosser Dam**
- Sockeye smolts are collected, counted and sampled (Whenever allowed to leave on spill)
 - YB returning sockeye counted June-September



MORE TROUT FOR KITTITAS

State of Washington to Get 5,000,000
Mackinaw Trout Eggs from Wisconsin—County Game Commission will Ask for All They Can Get

Chairman M. C. Miller of the Kittitas Game Commission Wednesday received word from State Game Warden Darwin that 5,000,000 Mackinaw trout eggs would become available for planting in this state next year. They will come from Wisconsin. Mr. Miller states that the county game commission will immediately apply for all they can get to plant in Lakes Cle Elum, Keechelus and Kachess, all of which are deep water lakes well adapted to the Mackinaw. This season 50,000 of them were planted in Lake Cle Elum. Mr. Darwin's letter, which contains some other matters of interest to sportsmen, follows:

Gentlemen:
A holder of a non-resident hunters' license may take the number of birds which it is lawful for him to kill in this state in one day out of the state with him, providing that he executes an affidavit before a notary public or other officer having a seal, stating that the game to be so removed from the state was killed by him in a lawful manner and that the said game is not being exported for the purpose of sale. Such affidavit shall describe said birds and shall be attached to said birds while in transit from the state.

The above is the substance of an opinion just rendered to me by the Hon. L. L. Thompson, Attorney General, and we will govern ourselves accordingly.

The Attorney General gives it as his opinion that Section 5373 Rem. & Bal. Code, which was enacted in 1905, and which expressly permits non-resident hunters to take their kill out of the state as provided above, was not repealed by the passage of the Game Code in 1913. This reverses the construction of the law heretofore given it by the Attorney General and the State Game Warden.

We are laying our plans this year to distribute a large number of Chinese pheasant eggs and a smaller number of Mallard duck eggs, without charge, from the State Game Farm at Walla Walla to those County Game Commissions and citizens generally in the state who will agree to hatch the eggs and liberate the offspring when it is able to take care of itself.

Will you be good enough to advise me if it is the desire of your Game Commission to receive any of these eggs of either variety, and if so, the number that you would like to have?

If your County Game Commission is unable to handle this, I suggest that you take the matter up with the newspapers of your county and see if they will not ascertain if any of their readers care to receive eggs on the above conditions. Last year we had hundreds of applications for eggs from persons who desired to raise Chinese pheasants.

We also beg to advise you that we have arranged an exchange with the State of Wisconsin of five million silver trout eggs for five million Mackinaw trout eggs. Mackinaw trout require deep water. Kindly advise if your county desires any of these, and

PLANT NEARLY 2,000,000 FRY

Kittitas County Game Commission Make Annual Report—Of Much Interest to Sportsmen Over the County.

According to a report of W. E. Crowley, chairman of the Kittitas county game commission, nearly 2,000,000 fish have been reared and distributed in the various streams, lakes and sloughs of the county within the past year. Of this number 1,256,000 were Eastern Brook trout, 14,200 Steelhead trout, 97,000 Rainbow trout, 50,000 Montana Black Spotted trout and 200,000 Cutthroat trout, or a total of 1,717,700. The fish were all hatched at the county hatchery on Cash creek about a mile west of South Cle Elum, under the direction of Fred Yoeman.

The planting of the fry have been in the following waters:

Eastern Brook—Short & Dunnington ranch, 40,000; Fitterer's slough near Tjossem's mill, 40,000; Thorp pond, 40,000; railway slough near Thorp, 40,000; Farrell's slough near Thrall, 35,000; Ringer slough near Thrall, 40,000; lake on Lookout mountain, 6,000; Cooper lake, 35,000; Swamp lake, 40,000; Desmond slough, near upper Ellensburg bridge, 40,000; Reed creek, Fred Hansen ranch, 40,000; Fish lake, 200,000; Pease slough south of Ellensburg, 35,000; Smith slough south of Ellensburg, 35,000; Lake Keechelus, 100,000; Indian George slough south of Ellensburg, 35,000; Fogarty slough, 35,000; Hansen creek, northeast of Ellensburg, 35,000; Wallace slough near Thorp, 35,000; Wilson creek, 35,000.

Other varieties—Lake Keechelus, 97,000; Steelheads, 14,200; Rainbows, 97,500; Taneum creek, Montana Black Spotted, 50,000; Fish lake, Cutthroats, 100,000; Nanum creek, Cutthroats, 66,000; Menashtash creek, Cutthroats, 33,000.

In Cooper lake, Fish lake and Lake Keechelus, three of the most important lakes within the county, considerably over half a million fry were planted last year, the total all varieties, being 866,700, 1,133,300 fry were planted in streams, lakes and sloughs in the southern part of the county or easily accessible to residents in that section.

During the year, 65 chickens, 60 ducks and a few Chinese pheasants were released. A total of 3,613 county hunting licenses, 27 trappers' licenses, 7 non-resident licenses, and 28 state licenses were issued during 1922. Seventy-eight beaver were trapped under direction of the commission and the money turned in to the game fund. From 20 convictions for violation of the game laws in the amount of \$312.50 were collected. Bounty was paid on 131 coyotes, 6 bobcats, 1 wolf, 1 lynx, and 1 wildcat. It is stated that approximately 46 additional bobcats and 3,250 magpies were killed during the year in the county by state hunters and poison.

FRIDAY, DECEMBER 24, 1920

150,000 EGGS FOR OUR COUNTY

Huge Shipment of Mackinaw Trout Eggs Delivered at County Hatchery in South Cle Elum by Darwin

Sup't Riggs of the county hatchery late last week received a shipment of 150,000 Mackinaw trout eggs from State Fish Commissioner Darwin, which he will hatch out next spring for early planting in this county. This is the largest shipment of Mackinaws yet received and the county game commission is very grateful for it, as well as sportsmen generally. Some time ago Representative Hubbell went after more Mackinaw eggs and in a letter to the editor stated that Commissioner Darwin seemed very favorably disposed.

Last spring 50,000 Mackinaws were planted in Lake Cle Elum. This species of trout will very likely all be placed in large lakes of the county as the Mackinaw grows to a large size and requires deep water. If the Mackinaw thrives here, the people of Kittitas county will have some of the finest fishing imaginable as well as a fish which is the peer of any in the world for eating.

A movement is under way now to trade Silver trout eggs which can be taken in Lake Keechelus in large quantities for brook trout eggs, which are more acceptable here.

29 Oct. 1920

- What is being outro'd?



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REMOVAL/REDUCE (BEGAN IN 2013)

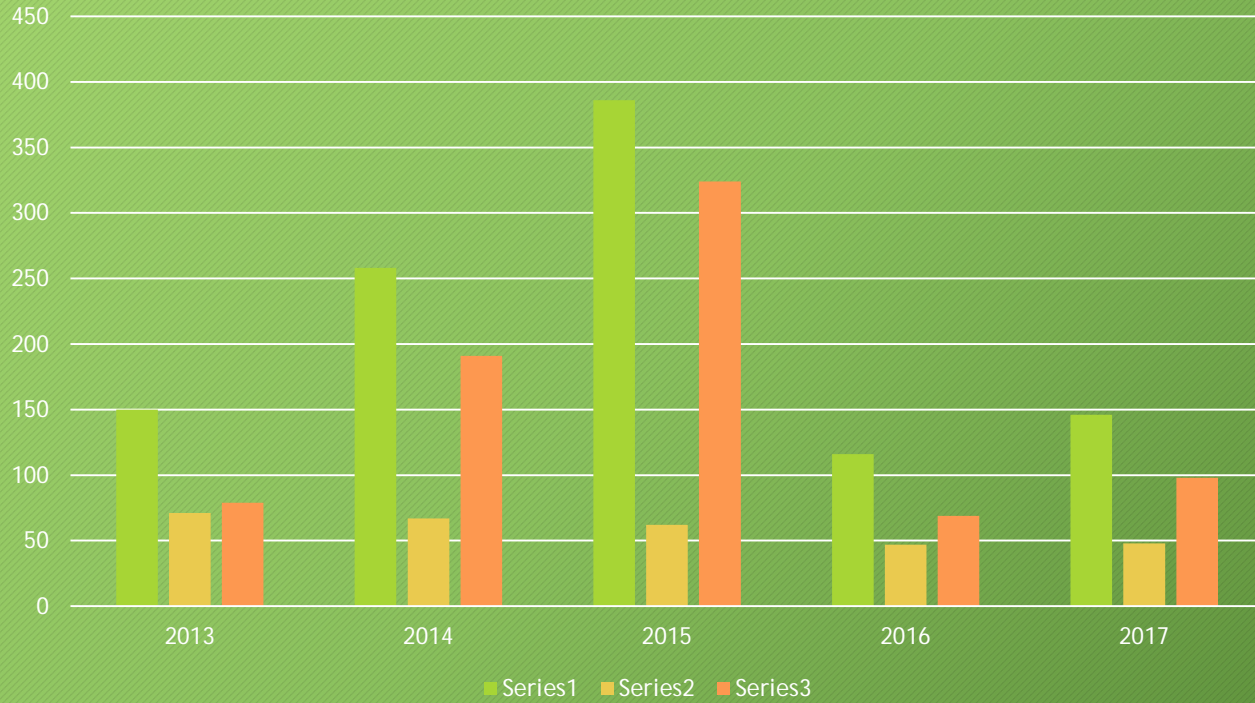
- REQUIRED-MACKINAW REMOVAL PROPOSAL
 - WDFW PARTNERSHIP
- SCIENTIFIC COLLECTORS PERMIT FROM YN FISH AND WILDLIFE COMMITTEE

GILL NETTING

- UP TO 6 GILL NETS USED AND THE FOLLOWING INFORMATION COLLECTED,
 - WEIGHTS, LENGTHS AND HEADS FOR AGING
 - BY-CATCH

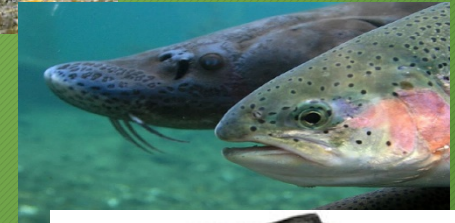


Mackinaw Removed



- What else is being reintro'd?

- Coho Salmon
- Bull Trout
- Steelhead
- Spring Chinook
- Also help Bull Trout movement (not functioning properly)
- Other Native Species



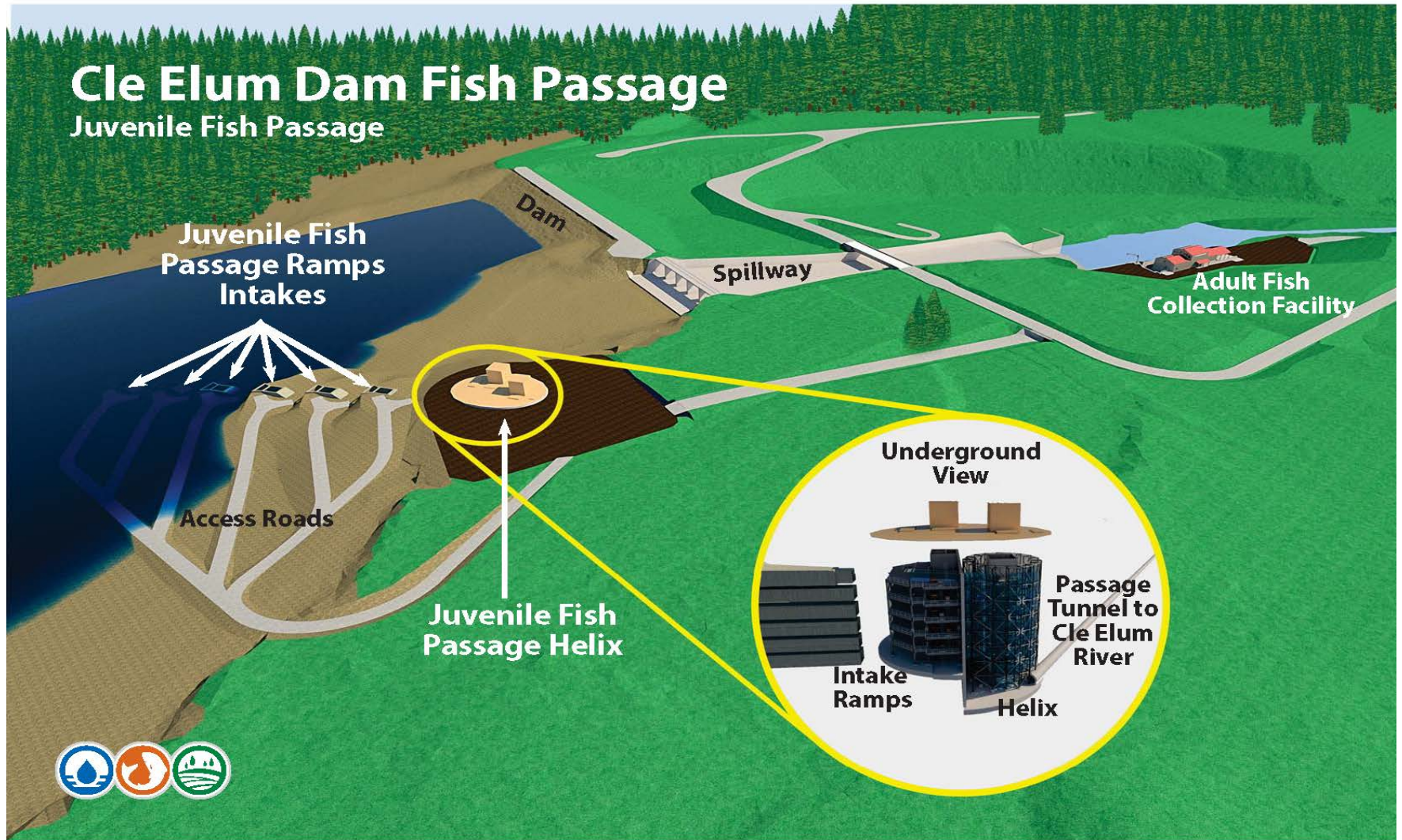
• What's happening next?

- Elders Meeting with ONA and Fisheries Staff
- Rimrock Lake
- Creating Brand
- Community Outreach and Education
- Hydro-Acoustic and Trawl Surveys
- Lake Surveys
- Electro Shocking Invasive Species
- Available Habitat Surveys
- Presenting Anywhere and Everywhere
- New Boat, Drum & Reel



2015 GROUNDBREAKING

Cle Elum Dam Fish Passage Juvenile Fish Passage



Cle Elum Reservoir

Cle Elum Juvenile Fish Passage Facility
Yakima River Basin Water Resource Management Plan

RECLAMATION
Managing Water in the West

DEPARTMENT OF
ECOLOGY
State of Washington

STAGE II:
Juvenile Fish Passage
Intake Structure

STAGE I:
Cofferdam 1

Cofferdam 2

Northern Access Road
Temporary Road

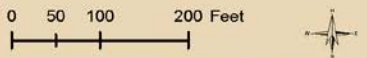
Bridge

Juvenile Bypass Tunnel

Juvenile Fish Passage Access Road

Southern Access Road

Road System	Stage I Features	Stage II Features
Northern Access Road	Juvenile Fish Passage Helix	Multilevel Intake Structure
Southern Access Road	Secant	Stage II - Ground Work
Temporary Road	Stage I - Ground Work	O&M Roads
Juvenile Fish Passage Access Road	Cofferdam 1	Cofferdam 2
Bridge	Operations Yard	
Juvenile Bypass Tunnel		



Mapping Information:
Cartography: Bureau of Reclamation, Cascades-Columbia Area
Projection: WA State Plane, South Zone, NAD 83, Feet
Date Produced: January 8, 2016 (Modified on January 20, 2016)

Photography = USDA Aerial Photography Field Office (2015)
Design Features = Reclamation's CCAO, PNR, TSC offices.

NOTE: MAP DOES NOT CONFORM TO THE NATIONAL MAP ACCURACY STANDARD



HONOR. PROTECT. RESTORE.

learn more at:

Yakamafish-nsn.gov

QUESTIONS?

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achxilpanisha ishchit “making a way”



AFS Kelowna 2018

