

NEWSLETTER

Summer 2022



HCAX Update

We are now in Phase 2 of the [HCAX](#) process, with the Data Managers working during 2022 on developing a draft data exchange standard (DES) and validation rules based on the Hatchery Controlled Vocabulary (terms and definitions) finalized by the HCAX Biologists during their [December 9, 2021](#) meeting.

During this phase we will continue to lean on past work such as existing CAP DES's and existing working groups, including the CAP DES Development Team. The work by the Data Managers will take several months, with a small ad hoc Core Data Team tasked with drafting the first version of the DES and engaging with the HCAX Biologists as needed for input. The broader Data Managers Work Group will provide feedback to refine this draft DES during the summer/fall 2022. The DES will then be used to test data flow to StreamNet's HCAX data system.

Overall 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
- Spring to Fall 2022: develop data sharing rules and procedures
- Fall 2022: Workshop 2 to review progress towards data exchange standard
- Winter 2022: refine data exchange standard, develop schema, develop and test flow configurations

Thank you all for your hard work in 2021 to complete the first phase of the HCAX Project, which included engaging over 70 people from 25 entities to agree on key salmon and steelhead hatchery indicators (HLIs) and metrics to share and how to define necessary terms.

CAP 2022 Related Conferences & Workshops

American Fisheries Society 2022 Meeting,
Spokane Washington
21-25 August 2022

Interested in learning about successful data integration approaches to integrate fisheries and aquatic data across different boundaries and geographic scales? Come join us on the Wednesday and Thursday of the American Fisheries Society meeting in the [special symposium](#) co-organized by PNAMP and StreamNet: titled "Bringing it all together: data integration for fisheries research and management success."

Emerging Technology Information Sessions
Hood River, Oregon
14-16 November 2022

PNAMP and StreamNet are teaming up once again to bring together monitoring professionals, project managers, field data collectors, data managers, and data consumers for a three-day event focused on emerging technologies in aquatic monitoring. This is the perfect event for you if you want to:

- learn about the latest technologies in aquatic monitoring for data collection, data management, and data visualization.
- network with other monitoring professionals implementing technologies in new ways.

Come learn and network at the [2022 ETIS](#).



Spotlight: Shoshone-Bannock Tribes: Modernization of Data Collection, Management, and Sharing Processes

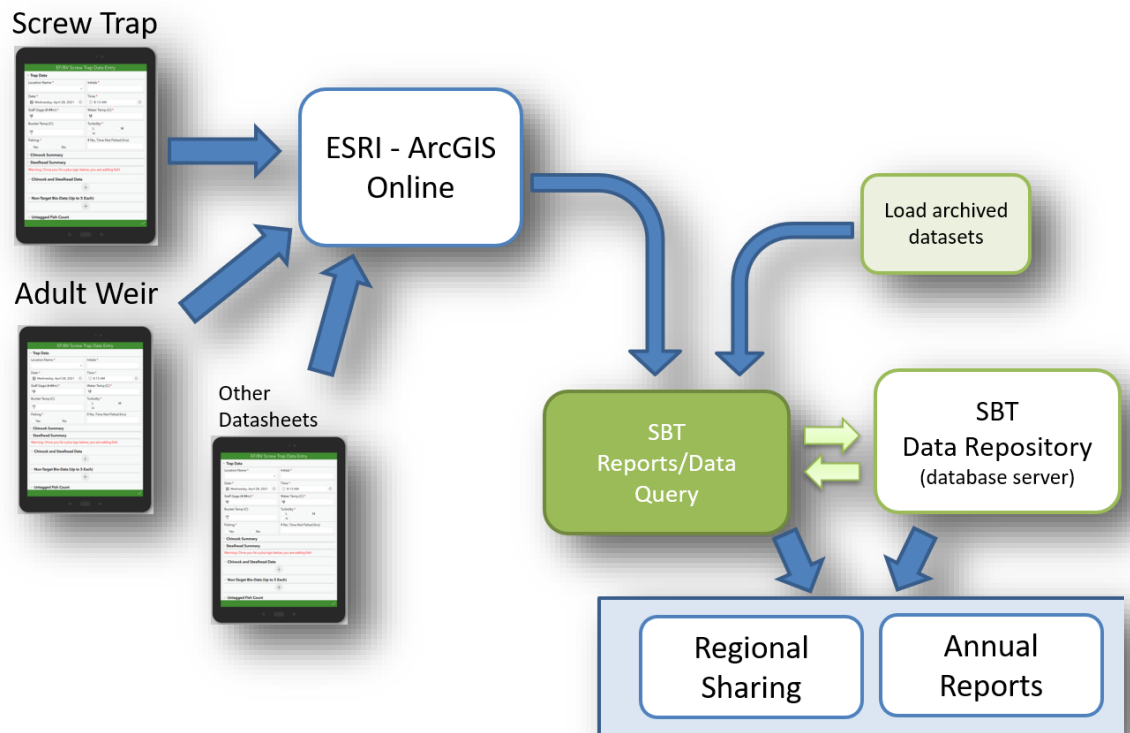
In 2021, the Shoshone Bannocks Tribes' Fish and Wildlife Department (SBT) initiated an effort to develop an end-to-end fisheries data management workflow to improve their ability to collect, manage, and share data. To accomplish this goal, the SBT implemented the Esri ArcGIS and Microsoft SQL Server solution into their monitoring program, which allows data to be captured and flowed to the Tribes' database server, facilitating real-time updates, internal queries, and reporting.

Currently, the Tribes' data is flowing to the Idaho Department of Fish and Game for the purpose of regional sharing. Eventually, the data will flow from the Tribes' database server to the StreamNet Coordinated Assessments Partnership's Coordinated Assessments Data Exchange (CAX) using the StreamNet API, while adhering to the StreamNet/CAX Data Exchange Standards.

Data visualizations are important tools as they provide the opportunity to illustrate trends, monitor status in real-time, and inform decision-making processes. Recognizing the importance of these tools, the SBT intends to develop, during 2022, ArcGIS Operations Dashboard and Web Apps to provide interactive visualizations that display the tribe's location-based data.

The SBT implements water quality, habitat, and fish population monitoring projects to protect and restore ESA-listed salmon, steelhead, and bull trout, as well as other resident fish. Data from these monitoring efforts are essential to Tribal and regional decision-making processes. Subsequently, readily accessible data is critical to ensure efficient and effective communication occurs among the SBT and their state and federal partners.

The mission of the SBT is to protect, restore, and enhance fish and wildlife resources in accordance with the Tribes' unique interests and vested rights in such resources and their habitats, including the inherent, aboriginal and treaty protected rights of Tribal members.



Update on Coordinated Assessments Data Exchange (CAX)

6

High-level Indicators

206

Columbia River Basin (CRB) & Oregon (OR) Coast Populations with HLIs

(includes partial population estimates)

27

CRB & OR Coast Superpopulations with HLIs

(HLIs based on multiple populations)

208

NOSA HLIs
CRB & OR Coast
(incl. populations, partial, superpopulations)

<https://www.streamnet.org/home/data-maps/fish-hlis/>

What's New with the CAP Focused FMWG Task Teams

StreamNet and PNAMP collaboration to address CAP topics that require input from biologists continues to grow through the PNAMP facilitated Fish Monitoring Work Group (FMWG). Of the current list of active tasks being addressed by the [FMWG](#), four are focused on improving aspects of StreamNet and CAP data systems:

- **Fish Population Names and GIS Boundaries:** led by Evan Brown (IDFG) and Van Hare (PSMFC), this team is working to develop a standard for spatial boundaries and naming conventions for referring to regional fish units. This work will support CAP/StreamNet and other's data display needs that are broader than the fish management unit or generalized distribution lines. For more details see the [Task webpage](#); also [April 27 meeting materials](#).
- **Data Display: Implementation:** led by Nancy Leonard and Lara Erikson (PSMFC), this team is refining previous recommendations provided by the [2021 Data Display Task Team](#) that were approved by the StreamNet committee members. It focuses on what content and how to display this content to implement the [2 recommendations](#) that pertain to (1) Populations without HLIs and (2) Superpopulations and Other Groupings. For more details see the [Task webpage](#); also [June 3 meeting materials](#).
- **Carrying Capacity Standards:** led by Tim Copeland (IDFG), Russell Scranton (BPA), and Morgan Bond (NOAA), this team is focusing on how we can better document and share carrying capacity products. The task team is also exploring standardization of inputs and outputs for this type of work. Learn more on the [Task webpage](#); see [May 31 meeting materials](#).
- **MAFAC and NPCC SPI Task Team:** initiated in 2022 with the leads, Kris Homel (NPCC) and Lara Erikson (PSMFC), drafting a summary product on data accessible from StreamNet, CAP Fish HLIs, and other sources. This product will be available during the Summer 2022. This Task Team has decided to put a hold on scheduling a team meeting, until more is understood about possible related outcomes from the [Columbia Basin Collaborative Process](#). Learn more on the [Task webpage](#).

All interested biologists, fishery managers, and data stewards are welcomed to participate and share their expertise to advance these tasks. See progress and more information at the [PNAMP's Fish Monitoring Work Group](#) page.

If you would like to be added to the mailing list, interested in more information, or would like to join a task team, please contact Meg Dethloff, mdethloff@usgs.gov.



Five-Year Work Plan

The current Five-Year Plan for the Coordinated Assessments Partnership (CAP) was adopted in 2019 and revised in 2021 by the StreamNet Executive Committee. Current priorities include:

1. Maintain, update, and automate existing data flow to CAX, and maintain the data exchange standard (DES)
2. Coordinate with CRITFC tribes through the Inter-Tribal Monitoring Data Project.
3. Work with managers through the PNAMP Fish Monitoring Work Group to refine CAP DES and inform new HLI categories
4. Develop hatchery salmon and steelhead indicators through the Hatchery Coordinated Assessments Exchange (HCAX) collaborative effort.
5. Update the CAP Fish HLIs query to improve access to HLIs for groups of populations
6. Include all populations on the CAP Fish HLIs query, working with fish managers to provide info on data status availability for populations without HLIs.

CAP Participants

participants vary in their level and degree of involvement



 Northwest Power and Conservation Council

 StreamNet

More Resources

HCAX

<https://www.pnamp.org/project/hatchery-data-sharing-hcax>

CAP Fish HLIs Data

<https://www.streamnet.org/home/data-maps/fish-hlis/>

About CAP and Five-Year Plan for CAP

<https://www.streamnet.org/cap/>

CAP DES

<https://www.streamnet.org/resources/exchange-tools/>

CAP Events and Background

<https://www.pnamp.org/project/coordinated-assessments-for-salmon-and-steelhead>

PNAMP Fish Monitoring Work Group

<https://www.pnamp.org/project/fish-monitoring-work-group>

For more information on upcoming meetings or general information:

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