StreamNet Steering Committee Meeting

February 21-22, 2023

Idaho Department of Fish and Game
600 S Walnut St, Boise, ID 83712

Microsoft Teams meeting: Click here to join the meeting
Meeting ID: 256 444 019 150; Passcode: 3krkS4

Or call in (audio only)
+1 207-387-0436,,18592415# United States, Portland

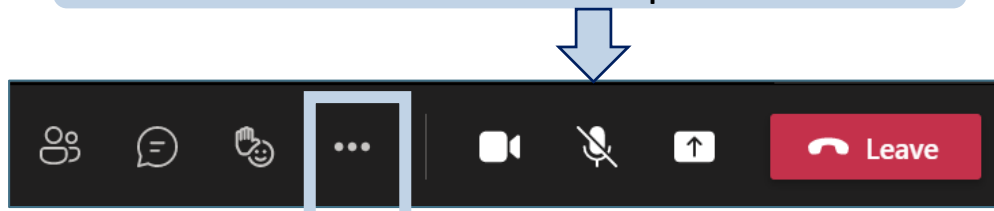
Welcome and Introductions

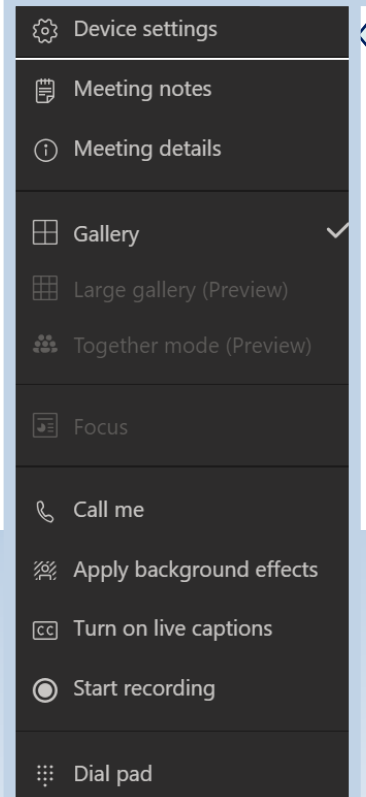
Please leave web cameras on to facilitate discussion

All participants,

please use the chat to introduce yourself (name and affiliation)

Please mute yourself when not speaking.
Use *6 to mute phone audio.
Use the microphone icon on the control bar to mute computer audio.





Check device settings if you are having problems with audio/video

StreamNet
www.streamnet.org

Agenda

(times are approximate, Mountain time zone)

DAY 1 – FEBRUARY 21, 2023	
TIME	AGENDA ITEM
1:00 MT	Welcome and introductions
1:15	Spotlight: Hagerman Parentage Based Tagging Data (Jon Hess, CRITFC)
1:35	Member Updates
3:35	Stretch Break
3:40	Review revised CAP QA/QC tool for 2023
4:00	StreamNet data to Monitoring Resources connections
4:30	Update on revised CAP-Map Fish HLIs user interface
4:50	StreamNet Budget
5:20	Next meeting SN SC Sept 2023
5:30	End Day 1
6:30	Restaurant (bring cash)

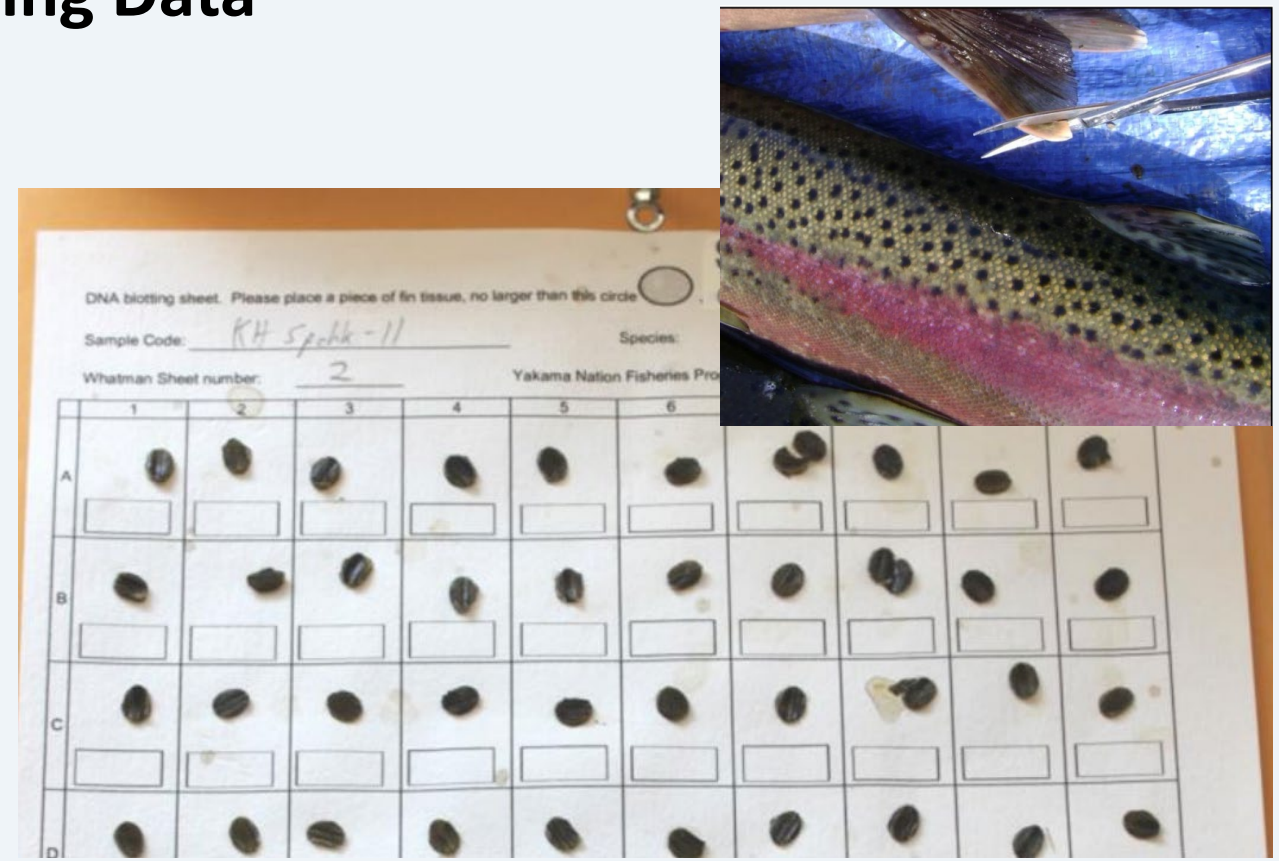
DAY 2 – FEBRUARY 22, 2023	
TIME	AGENDA ITEM
9:00 MT	CY2022 Annual Report to BPA review timeline and discuss specific items
9:30	Spotlight: Yakama Nation Fisheries Hatchery Data Management and Sharing (Michelle Steg-Geltner and Anneliese Myers, Yakama Nation)
10:10	Update on HCAX 2023 pilot DES and 2023 pilot data flow
10:50	Stretch Break
11:00	Brainstorm on how we can more efficiently exchange hatchery data
12:00	CAP Workshop
12:30	Adjourn

Spotlight

Hagerman Parentage Based Tagging Data

Jon Hess

Columbia River Inter-Tribal Fish Commission



Images: https://www.critfc.org/wp-content/uploads/2017/01/07_Parental-Based-Tagging-PBT.pdf

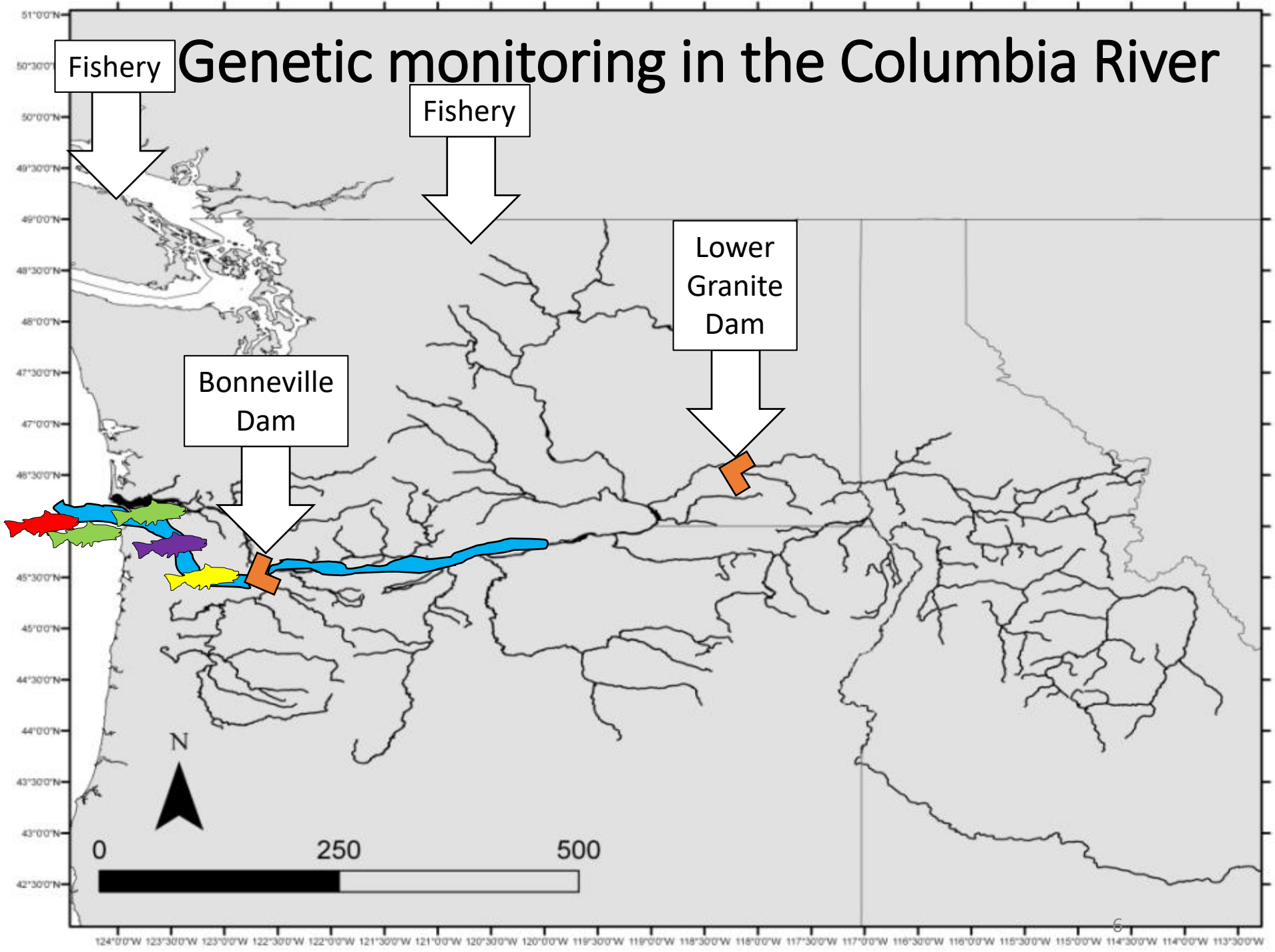
Genetic Monitoring of Salmonids in the Columbia River Basin

Jon Hess & Shawn Narum

Columbia River Inter-Tribal Fish Commission (CRITFC)

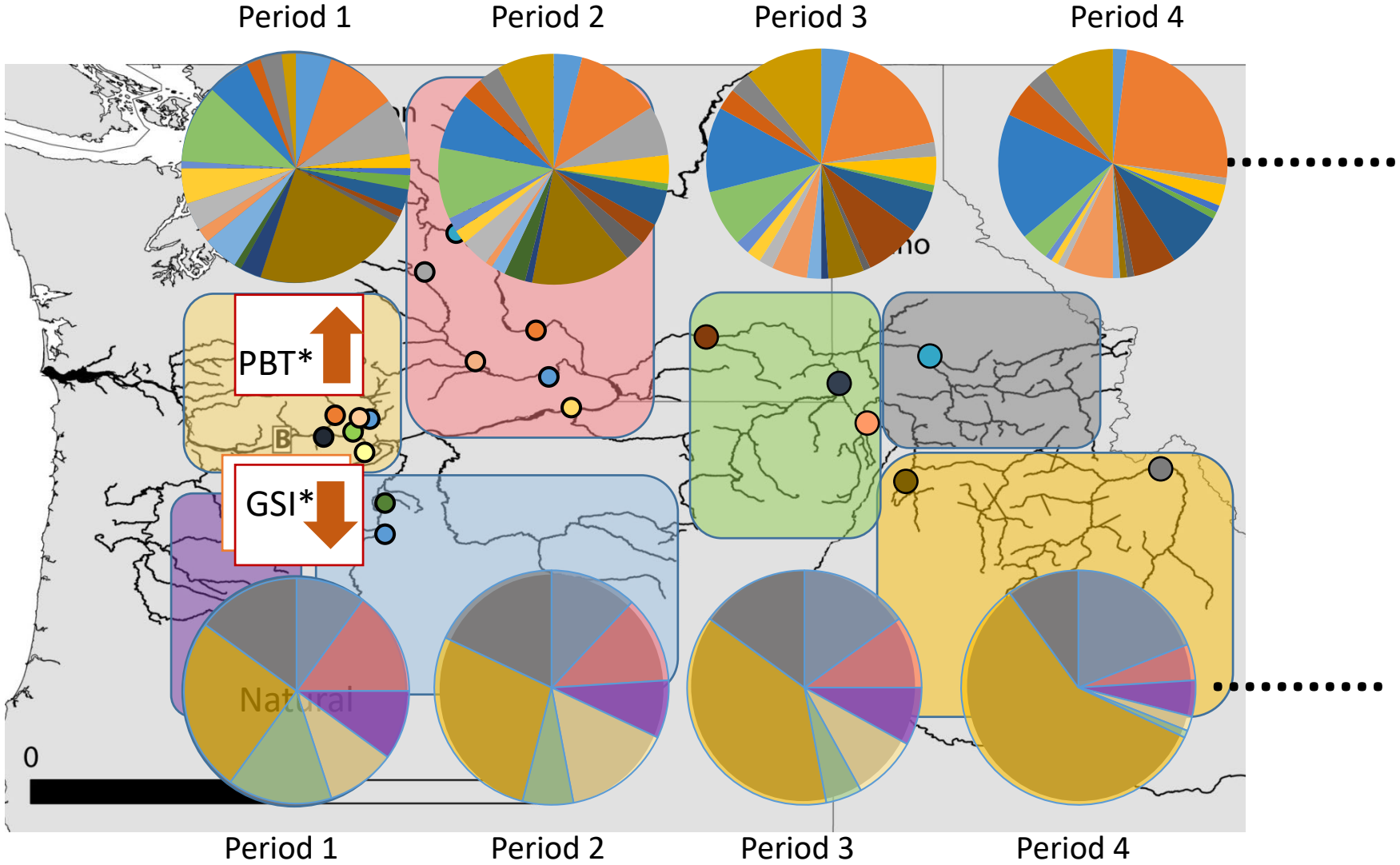
Idaho Department of Fish & Game (IDFG)

Genetic monitoring in the Columbia River



Bonneville Dam:

In-season estimates of abundance/timing at Bonneville Dam for specific stocks of Chinook, steelhead, sockeye; biweekly reports sent to co-managers



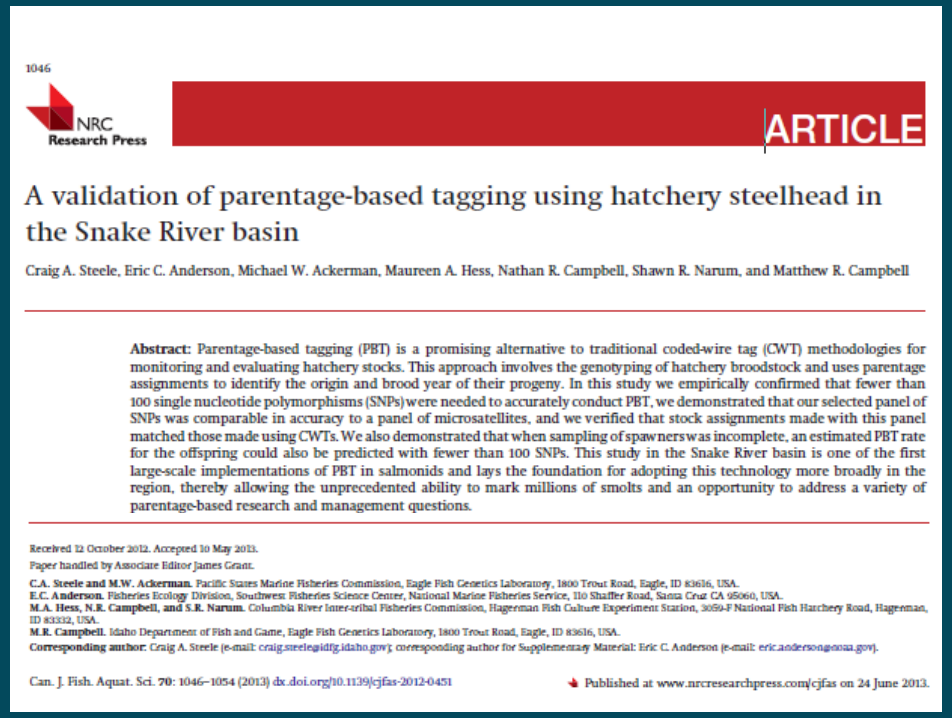
*PBT = Parentage Based Tagging

*GSI = Genetic Stock Identification

Major achievements during proof-of-concept period:

Parentage Based Tagging-

- Accuracy- PBT is accurate and matched CWT assignments CWTs (Steele et al 2013)
- Integration- Same genetic marker panel for GSI and PBT
- Tag rates- High realized tag rates 2009 - Present (>95%)
- Utility- Powerful technology to address multiple management and research questions throughout the CRB



1046

NRC Research Press

ARTICLE

A validation of parentage-based tagging using hatchery steelhead in the Snake River basin

Craig A. Steele, Eric C. Anderson, Michael W. Ackerman, Maureen A. Hess, Nathan R. Campbell, Shawn R. Narum, and Matthew R. Campbell

Abstract: Parentage-based tagging (PBT) is a promising alternative to traditional coded-wire tag (CWT) methodologies for monitoring and evaluating hatchery stocks. This approach involves the genotyping of hatchery broodstock and uses parentage assignments to identify the origin and brood year of their progeny. In this study we empirically confirmed that fewer than 100 single nucleotide polymorphisms (SNPs) were needed to accurately conduct PBT, we demonstrated that our selected panel of SNPs was comparable in accuracy to a panel of microsatellites, and we verified that stock assignments made with this panel matched those made using CWTs. We also demonstrated that when sampling of spawners was incomplete, an estimated PBT rate for the offspring could also be predicted with fewer than 100 SNPs. This study in the Snake River basin is one of the first large-scale implementations of PBT in salmonids and lays the foundation for adopting this technology more broadly in the region, thereby allowing the unprecedented ability to mark millions of smolts and an opportunity to address a variety of parentage-based research and management questions.

Received 12 October 2012. Accepted 10 May 2013.
Paper handled by Associate Editor James Grant.

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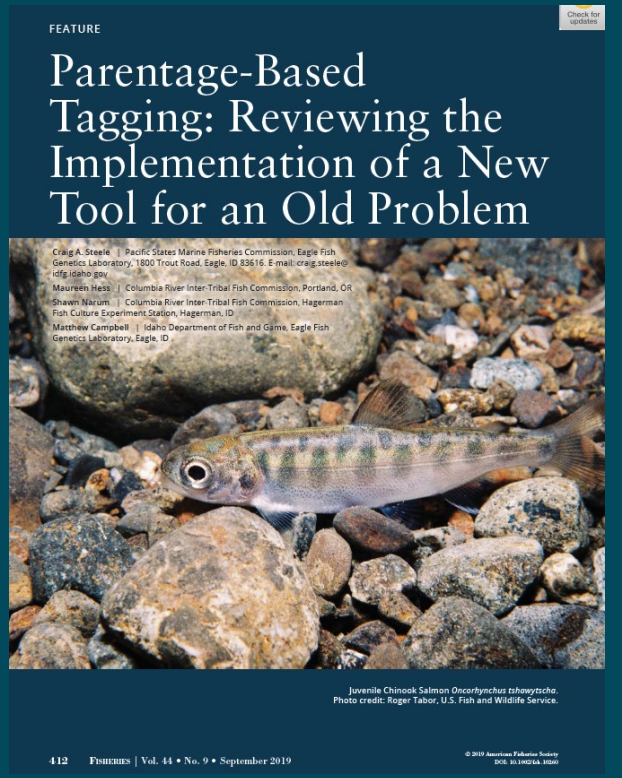
E.C. Anderson. Fisheries Ecology Division, Southwest Fisheries Science Center, National Marine Fisheries Service, 110 Shaffer Road, Santa Cruz CA 95060, USA.
M.A. Hess, N.R. Campbell, and S.R. Narum. Columbia River Inter-tribal Fisheries Commission, Hagerman Fish Culture Experiment Station, 3059-F National Fish Hatchery Road, Hagerman, ID 83332, USA.
M.R. Campbell. Idaho Department of Fish and Game, Eagle Fish Genetics Laboratory, 1800 Trout Road, Eagle, ID 83616, USA.
Corresponding author: Craig A. Steele (e-mail: craig.steele@idfg.idaho.gov); corresponding author for Supplementary Material: Eric C. Anderson (e-mail: eric.anderson@noaa.gov).

Can. J. Fish. Aquat. Sci. 70: 1046–1054 (2013) dx.doi.org/10.1139/cjfas-2012-0451 Published at www.nrcresearchpress.com/cjfas on 24 June 2013.



FEATURE

Check for updates

Parentage-Based Tagging: Reviewing the Implementation of a New Tool for an Old Problem

Craig A. Steele | Pacific States Marine Fisheries Commission, Eagle Fish Genetics Laboratory, 1800 Trout Road, Eagle, ID 83616. E-mail: craig.steele@idfg.idaho.gov
Maureen Hess | Columbia River Inter-Tribal Fish Commission, Portland, OR
Shawn Narum | Columbia River Inter-Tribal Fish Commission, Hagerman Fish Culture Experiment Station, Hagerman, ID
Matthew Campbell | Idaho Department of Fish and Game, Eagle Fish Genetics Laboratory, Eagle, ID

Juvenile Chinook Salmon *Oncorhynchus tshawytscha*. Photo credit: Roger Tabor, U.S. Fish and Wildlife Service.

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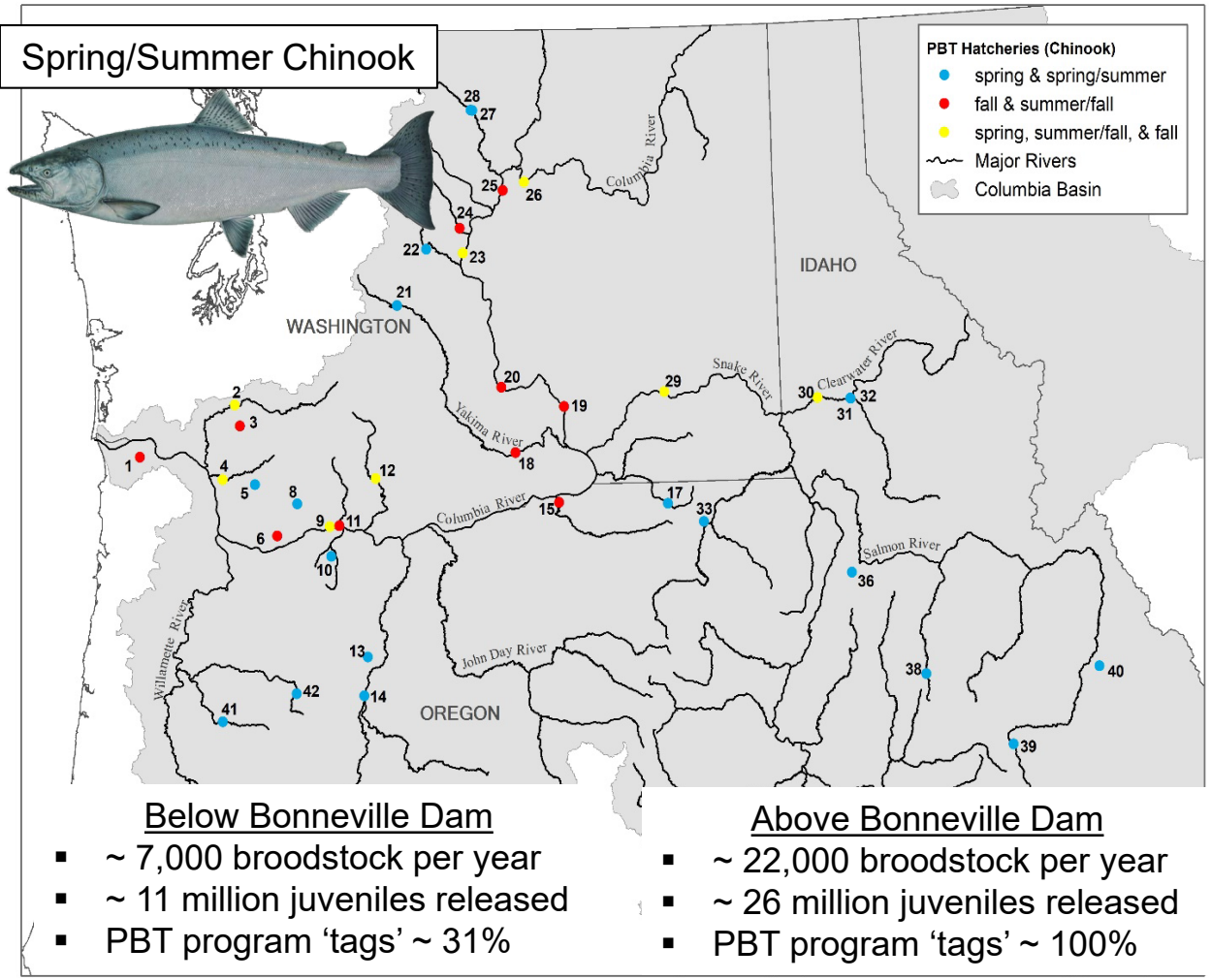
DOI: 10.1002/fsh.10260

Parentage Based Tagging (PBT)
- Complete baselines above Bonneville since 2013

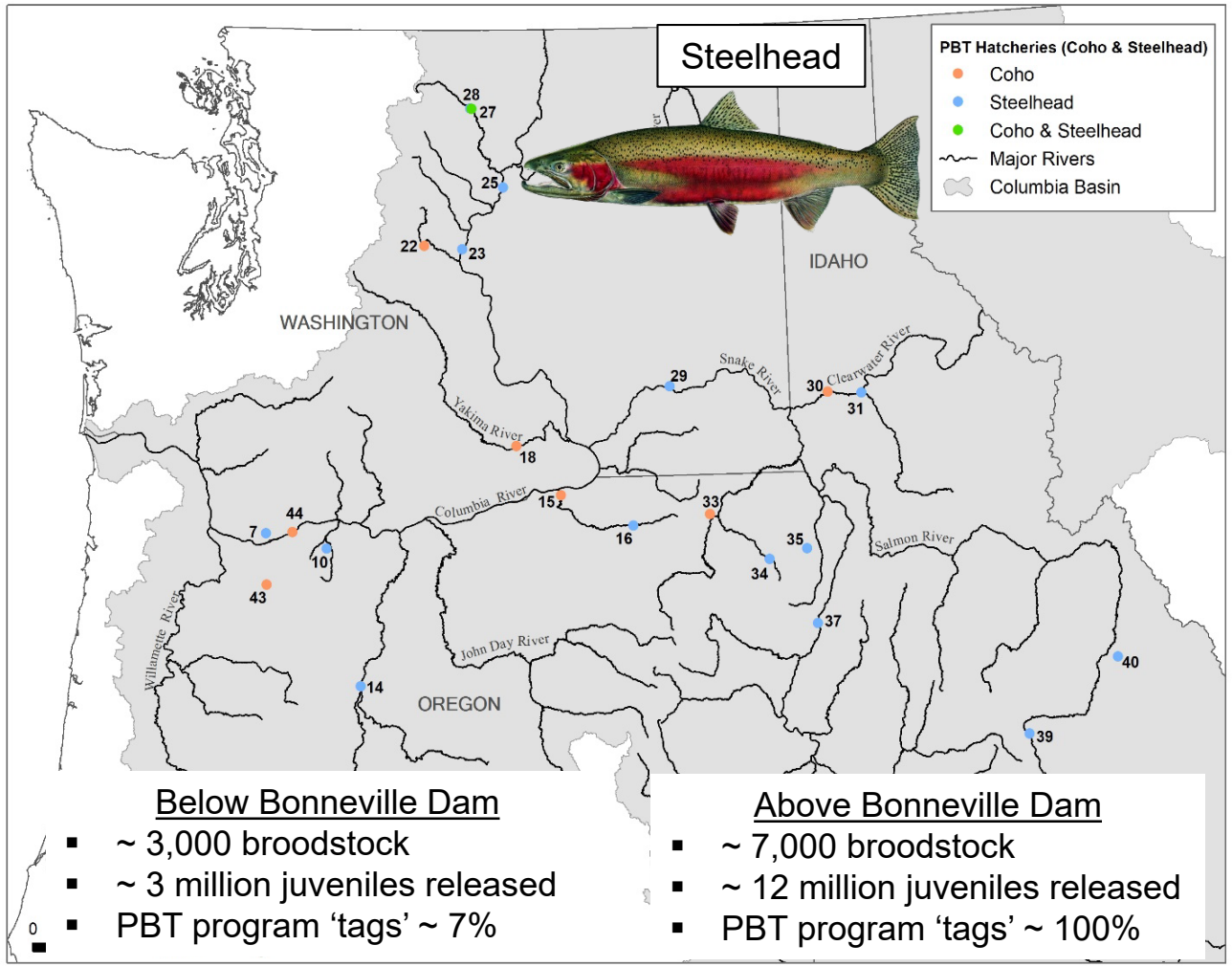
Chinook spawning hatcheries



Below Bonneville Dam
- ~ 7,000 broodstock per year
- ~ 11 million juveniles released
- PBT program 'tags' ~ 31%

Above Bonneville Dam
- ~ 22,000 broodstock per year
- ~ 26 million juveniles released
- PBT program 'tags' ~ 100%

Steelhead & Coho spawning hatcheries

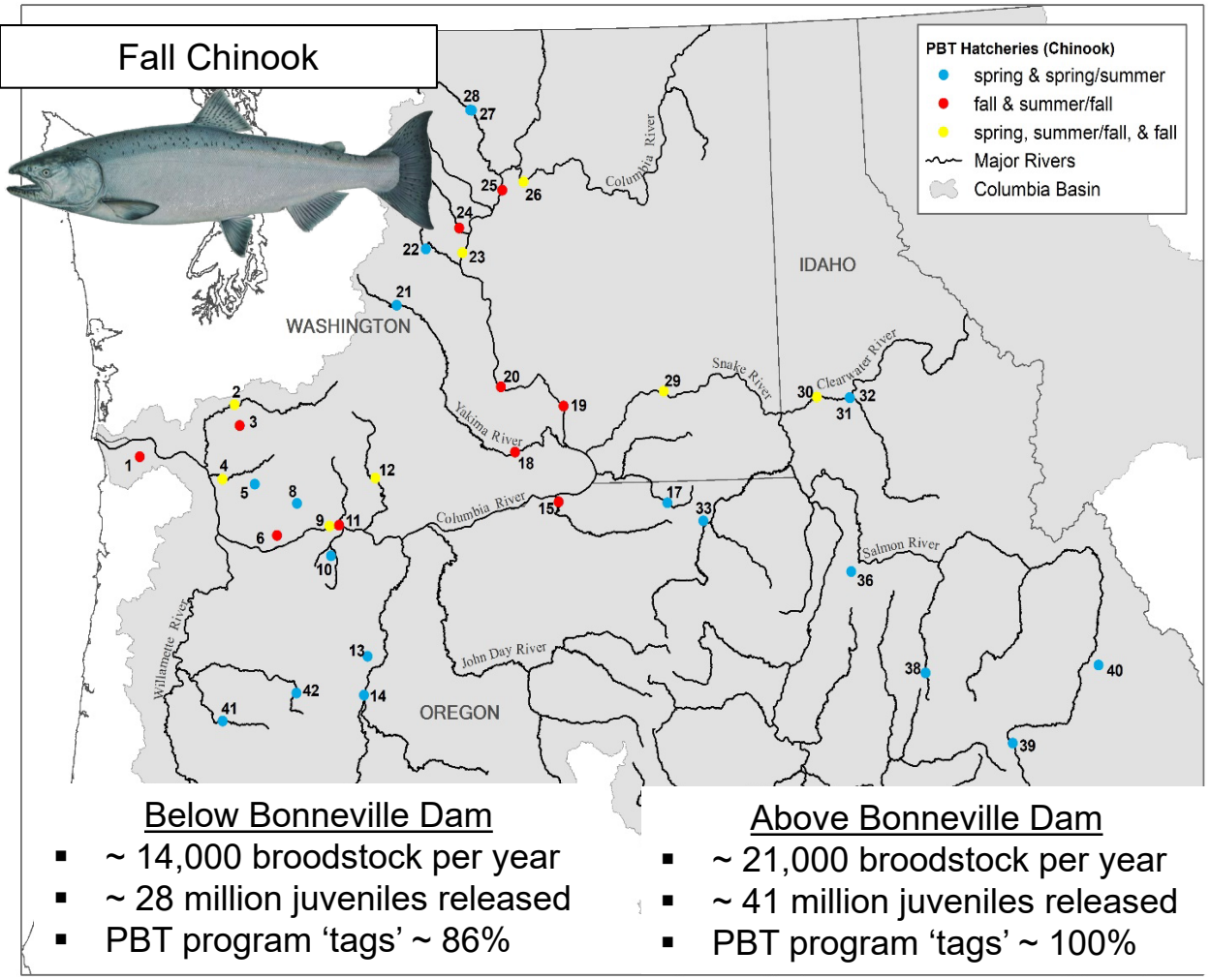


Below Bonneville Dam
- ~ 3,000 broodstock
- ~ 3 million juveniles released
- PBT program 'tags' ~ 7%

Above Bonneville Dam
- ~ 7,000 broodstock
- ~ 12 million juveniles released
- PBT program 'tags' ~ 100%

Parentage Based Tagging (PBT)
- Complete baselines above Bonneville since 2013

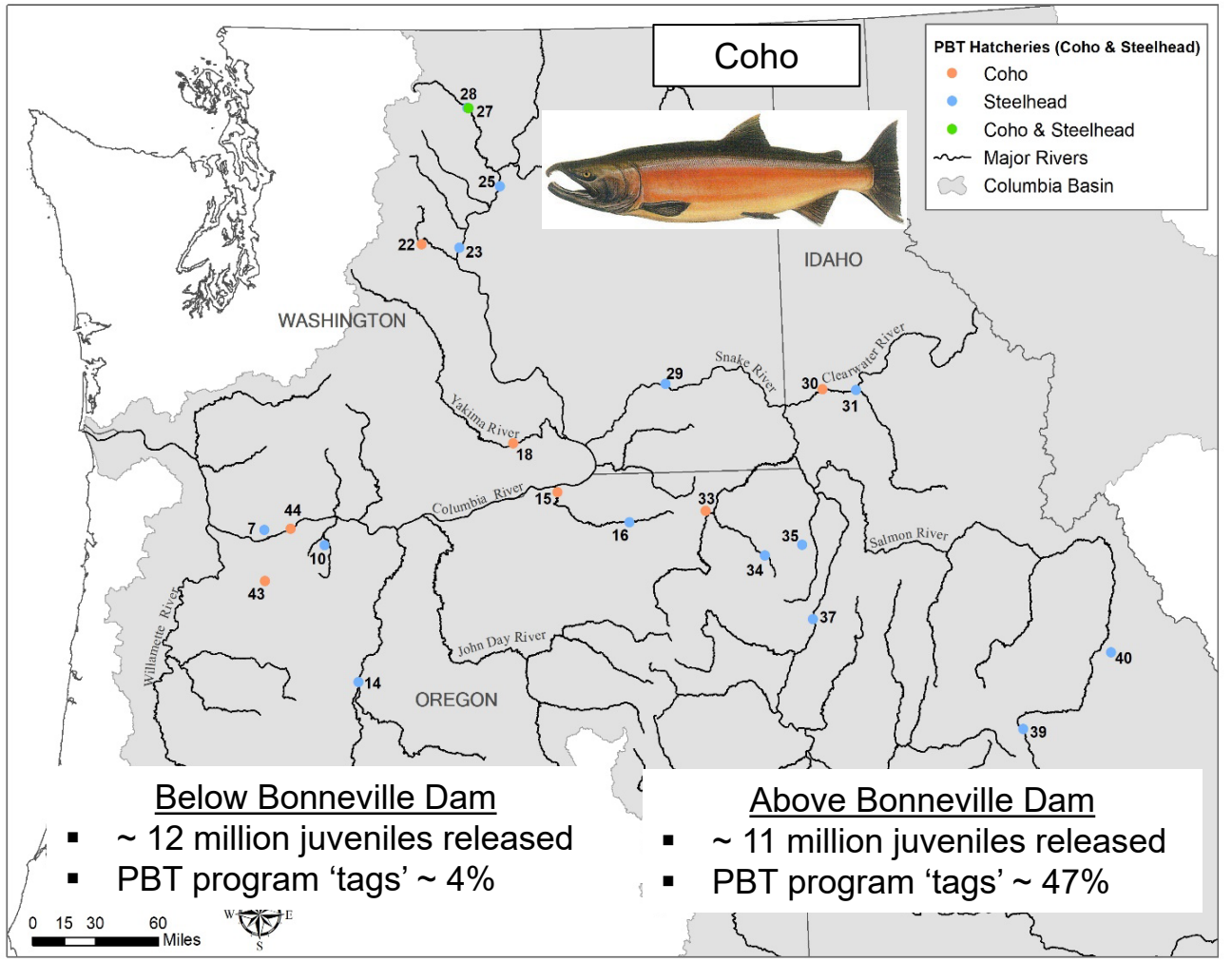
Chinook spawning hatcheries



Below Bonneville Dam
- ~ 14,000 broodstock per year
- ~ 28 million juveniles released
- PBT program 'tags' ~ 86%

Above Bonneville Dam
- ~ 21,000 broodstock per year
- ~ 41 million juveniles released
- PBT program 'tags' ~ 100%

Steelhead & Coho spawning hatcheries



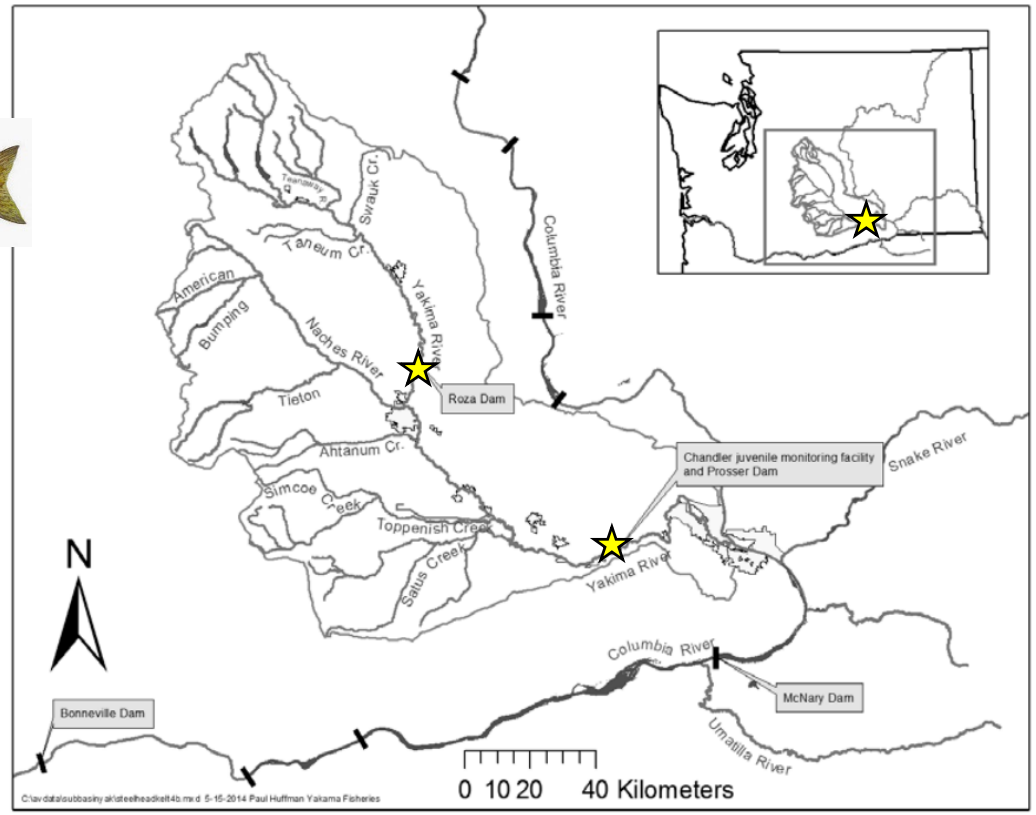
Below Bonneville Dam
- ~ 12 million juveniles released
- PBT program 'tags' ~ 4%

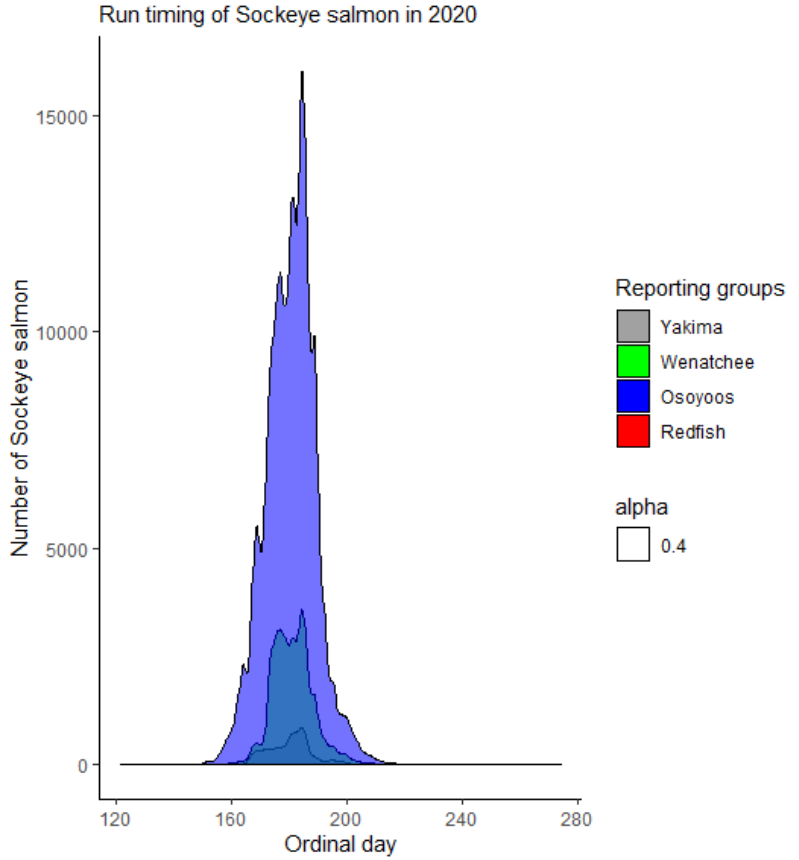
Above Bonneville Dam
- ~ 11 million juveniles released
- PBT program 'tags' ~ 47%

Parentage Based Tagging (PBT)
- Complete baselines above Bonneville since 2013

Sockeye reintroduction

Sockeye





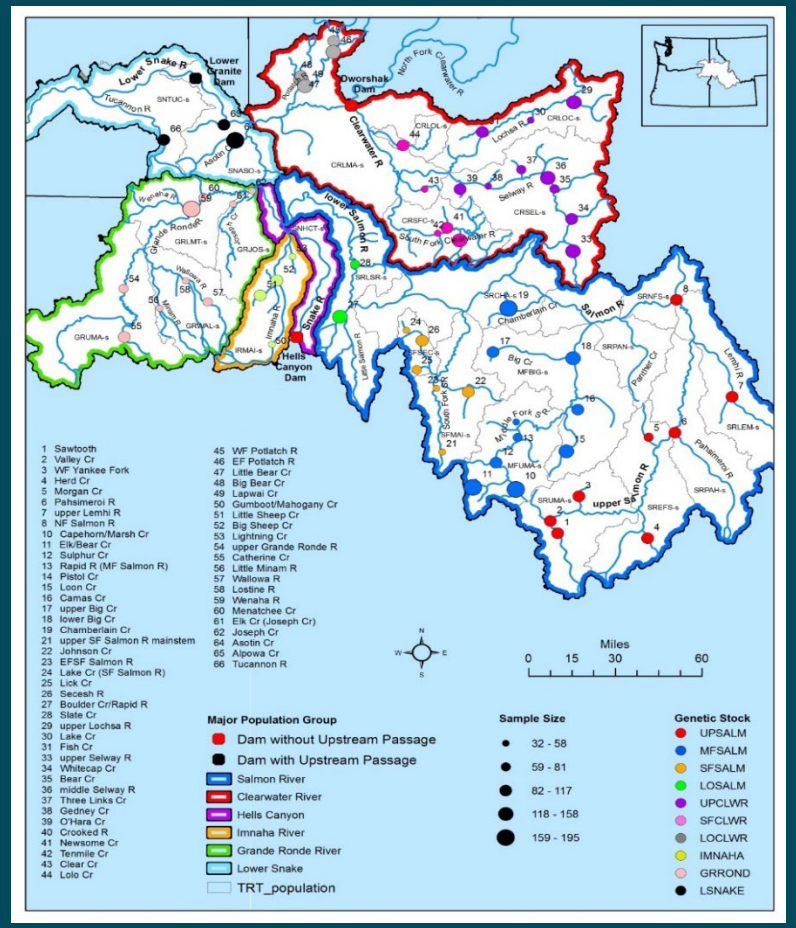
Above Bonneville Dam

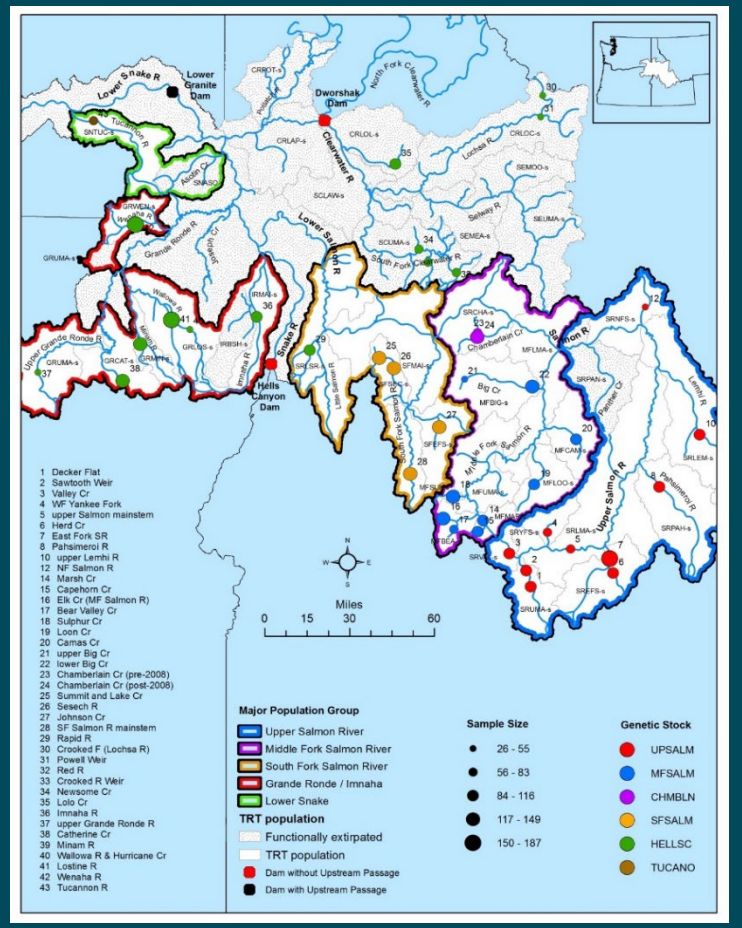
- ~ 10,000 adult transplants per year
- PBT program 'tags' ~ 50%

Major achievements:

Genetic Stock Identification-

- Comprehensive GSI SNP genetic baselines for both species
  - Chinook Salmon: Sample collections represent 31 TRT pops, 6 Genetic Stocks spanning 5 MPGs
  - Steelhead: Sample collections represent 23 TRT pops, 10 Genetic Stocks spanning 6 MPGs
- Baselines incorporated into Columbia River genetic baselines (CRITFC)



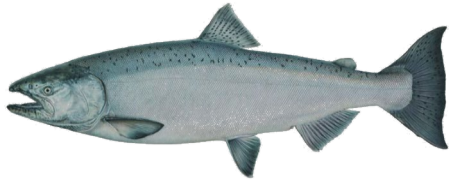


GENETIC STOCK ID BASELINES

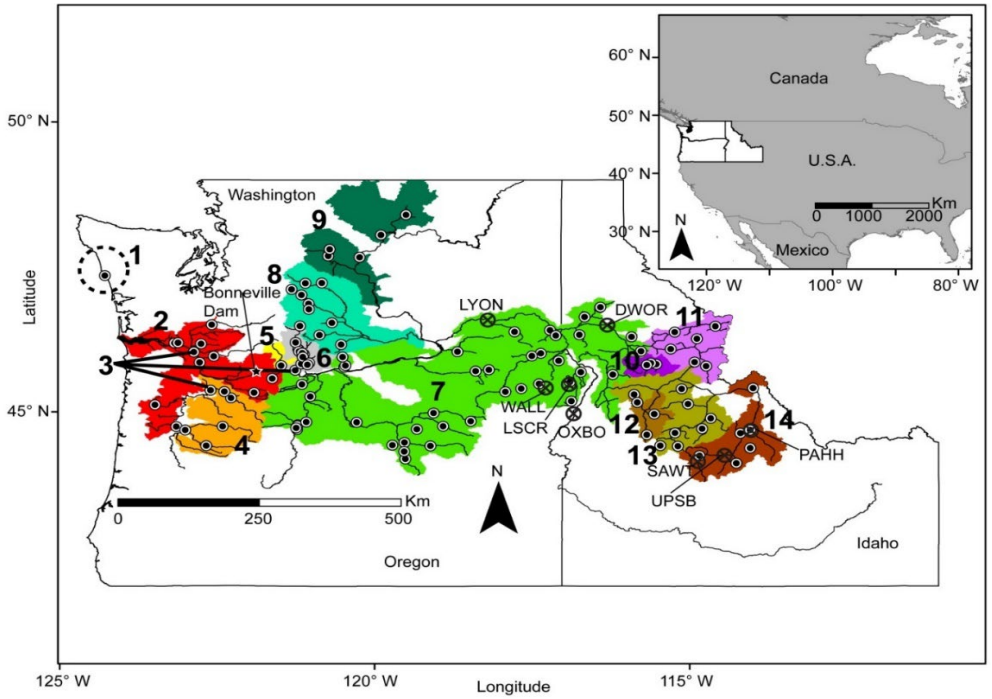
Utility to assign <u>natural origin</u> fish

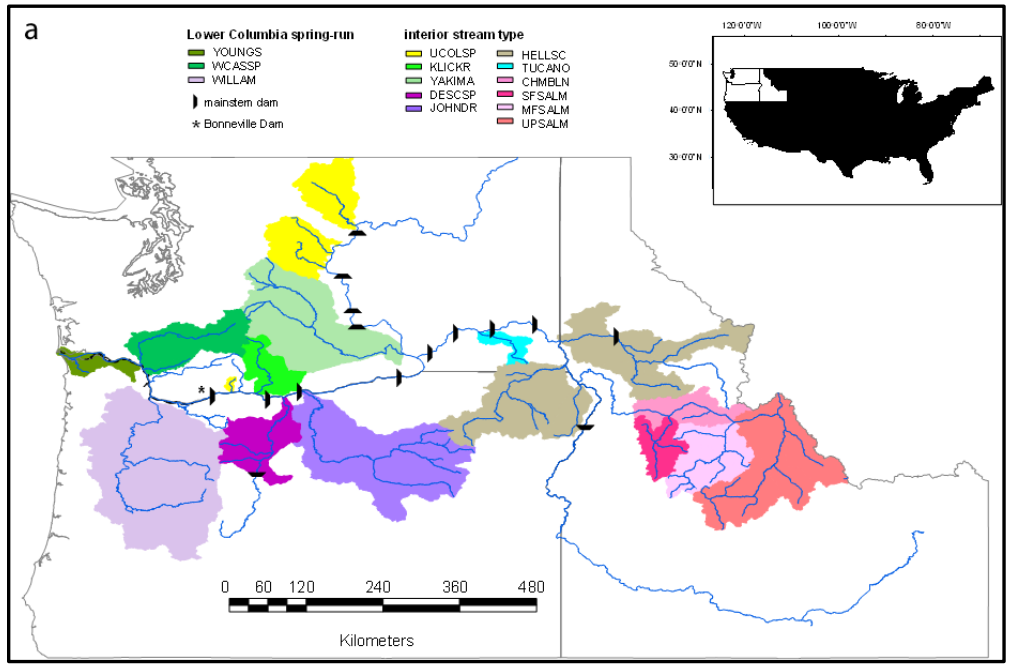
Genetic Stock Identification (GSI)

Steelhead



Chinook salmon





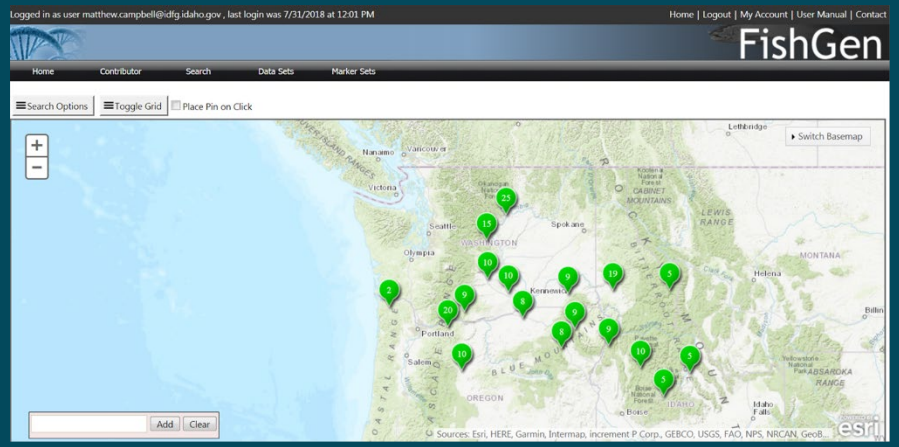
<u>Primary sockeye stocks</u>
-Wenatchee R.
-Okanogan R.
-Snake R.
-several kokanee stocks

Hess et al. 2022; BPA Report

Major achievements:

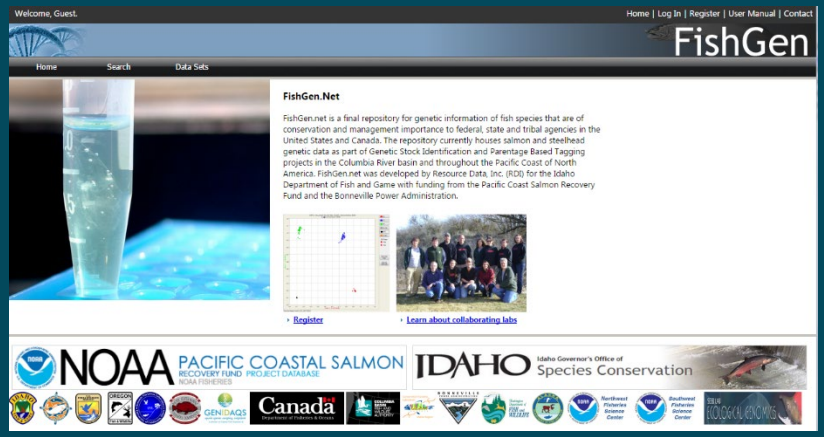
Both Projects-

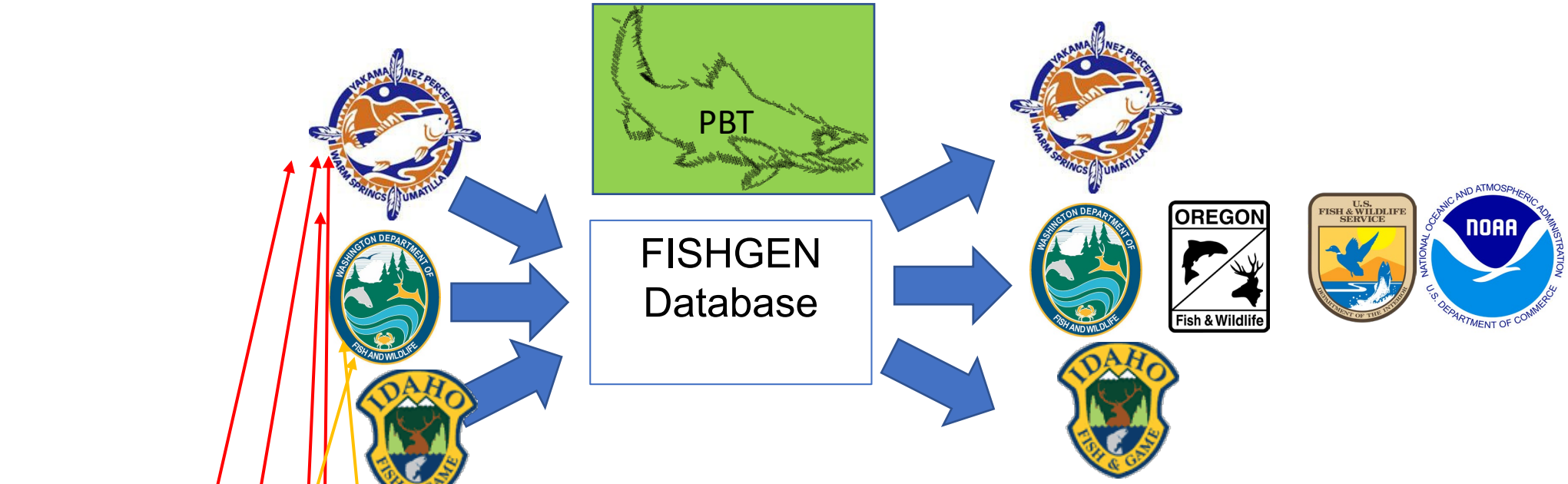
- FishGen Database
- Additional funding from PSMFC

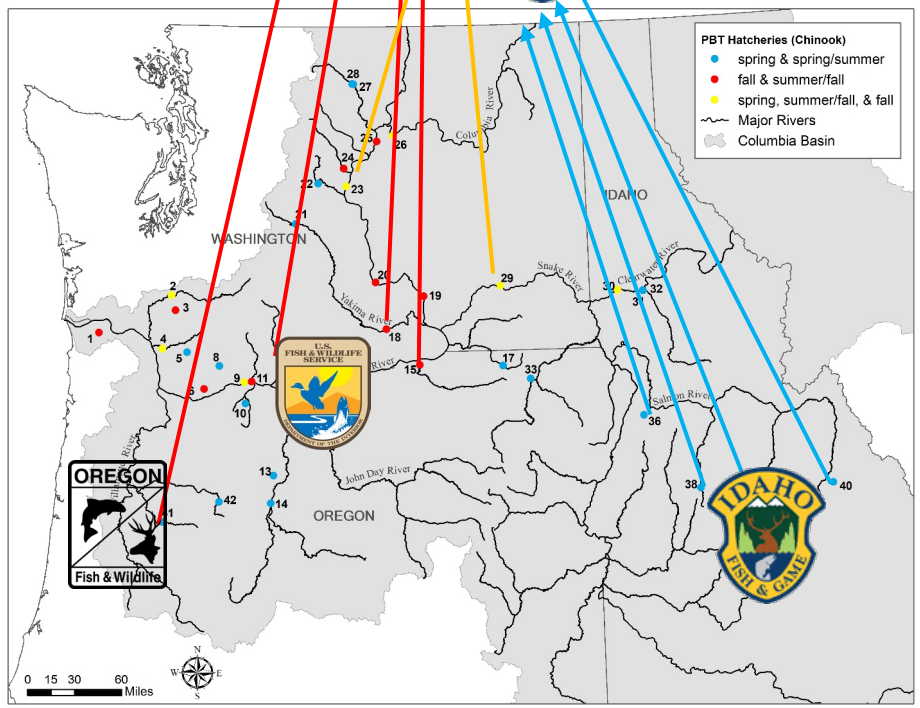


All PBT/GSI baselines available on FishGen

- ~500,000 Chinook Salmon
- ~150,000 Steelhead
- Standardized genetic marker panels
- Publicly available

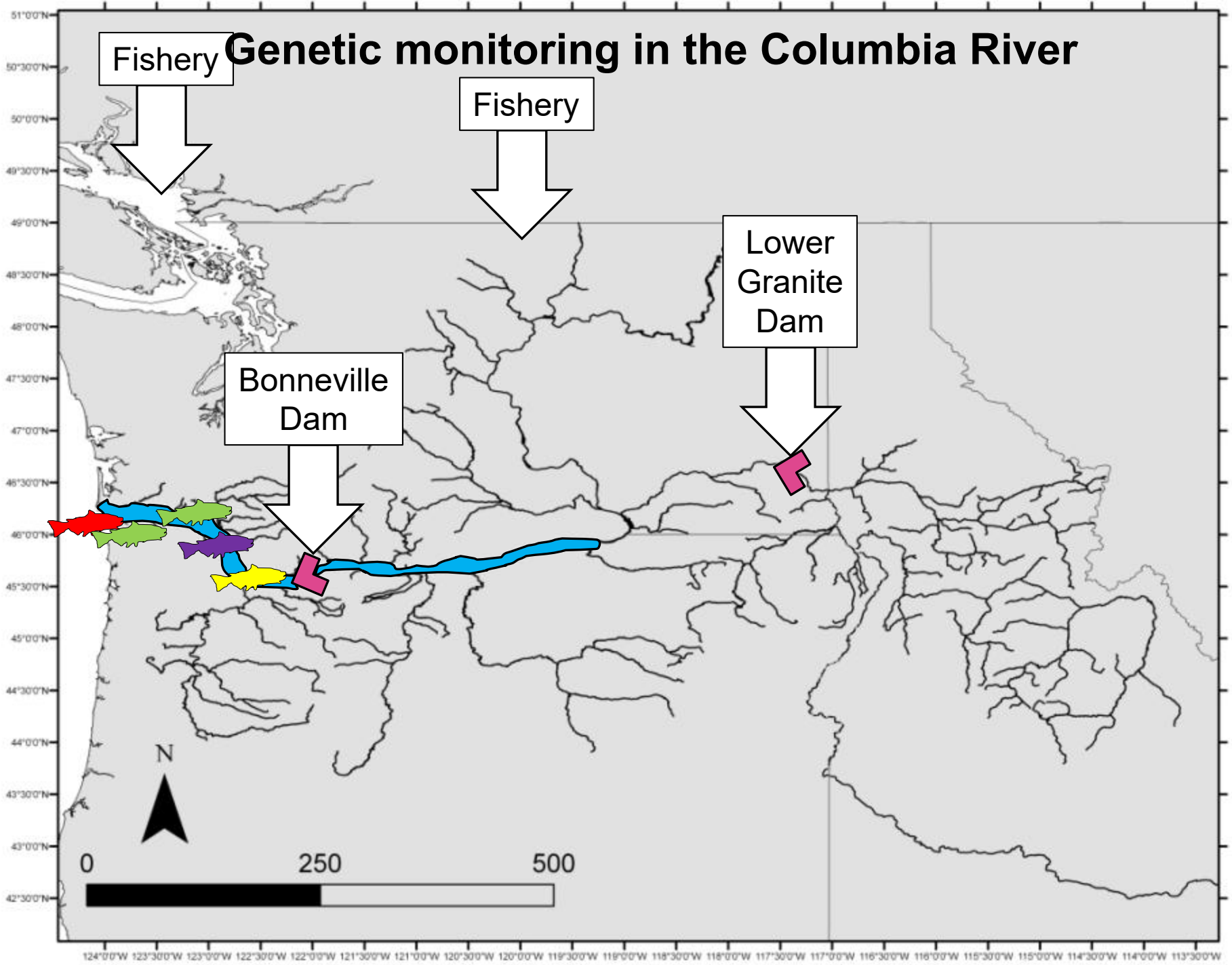




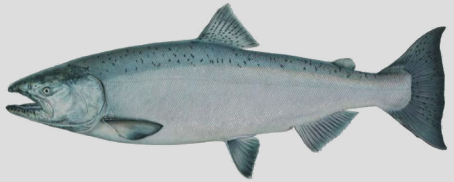


- Staff from various agencies collect tissues from broodstock
- Genetics Labs process samples and upload genetic data to FISHGEN
- Additional processing is required to compile data into datasets
(PBT baseline updates for new SY)
- Genetics Labs download PBT and GSI datasets from FISHGEN for their specific fisheries applications

Genetic monitoring in the Columbia River



Chinook salmon



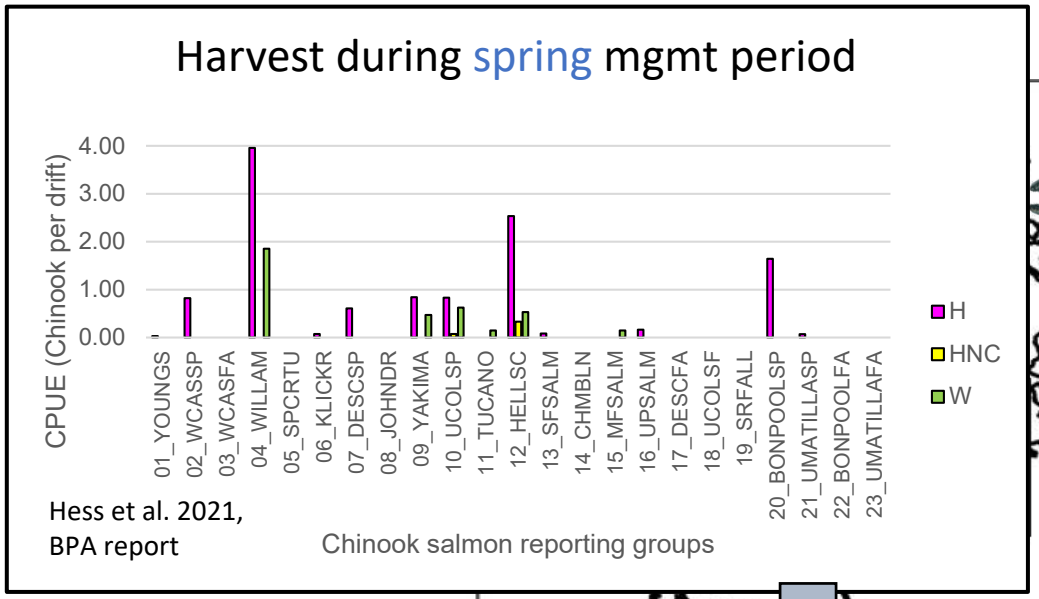
Steelhead

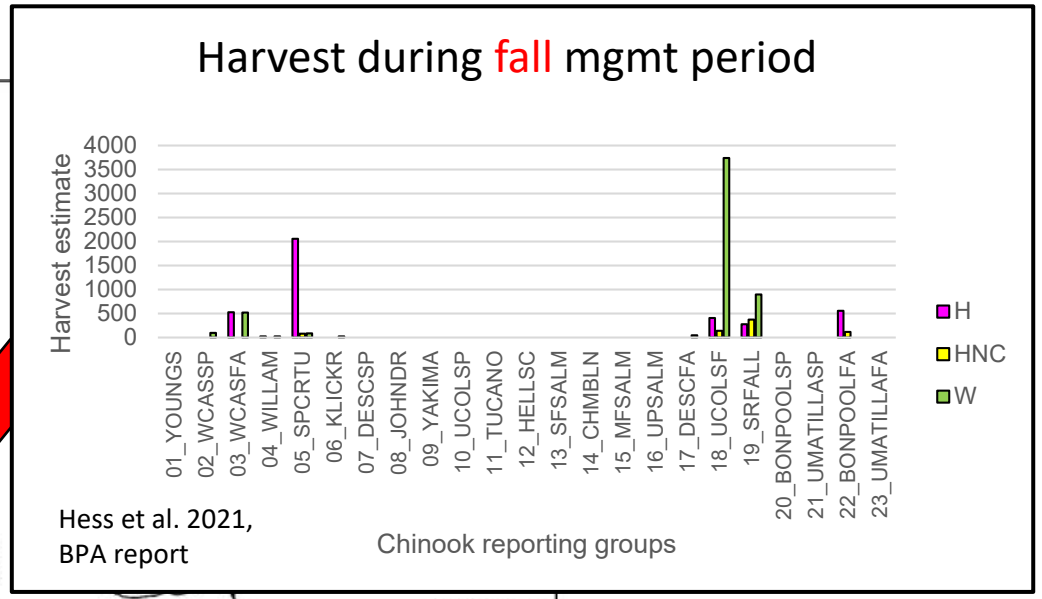
Sockeye salmon

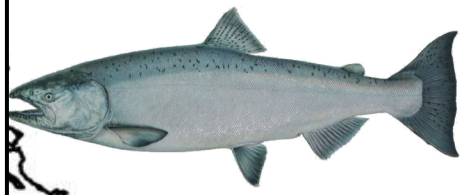
Coho salmon

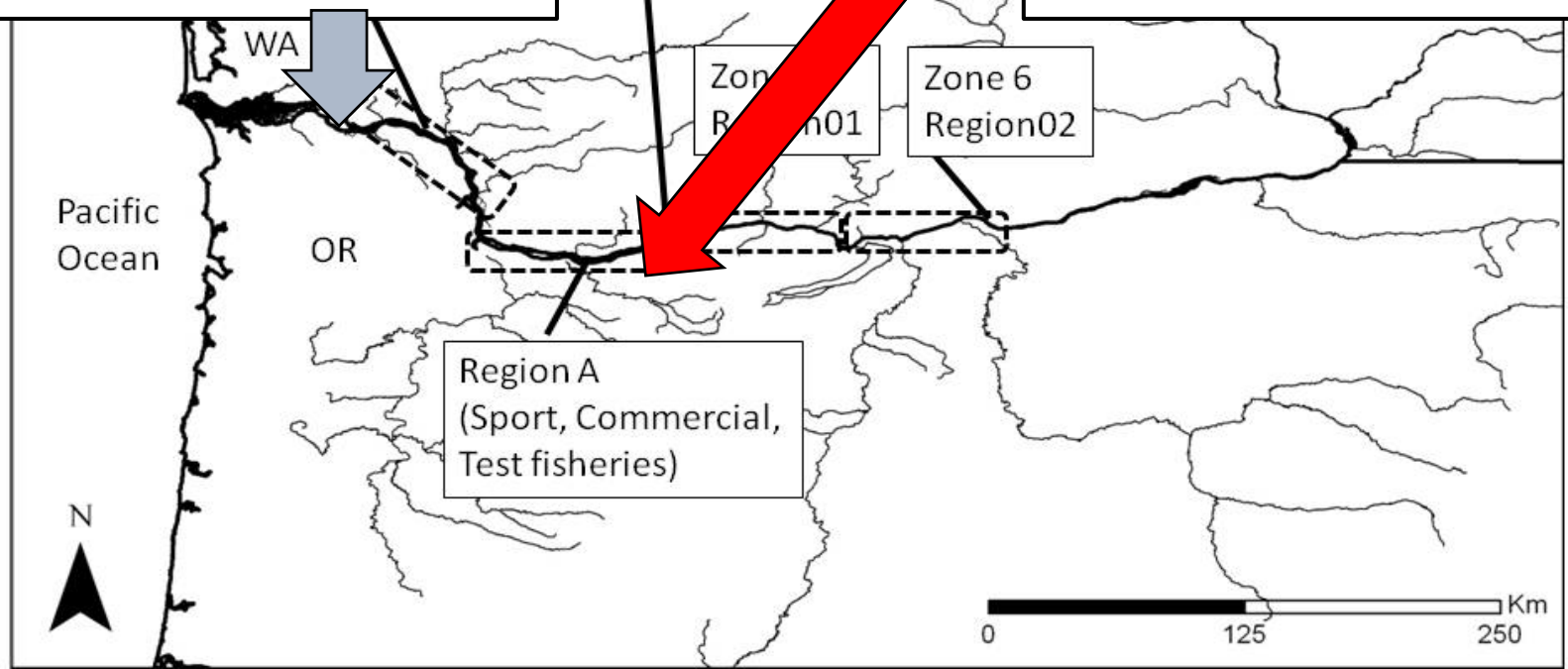
STOCK ID OF MAINSTEM HARVEST
Stock specific harvest annually since 2009

Chinook salmon







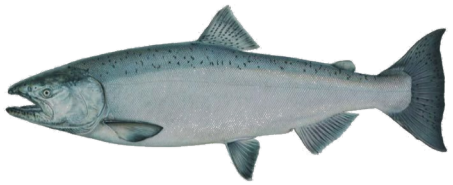


- Hatchery clipped
- Hatchery unclipped
- W; Natural origin

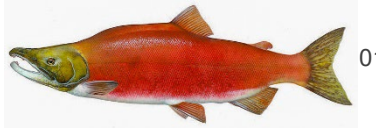
In-season analyses of stocks (since 2017)

Results provided at two-week intervals throughout run

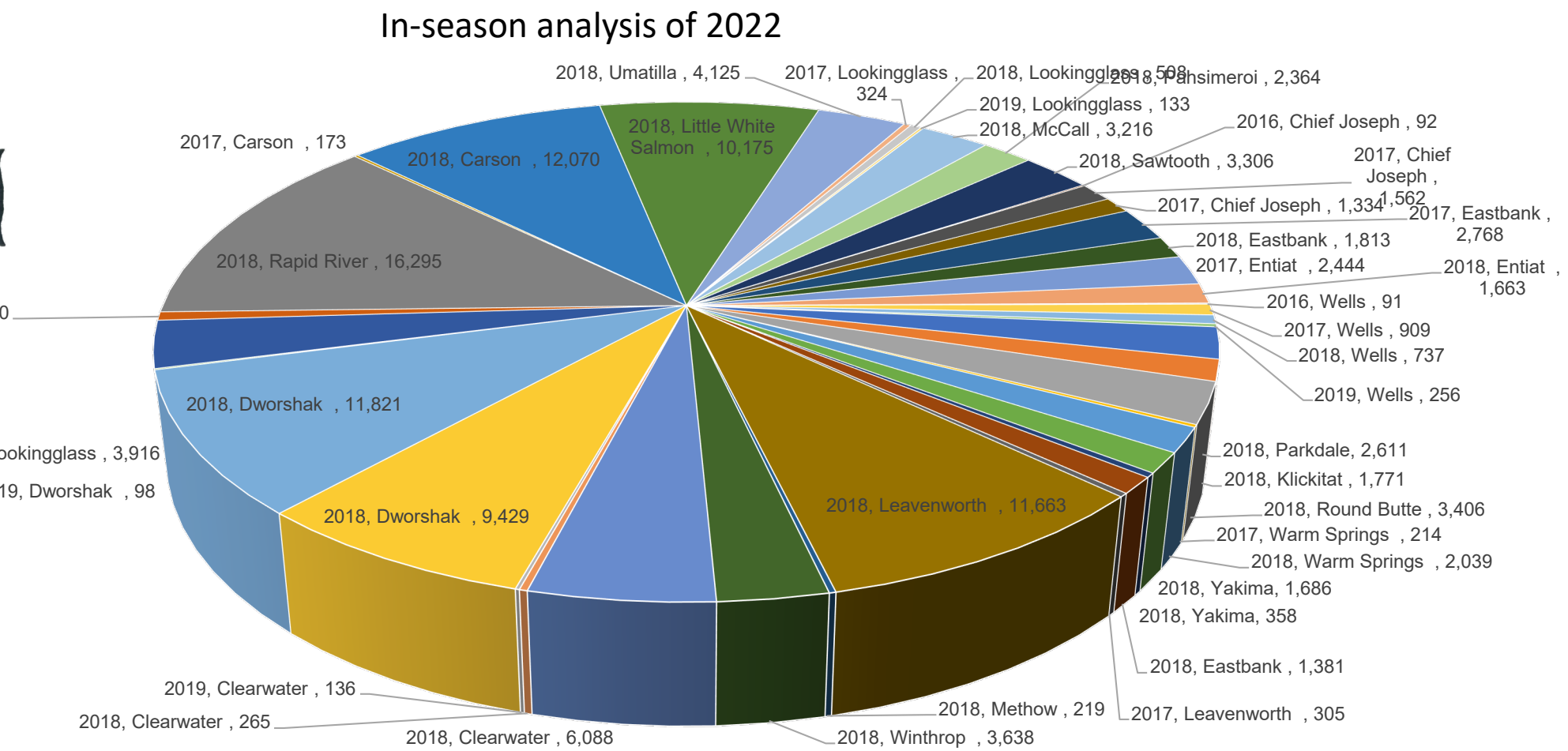
Spring Chinook



Sockeye

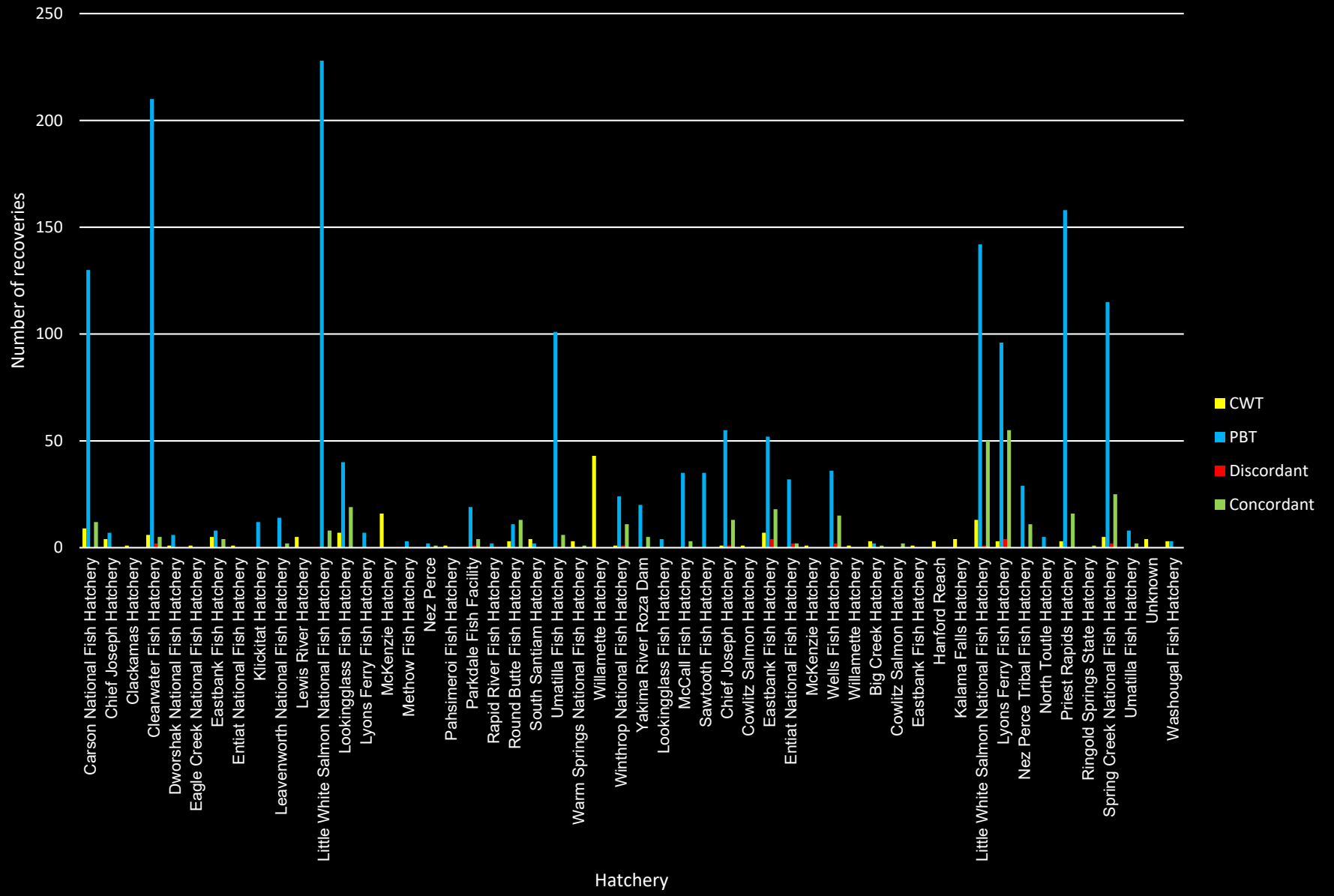


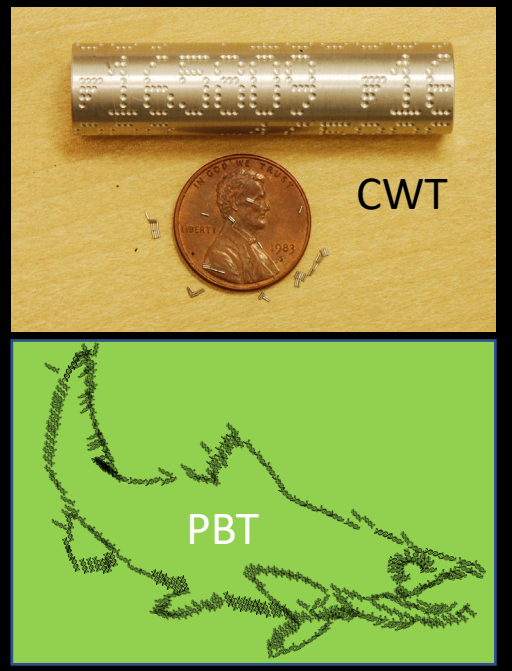
Steelhead



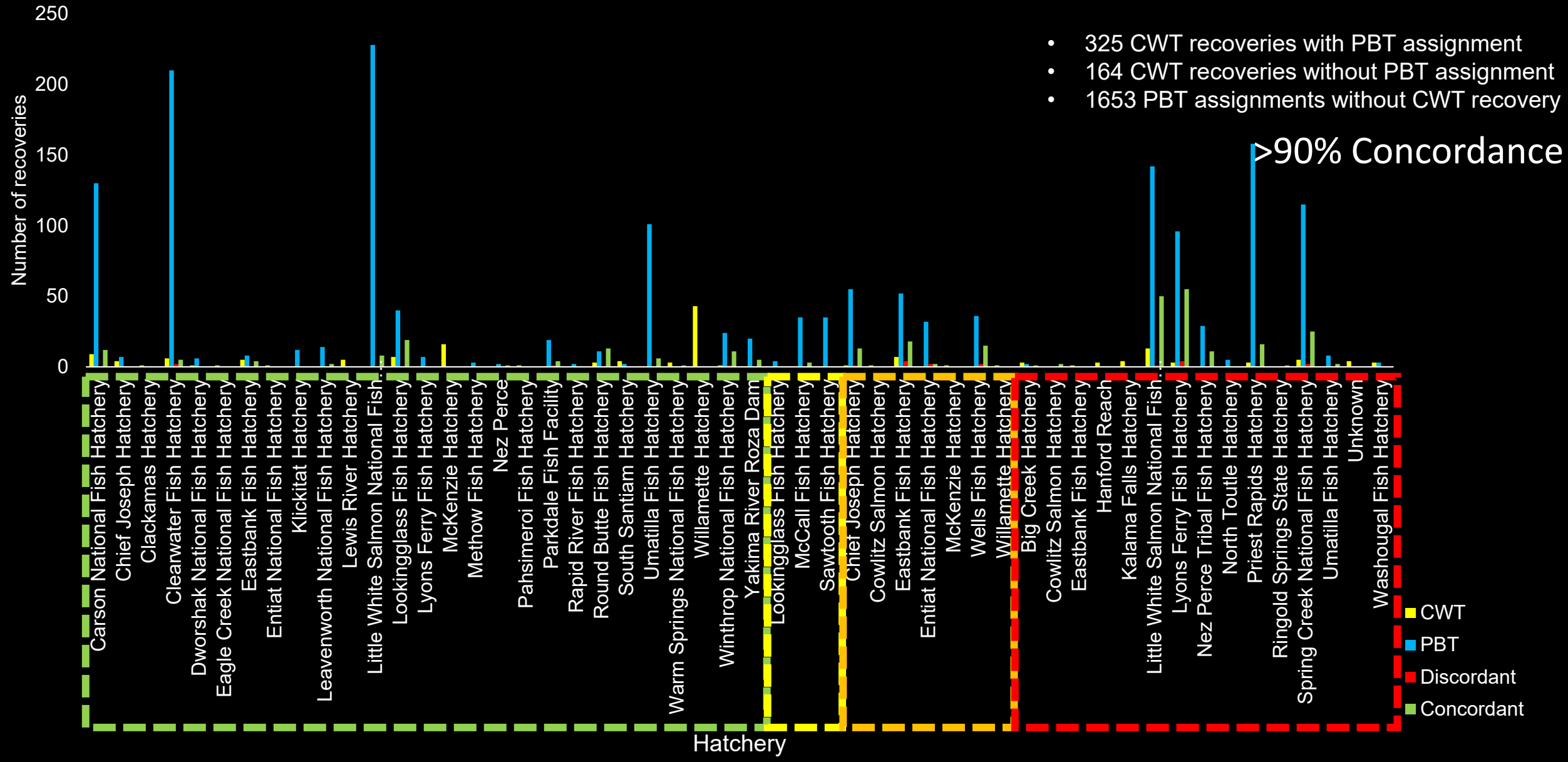
Hatchery clipped adult-sized Chinook salmon passing Bonneville Dam through June 15, 2022.

Coded Wire Tag and Parentage-Based Tag Comparisons of recoveries in the chinook fisheries of 2018





Coded Wire Tag and Parentage-Based Tag Comparisons of recoveries in the chinook fisheries of 2018



- 325 CWT recoveries with PBT assignment
- 164 CWT recoveries without PBT assignment
- 1653 PBT assignments without CWT recovery

>90% Concordance

CONNECTIONS ACROSS DATA SYSTEMS

“hatchery”: *what’s in a name ?*

RMIS

“hatchery”

spawn hatchery
acclimation site
tagging site
hatchery stock

FPC

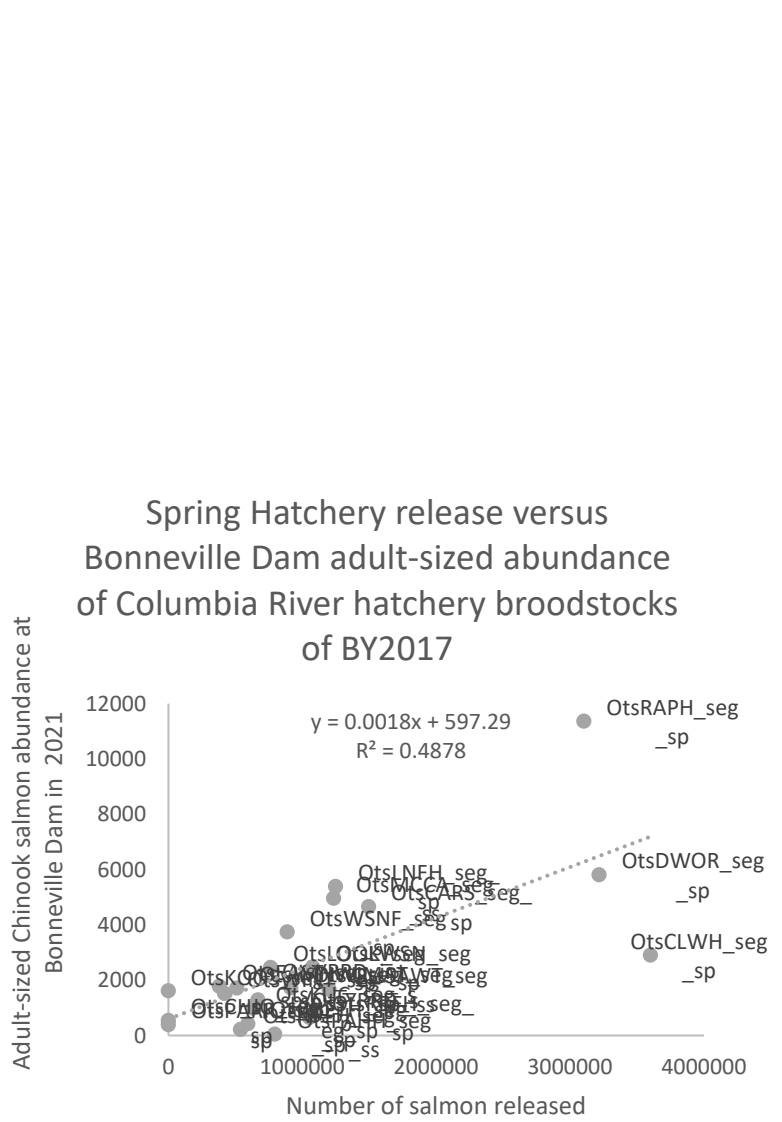
“hatchery”

spawn hatchery
acclimation site
tagging site
hatchery stock

FISHGEN: PBT

“hatchery”

spawn hatchery



Member Updates and Announcements

WDFW: Brodie Cox

NOAA: Mari Williams

MFWP: Dawn Anderson

Colville Tribes: George Batten

PNAMP: Jen Bayer

USFWS: Todd Gilmore

Shoshone-Bannock Tribes: Kurt Tardy

ODFW: Cedric Cooney

IDFG: Angie Schmidt

CRITFC Library: Tami Wilkerson

CRITFC: Sheryn Olson and Denise Kelsey

NPCC: Kris Homel

BPA: Matthew Schwartz, **Brady Allen**, Russell Scranton

StreamNet: Nancy, Greg, Mike, Van

Stretch Break

back at 3:35 (MT)

StreamNet
Fish Data for the Northwest

QA

QC

Review revised CAP QA/QC tool for 2023

Greg Wilke and team

Streamnet Records Review

Data Category: All | Agency: All | Complete: All | Independent Review Complete: All

67 Records

« Previous 1 2 3 4 5 6 7 Next » 10 25 1

Year	Data Category	PopID	Population Name	Agen
1994	Nosa	17	Big Creek - spring/summer Chinook salmon	IDFG
2010	Nosa	238	Hood River - fall Chinook salmon	ODFW
1965	RPerS	23	Middle Fork Salmon River Upper Mainstem - spring Chinook	IDFG

eview

ery

mon | PopID: 17

Complete

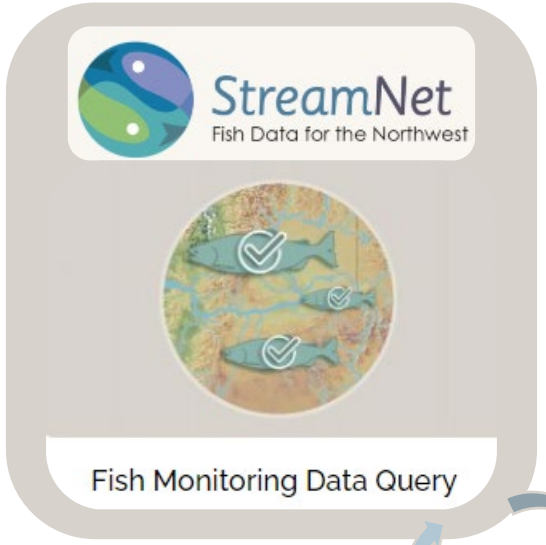
RperS
Update IndicatorLocation
Tabular HiLI Query worked well, would be nice to freeze column

Independent Review

Reviewed by | Reviewed time | Complete

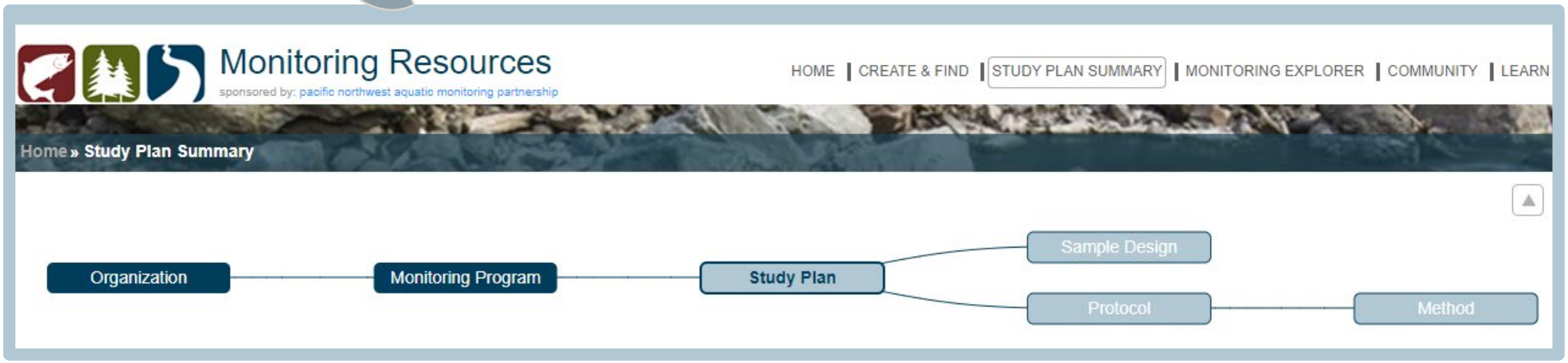
Review notes

Data Field	Value
age10prop	
age10proplowerlimit	
age10propupperlimit	
age11plusprop	
age11plusproplowerlimit	



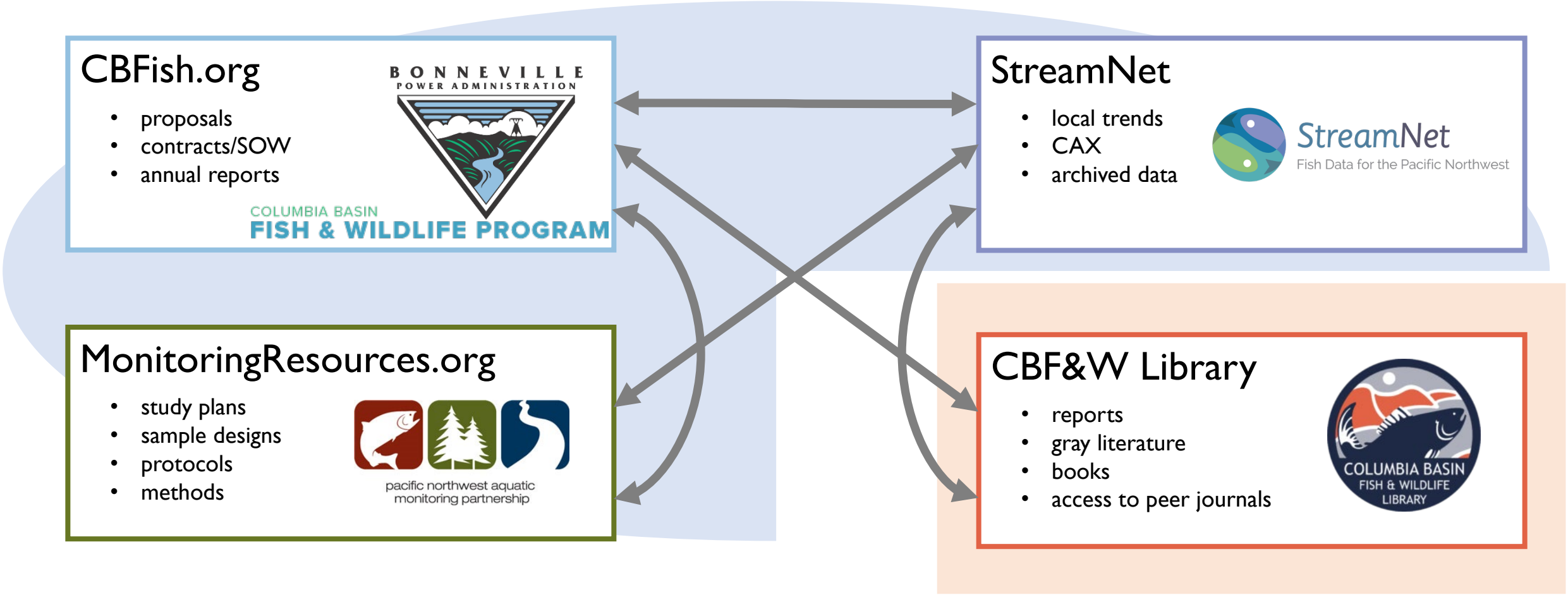
StreamNet Data to Monitoring Resources Connections

Greg Wilke, Nadine Craft and Jake Chambers



Supporting the Exchange of Information Between MonitoringResources.org, CBFish.org, and StreamNet

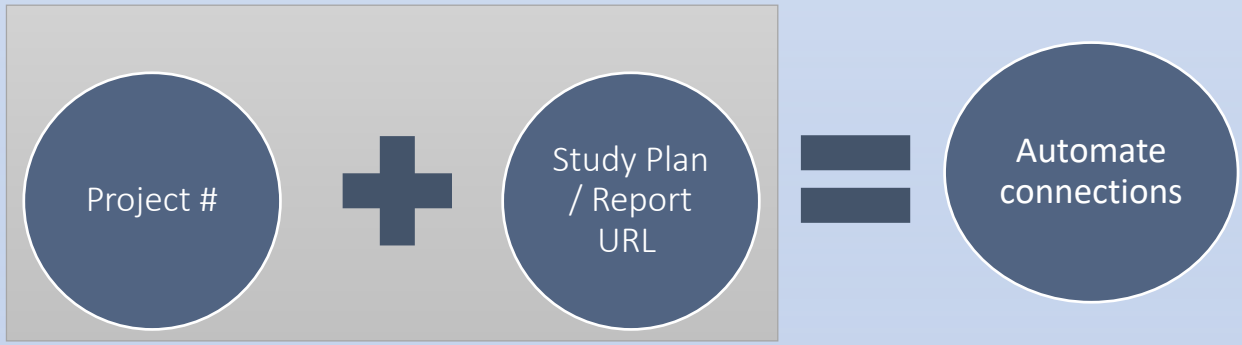
"enter once and reuse multiple times"



increasing value of existing data systems

Update On Progress of Connecting BPA Projects & Study Plans to FMD Trends

- Created a how to document
  - Finding MonitoringResources.org Study Plan IDs by BPA Project Number
- Identified pilot technical teams: IDFG and ODFW
- Held a kick-off meeting with the pilot Technical Teams - October 25th
  - Objective: Update the StreamNet dataset documentation to populate project number and Study Plan URL
- Tech Teams tested on their own time tying CBfish project pages to SN Data Store Trends and MonitoringResources.org Study Plan URLs
  - Presented their findings December 14th



Connecting Fish Monitoring Data (Trends) to BPA Projects and Study Plans

Oregon Department of Fish and Wildlife

Initial Investigation

ODFW Approach and Examples

- Connecting Fish Monitoring Data (FMD - Trends) to:
  - BPA Project # (1998-016-00) – CBfish.org
  - Study Plan ID – MR.org (Monitoring Resources)
    - Used BPA Project # as search criteria
- ODFW history of assigning a BPA Project # to Trend ID's
  - Discovering not always 100% accurate (funding stopped, project objectives, SOW changes)
  - Assigning Project # and Study Plan applies to entire time series (Trend Table relationships)
- Provide examples:
  - Tabular review by Trend record
  - Diagram review by Project and Study Plan

Summary of Investigation

- Some trends have projects pertaining to a single study plan.
- Query by BPA Project in MR produces several Study Plans (drafts and final).
  - Takes time and familiarity with both websites.
- Connecting Projects and Study Plans apply to the whole time series (escapement data). Example:
  - Trend “A” = redd counts collected from 1970-2022
  - BPA funded from 1996-2016, but not in 1970-1995 or 2017-2022 (many variations).
  - Discovered multiple funding sources (shared and separate).
- Trends by basin or stream can be less time consuming, than by reach.
  - Discovered situations with multiple Study Plans and potentially Projects.
- Other projects are complex, multiple plans pertain to a trend(s).
  - Reasons: funding changed, project objectives changed, multiple species and life stages, new/various methods and protocols, changes to MR.org system.

Suggestion to Reduce Complexity

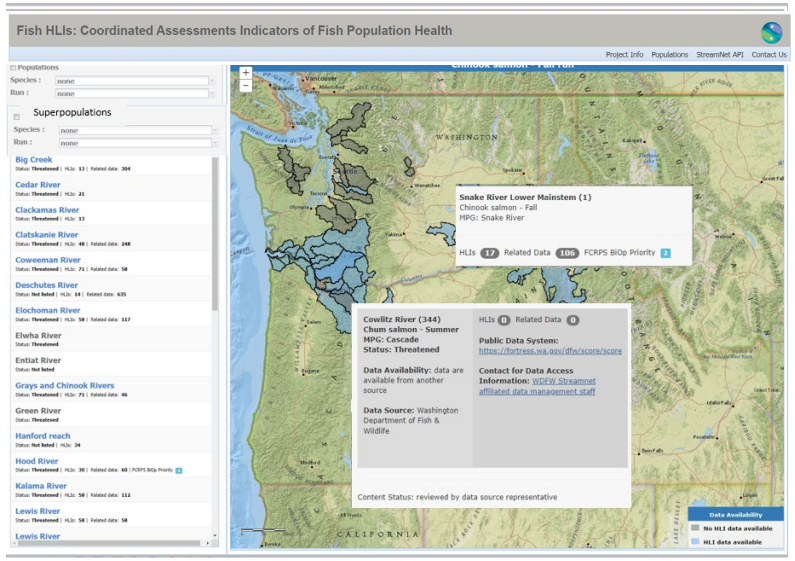
- Evolution of MR.org - necessary backend operations a few years ago added complexity in some cases.
- Study Plans were automatically created for existing Protocols. The Study Plans didn't replace Protocols, they still exists separate from (but associated with) Study Plans.
- Current system does not allow multiple Protocols per Study Plan.
  - If each Study Plan could accommodate multiple Protocols, organization might be simpler and fewer links to manage and review for FMD metadata.
  - However, if a system update occurred, some Study Plans and Protocols would need to be revised by Project staff.

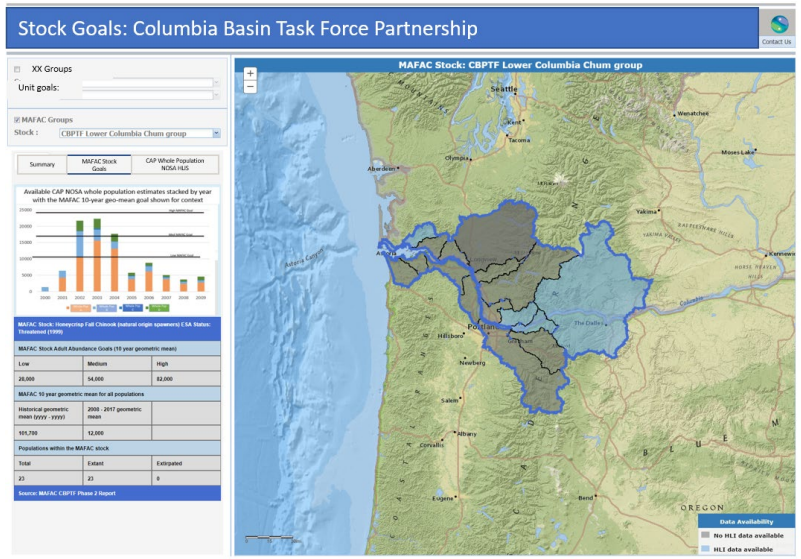
Questions and Next Step?

- What steps do other entities need to achieve? BPA Project #?
- Where does the project fit with current priorities?
  - Are resources and time available?
- Only include fully funded BPA projects?
  - Other funding sources (OWEB, NOAA, etc.) create more steps.
- Conduct further testing with partner contributions?
- Any support for updating Monitoring Resources?
- FYI - CA data implementation would be a bigger lift than FMD.
- Discussion

Update on revised CAP-Map Fish HLIs User interface

Nancy





Input Received on Current CAP HLI map and Pop-ups for Data Status
(September 2022 version)

Data status for populations with no HLIs pop up box

- *Add "PopID" in the pop up box [added]*
- *Can a pop-up box with slightly different content be implemented for populations with data [data not compiled for this – so skip for now]*
- *Links within the pop-up box are not selectable, because the mouse only drives location of the pop up box itself [will be fixed]*

No HLI Data Pop-up box

StreamNet
Fish Data for the Northwest

Data & Maps ▾ CAP ▾ Committees ▾ Resources ▾ About ▾

Data & Maps Copy

Home > Data & Maps Copy

Click CAP Fish HLIs Query

CAP Fish HLIs Query
High-level indicators shared through the Coordinated Assessments Partnership

Fish Monitoring Data Query
StreamNet "trends" of resident and anadromous fish time series data

Data Store
Data sets available for download that don't fit our standardized systems

Fish Goals Query
Regional goals and related data, such as Columbia Basin Task Force Partnership Stock Goals

StreamNet Mapper
Resident and anadromous fish distributions and data collection locations

Fish Facilities Mapper
Monitoring locations, including dams, weirs, rotary screw traps, PIT-tag detectors, and hatcheries

GIS Data Sets
Fish distributions, facilities, physical features, hydrography base layers, and more

Protected Areas
River reaches protected from new hydroelectric development

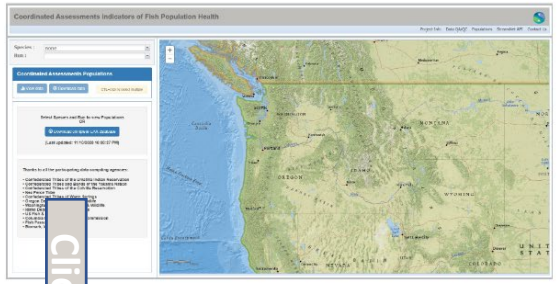
HSRG - Hatchery Reform
Hatchery Scientific Review Group's documents and tools used to review hatchery programs

HEP
Habitat Evaluation Procedures used to assess hydrosystem effects on wildlife habitat

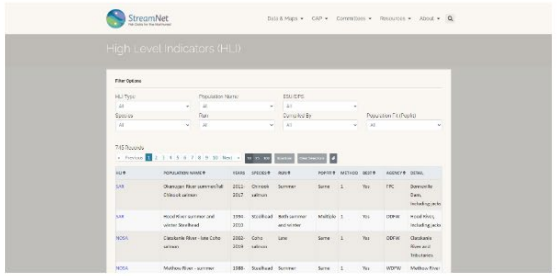
Subbasin Plans & Data
Supporting information for the Northwest Power and Conservation Council's 2001-2004 subbasin plans

Columbia Habitat Monitoring Program
Documents and data files produced by the pilot CHaMP project during 2011-2017

Click Map or Query Image to Explore Data



CAP Fish HLIs Interactive Map



CAP Fish HLIs Tabular Query

Fish HLIs: Coordinated Assessments Indicators of Fish Population Health

Pro

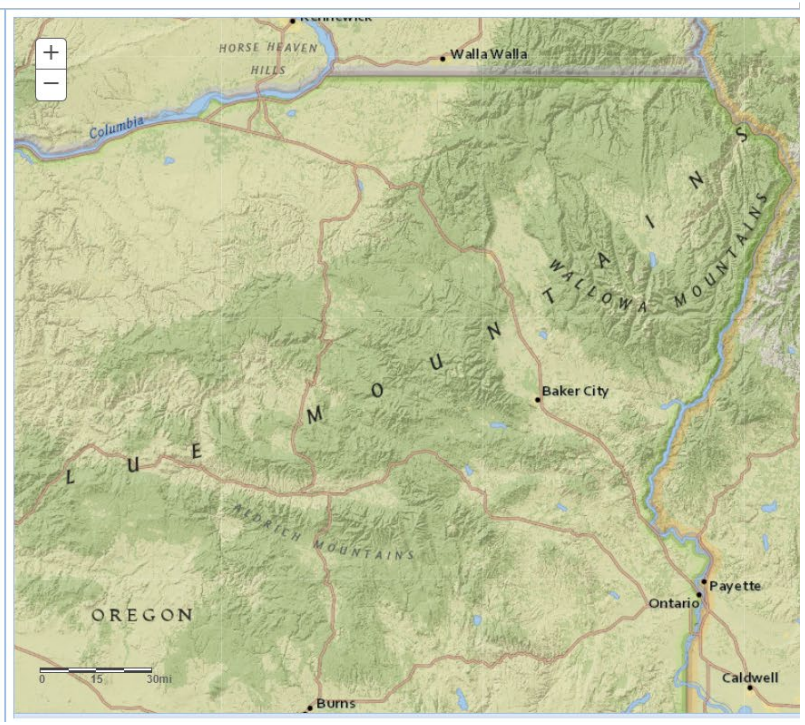
Populations
Species : none
Run : none

Superpopulations
Species : Chinook salmon
Name :

Coordinated Assessments Populations

View data | Download data | CTL+click to select multiple

Select Species and Run to view Populations
OR
Download complete CAX database
(Last updated: 02/13/2023 10:00:22 PM)



No HLI Data Pop-up box

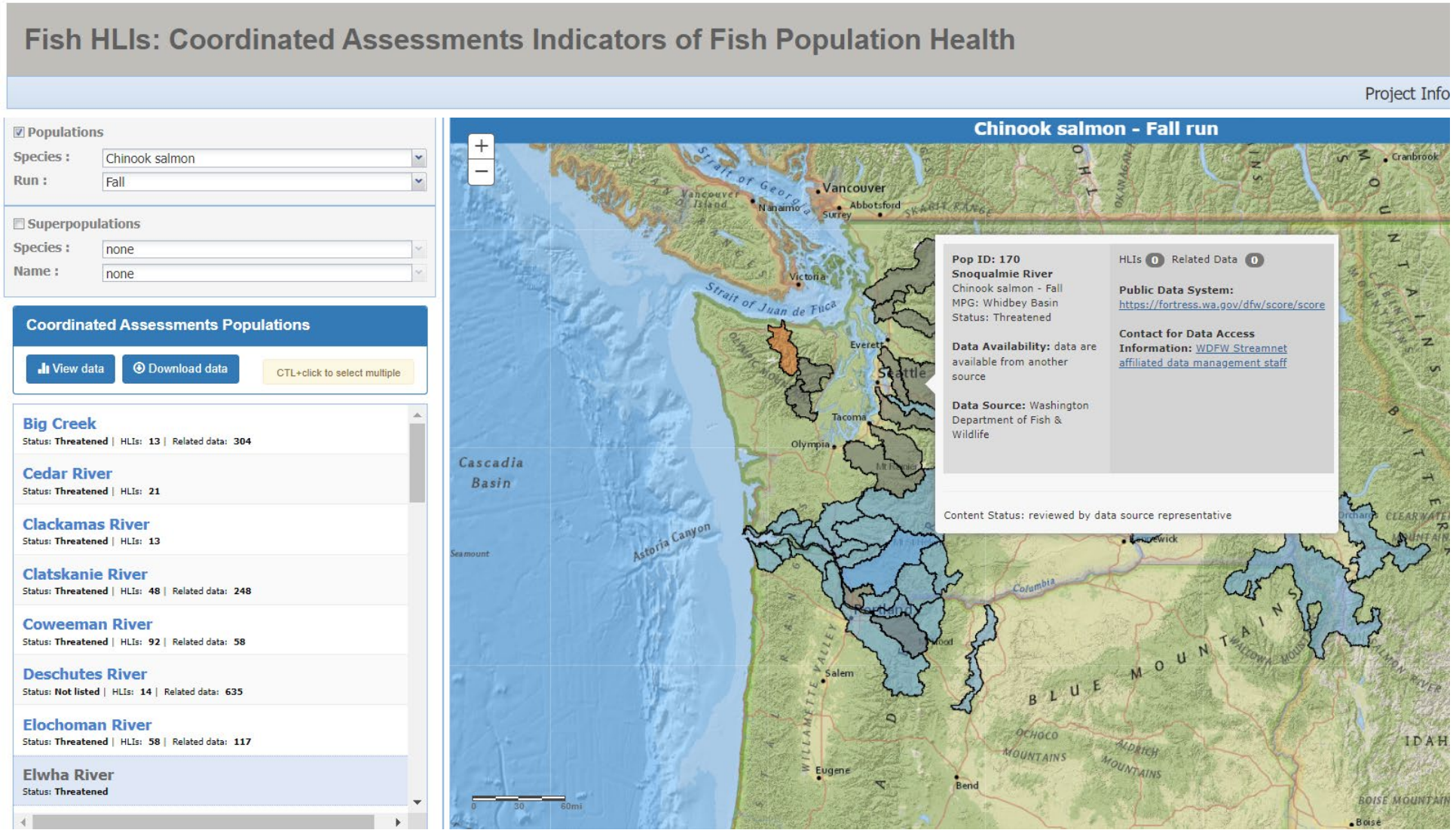
appears only for population polygons displayed on map
(functions on both the pop and super pop map search options)

StreamNet
Fish Data for the Northwest

Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership



View in-development version: https://sb.streamnet.org/

Input Received on Current CAP HLI map and Pop-ups for Data Status
(September 2022 version)

Current CAX title

- "Fish HLIs: Coordinated Assessment Indicators of Fish Population Health" title: t*he term Population "Health" can be confusing. Suggest changing the end of the title to Population "Metrics" or something similar.*
  - *Response: Perhaps drop population as this unit won't apply to all superpop/fish species/data categories*
    - *Potential New Title :* Coordinated Assessment Partnership Fish High Level Indicators and Metrics *[do we want to change title to this one? Other? Leave as is?]*

Add Superpopulation search option (from original task request)

- Built to function as similar to existing population search function
- Display data the same way so similar experience

Title & Superpopulation Search

StreamNet
Fish Data for the Northwest

Data & Maps ▾ CAP ▾ Committees ▾ Resources ▾ About ▾

Data & Maps Copy

Home > Data & Maps Copy

Click CAP Fish HLIs Query

CAP Fish HLIs Query
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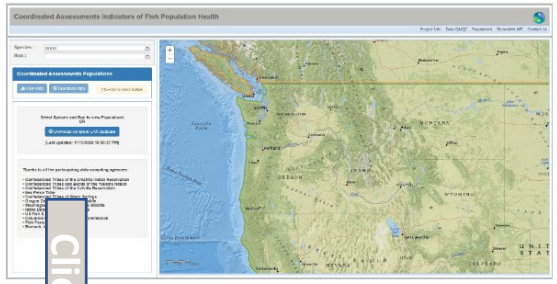
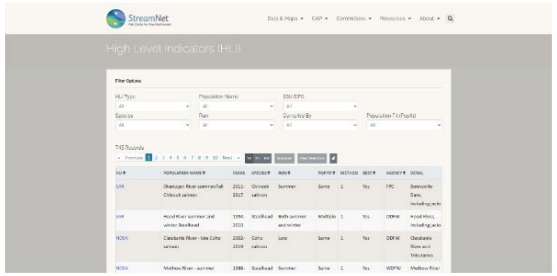


Click

CAP Fish HLIs Interactive Map



CAP Fish HLIs Tabular Query

Fish HLIs: Coordinated Assessments Fish Indicators and Metrics

Proposed Revised title

Populations
Species : none
Run : none

Superpopulations
Species : Chinook salmon
Name :

Superpop search option (new)

Coordinated Assessments Populations

View data | Download data | CTL+click to select multiple

Select Species and Run to view Populations
OR
Download complete CAX database
(Last updated: 02/13/2023 10:00:22 PM)

View development version: https://sb.streamnet.org/

Superpopulation Search

StreamNet
Fish Data for the Northwest

Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Fish HLIs: Coordinated Assessments Fish Indicators and Metrics

Proposed Revised title

Populations

Species : none

Run : none

Superpopulations

Species : Chinook salmon

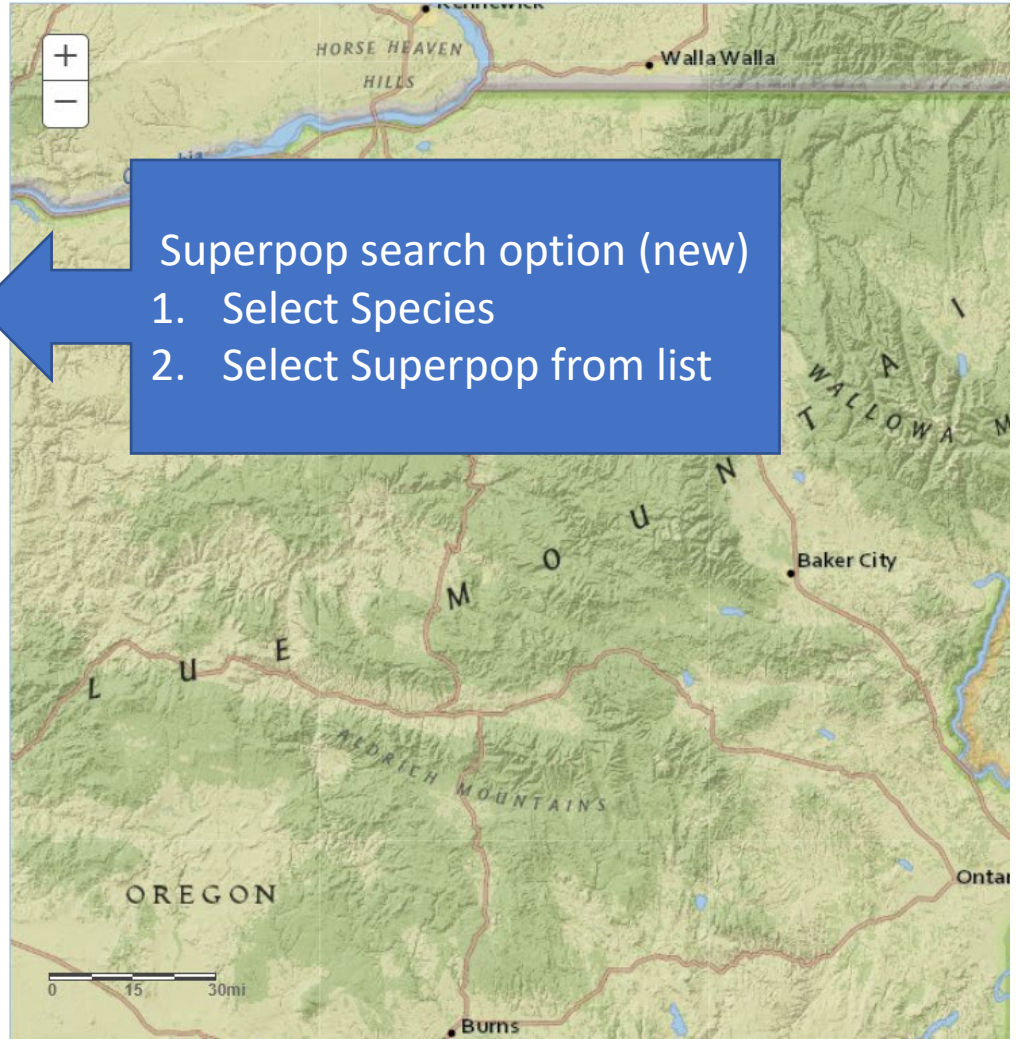
Name : none

- John Day Basin wild Chinook salmon
- Wild spring Chinook salmon above Rock Island Dam
- Entiat and Methow wild spring Chinook salmon
- Clearwater Basin wild spring/summer Chinook salmon
- Grande Ronde Basin wild spring Chinook salmon
- Imnaha Basin wild spring/summer Chinook salmon
- Middle Fork Salmon Basin wild Chinook salmon
- Wild spring/summer Chinook salmon above Lower Granite Dam
- South Fork Salmon Basin wild Chinook salmon
- Upper Salmon Basin wild Chinook salmon
- Wild summer and summer/fall Chinook salmon above Rock Island Dam

Coordinate

View data

(Last updated: 02/15/2023 10:00:22 PM)



Superpop search option (new)

1. Select Species
2. Select Superpop from list

Superpopulation Search

StreamNet
Fish Data for the Northwest

Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Map displays
-Superpop as thicker blue outline around population polygons
- Pops within superpop as black outline

Fish HLIs: Coordinated Assessments Fish Indicators and Metrics

Project Info | Populations | StreamNet API | Contact Us

Populations
Species : none
Run : none

Superpopulations
Species : Chinook salmon
Name : John Day Basin wild Chinook salmon

Coordinated Assessments Populations

View data | Download data | CTL+click to select multiple

Superpopulation Estimates

These estimates represent an estimate value that includes fish from multiple fish populations (i.e., PopFit = Multiple Population), usually because they are monitored as a group.

John Day Basin (Superpopulation)
Chinook salmon | Spring | HLIs: 42

Populations included in the Superpopulation

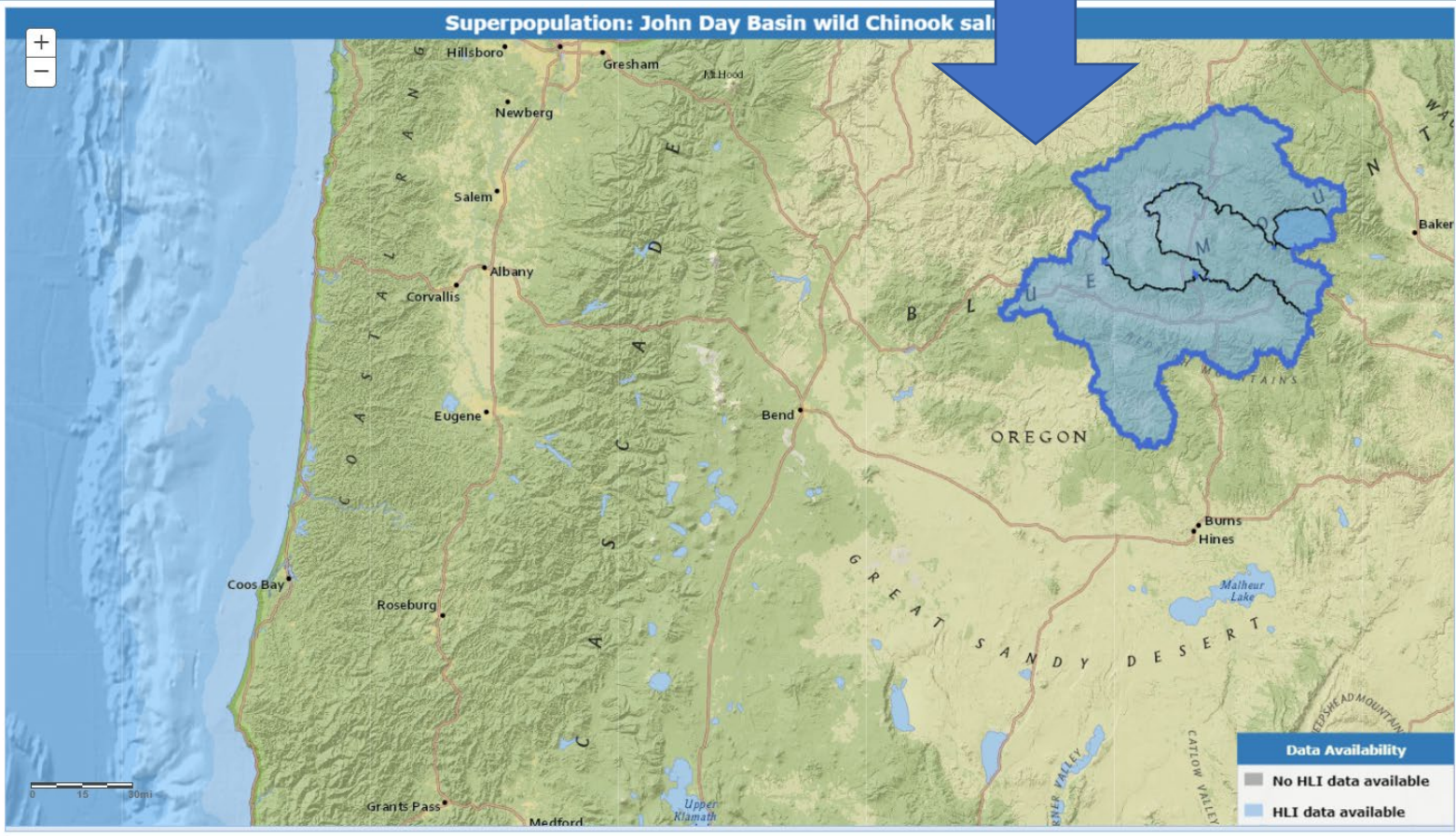
These populations are part of the above selected superpopulation. All estimates, at the various scales (i.e., whole, partial or multiple population scale), that are submitted for these populations are available below.

Granite Creek John Day
Status: Not listed | HLIs: 42

Middle Fork John Day River
Status: Not listed | HLIs: 80 | Related data: 530

North Fork John Day River
Status: Not listed | HLIs: 80 | Related data: 1492

Upper John Day River
Status: Not listed | HLIs: 80 | Related data: 629



Superpopulation Search

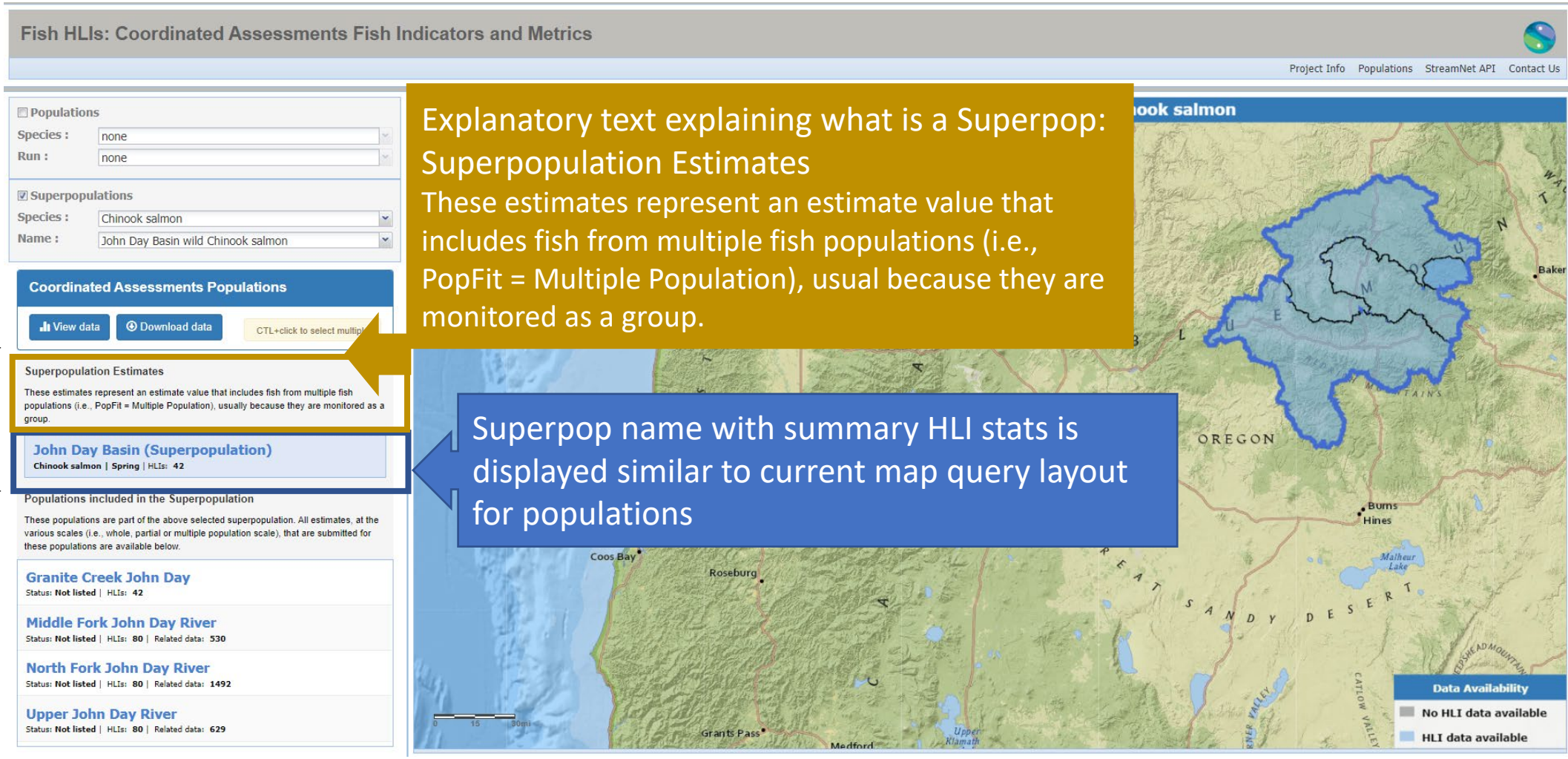
StreamNet
Fish Data for the Northwest

Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Superpopulation



Explanatory text explaining what is a Superpop: Superpopulation Estimates

These estimates represent an estimate value that includes fish from multiple fish populations (i.e., PopFit = Multiple Population), usual because they are monitored as a group.

Superpop name with summary HLI stats is displayed similar to current map query layout for populations

Superpopulation Search – superpopulation data display

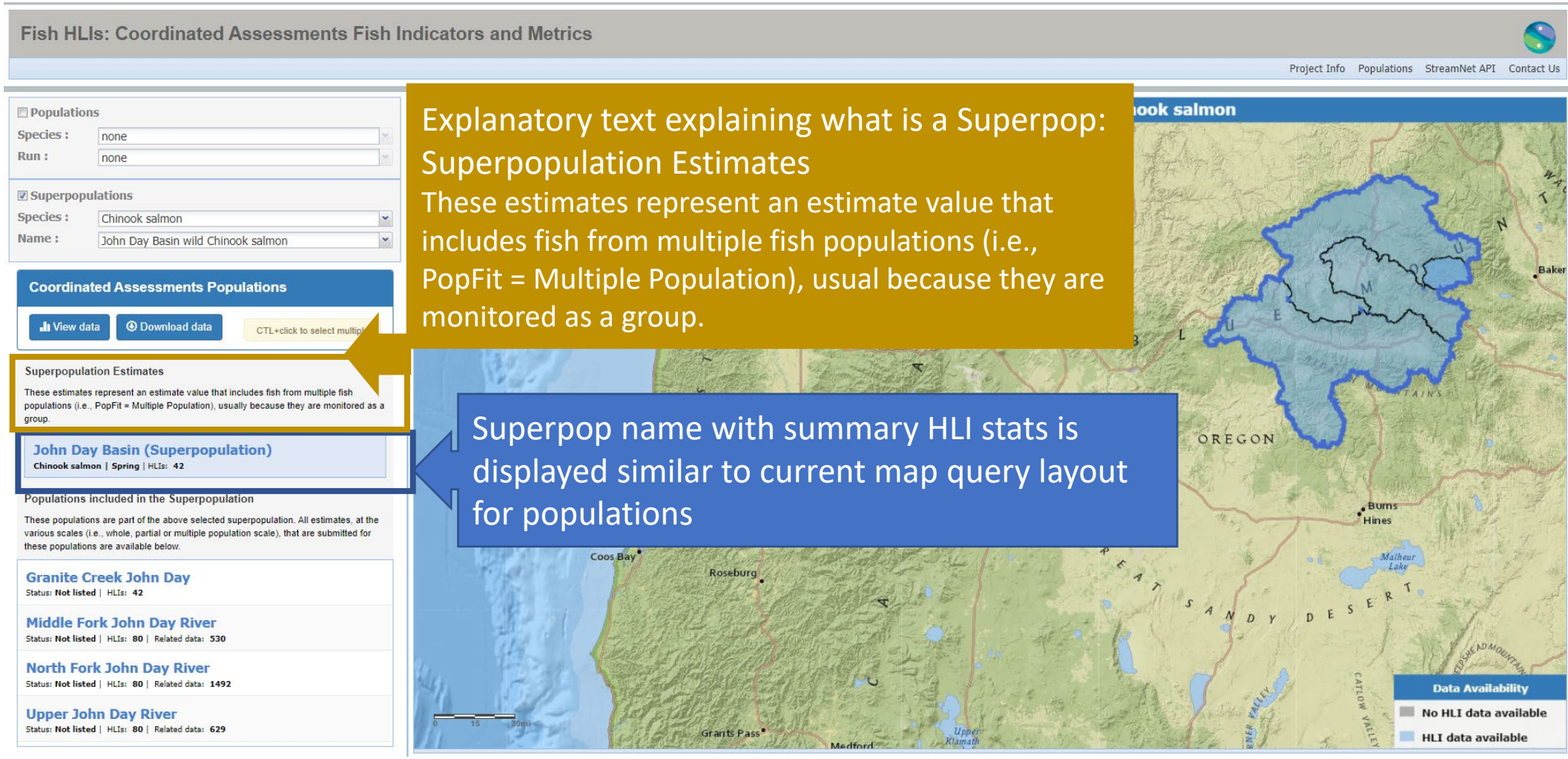
StreamNet
Fish Data for the Northwest

Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Click View Data



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Superpop name with summary HLI stats is displayed similar to current map query layout for populations

Superpopulation Search – superpopulation data display

StreamNet
Fish Data for the Northwest

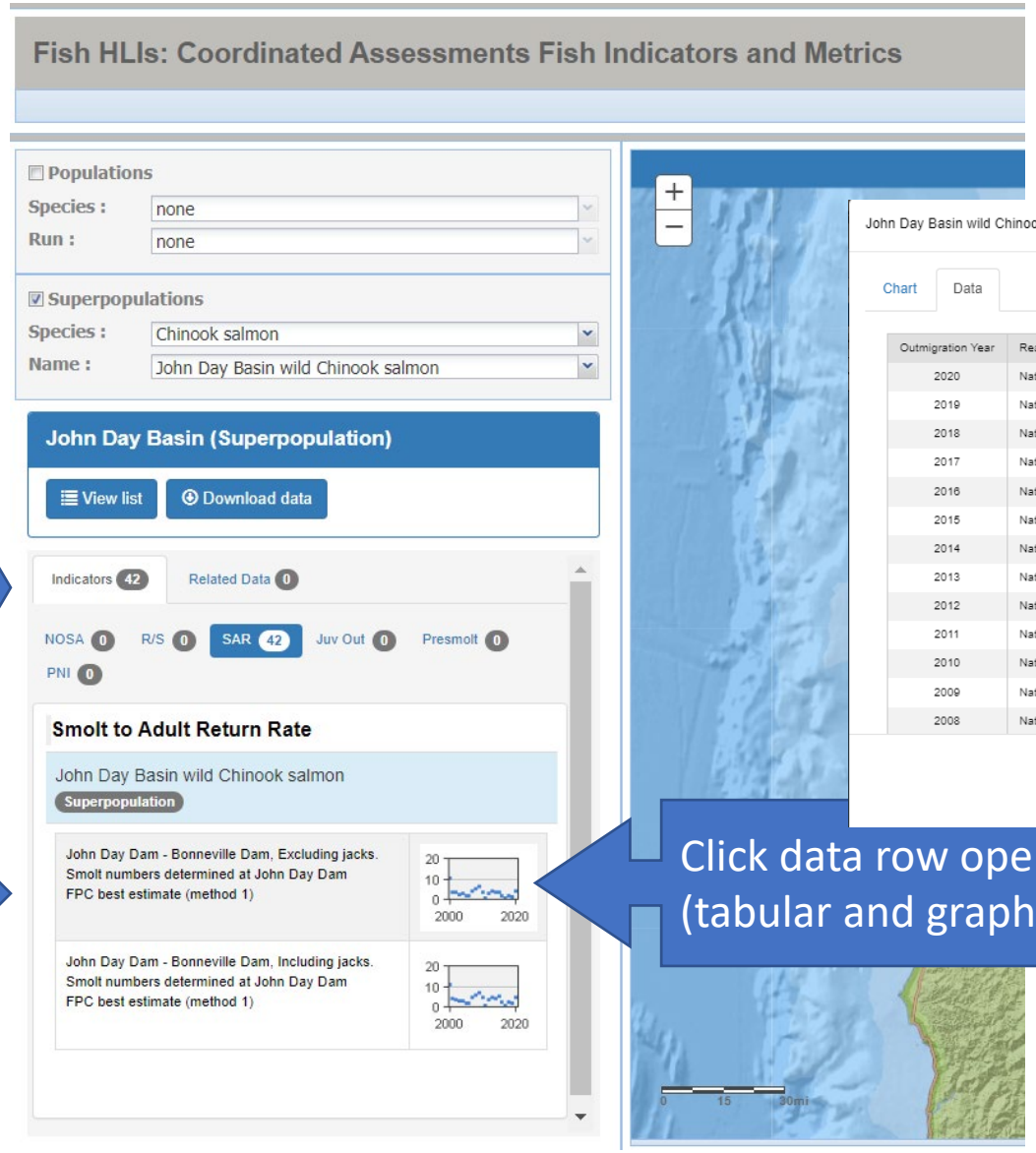
Data & Maps Co

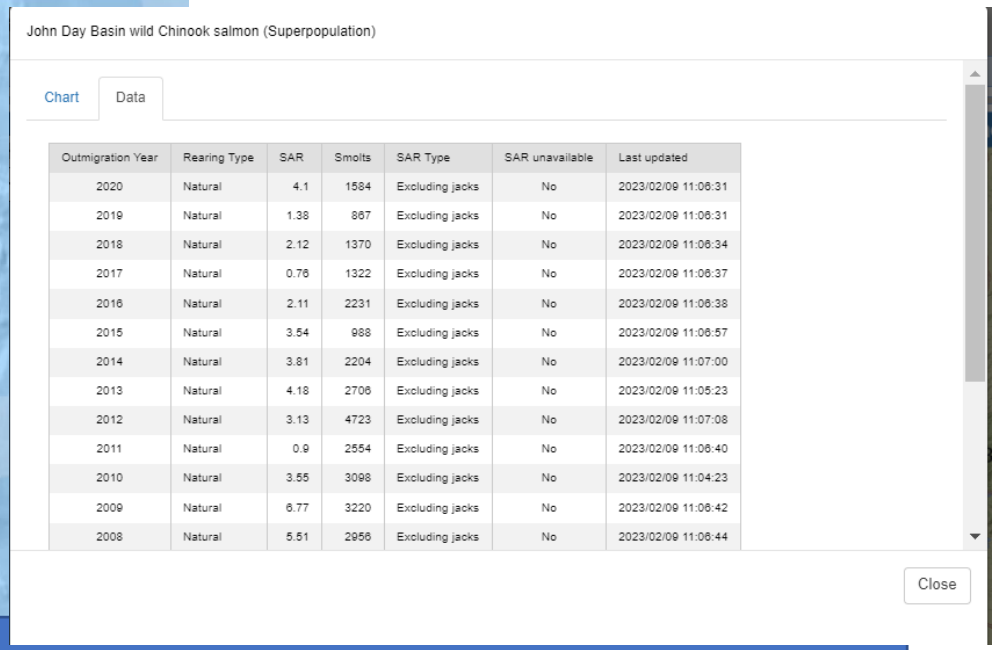
CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Summary HLI stats (same as current map query for pop)

Displays available data by row for the selected HLI





Click data row opens pop up box showing the data (tabular and graphic)

Superpopulation Search

StreamNet
Fish Data for the Northwest

Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Fish HLIs: Coordinated Assessments Fish Indicators and Metrics

Project Info | Populations | StreamNet API | Contact Us

Populations
Species : none
Run : none

Superpopulations
Species : Chinook salmon
Name : John Day Basin wild Chinook salmon

Coordinated Assessments Populations

View data | Download data | CTL+click to select multiple

Superpopulation Estimates

These estimates represent an estimate value that includes fish from multiple fish populations (i.e., PopFit = Multiple Population), usually because they are monitored as a group.

John Day Basin (Superpopulation)
Chinook salmon | Spring | HLIs: 42

Populations included in the Superpopulation

These populations are part of the above selected superpopulation. All estimates, at various scales (i.e., whole, partial or multiple population scale), that are submitted for these populations are available below.

Status: Not listed | HLIs: 42

Middle Fork John Day River
Status: Not listed | HLIs: 80 | Related data: 530

North Fork John Day River
Status: Not listed | HLIs: 80 | Related data: 1492

Upper John Day River
Status: Not listed | HLIs: 80 | Related data: 629

Superpopulation: John Day Basin wild Chinook salmon

Hillsboro
Gresham
Mt Hood
Newberg
Baker
Coos Bay
Roseburg
Malheur Lake

Data Availability
No HLI data available
HLI data available

Explanatory text explaining what is a list of populations:
Populations included in the Superpopulation
These populations are part of the above selected superpopulation. All estimates, at the various scales (i.e., whole, partial or multiple population scale), that are submitted for these populations are available below.

List of populations that are part of the selected Superpop - As on current map query, each population name is shown with summary HLI stats

Population

Superpopulation Search – population data display

StreamNet
Fish Data for the Northwest

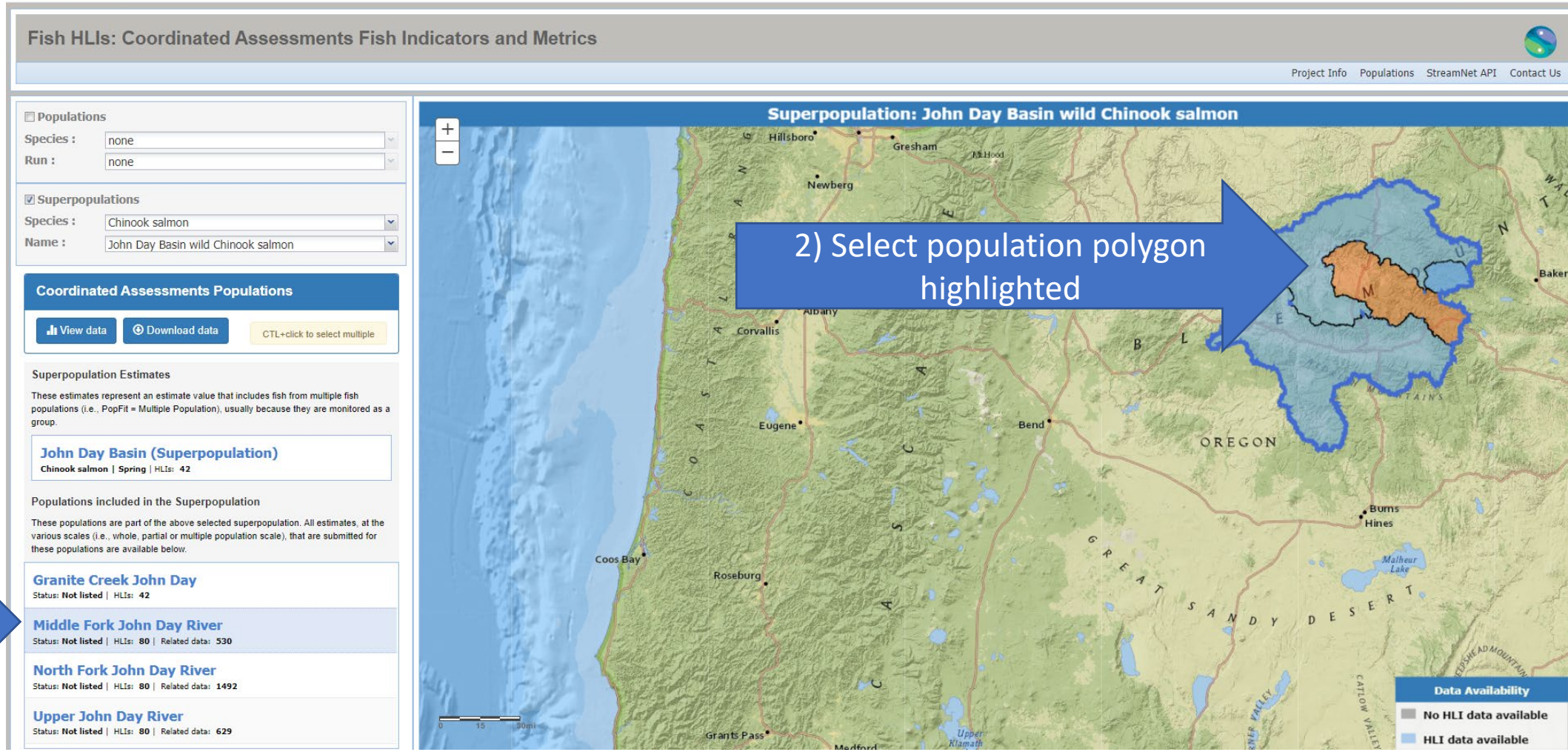
Data & Maps Co

CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

3) Click View Data

1) Select population



Superpopulation Search – population data display

StreamNet
Fish Data for the Northwest

Data & Maps Co

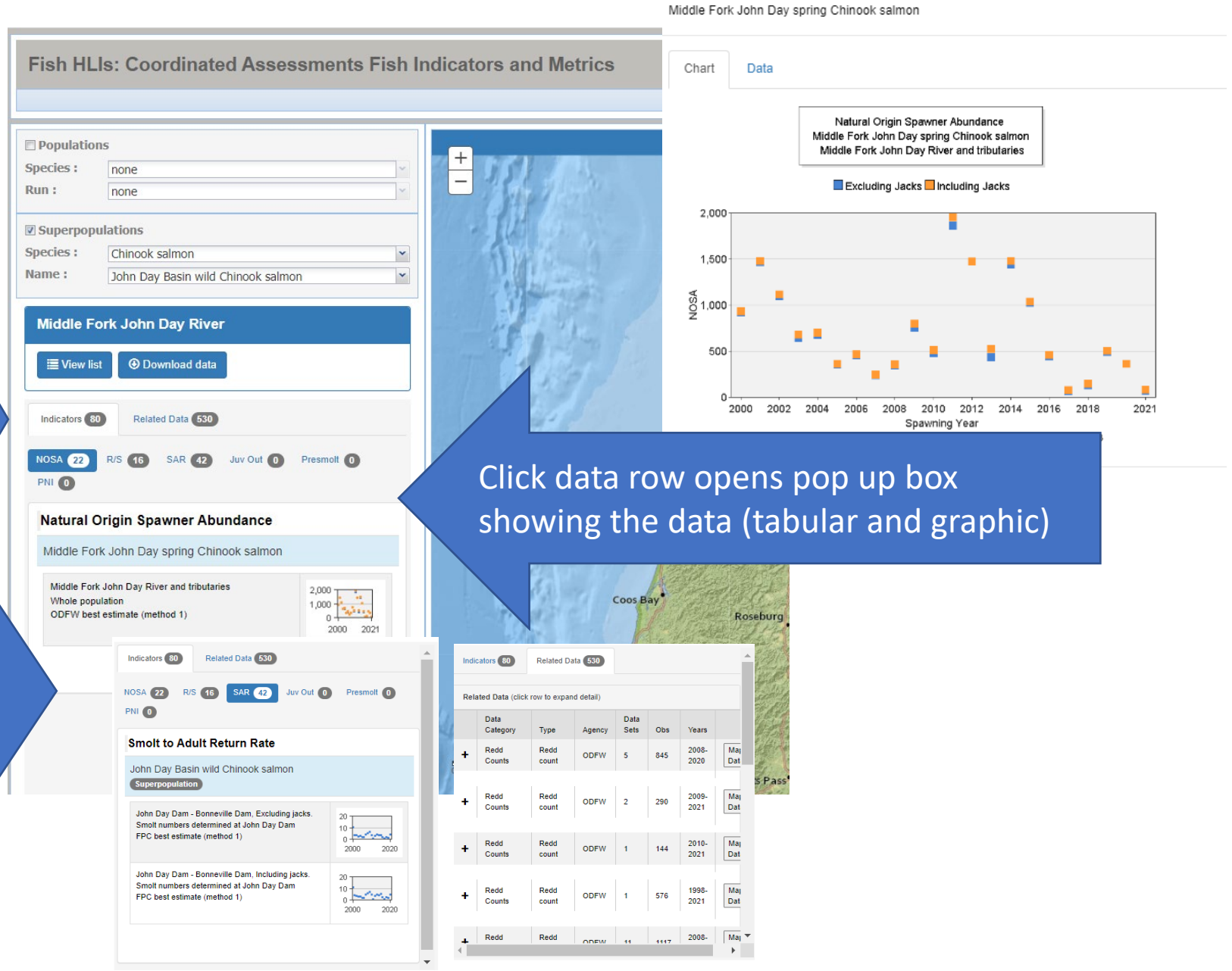
CAP Fish HLIs Query

High-level indicators shared through the Coordinated Assessments Partnership

Summary HLI stats (same as current map query for pop)

Displays available data by row for the selected HLI (same as displayed on map query)

Click data row opens pop up box showing the data (tabular and graphic)



Summary of Input Received - MAFAC Stock Goals (September 2022 version)

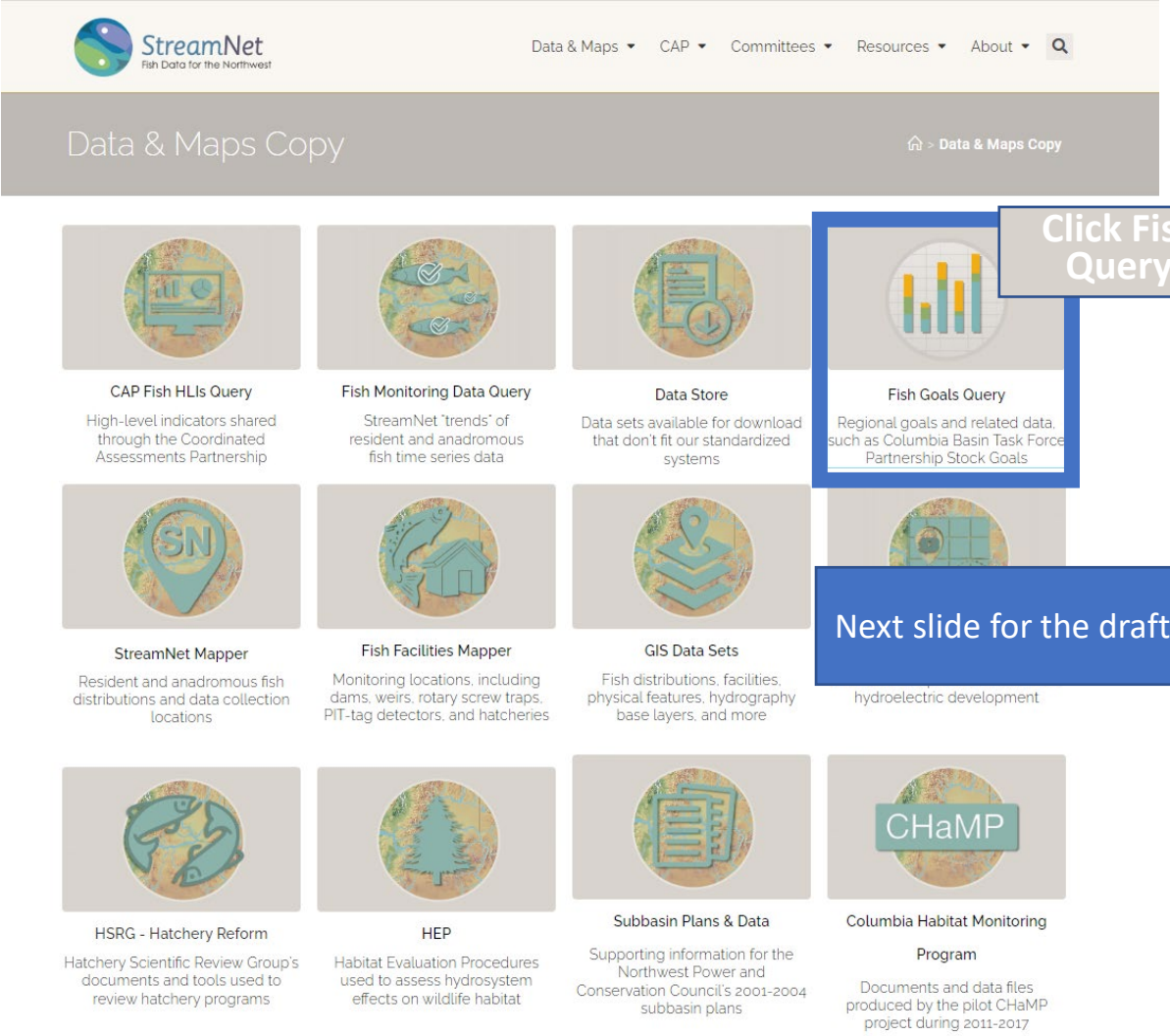
Separate interface based on content purpose

- Display of data interface: Population, subpopulation, superpopulation estimates
- Display of fish goals with data interface : MAFAC stocks goals, other fish goals
  - Exclude from this interface estimates of WHOLE pop, SuperPop (leave those on the other interface) or present differently so clear not the other interface
  - MAFAC is WHOLE pop only

Fish Goals Interface with focus on MAFAC goals while considering potential other future types of regional goals:

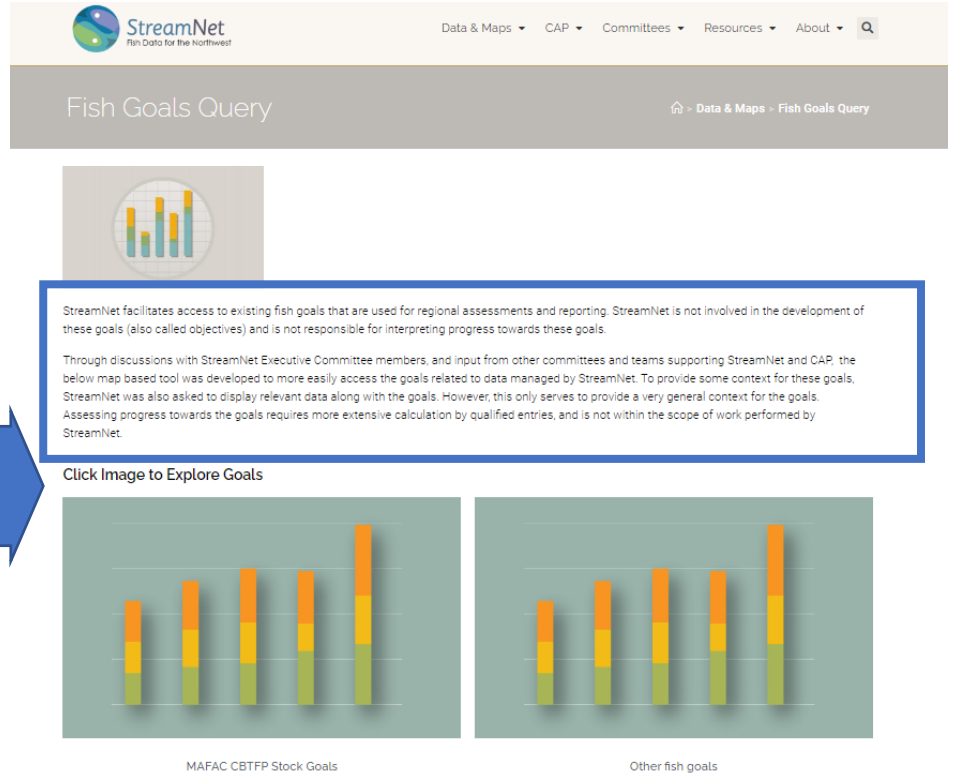
- Landing page or a pop-out that provides more clarifying user info from the MAFAC report and what it is supporting
- Display on a separate map and page, not embedded with CA data, maps, and resources.
- MAFAC goals: define all acronyms, terms (geometric mean; low, medium, and high), provide definitions, documenting reports, and providing URLs and other resources for users
- Important to be consistent with naming definitions (goals, targets, thresholds), etc
- Should information on the population and stock naming conventions process be included
  - Population names adopted for listed stocks by the TRTs.
  - CBPTF used state, tribal, and other (legal/litigation) processes
- Make MAP lowercase so it is not confused with an acronym (or drop the word ‘MAP’)
- Bar Chart: add clarifying language including that the comparison between NOSA population estimates “stacked” to MAFAC goals is not apples to apples

MAFAC Stock Goal Search



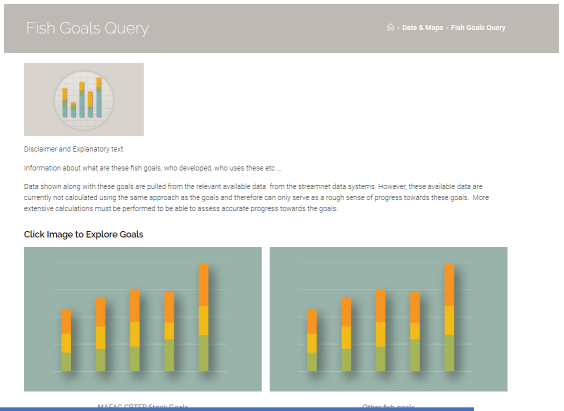
Click Fish Goals Query (new)

Next slide for the draft landing page text



MAFAC Stock Goal Search

Draft Text for Landing Page for new ‘Fish Goals’ (review after meeting)



StreamNet facilitates access to existing fish goals that are used for regional assessments and reporting. StreamNet is not involved in the development of these goals (also called objectives) and is not responsible for interpreting progress towards these goals.

Through discussions with StreamNet Executive Committee members, and input from other committees and teams supporting StreamNet and CAP, the below map based tool was developed to more easily access the goals related to data managed by StreamNet. To provide some context for these goals, StreamNet was also asked to display relevant data along with these goals. However, displaying these data only serves to provide a very general context for the goals. Assessing progress towards the goals requires more extensive calculation by qualified entries, and is not within the scope of work performed by StreamNet.

MAFAC Stock Goal Search

StreamNet
Fish Data for the Northwest

Data & Maps ▾ CAP ▾ Committees ▾ Resources ▾ About ▾

Data & Maps Copy

Data & Maps > Data & Maps Copy

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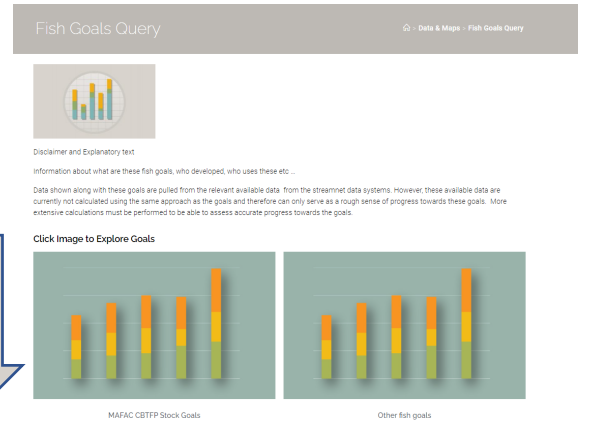
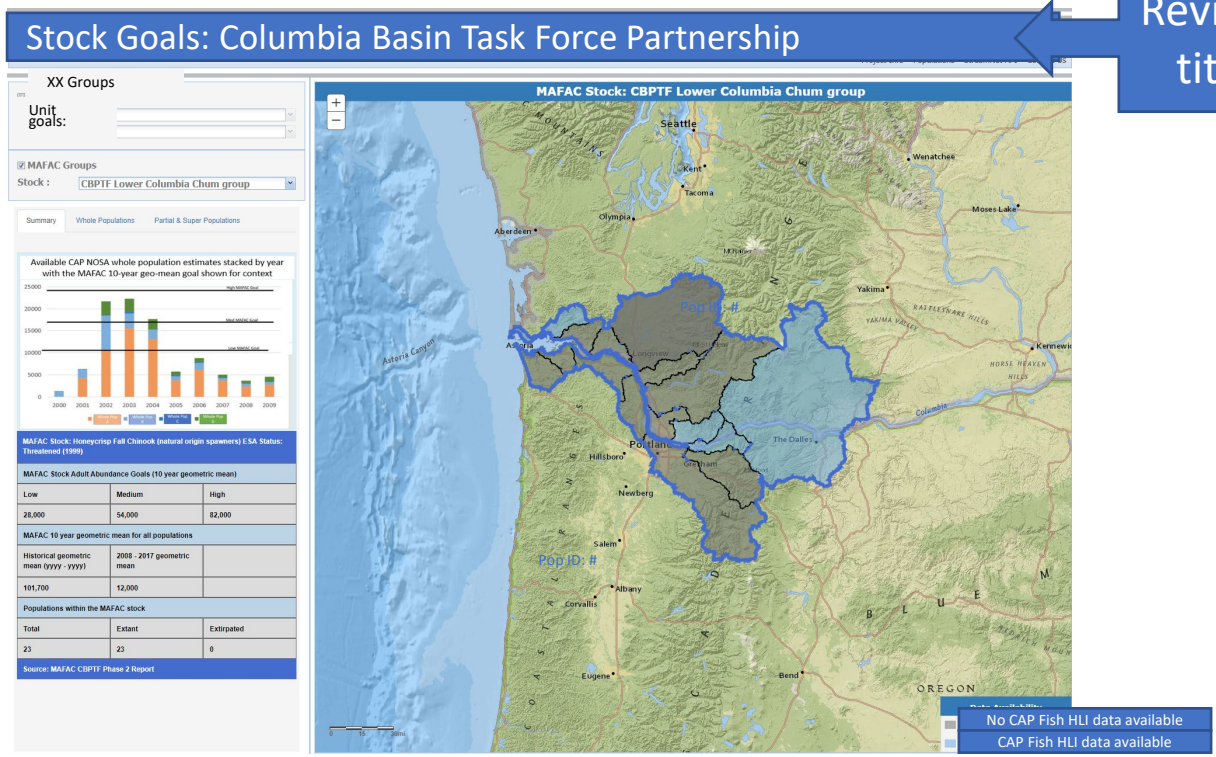
Columbia Habitat Monitoring Program
Documents and data files produced by the pilot CHaMP project during 2011-2017

Click Fish Goals Query (new)

Click

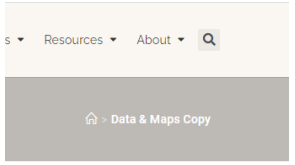


Revised title



Tool may be created either
- Modification of CAX tool (separate)
- Use ESRI dashboard
- Approach to be determined

MAFAC Stock Goal Search



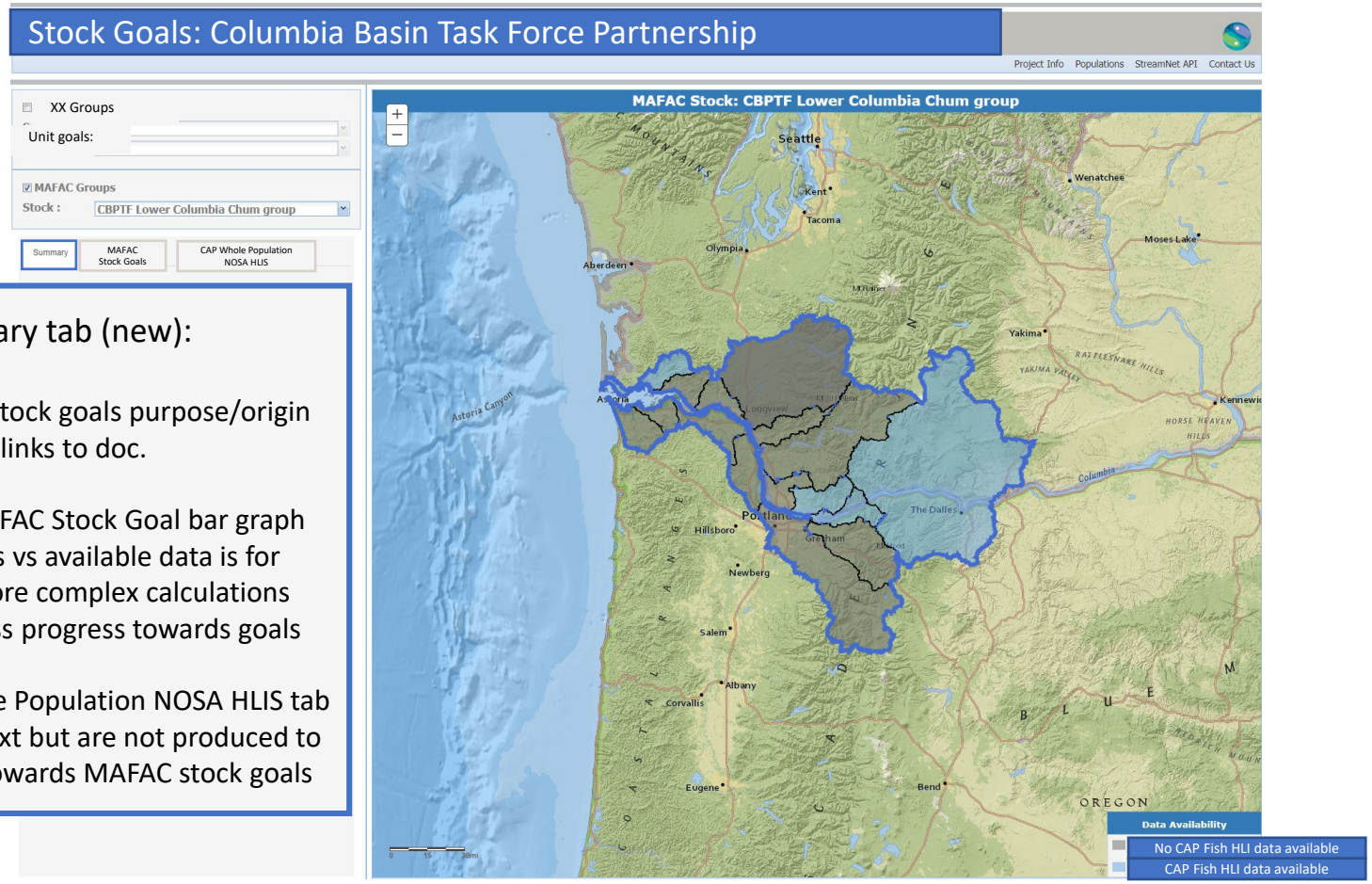
Summary (new version)
[proposed text on another slide]

Summary tab (new):

Explains MAFAC Stock goals purpose/origin and links to doc.

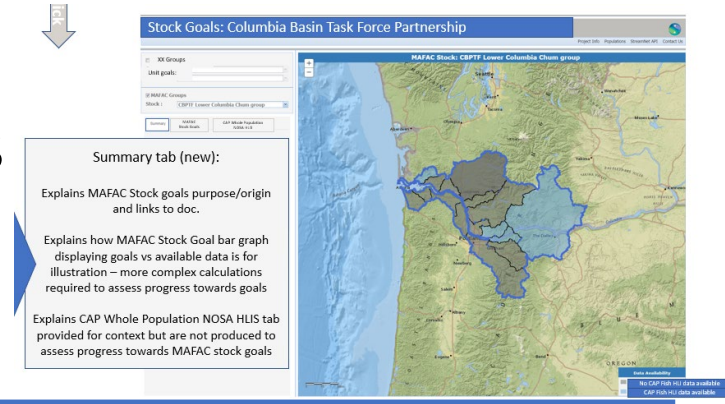
Explains how MAFAC Stock Goal bar graph displaying goals vs available data is for illustration – more complex calculations required to assess progress towards goals

Explains CAP Whole Population NOSA HLIS tab provided for context but are not produced to assess progress towards MAFAC stock goals



MAFAC Stock Goal Search

Draft Text for new Summary tab for the MAFAC Stock Goals (review after meeting; may need to reduce to fit)

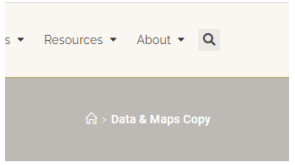


This map query displays the quantitative goals established by the NOAA Marine Fisheries Advisory Committee's Columbia Basin Partnership Task Force (referred to as MAFAC) for natural production of salmon and steelhead, which consists of a range rather than single-point estimates to reflect a continuum of progressive improvements. These goals are included in the Northwest Power and Conservation Council's (NPCC) 2020 Addendum (document 2020-9) as Wild Fish Strategy Indicators and are used by the NPCC to assess progress in implementing the NPCC Fish and Wildlife Program strategies.

The MAFAC Stock Goal section and the CAP Whole Population NOSA HLIs also display the CAP Fish HLI's natural origin spawner abundance (NOSA) annual estimates. Display of these NOSA estimates alongside the MAFAC goals provides a rough context for the goals but these estimates cannot be used to assess progress towards the goals. The MAFAC's goal values are a 10-year geometric mean value and are not equivalent to the NOSA annual estimates.

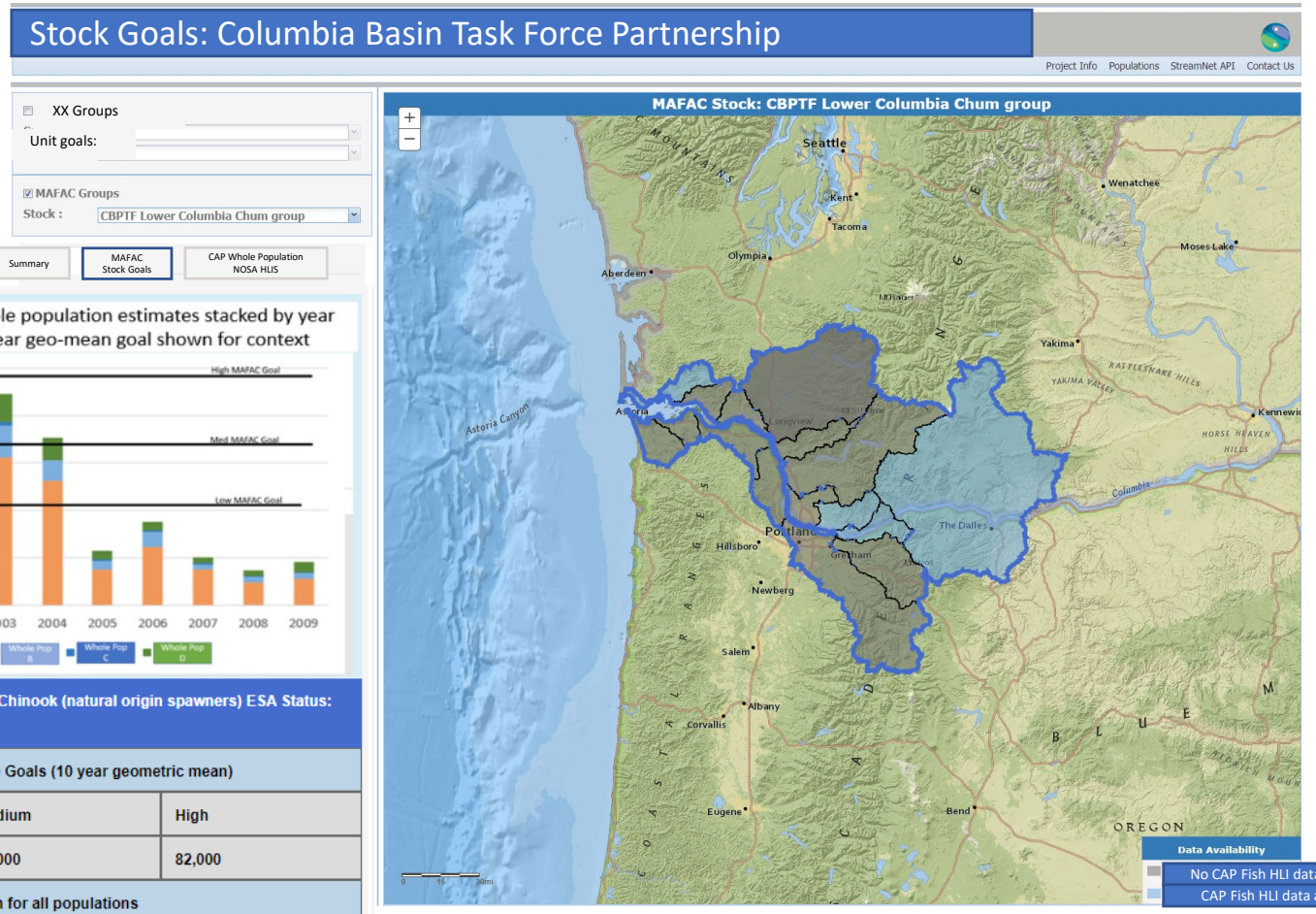
Read more about the details of the MAFAC Columbia Basin Partnership Task Force process, including how the regional technical teams developed the quantitative goals, in the 2020 report.

MAFAC Stock Goal Search



Bottom of the box will contain:
- link to MAFAC report
- definitions
- caveat about goals and data

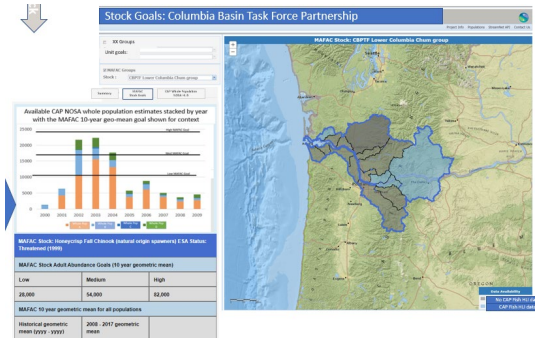
[proposed text on another slide]



MAFAC Stock: Honeycrisp Fall Chinook (natural origin spawners) ESA Status: Threatened (1999)

MAFAC Stock Adult Abundance Goals (10 year geometric mean)		
Low	Medium	High
28,000	54,000	82,000
MAFAC 10 year geometric mean for all populations		
Historical geometric mean (yyyy - yyyy)	2008 - 2017 geometric mean	
101,700	12,000	
Populations within the MAFAC stock		

MAFAC Stock Goal Search



Draft Text for revised MAFAC Stock Goals Tab
(review after meeting; may need to reduce to fit)

The bar graph displays the MAFAC Columbia Basin Partnership Task Force's (referred to as MAFAC) range of goals for this stock. The CAP Fish HLI NOSA estimates for whole populations included in this stock are shown on the bar graph to provide a rough context for the goals. However the displayed NOSA estimates cannot be used to assess progress towards the goals. The MAFAC goal values are a 10-year geometric mean value and are not equivalent to the NOSA annual estimates.

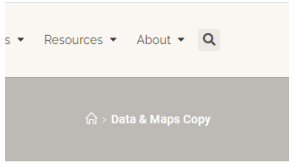
Definitions of Terms and Acronyms:

see next slide

Definitions of Terms and Acronyms (may need to reduce to fit or place elsewhere)

CBPTF	Columbia Basin Partnership Task Force
ESA	Endangered Species Act
Geo-mean	Abbreviation for 10-year geometric mean. The 10-year geometric means is used by MAFAC for consistency with ESA recovery objectives. The geometric mean is defined as the nth root of n products. Geometric means are considered to be a better measure of central tendency for data such as fish abundance which is typically highly skewed. The geometric mean smooths the contribution of periodic large run sizes which can inflate simple averages relative to typical population values. The 10-year period was selected to represent an interval of sustained abundance across multiple generational cycles.
High	High-range goals reflect “healthy and harvestable” levels that are generally three to five times greater than low-range goals and 50 percent or less than historical average abundance estimates (see page 45 of the MAFAC 2020 report)
Low	Low-range goals identify minimum average abundance levels necessary to ensure the long- term survival of the population, stock, or species (see page 44 of the MAFAC 2020 report)
MAFAC	Marine Fisheries Advisory Committee. MAFAC was established to provide advice on living marine resource matters under the jurisdiction of the U.S. Department of Commerce, primarily, under NOAA Fisheries.
Medium	Mid-range goals are generally halfway between the low-range goals and the high-range goals for listed stocks (see page 45 of the MAFAC 2020 report)
NOSA	Natural-origin spawner abundance (see Coordinated Assessments DES documents for current version on StreamNet Data Exchange Standards webpage)
Stock	A group of fish of the same species that spawns in a particular lake or stream (or portion thereof) at a particular season and which, to a substantial degree, does not interbreed with fish from any other group spawning in a different place or in the same place in a different season. For the purposes of the Columbia Basin Partnership Task Force, a stock is defined for Columbia Basin salmon and steelhead based on species (Chinook salmon, coho salmon, sockeye salmon, chum salmon, steelhead), region of origin (e.g., Lower Columbia, Middle Columbia, Upper Columbia, Snake, or Willamette) and run type (e.g. spring, summer, fall, late fall). See page 11 of the MAFAC 2020 report

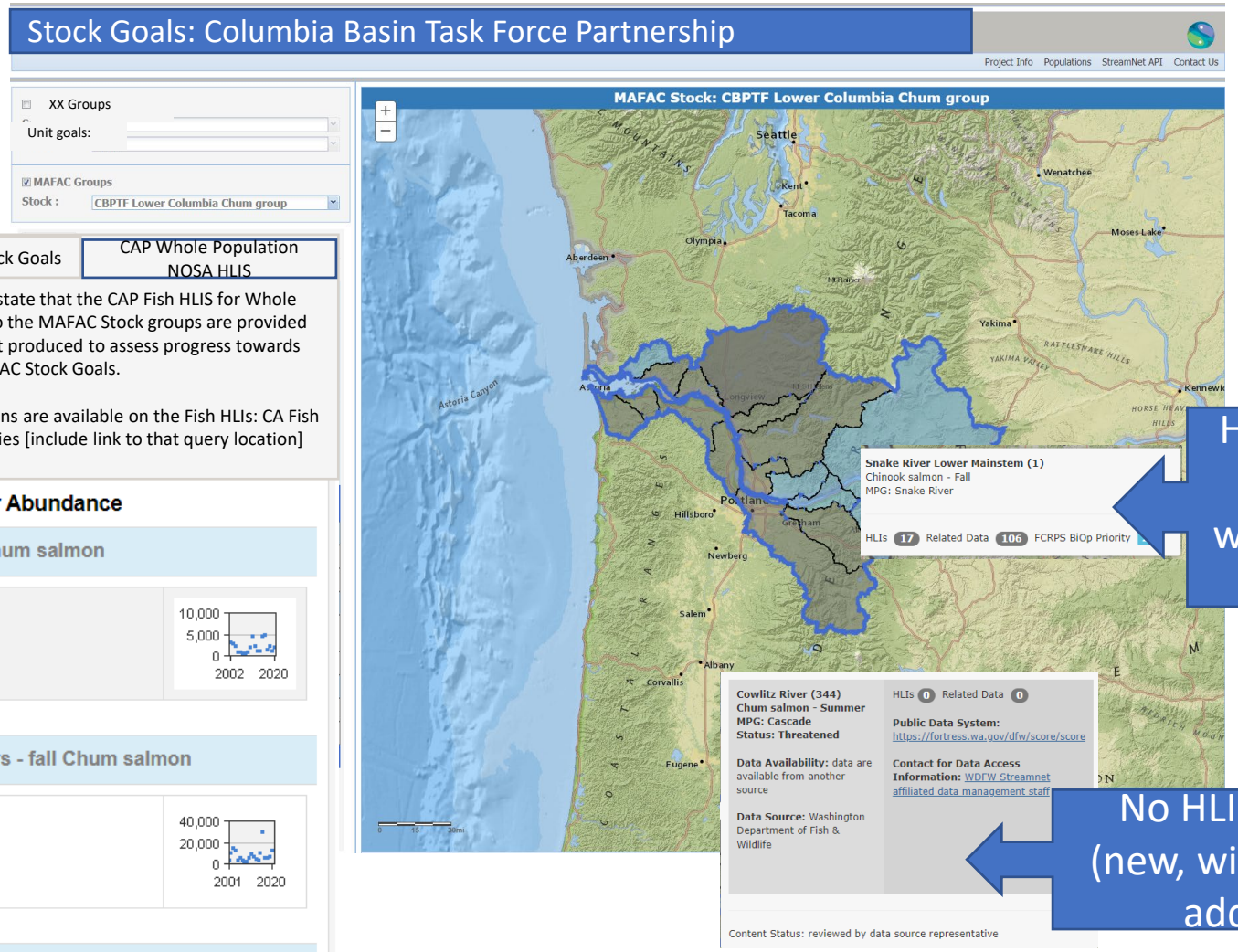
MAFAC Stock Goal Search



Change tab title

Add explanatory text to clarify CAP Fish HLI NOSA are not part of MAFAC

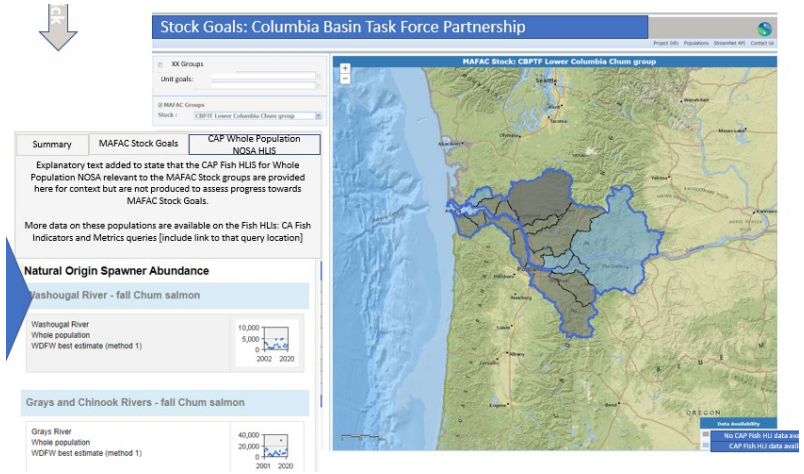
[proposed text on another slide]



HLI pop up (current with Pop ID added)

No HLI pop up (new, with Pop ID added)

MAFAC Stock Goal Search



Draft Text for revised CAP Whole Population NOSA HLIs (review after meeting; may need to reduce to fit)

The population-scale NOSA estimates available for the populations included in the selected MAFAC stock are included here for context.

Additional data on spawner abundance for these populations may exist on the CAP Fish HLI query or elsewhere. These NOSA estimates cannot be used to assess progress towards the goals. More extensive calculations are required to assess progress towards the MAFAC goal values, which are a 10-year geometric mean value and are not equivalent to the NOSA annual estimates.

Input Requested and Timeline

Due Date	Item
Feb 21	Review proposed changes during SN SC meeting
April 21	Input requested: Explore and provide input/correction modified CAP Fish HLI (https://sb.streamnet.org/) 1) Revised no HLI data pop up box • Are there errors in the content of the no-HLI pop up boxes? 2) New title for existing CAP Fish HLI (cax) map query? • Yes or no on the new title? 3) Addition to CAP Fish HLIs (cax) for superpopulation search option • Is it logical? Other refinements? 4) Slides of mock up for Fish Goals approach for MAFAC CBPTF goals and future goals Review the explanatory text, acronym, and definitions for completeness and comprehension (see slide deck)
June 15	Revised version of both circulated for further input
July 13	Input due
Sept TBD	Confirm final revised version Sept 2023 SN SC meeting
Oct TBD	Review with ExCom Oct 2023 meeting

StreamNet Budget & SOW

Nancy

BONNEVILLE POWER ADMINISTRATION
DIVISION OF FISH AND WILDLIFE

Statement of Work Report

Data Current as of:
Report Printed:

Project Title:	StreamNet		
Project #:	1988-108-04		
Contract Title:	1988-108-04 EXP STREAMNET		
Contract #:		**Amendment #:**	
Province:	Non-Provincial	**Subbasin:**	Basinwide
Workorder Task(s):	WO: Task: $		
Perf. Period Budget:		**Perf. Period:**	10/1/2023 - 9/30/2025
Contract Type:	Release	**Pricing Type:**	Cost Reimbursement (CNF)
Contractor(s):	Pacific States Marine Fisheries Commission		

Budget

- FY 2023
  - Budget end date Sept 30, 2023
  - Spending on track?
- FY 2024 and FY2025
  - Assuming same baseline budget
  - Waiting on BPA to confirm any COLA or other increase
  - Any portfolio management transfer amount expected?
  - Revisions to the SOW and WEs (see next slide and draft SOW document)

SOW and WE FY2024 & 2025 *(review draft document)*

A:	132. Produce (Annual) Progress Report - Produce annual progress report for CY2022
B:	132. Produce (Annual) Progress Report - Produce annual progress report for CY2022
C :	132. Produce (Annual) Progress Report - Produce annual progress report for CY2021
D :	159. Transfer/Consolidate Regionally Standardized Data - DES and Validation Process for Fish Monitoring Data (trends) and CAP Fish HLI (CAX)
E :	159. Transfer/Consolidate Regionally Standardized Data - CAP Fish HLI (CAX) – DES, API, Database
F :	159. Transfer/Consolidate Regionally Standardized Data - Fish Monitoring Data (Trends) – DES, API, Database
G :	159. Transfer/Consolidate Regionally Standardized Data - Transfer of data to secure and accessible repositories
H :	160. Create/Manage/Maintain Database - StreamNet maintaining and enhancing data management
I :	160. Create/Manage/Maintain Database - Implement and participate in processes described in the StreamNet QA/QC
J :	160. Create/Manage/Maintain Database - Infrastructure/equipment and base operations
K :	160. Create/Manage/Maintain Database - Metadata Documentation
L :	161. Disseminate Raw/Summary Data and Results - Reporting and Decision-Making Processes
M :	161. Disseminate Raw/Summary Data and Results - GIS Data and Metadata
N :	161. Disseminate Raw/Summary Data and Results - Improving data sharing with and access from, StreamNet Data Systems
O :	185. Produce Pisces Status Report - Periodic Status Reports for BPA
P :	189. Coordination-Columbia Basinwide - Coordination and Outreach
Q :	189. Coordination-Columbia Basinwide - Supporting Data Requests

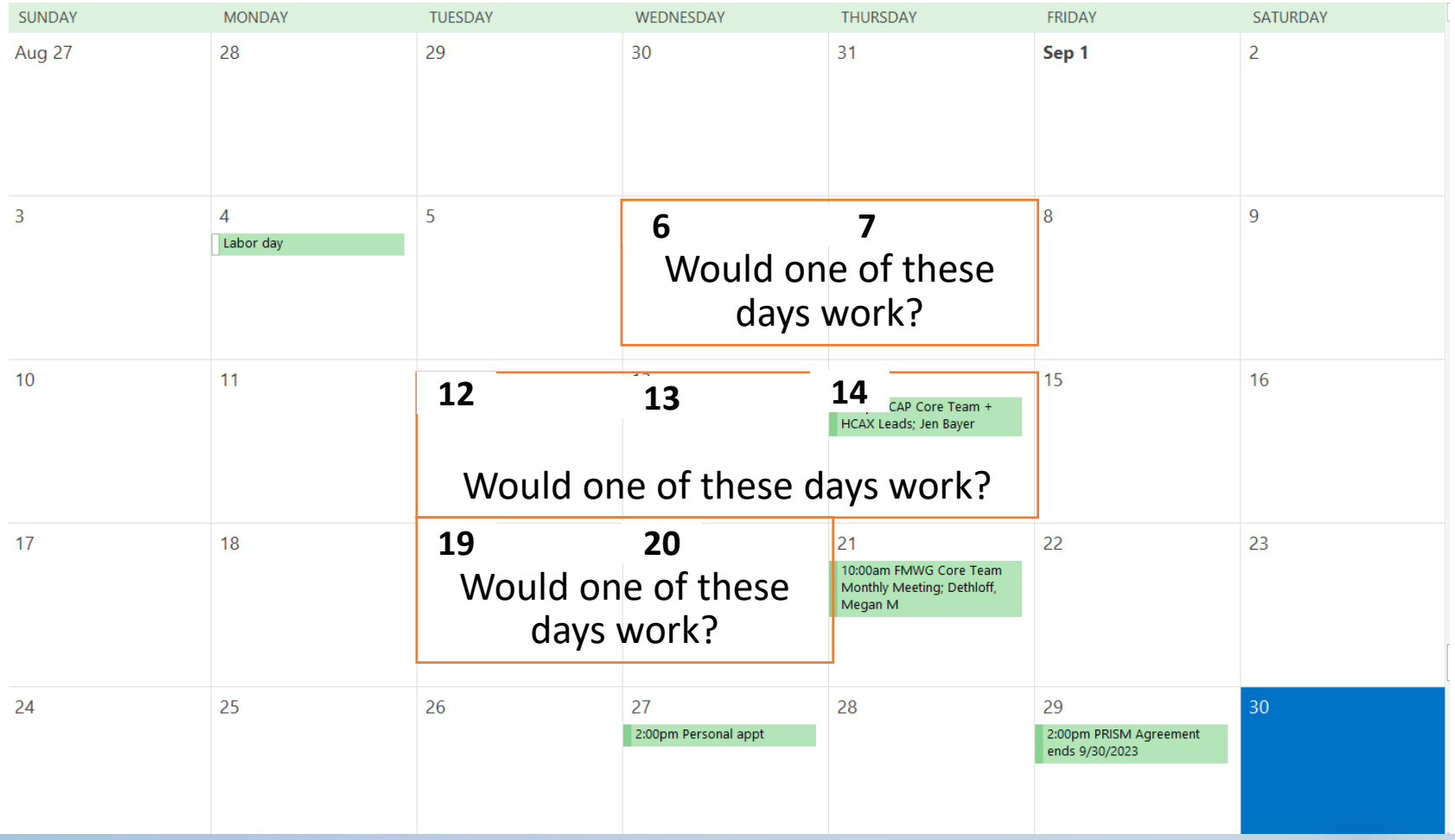
FY24-25 Budget and SOW timeline

Due Date		Item
Feb 14	✓	Draft FY24&25 SOW and WE sent to SN SC members
April 3		Budget excel template sent for update by funded SN SC members (BPA should have new baseline budget confirmed?)
April 14		Input on SOW/WE & updated budget due
April 21		Revised SOW /WE sent for final review
April 28		Input on SOW/WE due
May 5		Submit draft budget and SOW for review by COR
June 1		Submit final budget and SOW for new contracts
Sept / Oct		BPA sends release/agreement to PSMFC
Oct 1		Start of FY24 and new subcontracts initiated

September 2023 SC meeting

- **September 2023 SC meeting**
- Host ?
- Dates?

Note: ExCom to be held jointly with PNAMP SC in October



End Day 1

back at 9:00 AM (MT)

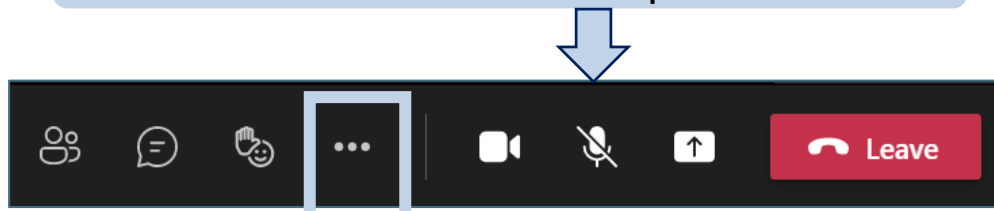
Welcome
Day 2

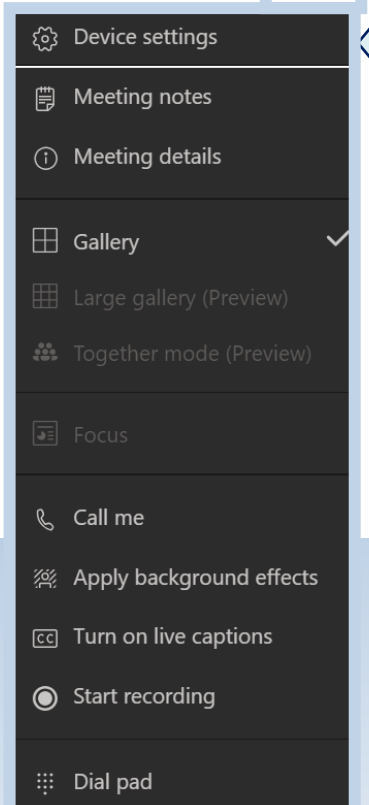
Please leave web cameras on to facilitate discussion

All participants,

please use the chat to introduce yourself (name and affiliation)

Please mute yourself when not speaking.
Use *6 to mute phone audio.
Use the microphone icon on the control bar to mute computer audio.



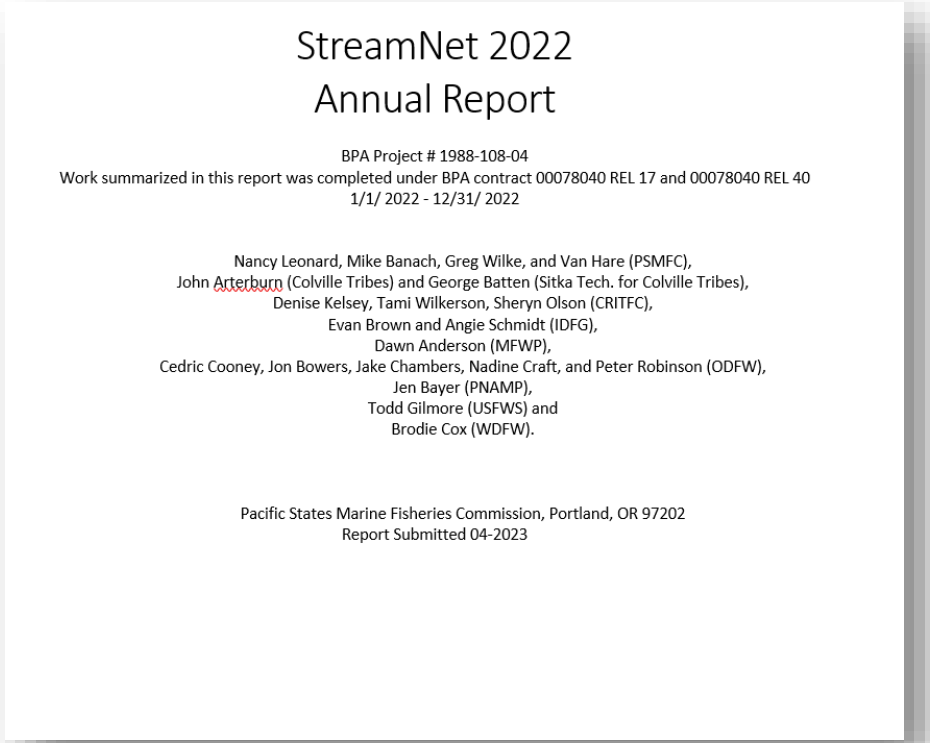


Check device settings if you are having problems with audio/video

StreamNet
www.streamnet.org

CY2022 Annual Report to BPA

Nancy



StreamNet 2022
Annual Report

BPA Project # 1988-108-04
Work summarized in this report was completed under BPA contract 00078040 REL 17 and 00078040 REL 40
1/1/ 2022 - 12/31/ 2022

Nancy Leonard, Mike Banach, Greg Wilke, and Van Hare (PSMFC),
John Arterburn (Colville Tribes) and George Batten (Sitka Tech. for Colville Tribes),
Denise Kelsey, Tami Wilkerson, Sheryn Olson (CRITFC),
Evan Brown and Angie Schmidt (IDFG),
Dawn Anderson (MFWP),
Cedric Cooney, Jon Bowers, Jake Chambers, Nadine Craft, and Peter Robinson (ODFW),
Jen Bayer (PNAMP),
Todd Gilmore (USFWS) and
Brodie Cox (WDFW).

Pacific States Marine Fisheries Commission, Portland, OR 97202
Report Submitted 04-2023

Topics for discussion

- Any sections we need to discuss (Exec Summary, Intro, Methods, Results etc?)
- Do we need to address the impact from USGS decision to discontinue NHD and WBD in March 2023?

- Changes to Recommendations / Lessons Learned? [see document for new text from webform]

A. Recommendation - Supporting a Broader Group of Data Categories to Support Regional Information Needs
B. Recommendations to Secure Funding for Quality Data Exchange
C. Recommendation to Enhance and Maintain Access to High Quality Data
D. Recommendation to Establish StreamNet as System of Record for BPA/NPCC Program
E. Recommendation to Adequately Support State and Tribal Data Stewards and Participation in StreamNet
F. Recommendation to Explore Opportunities and Assess Process to Connect Systems **(2022 NEW)**
G. Recommendation Commit to at Least One Annual StreamNet Technical Team Meetings **(2022 NEW)**
H. Lessons Learned about the Benefits of Streamlining Internal Data Submission for Direct Staff Data Submittal to CAP and StreamNet
I. Lessons Learned about the Importance of Communicating QA/QC and Improving Access to Data Consumers
J. Lessons Learned on Efficient Approach to Access Needed Expertise
K. Lessons Learned about the Importance of Documentation for Data Integrity and Succession Planning

BPA Annual Report Due Dates

Due Date		Item
Feb 3	✓	Webform populated by funded members
Feb 10	✓	Non-webform content from external partners
Feb 14	✓	1st draft report sent to SN SC members
Feb 27		Input from SN SC members on 1st draft
March 6		2nd draft report sent to SN SC members
March 15		Final input from SN SC member due
March 31		Final report submitted to BPA and send to SN SC members (Report due Saturday April 1)

Spotlight

Yakama Nation Fisheries Hatchery Data Management and Sharing

Michelle Steg-Geltner and Anneliese Myers
Yakama Nation

Yakama Nation Fisheries

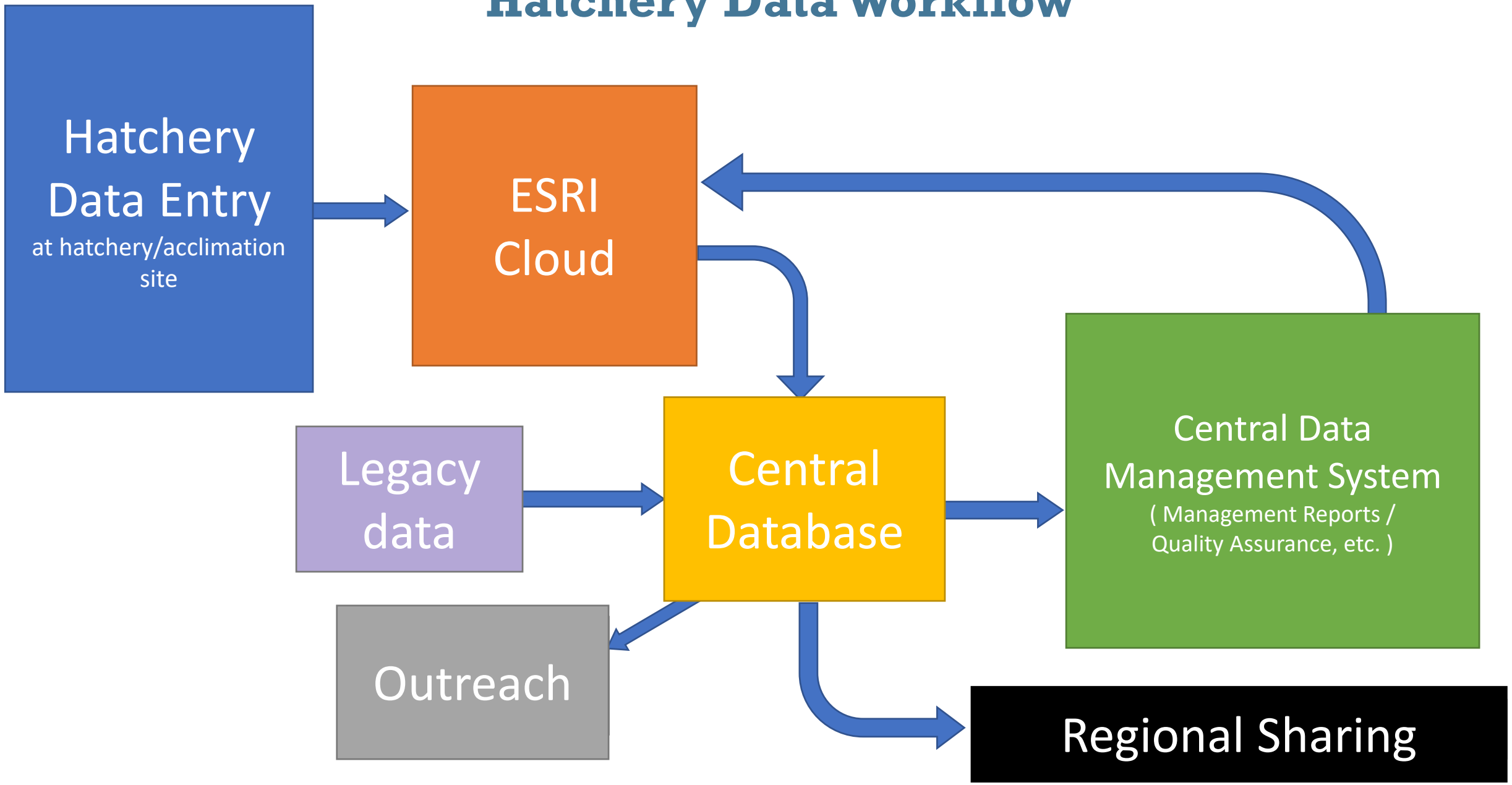
Hatchery Data Management and Sharing

Anneliese Myers, YKFP Data and Information Specialist
Michelle Steg-Geltner, Status and Trends Reporting Coordinator
2/22/2023

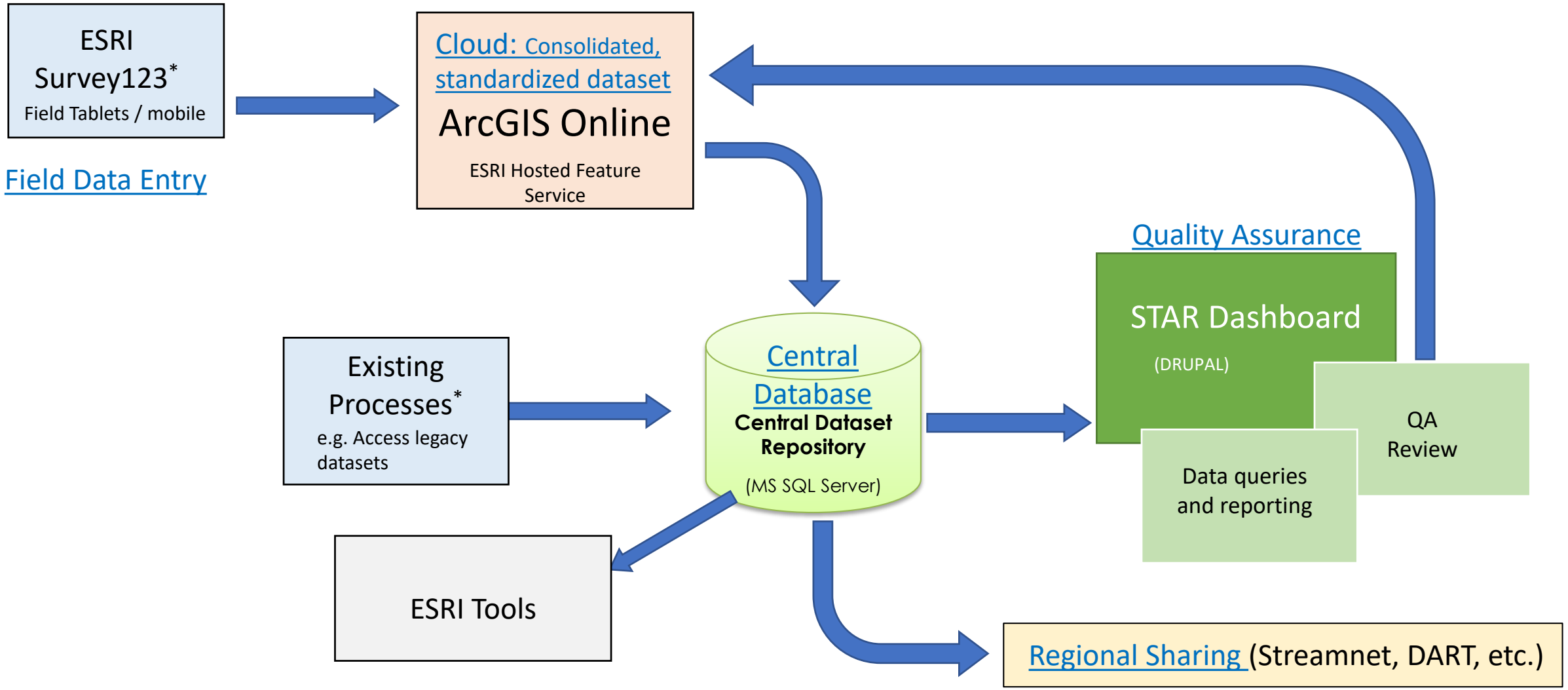
Goals and Approach

1. Uniform data capture and management process across YNF hatchery programs	Use of ESRI tools, data management system and central database
2. Real-time hatchery data system	Using API's to flow data from the hatchery to the central data management system and database
3. Improve QA/QC processes to enhance data quality and efficiency	Multiple levels of review built into the data collection efforts
4. Provide up-to-date management reports to facilitate decision-making	Real-time management reports are developed and available through data management system
5. Ability to share and report to regional repositories	Internal tools allow for data to be pushed to regional partners

Hatchery Data Workflow



Hatchery Data Workflow



Implementation at YN Hatchery Facilities

In Implementation

- Mel Sampson Coho Production Facility
- Upper Columbia Kelt Reconditioning Project
- Cle Elum Supplementation and Research Facility

Future:

- Prosser Hatchery
- Klickitat Hatchery
- Upper Columbia facilities

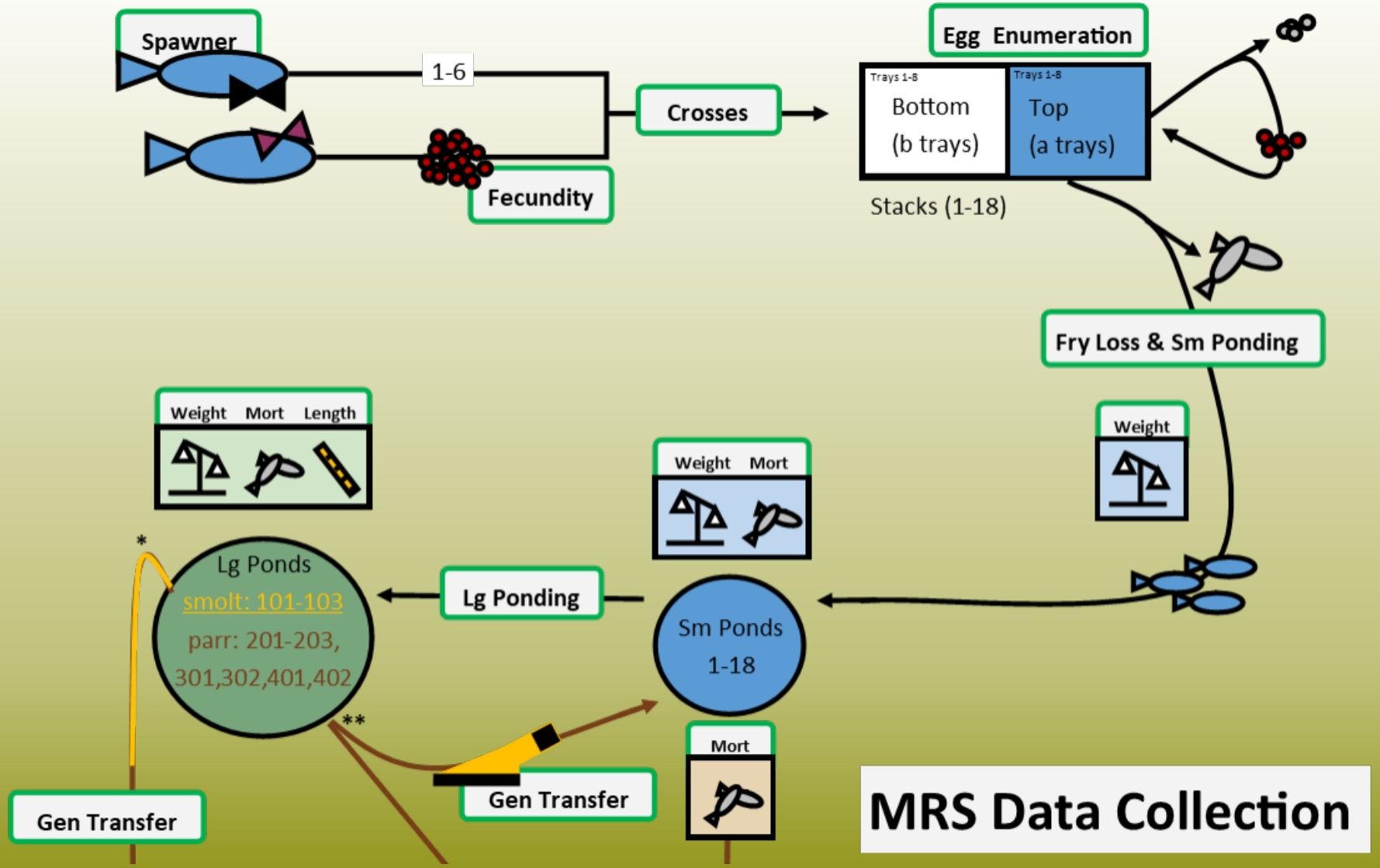
Mel Sampson Coho Facility

- New state-of-the-art facility supporting reintroduction
- First spawner brood year 2021
- Deployed new data and system processes using Survey123 field forms and a centralized data management system/database

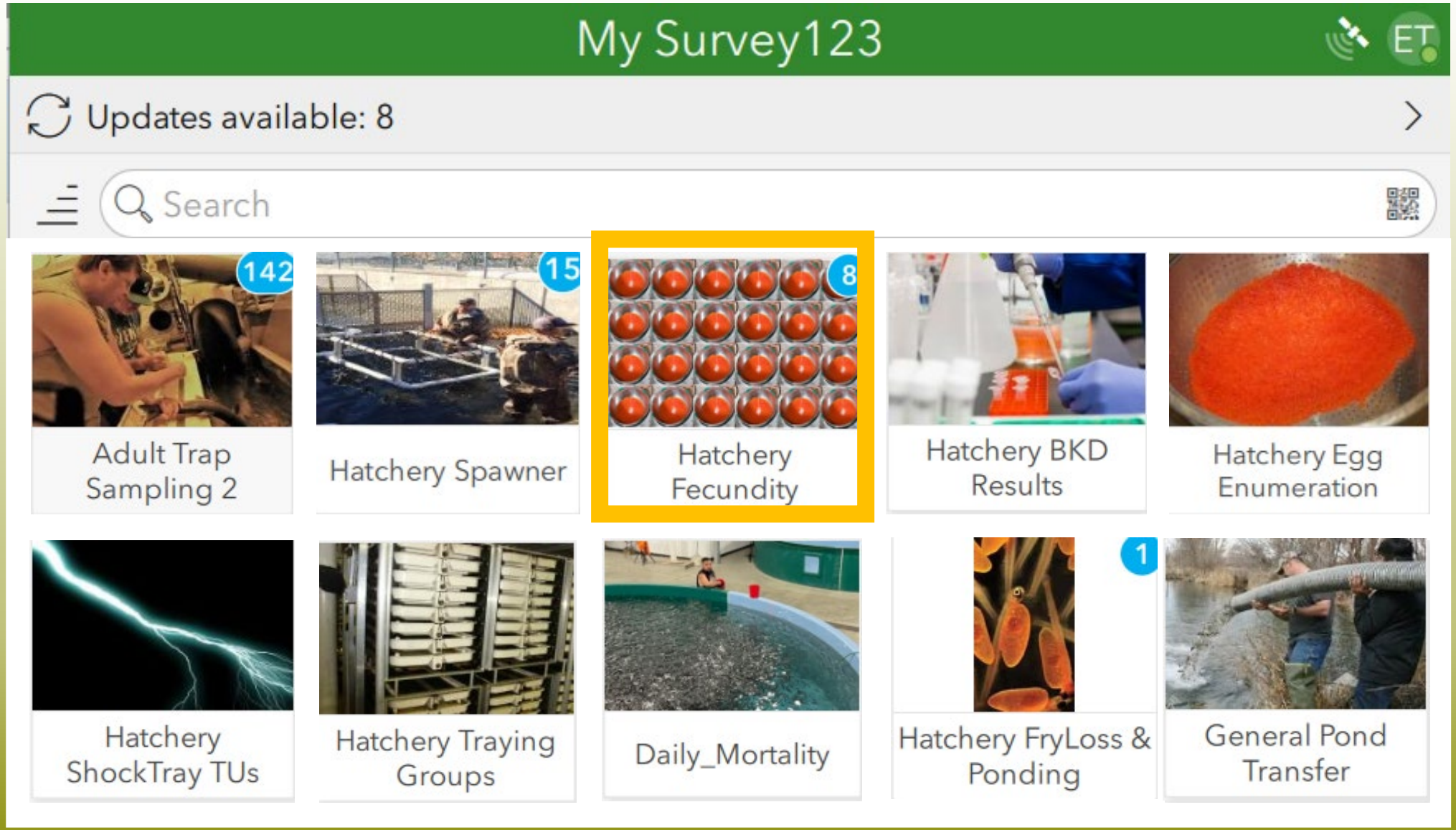
Mel Sampson Coho Facility - Data Collection

Data Collection Hatchery Forms

1. Spawner
2. Fecundity
3. Crosses
4. Egg enumeration
5. Fry Loss
6. Small Ponding
7. Daily Mortalities
8. Weight Sampling
9. Large Ponding
10. Length Sampling
11. Transfers/ Releases (off-site)



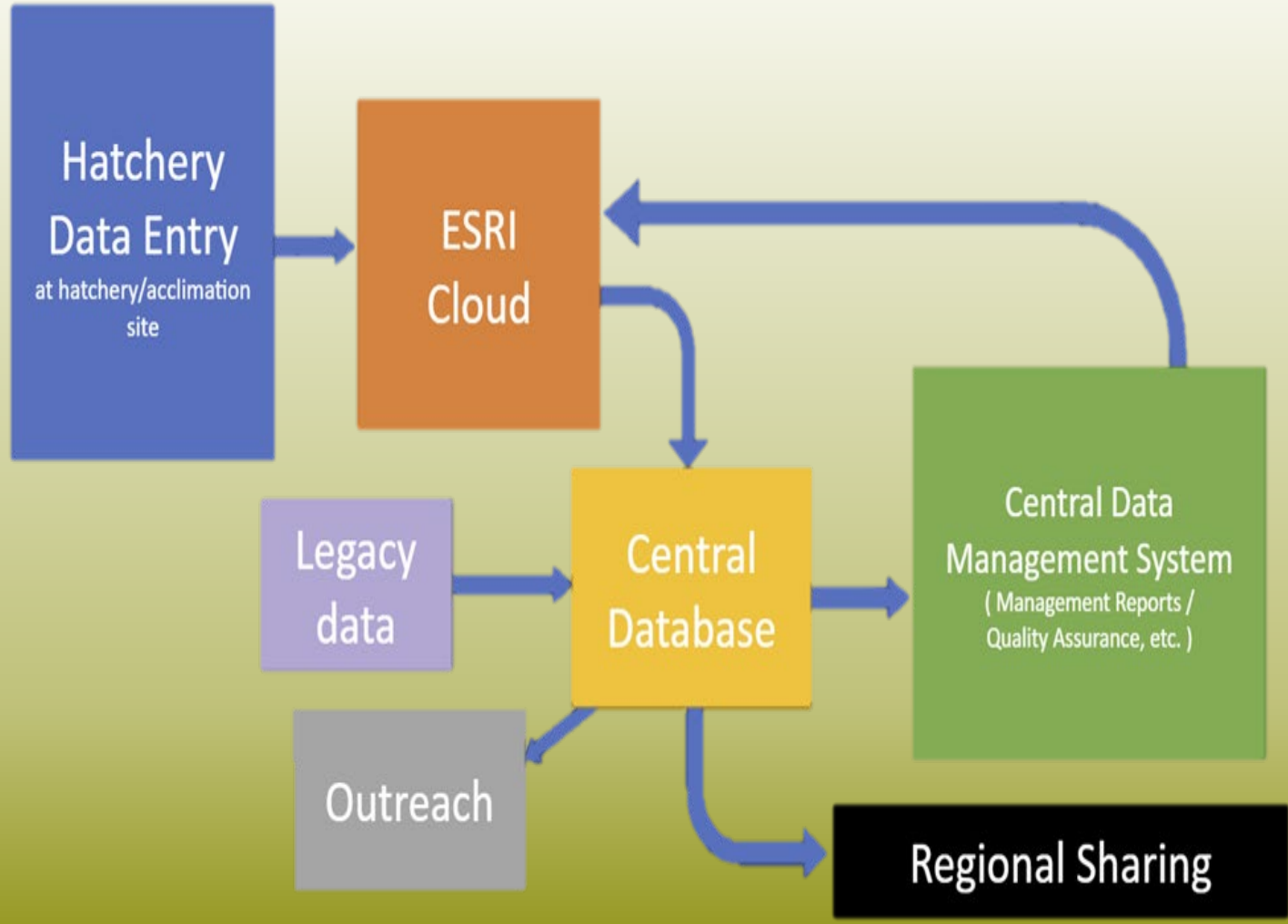
Hatchery Field Forms: survey123.arcgis.com



Mel Sampson Coho Facility - Fecundity Estimation

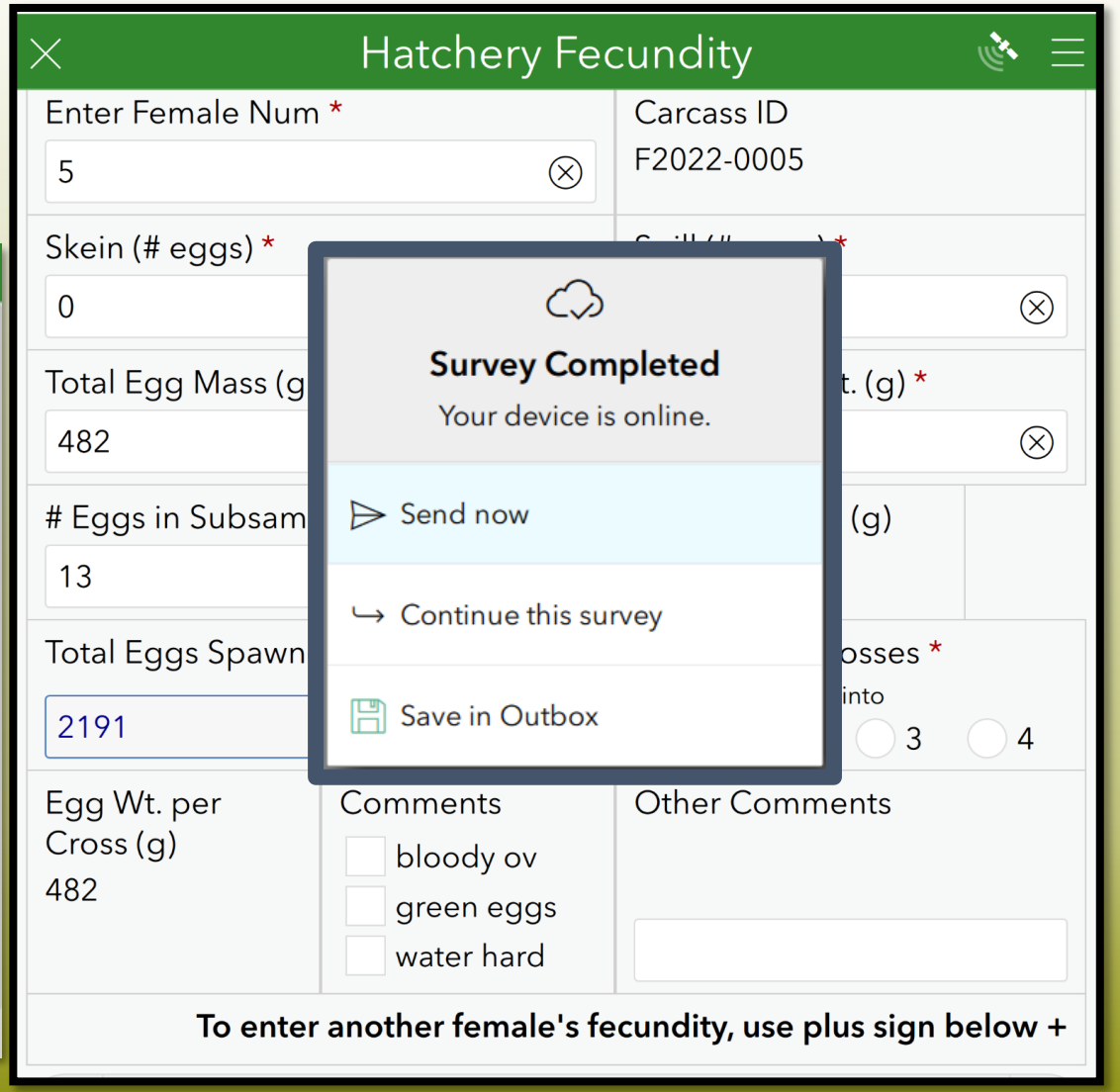
Fecundity Process:

1. Eggs transported to fecundity room
2. Carcass-ID noted
3. Total Egg weight documented
4. Egg subsample counted, weighed
5. Fecundity estimated
6. Summary reports highlight:
   - Progress toward egg-take goals
   - Egg loss issues
   - Missing data



Hatchery Data Entry → ESRI Cloud

Fecundity - Survey123 Data Capture and Submittal



ESRI Cloud → Central Database

Fecundity: Data Flow to Central Database

Hatchery Fecundity | Female Fecundity & Sample | MANY females crossed wi...

Carcass ID	Skein (# eggs)	Spill (# eggs)	Health Sample (# eggs)	WDFW Isolette (# eggs)	Total Egg Mass (g)	Subsample Wt. (g)	# Eggs in Subsamp
F2022-0005	0				482	2.9	13
F2022-0007	0	0			467	2.2	11
F2022-0009	0	0			204	2.5	12
F2022-0011	0	0			214	2	9
F2022-0013	0	0			642	1.7	8
F2022-0015	0	0			255	2.3	14
F2022-0017	0	0			396	1.4	11

19 of 702 selected

Survey123 ArcGIS Online

Push data to central database (real-time using API calls)

Spill (# eggs): 0

Total Egg Mass (g): 482

Subsample Wt. (g): 2.9

Eggs in Subsample: 13

Mean Egg Wt. (g): 0.22

dbo.Fecundity_Header
dbo.Fecundity_Header_Upd
dbo.Fecundity_Matrix
dbo.Fecundity_Matrix_CLE
dbo.Fecundity_Matrix_MRS
dbo.Fecundity_Repeats_Upc
dbo.Fecundity_StackTray_Up
dbo.Fecundity_SubsampleE
dbo.FryLossSmlPond_Detail

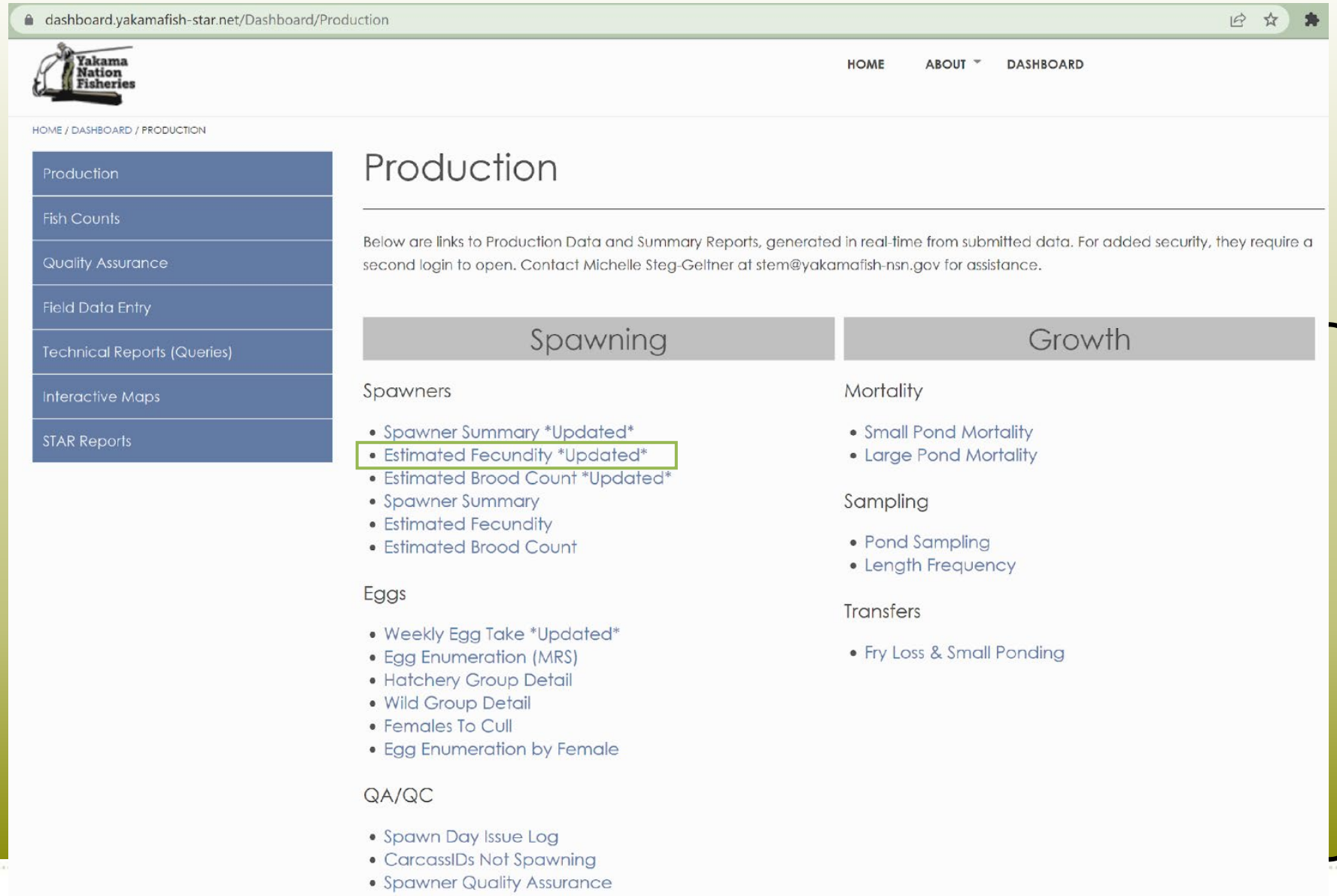
Results | Messages

	objectid	globalid	carcass_id	skein_num	spill_num	healthsamp_num	wdfw_num	egg_mass	subsamp_weight	subsamp_num	avg_egg_weight	total_eggs_spawned
1	472	A2D8F6C7-A3AA-43AA-BDBD-26D4C32B7021	F2022-	0	0	NULL	NULL	293	4.5	8	0.5625	520.888888888889
2	35		F2022-0001	0	8	NULL	NULL	439	4.4	17	0.258823529411765	1696.13636363636
3	34		F2022-0002	0	0	NULL	NULL	121	2.4	14	0.171428571428571	705.833333333333
4	35		F2022-0003	0	0	NULL	NULL	439	2.8	12	0.233333333333333	1881.42857142857
5	343	C3A1B24A-8ED9-4E7E-9052-C8243BD33FE7	F2022-0004	0	0	NULL	NULL	447	2.1	9	0.233333333333333	1915.71428571429
6	354	76D65728-C03D-4103-A295-06668ED022F9	F2022-0005	0	0	NULL	NULL	482	2.9	13	0.223076923076923	2160.68965517241
7	344	BFE5AA35-9471-4E62-A9F8-3DE77875F21C	F2022-0006	1500	0	NULL	NULL	63	2.3	11	0.209090909090909	301.304347826087
8	355	C6EA4D91-7BC0-4D6B-B456-9EE215E6B52C	F2022-0007	0	0	NULL	NULL	467	2.2	11	0.2	2335
9	345	E881B448-308F-493B-93DD-82C0786DB541	F2022-0008	0	0	NULL	NULL	236	1.8	9	0.2	1180

YN Central Database

Central Database → Central Data Management System (Management Reports / Quality Assurance, etc.)

Fecundity - Review and Reports



STAR

Yakama Nation fisheries centralized data management system:

dashboard.yakamafish-star.net

Management Reports

Central Database → Central Data Management System (Management Reports / Quality Assurance, etc.)

Fecundity - Review and Reports

Yakama Nation Fisheries

Honor. Protect. Restore.

Estimated Fecundity

Location: MRS Coho **Brood Year:** 2022 **Origin:** Hatchery, Wild

Total Females: 386 **Total Eggs Spawned: 803,207** **Average Fecundity/Female: 2,091** Average Eggs Sp

Weekly Summa

Spawndate	female total	egg total	spill total	left on skein t
10/26/2022	19	31,608	8	1,570
11/2/2022	63	125,721	60	930
11/9/2022	90	193,446	0	930
11/16/2022	79	176,815	0	150
11/23/2022	50	102,622	30	75
11/30/2022	85	172,994	0	0

Detail

Spawndate	Female ID	egg mass (g)	subsample (g)	subsample egg count	avg. egg weight (g)	# eggs spawned	spil
10/26/2022	F2022-0001	439	4.4	17	0.2588	1,696	8
10/26/2022	F2022-0002	121	2.4	14	0.1714	706	0
10/26/2022	F2022-0003	439	2.8	12	0.2333	1,881	
10/26/2022	F2022-0004	447	2.1	9	0.2333	1,916	
10/26/2022	F2022-0005	482	2.9	13	0.2231	2,161	
10/26/2022	F2022-0006	63	2.3	11	0.2091	301	
10/26/2022	F2022-0007	467	2.2	11	0.2000	2,335	
10/26/2022	F2022-0008	236	1.8	9	0.2000	1,180	
10/26/2022	F2022-0009	204	2.5	12	0.2083	979	
10/26/2022	F2022-0010	280	3.1	15	0.2067	1,355	
10/26/2022	F2022-0011	214	2	9	0.2222	963	
10/26/2022	F2022-0012	397	2.2	9	0.2444	1,624	
10/26/2022	F2022-0013	642	1.7	8	0.2125	3,021	
10/26/2022	F2022-0014	439	3.4	15	0.2267	1,937	
10/26/2022	F2022-0015	255	2.3	14	0.1643	1,552	
10/26/2022	F2022-0016	341	3.7	16	0.2313	1,475	
10/26/2022	F2022-0017	396	1.4	11	0.1273	3,111	
10/26/2022	F2022-0018	415	2.1	10	0.2100	1,976	
10/26/2022	F2022-0019	327	2.5	11	0.2273	1,439	
Week Totals:		Count Females:		19	Sum:	31,608	

Site: MRS Coho Brood Year: 2022

Origin: Hatchery,Wild

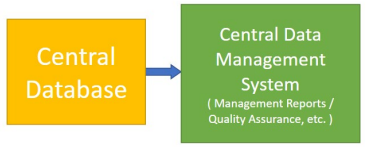
Total Females: 386 **Total Eggs Spawned: 803,207** **Average Fecundity/Female: 2,091** Average Eggs S

Weekly Summary

Spawndate	female total	egg total	spill total	left on skein total	Avg. Fecundity
10/26/2022	19	31,608	8	1,570	1,747
11/2/2022	63	125,721	60	930	2,011
11/9/2022	90	193,446	0	930	2,160

Detail

Spawndate	Female ID	egg mass (g)	subsample (g)	subsample egg count	avg. egg weight (g)	# eggs spawned	spill #	left on skein #	Total Fecundity
10/26/2022	F2022-0001	439	4.4	17	0.2588	1,696	8	0	1,704
10/26/2022	F2022-0002	121	2.4	14	0.1714	706	0	0	706
10/26/2022	F2022-0003	439	2.8	12	0.2333	1,881	0	0	1,881
10/26/2022	F2022-0004	447	2.1	9	0.2333	1,916	0	0	1,916
10/26/2022	F2022-0005	482	2.9	13	0.2231	2,161	0	0	2,161



Fecundity - Review and Reports

BKD/Spawner/Fecundity Forms used to create a Grouping Report

Filters for:
- only wild females (Spawner)
- only low BKD females (BKD)

Filtered females grouped to have similar density across groups (based on Fecundity)

Wild Group Detail

Location: **CESRF** Brood Year: **2022**

Wild Count: **274** | Complete Total **313** | Average Density: **85,702**

Group#	F-ID	ELISA	#EggsSpawned	Trough	Brood_Year	Ref#	Density
1	F2022-0245	Low	129	11	2022	1.1	86367
	F2022-0131	Low	2,792	7	2022	1.2	
	F2022-0200	Low	3,021	10	2022	1.3	
	F2022-0294	Low	3,138	14	2022	1.4	
	F2022-0160	Low	3,225	8	2022	1.5	
	F2022-0290	Low	3,356	14	2022	1.6	
	F2022-0115	Low	3,450	7	2022	1.7	
	F2022-0171	Low	3,543	9	2022	1.8	

Quality Assurance Levels

Technician Level
On-the-ground form edits

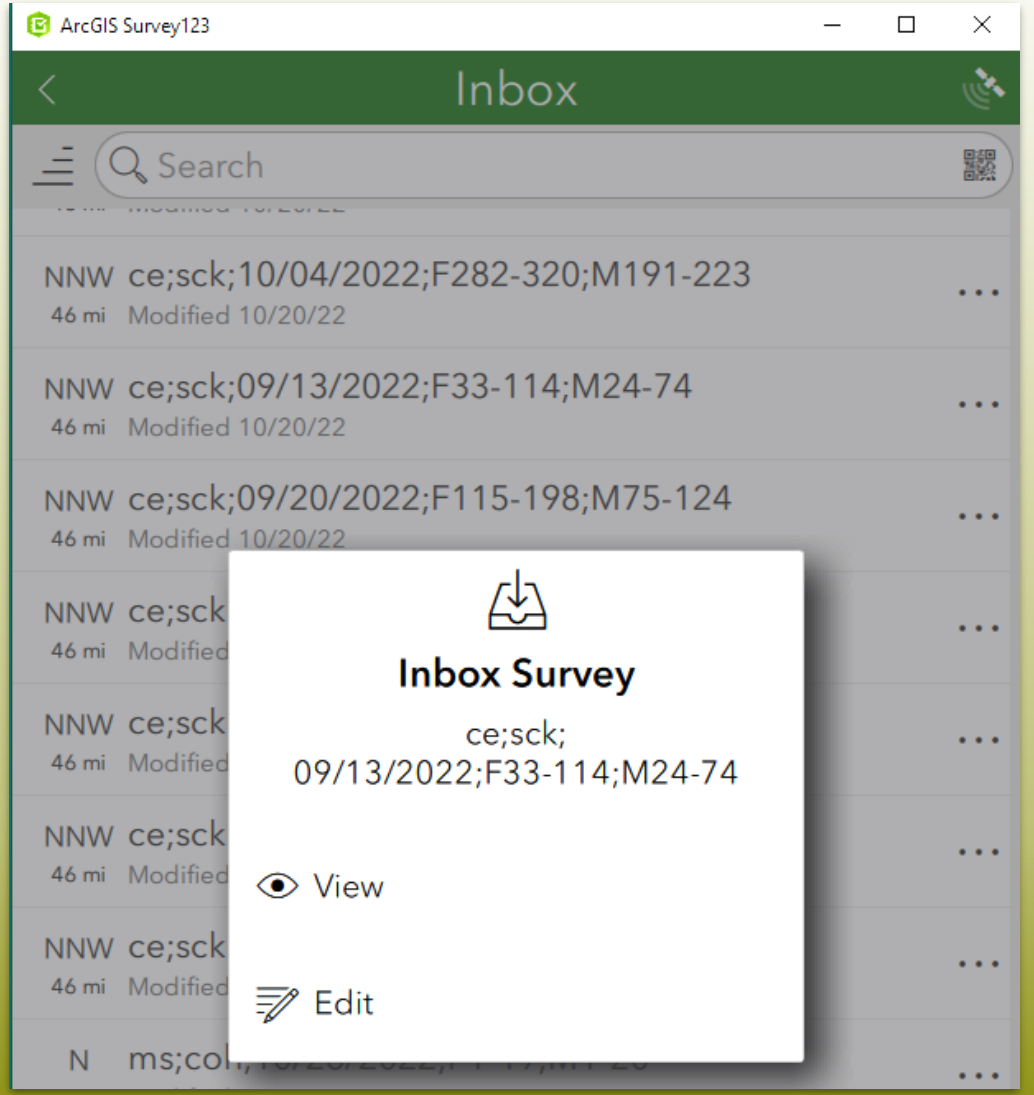
Team Level
End-of-day review in office using dashboard

Manager Level
Review and edit with online-tools

Real-Time Data

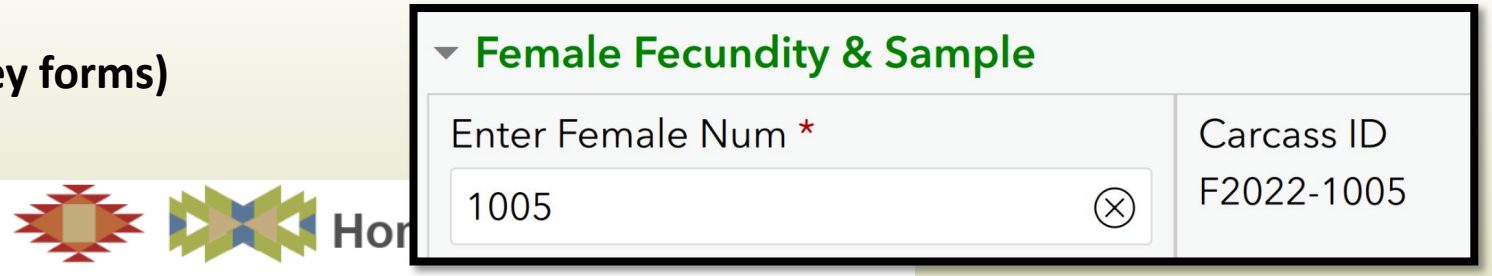
Quality Assurance: **Technician Level**

- **In Survey123 app**
- **Enable inbox editing> Open a previously submitted survey> Edit> Resubmit**
- **Inbox access (in Survey123) can be controlled**
  - Limit certain users, or certain survey conditions
  - Must “refresh” inbox to prevent editing overwrites *(multiple devices, workflows).*
- **Cannot delete records**



Quality Assurance Review: **Team Level**

Corrections are made on mobile devices (survey forms) by the team



Yakama Nation Fisheries

Spawn Day Issue Log

Location : MRS COHO **Report Date : 1/12/2023**

Table #	Issue Log Summary	Count
1	Number of Duplicate Spawn IDs in Spawn Form	0
3	Number of Missing Spawn IDs in Spawn Form	0
5	Number of Duplicate Spawn IDs in Fecundity form	0
6	Number of Spawners from Spawn Form MISSING from Fecundity Form	1
7	Number of Unused Spawn IDs from Spawn Forms entered in Fecundity Form	0
8	Check for Stack/Tray space used by more than 2 females in Fecundity Form (mrs)	0
9	Check for Female not given a Stack/Tray space (mrs)	

Table 6: # of Spawners from Spawn Form MISSING from Fecundity Form

Spawn ID	Comments
F2022-0005	

Quality Assurance Review: **Manager Level**

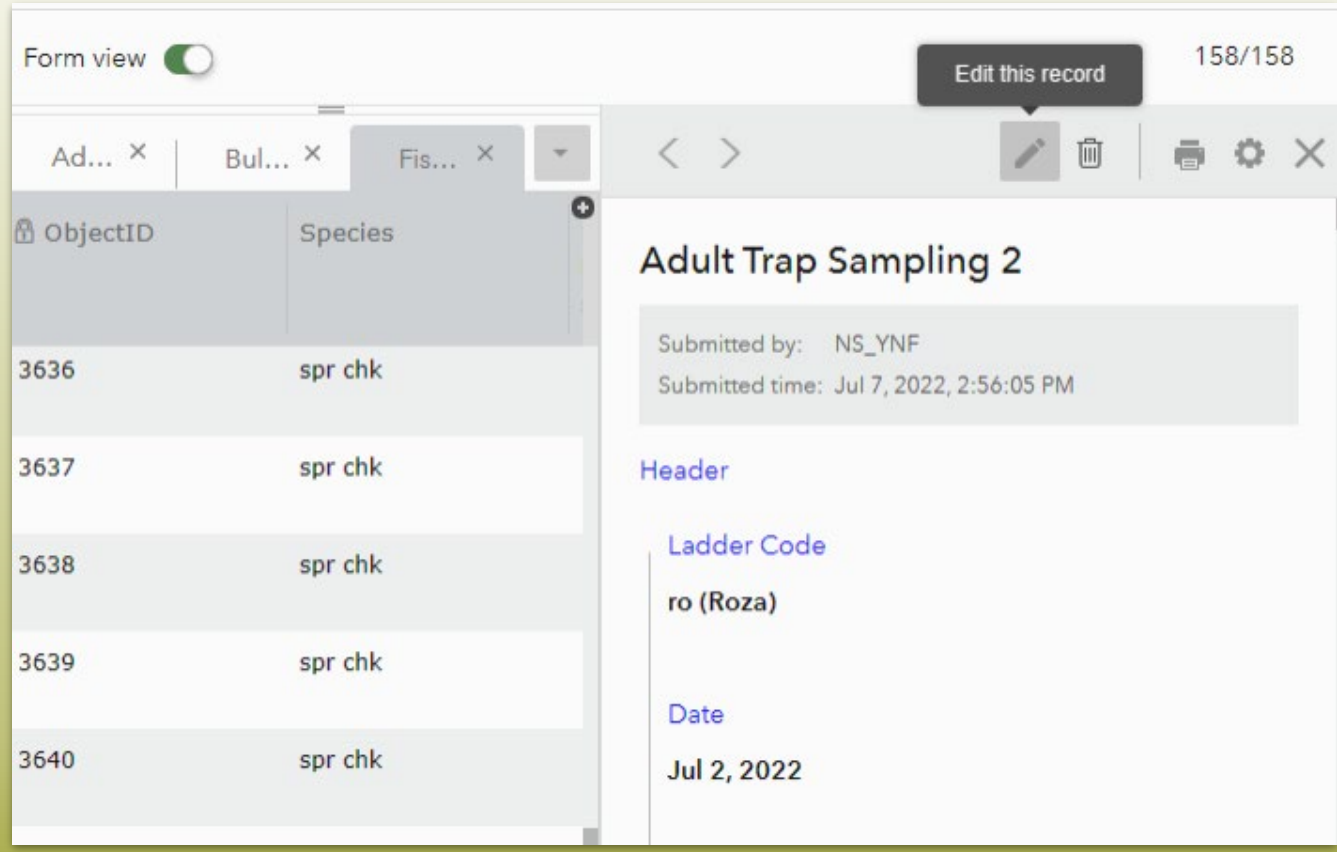
Online process at survey123.arcgis.com or Arcgis.com

Option 1

- Edit via survey interface
- Can be buggy if there are lots of records or complicated logic
- Hitting ‘re-submit’ will update the backend data as well

Option 2

- Edit via a table, one record at a time
- Backend will need to be updated via survey interface, or manually triggering an API



***Edits are automatically pushed to the YN central database via API’s/Webhooks**

***Can create different views/editing permissions for different users**

Quality Assurance: **Developer Level**

- **Done in the SQL server backend database**
  - Best practice is to retire data from Survey123
- **Can run a query to change 100s of records at once**
- **Can edit legacy data that does not have a Survey123 record**

```
UPDATE Spawner_Morts
SET cwt_seq = 165669,
WHERE brood_year = 2021 AND is_cwt=1
```

90 %

Results | Messages

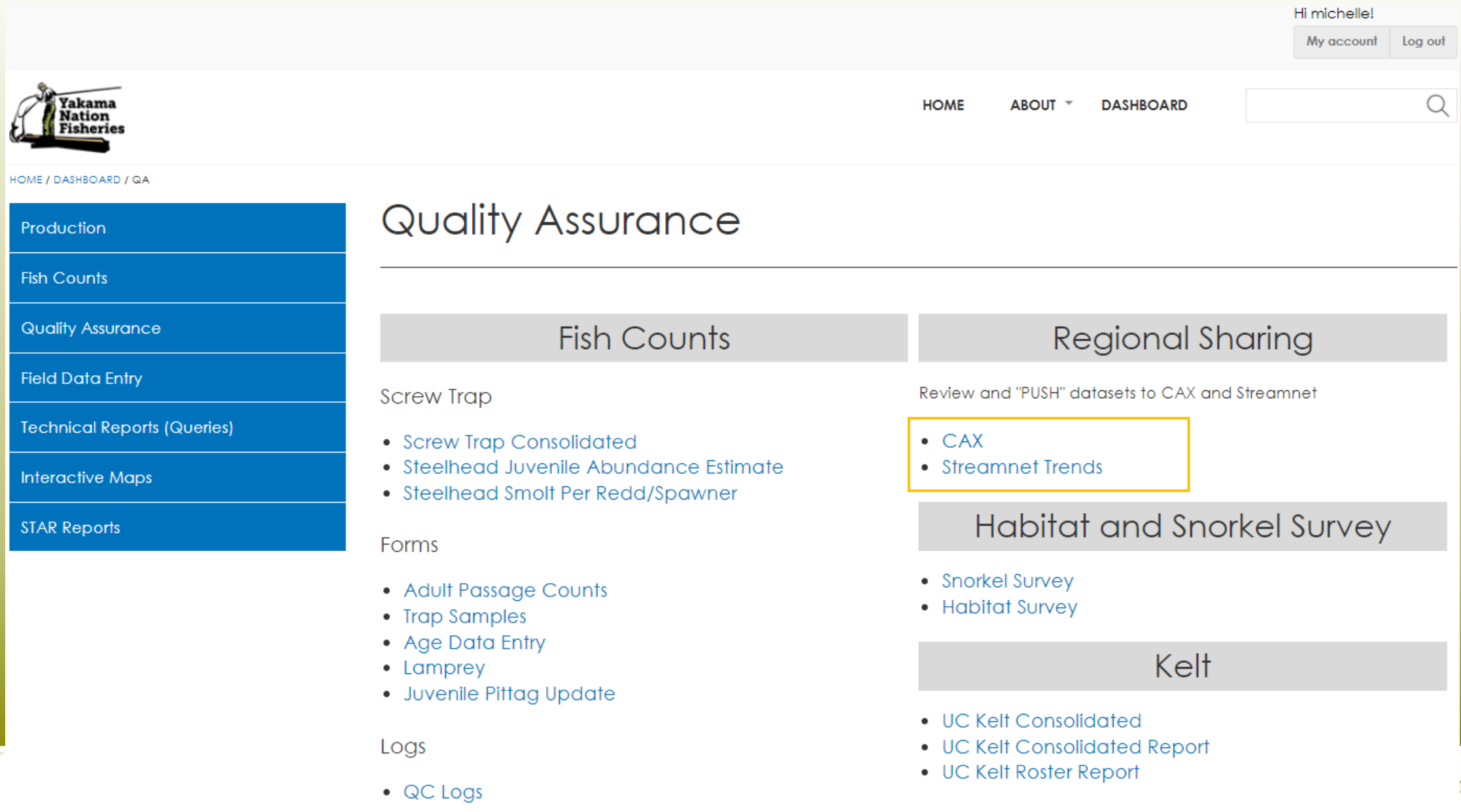
	globalid	objectid	carcass_sex	hatchery_wild	pittag_full	pittag_clipped	is_cwt	cwt_seq
1	2DB016B8-2E65-4B8C-8B97-0601FBEE3909	44	F	w	NULL	NULL	0	NULL
2	C91CA65D-6877-45EE-AF21-07D477F037FD	5	F	w	NULL	NULL	0	NULL

Central Database

Regional Sharing

Regional Sharing

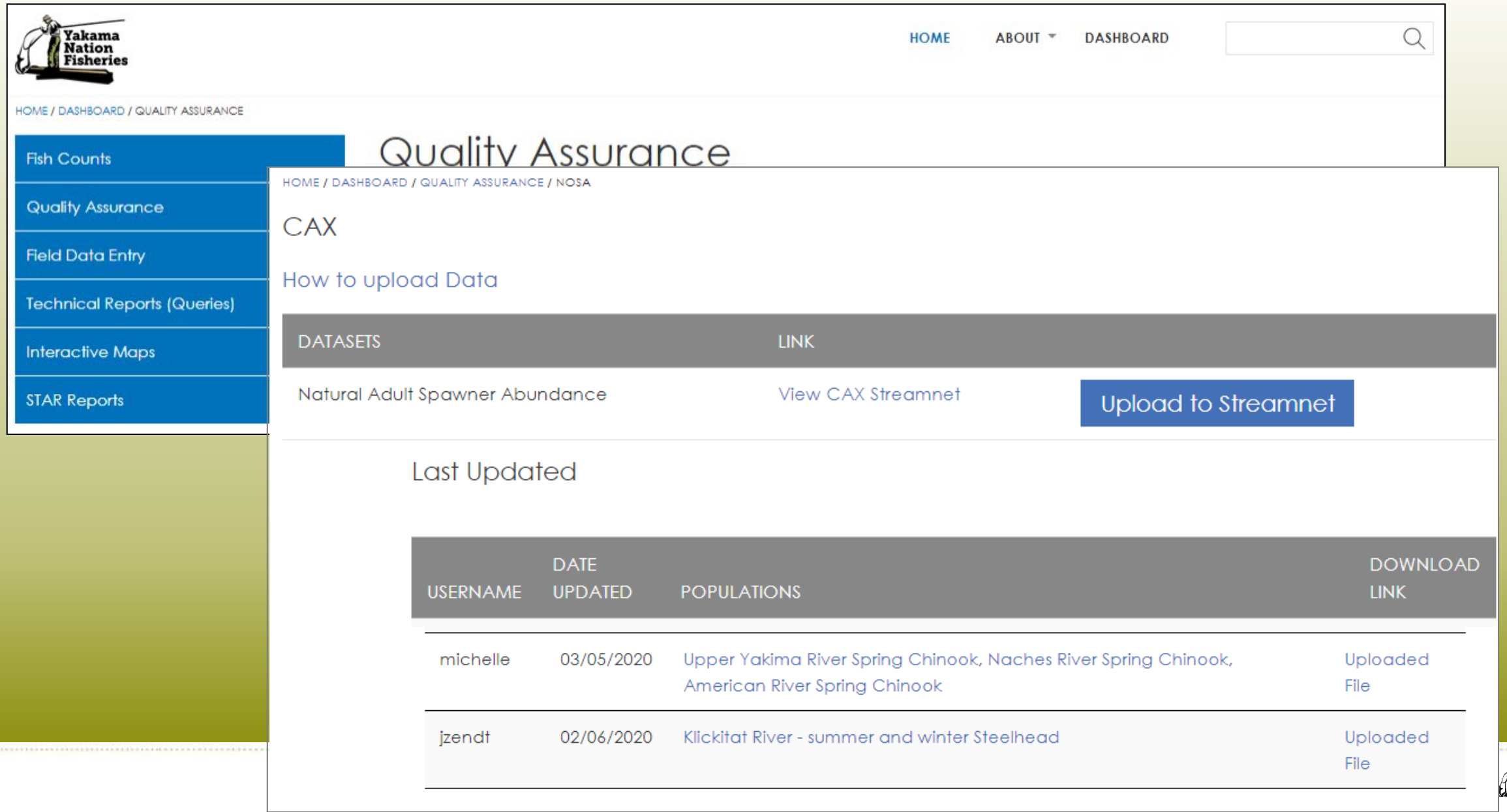
https://dashboard.yakamafish-star.net/dashboard/QA



Central Database

Regional Sharing

Regional Sharing

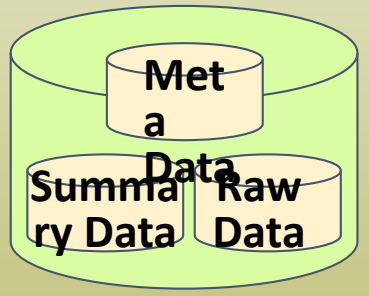


What have we learned?

- **Buy-in** from leadership, staff, learning curve
- **Programmer/ developer time**
  - Build initial connections for data feeds
  - In-house and external data sharing & reporting, queries
- **Staff time** to organize datasets, build forms, consensus
- ArcGIS Online **licenses** (~$330/yr *or free BIA version, + Tribal deal*)
- Purchase **rugged tablets**
- **Vetting** the forms
  - *If they change a lot the data at ESRI is deleted and you have to re-import it. (You still have it on the central database though).*
- **Annual review** of hatchery system and data process are essential

Future Enhancements

- Add **PTAGIS submittal** to our process
  - Not sent directly from field form to PTAGIS
  - Stops with staff in an interface to review first before pushing to PTAGIS



- Implement **Data Warehouse** capabilities
  - Stores summarized data from multiple sources
  - Provides stable, centralized repository for large amounts of historical data
    - Separates analytics processing from transactional database

- **Coded Wire Tag** submittal process to RMIS
  - Done manually now

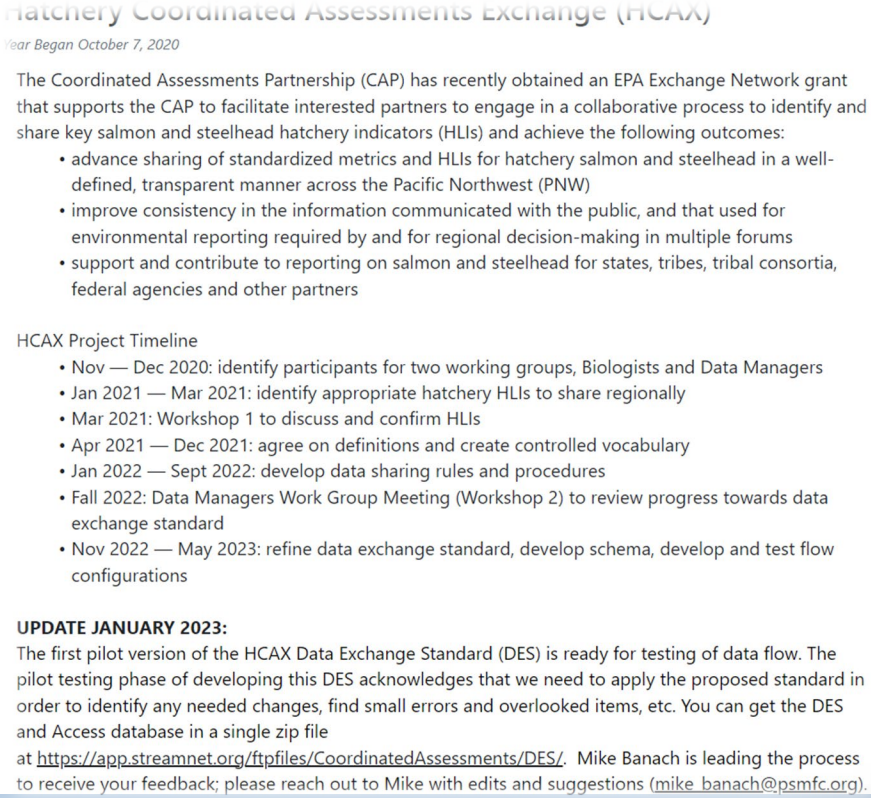
End

This project is funded by, but is not necessarily expressing the policy or positions of:

Update on HCAX

Coordinated Assessments
Pilot Hatchery Data Exchange Standards

Mike Banach



Hatchery Coordinated Assessments Exchange (HCAX)

Year Began October 7, 2020

The Coordinated Assessments Partnership (CAP) has recently obtained an EPA Exchange Network grant that supports the CAP to facilitate interested partners to engage in a collaborative process to identify and share key salmon and steelhead hatchery indicators (HLIs) and achieve the following outcomes:

- advance sharing of standardized metrics and HLIs for hatchery salmon and steelhead in a well-defined, transparent manner across the Pacific Northwest (PNW)
- improve consistency in the information communicated with the public, and that used for environmental reporting required by and for regional decision-making in multiple forums
- support and contribute to reporting on salmon and steelhead for states, tribes, tribal consortia, federal agencies and other partners

HCAX Project Timeline

- Nov — Dec 2020: identify participants for two working groups, Biologists and Data Managers
- Jan 2021 — Mar 2021: identify appropriate hatchery HLIs to share regionally
- Mar 2021: Workshop 1 to discuss and confirm HLIs
- Apr 2021 — Dec 2021: agree on definitions and create controlled vocabulary
- Jan 2022 — Sept 2022: develop data sharing rules and procedures
- Fall 2022: Data Managers Work Group Meeting (Workshop 2) to review progress towards data exchange standard
- Nov 2022 — May 2023: refine data exchange standard, develop schema, develop and test flow configurations

UPDATE JANUARY 2023:
The first pilot version of the HCAX Data Exchange Standard (DES) is ready for testing of data flow. The pilot testing phase of developing this DES acknowledges that we need to apply the proposed standard in order to identify any needed changes, find small errors and overlooked items, etc. You can get the DES and Access database in a single zip file at https://app.streamnet.org/ftpfiles/CoordinatedAssessments/DES/. Mike Banach is leading the process to receive your feedback; please reach out to Mike with edits and suggestions (mike_banach@psmfc.org).

A core team of 10 led creation of the first "pilot" DES for hatchery performance measures

Core Team Member	Data Type
MFWP – Ace Riverman	Program information
NPT – Clark Watry	Program information
CRITFC – Denise Kelsey	Program information
Colville Tribes – George Batten	Adult information
ODFW – Jake Chambers	Adult information
MFWP – Ace Riverman	Juvenile releases
WDFW – Brodie Cox	Juvenile releases
USFW – Todd Gilmore	Juvenile releases
WDFW – Danny Warren	SAR & HRR
IDFG – John Powell	SAR & HRR
PSMFC – Mike Banach	SAR & HRR

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No StreamNet funds to entire organization

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Not funded by Streamnet

Not funded by Streamnet

Hatchery "HLIs"

- Returns
- Spawning
- Releases
- SAR

Tables for these "HLIs"

- Returns
  - Captures detail for combinations of
    - Stock
    - Return location
    - H vs W
    - ♂ vs ♀
    - Adults vs jacks/jennies
    - Strays vs not
  - Captures natural population directly affected or otherwise related
  - Placeholders for links to RMIS and PTAGIS data

Tables for these "HLIs"

- Spawning
  - Captures spawning details for
    - Stock spawned
    - Hatchery where spawned
    - H and W spawned
    - ♂s and ♀s spawned
    - Adults and jacks spawned
    - pNOB and pHOB – with jacks and without jacks

Tables for these "HLIs"

- Releases
  - Captures releases details for
    - Stock
    - Hatchery where produced
    - Release location
    - Release season
    - Brood year and release year (which also gives age at release)
    - Life stage at release
    - Size at release (length and weight)

Tables for these "HLIs"

- SAR
  - Very similar to natural populations SAR, this one captures details for
    - Stock
    - Hatchery where produced
    - Release location, return location
    - Release season
    - Size at release (length and weight)

Lookup tables

- Stocks lookup table
  - Will contain a list of all the stocks in the data
    - Stock name, species, and run
  - Ray Beamesderfer is compiling this list for us
- Hatchery X stock table
  - Will contain the stocks found at each hatchery
  - Will indicate whether a specific stock at a specific hatchery is part of an ESA-listed population
  - Ray Beamesderfer is compiling this list for us too

Lookup tables

- Program information
  - Program name
  - Main hatchery where the program operates
  - Stock
  - Program "type"
    - Segregated harvest; Integrated supplementation; Integrated supplementation/mitigation
  - Program "use"
    - Conservation; Harvest; Recovery; Rreintroduction; Research
  - Legal authorization(s)
  - Program funder
- This table was the most difficult to produce
- Will probably function as a lookup table – as an attribute of the data tables

Why No HRR Table?

- During initial DES development we were directed to capture both SAR and HRR data
- We learned "HRR" is used in many different ways
  - SAR is just one type of HRR
- Our intent is to pursue SAR for now, and later work toward a more general "survival rate" table for all the various HRRs, including SARs, in a future DES
  - We intend to propose this approach for the natural origin CA DES as well
  - All in good time. Not imminent.

Infrastructure at PSMFC

- Mike has created the new tables
- Validation rules not yet created
- Activation of these tables via the API is quick once the other parts are done
- Query system(s) being developed
  - Need data to really test

Status of gathering data to test the new tables

- IDFG, MFWP, ODFW, and WDFW say they will test the new DES / computer system with real data
- Maybe Colville Tribes too
- We invite everyone to develop even just a few records to send
  - Each organization is a different test
  - We never know for sure how new things will work until we throw data at them and see what sticks
  - The more different tests we get, the quicker we identify needed changes and progress

Status of gathering data to test the new tables

- IDFG …
- MFWP …
- ODFW …
- WDFW …
- Colville Tribes ? …
- Anyone else ? …

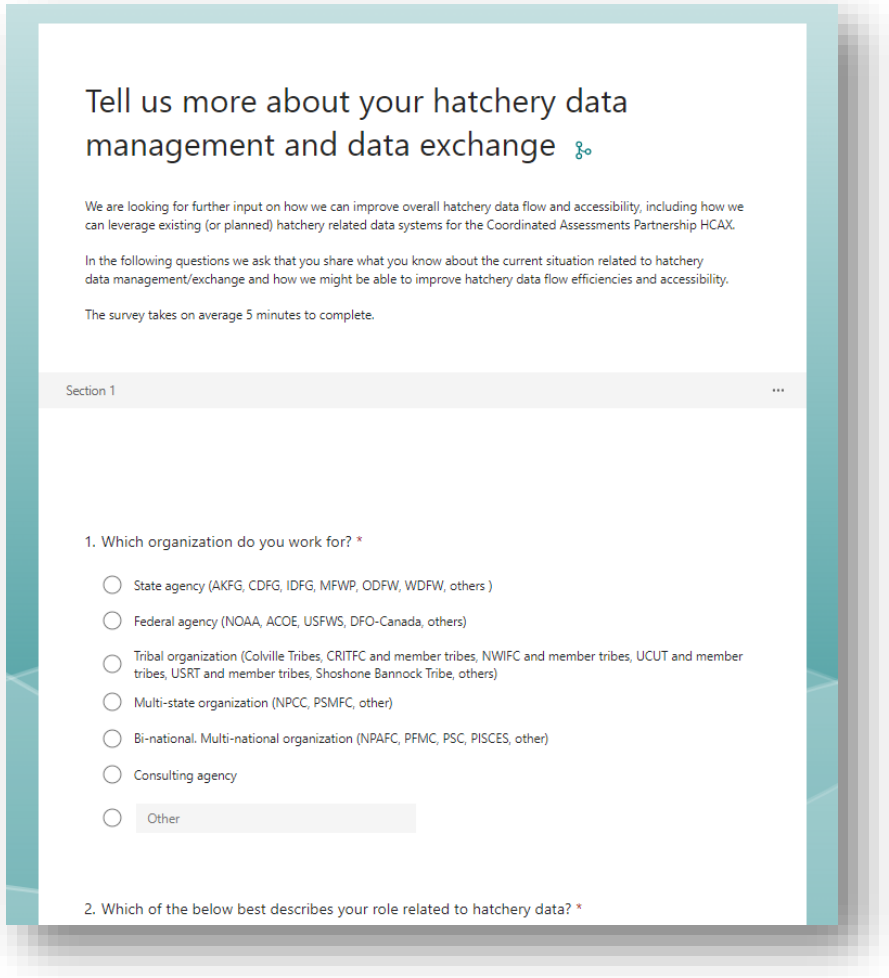
Stretch Break

back at 11:00 (MT)

Brainstorm on how we can more efficiently exchange hatchery data

Nancy

What we heard from the survey respondents



Tell us more about your hatchery data management and data exchange

We are looking for further input on how we can improve overall hatchery data flow and accessibility, including how we can leverage existing (or planned) hatchery related data systems for the Coordinated Assessments Partnership HCAX.

In the following questions we ask that you share what you know about the current situation related to hatchery data management/exchange and how we might be able to improve hatchery data flow efficiencies and accessibility.

The survey takes on average 5 minutes to complete.

Section 1

1. Which organization do you work for? *

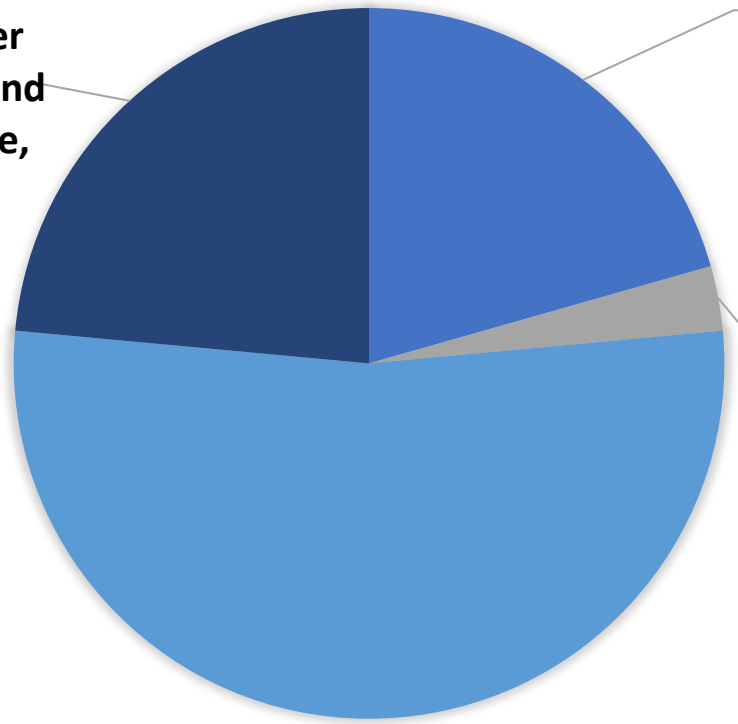
- State agency (AKFG, CDFG, IDFG, MFWP, ODFW, WDFW, others)
- Federal agency (NOAA, ACOE, USFWS, DFO-Canada, others)
- Tribal organization (Colville Tribes, CRITFC and member tribes, NWIFC and member tribes, UCUT and member tribes, USRT and member tribes, Shoshone Bannock Tribe, others)
- Multi-state organization (NPCC, PSMFC, other)
- Bi-national. Multi-national organization (NPAFC, PFMC, PSC, PISCES, other)
- Consulting agency
- Other

2. Which of the below best describes your role related to hatchery data? *

Summary of survey results
" Tell us about your hatchery management and exchange"

- Sent to all HCAX participants and encouraged to share broadly
- 34 respondent participated to the survey

Q1: WHICH ORGANIZATION DO YOU WORK FOR?



Tribal organization (Colville Tribes, CRITFC and member tribes, NWIFC and member tribes, UCUT and member tribes, USRT and member tribes, Shoshone Bannock Tribe, others)
(8) 23%

Federal agency (NOAA, ACOE, USFWS, DFO-Canada, others),
7 (21%)

Other: Local, quasi-governmental (WA recovery region),
(1) 3%

State agency (AKFG, CDFG, IDFG, MFWP, ODFW, WDFW, others)
(18) 53%

Q2: Which of the below best describes your role related to hatchery data? ***Can select more than one***	**Count**
I collect and analyze my own (agency/tribal) hatchery data;	12
I manage hatchery data for my team/organization;	19
I submit hatchery data to a collaborative/regional data system;	12
I access hatchery data from a collaborative/regional data system;	23
I analyze hatchery data from other agencies/tribes.;	14
Other: Data steward for HCAX, but don't currently work with hatchery data	1
Other: I access hatchery data from my agency's system	1

34 respondent answered this question (100% of respondents)

Q3: To your knowledge, does your organization currently (or plan to) manage hatchery data in a structured and/or standardized data system?	Count
No (skips to Q 7)	2
Yes, structured	7
Yes, standardized	2
Yes, structured and standardized	18
I don't know (skips to Q 7)	3
Other: some data yes, structured, other data no (skips to Q 7)	1
Other: I work for WDFW, so our data are structured and standardized, but I'm not a primary DB admin/steward, so I don't know good answers to some of the Qs below (skips to Q 7)	1

34 respondent answered this question (100% of respondents)

- 27 routed to Q 4
- 7 skipped to Q 7

Structured refers to data that lives in a fixed field within a file, like information you would find in a spreadsheet or database. In order to store structured data, you have to define which fields of data you are planning to store and organize it into rows and columns.

Standardized refers to data that have been received in various formats and then transformed to a common format that makes it easier to compare the two.

Q4: To your knowledge, what type of hatchery data does your organization manage (or plan to manage) in a data system:	Count
Trapping and holding fish	21
Broodstock spawning	21
Incubation and rearing of hatchery fish;	21
Release of hatchery fish (egg/juveniles) ;	24
Parentage Based Tagging (PBT)	13
Genetic stock Identification (GSI);	9
PIT Tags and/or Coded Wire Tags;	22
Other marks/tags	15
Derived estimates such as SAR, SAS, HRR, and/or Adult to Adult Replacement Rate ;	15

27 of the 34 respondent were routed to this question 4, the other 7 skipped to Q 7:

All 27 respondents answered this question (100%)

5. Please list the **name(s) of the data management system(s) that your organization uses to manage its hatchery data**, and, if publicly accessible provide the URL

Public	Private	Unspecified
• FishGen (2) • HCAX (4) • Montana State based website (1) https://fwp-gis.mt.gov/arcgis/rest/directories/arcgisoutput/webResources/metadata/fish/PLANTS.htm • PTAGIS (5) • RMIS (7) • StreamNet (2)	• CRiS Columbia River Information System (2) • CRITFC CDMS (1) • Database SQL (3) • Excel and .csv to summarize and import into R for additional synthesis (2) • FINS (8) • HMS ODFW Hatchery Management system (7) • Internal only for data summaries to support salmon recovery reporting (1) • ODFW Coded Wire tag Fish database (1)	• Fishbooks (6) • Fisheries Resource Evaluation Database (2) • FishHealth (1) • FMX (NWIFC collaboration) (1) • Futurebrood (2) • HEMES (1) • IDFG FisheriesRelease (1) • IDFG HiLI (1) • LCSRB Indicator Dash (in dev) (1)

25 of the 27 respondents routed to question 5 answered this question (92%)

The other 7 skipped to Q 7

Q 6: Does your organization use automated data transfers to or from external data systems, such as APIs or R packages?	Count
Yes	12
No	8
Maybe	5
Other: R packages but currently not automating data transfers.	1
Other: Working on that	1

27 of the 27 respondents routed to
question 5 answered this question (100%)

The other 7 skipped to Q 7

Q 7: Do you or your organization submit or retrieve hatchery data from other external data management systems?	Count
No	2
Yes	24
I don't know	8

All 34 responded (100%)
Of the 34 respondent:

- 24routed to this Q 8
- 10 skipped to Q 11

Q8: Please list the name(s) of these other external hatchery data management systems, and, if publicly accessible provide the URL please.

Public	Private	Unspecified
• Coordinated Assessments CAX (1) • Dryad – Genetics(1) • FishGen (1) • Fish Passage Center (!) • GenBank – NCBI NIH (1) • HCAX (2) • ODFW salmon and steelhead "tracker" recovery (1) • PTAGIS (7) • RMIS (17) • SCoRE WDFW (!) • StreamNet (2)	• FINS (4) • HMS ODFW Hatchery Management system (1) • Tribal co-managers 'internal central data management system (1)	• ARCGIS Online (1) • ECOS - Fish Health (1) • Fish Information System (NOAA) - Hatchery production (1) • Fishbooks (1) • FMX (NWIFC collaboration) (1)

14 respondent of the 24 routed to this Q 8 responded (58%).

- 24 of the 34 were routed to this Q 8, the other 10 skipped to Q 11

Q9: What suggestions do you have to improve the data flow efficiency among your organization and these other external systems?

Import Data (1) / Electronic data capture (1)	API (3)	Central Data System (1)
• Upload tools for all modules of FINS for large, historic data sets • Automate data flows via mobile data collection.	• Automate data transfers using modern APIs • I operate on the "analyst/client" end of the pipeline. For me, a public API to webservices for RMIS reporting queries (releases and recoveries) would be the single most useful addition to the RMIS platform. • Would be nice to have automated data transfers.	• Use one core data source for all external reporting

16 respondent of the 24 routed to this Q responded (66%).

- 24 of the 34 were routed to this Q, the other 10 skipped to Q 11
- Original text response in NOTE section below

Q9 cont: What suggestions do you have to improve the data flow efficiency among your organization and these other external systems?

Discussion (2) / Coordination (1) / Engagement (1)	Technical Expertise/Support: (2)	User-Friendly: (1) / Notifications (1)/ Improved Data Organization (1)
• Involve lead data managers of these systems that have the background knowledge to try to brain storm. Not sure some of our ODFW data managers of HMIS, RMIS have knowledge of this process that PNAMP is facilitating. They may be able to contribute. • Need discussion could be many aspects to this. • coordination • Getting the assistance of higher data managers of each query system may help.	• Having the ability to tap into PSMFC staff for technical expertise. • workshops virtual or in person, online training modules or standard operation procedure help guides/documents, open office hours for questions the output that is desired with HCAX, FINS, etc.	• looks like we are currently in the process of updating our database so it is more user friendly on both ends, no idea of the time frame • Ability to sign up for alerts when certain data sets are updated • We need juvenile release numbers organized by the hatchery they were SPAWNED in.

Q9 cont: What suggestions do you have to improve the data flow efficiency among your organization and these other external systems?

Adding new data (1)	Funding (2)	Designated Data Steward (2)
• The problem is that there are only certain indicators/metrics that would apply this way. So how do we link additional HCAX information that is collected by an M&E program that isn't already uploaded to HMIS or FINS?"	• Also, there is no specific funding available within our workgroup to specifically manage data used among these various systems. • More funding for software developers and data analysts / managers.	• Logistics of data bases. Need a fish/programmer position (new) with understanding of how fish data is used but also skills in programming to develop ways to maximize data entry into different systems (or a new system) to get data differently. • May need a designated position to manage how all these systems can work together.

Q9 continued : What suggestions do you have to improve the data flow efficiency among your organization and these other external systems?

Common Understanding of System Purpose (5)	Connect PSMFC Systems (1) / Connect Regional Systems (2)
• With consistent turnover within agencies, valuable knowledge about the systems and the type of data we store/report is constantly being lost and re-learned. • Communication, so everyone is on same page as far as how they are using these systems. • Do we have too many external systems? • There may be internal inconsistencies in agencies or programs in how these external systems may be used. (e.g., different hatcheries or M&E programs may using RMIS in different ways and/or understanding the same • There is incomplete and inconsistent understanding about which systems are available, how they are connected to each other,	• Make PSMFC databases talk to one-another. So no duplicate data reporting. • Communicate between systems (FINS, HMS) • Is it possible to leverage current input that goes into HMIS and FINS to be extracted to an SQL database that grabs what is necessary for HCAX from these other two systems?

Q9 continued : What suggestions do you have to improve the data flow efficiency among your organization and these other external systems?

Crosswalk or Standardize terms/names (3) / Data Dictionary (1)	Improper use of Data (1) / Trust (1)
• Another big hurdle is inconsistent definitions. For example, how do you define a smolt to adult return rate (SAR)? Does an SAR include all ages of fish, is it based on CWT recoveries, or is it based on parentage-based tagging data? Is an SAR anchored at the tributary, the hatchery rack, or a location like Bonneville Dam? • It would be helpful if hatchery managers would translate FPC hatchery and releases into PBT broodstock names to more easily track juvenile releases by their PBT group • standardization • how they interpret terminology, and knowing the needs of all the programs in an organization. HCAX process will help in defining terms etc. for HCAX but some existing systems and their terms may not be a smooth crosswalk.	• Improper use of Data: It seems NGOs enjoy manipulating data shared publicly for propaganda and use it against agency actions and as fuel in lawsuits. • Agencies don't trust external data shares.

Q9 cont: What suggestions do you have to improve the data flow efficiency among your organization and these other external systems?

Understanding of Data Management Obligation (3)	Internal Accessibility (1) / Internal Messaging (1)	Timely QC (1) / Frequent Update (1)
• Data management needs to be a priority and right now it's an afterthought. • requirement for data sharing at all job levels, • the obligations for data management.	• The data collected isn't readily available to all levels of fishery management. • There is a disconnect between field operations and regional biologist and regional managers in every agency.	• So until the agencies figure this out, databases will always lag and the data cannot be QC. • The data needs to be regularly updated.

Q10: What suggestions do you have to **improve the accessibility** (e.g., query tools, metadata documentation) of hatchery related data from these other external systems?

API(2)	Consistency (1) / Standardization (1)
• API exchange of standardize views for all modules of FINS • More APIs	• There needs to be more consistency regarding what hatchery managers use as a hatchery name…it should be the spawn hatchery site where adult broodstock were spawned for each group of juveniles • Standardize data collection fields

13 respondent of the 24 routed to this Q responded (54%).

- 24 of the 34 were routed to this Q, the other 10 skipped to Q 11
- text response in NOTE section below

Q10 cont: What suggestions do you have to **improve the accessibility** (e.g., query tools, metadata documentation) of hatchery related data from these other external systems?

Funding (1)	Purpose (1)
• But I will add, more funding for software developers and data analysts / managers.	• We need simple resources and short video tutorials on how to find and use existing systems • It's hard to recommend changes if we don't' understand the true capabilities of the current systems. • We are drowning in data and data requests and it's very difficult to keep up with changes to existing tools.

Q10 cont: What suggestions do you have to **improve the accessibility** (e.g., query tools, metadata documentation) of hatchery related data from these other external systems?

Support(2)	User Friendly (3)
• Don't know. Maybe tutorials for folks? • Workshops virtual or in person, online training modules or standard operation procedure help guides/documents, open office hours for questions	• Allow download of more data more frequently via online query AND via API" • RMIS seems a little clunky and not super user friendly, perhaps modernizing it would help • Making it easier for users with little to no experience with databases and/or data reporting to extract data/run queries from PSMFC databases.

Q11:More specifically for hatchery related data housed/managed by PSMFC, what suggestions do you have to **facilitate sharing your data** with these data systems (e.g., CAP CAX / HCAX, RMIS, PTAGIS, FINSnet)?

API (4) / Frequent Update (1)	Consistency/Standardization /Crosswalk (1)	Feedback (1)
• Automate data flows via API • Have an API we can deliver data with • Online upload tools for large data sets or small or via API processes for validation and upload • RESTful API • and in some instances, we have little to no incentive to update data within these systems.	• There needs to be consistency in labels of hatchery groups to be able to cross reference info in FPC	• Online resources are great, but it feels like a box checking exercise without any reward or feedback.

16 of the 34 responded (47%)
Original Text in NOTE section below

Q11 cont:More specifically for hatchery related data housed/managed by PSMFC, what suggestions do you have to **facilitate sharing your data** with these data systems (e.g., CAP CAX / HCAX, RMIS, PTAGIS, FINSnet)?

Common Understanding (2)	Purpose of system (1)	Connect Systems (3)
• Everyone has a different understanding about how these systems work, • for what we are supposed to report to these systems?	• It's hard to recommend changes if we don't' understand the true capabilities of the current systems. We are drowning in data and data requests and it's very difficult to keep up with changes to existing tools.	• How are these systems integrated? • Not having to input data into multiple PSMFC databases (e.g., StreamNet and RMIS). • We should avoid entering and housing the same data in two different data systems. All the systems should share information and be dynamic; where, an update or revision in one is automatically reflected in the others.

Q11 cont:More specifically for hatchery related data housed/managed by PSMFC, what suggestions do you have to **facilitate sharing your data** with these data systems (e.g., CAP CAX / HCAX, RMIS, PTAGIS, FINSnet)?

Funding (2)	Designated Data Steward (!)	Support/Training (2)
• Another person in our organization answered questions 9-12 to avoid duplication. But I will add, more funding for software developers and data analysts / managers. • This is a large undertaking which is beyond current funding capabilities of LSRCP projects in NE Oregon.	• Some Stream Net funding would be helpful to provide an embedded person in La Grande to enter, link, and manage this data across all the data reporting systems"	• We need simple resources and short video tutorials on how to find and use existing systems. • What tools are available to train new staff, or provide refresher courses,

Q12 cont: More specifically for hatchery related data housed/managed by PSMFC and its staff (e.g., CAP CAX / HCAX, RMIS, PTAGIS, FINSnet), do you have suggestions to <u>improve its accessibility</u>

API(3)	Consistency/Standardization /Crosswalk (3)
• Allow download of more data more frequently via online query AND via API" • As above, I operate on the "analyst/client" end of the pipeline. For me, a public API to webservices for RMIS reporting queries (releases and recoveries) would be the single most useful addition to the RMIS platform. • Have an API we can pull data from	• An incomplete understanding of how they are integrated. • We still do not have consistent use of the fields across agencies and tribes, or even hatcheries within an agency or tribe. The current data can not be rolled up efficiently or accurately because of differences in use. • Part of the challenge is the fact that each system is developed at a certain time and with a certain set of tools (programs), and then needs change and expand. Often computer programs Additional challenges are that these query systems are funded by various entities which can make it hard to standardize. How do larger projects in the Federal government handle these kind of issues? reach a level of capability and its hard to adapt.

10 of the 34 responded (29%)
Original text in NOTE section below

Q12: More specifically for hatchery related data housed/managed by PSMFC and its staff (e.g., CAP CAX / HCAX, RMIS, PTAGIS, FINSnet), do you have suggestions to **improve its accessibility**

Metadata/Proper Use (2)	Purpose of Systems (2)	User-Friendly / Flexible Queries (2)
• Meta data and education is probably a priority over query tools. • Improve documentation and enforce standardized use.	• Again, I wonder if we have too many external systems and • How do we improve accessibility if we are using the systems wrong?	• Give customers option of customizable online query, or shared materialized views of the data via API • I am not sure. I don't have enough tech knowledge to make suggestions. I think the query page is kind of cumbersome

Group Discussion (draft questions)

- How can we increase understanding of existing regional systems to ensure proper use and clarify purpose of each?
- Can we better communicate the importance of the data contributions to these systems to get more support/buy-in by the various data providers (biologists etc)?
  - How to address: little to no incentive to update data within these systems. No reward or feedback
- Any opportunities to improve current internal SN partners' hatchery data management tools/approach/process to more easily (streamline) support data flow to regional systems?
- Any opportunities to improve how partners interact with regional systems?
  - Improvements to data and metadata submittal process, what is requested, etc?
  - Improvements to data consumer experience?
  - Are we successfully reaching the different audiences (technical, other)?
  - Training or other support needed?
- Suggestions to improve data exchange process with CAX/HCAX and among HCAX and existing repositories to reduce burden on data providers/biologists (FINSnet, RMIS, etc.)
- Should we start scoping how we can connect / cross walk among regional systems ?
- Add other questions

2023 CAP Workshop

Mari Williams and Jen Bayer

Please save the date for the
2023 Coordinated Assessments Partnership Workshop

Date: April 12th 10:00 am – 5:00 pm and April 13th 8:30 am -11:30 am
Location: Edith Green – Wendell Wyatt Federal Building, Portland, Oregon

We invite you participate in the 2023 CAP Workshop. This workshop will be hybrid, connecting online and in person participants for maximum accessibility. Please help us plan by registering for each day indicating how you will attend.

Workshop Purpose
Participants in this workshop will support CAP in providing quality data through efficient data exchanges for regional assessments and reporting.

Coordinated Assessments Partnership (CAP) 2023 Workshop

April 12th 10am-5pm & April 13th 8:30am-11:30am

No cost but registration is required (hybrid)

Focus

- discussing challenges and identifying solutions for data sharing

Also

- Future data sharing topics
- Future of efficient data sharing mechanisms

Cultural Competency & Relevancy, and Indigenous Knowledge Workshop

Thursday, April 13, 2023 12:30 – 4:30 Portland OR

Presented by

Sammy Matsaw Jr., PhD

Shoshone-Bannock and Oglala Lakota

Offered in conjunction with the 2023 Coordinated Assessments Partnership Workshop

Sponsored by StreamNet and PNAMP

Review due dates

Due Date	CY2022 Annual Report	CAP Map interface & Fish Goals Tool	FY24-25 budget and SOW
Feb 3rd	Webform populated		
Feb 10th	Non-webform content from external partners		
Feb 14th	1st draft report sent to SN SC members		Draft FY24&25 SOW and WE sent to SN SC
Feb 27th	Input from SN SC members on 1st draft		
March 6th	2nd draft report sent to SN SC		
March 15th	Input on 2nd draft from SN SC due		
March 31st	Final report submitted to BPA & SN SC		
April 3rd			Budget excel template sent for update by funded SN SC members (BPA should have new baseline budget confirmed?)
April 14th			Input on SOW/WE & updated budget due
April 21st		Input on CAP map interfaces due	Revised SOW /WE sent for final review
April 28th			Input on SOW/WE due
May 5th			Draft SOW/WE and budget sent to BPA COR for review
June 1st			Final SOW/WE and budget submitted to BPA for contracting
June 15th		Revised interfaces shared for review by SN SC	
July 13th		Final input on interfaces due	
Sept ?		Final interface version confirmed during September SN SC meeting	
Oct 1st			Start of FY24 and new FY24 subcontracts initiated
Oct ?		Review interfaces with ExCom during October meeting	

Adjourn!