



## PNAMP Steering Committee and StreamNet Executive Committee Joint Session Agenda

**October 22-23, 2025 at Pacific States Marine Fisheries Commission - Portland, OR**

### **Day 1: October 22, 2025 9:00am-5:00pm**

#### **ATTENDEES:**

In person: Nancy Leonard (PSMFC), Mari Williams (PSMFC), Meg Dethloff (PSMFC), Sam Cimino (PSMFC), Tim Copeland (IDFG), Jen Bayer (PNAMP advisor), Jody Lando (BPA), Lara Erikson (PSMFC), Russell Scranton (BPA), Steve Waste (USGS emeritus), Mike Banach (PSMFC), Ian Tattam (ODFW), Greg Wilke (PSMFC), Donella Miller (CRITFC)

Online: John Bowers (ODFW), Denise Kelsey (CRITFC), John Arterburn (CCT), Heather Hendrixson (NPCC), Edward Krynak (WA ECY), Lauren Holmes (PSMFC), Greer Maier (GRSO), Phil Sandstrom (WDFW), David Schmetterling (MFWP), Monica Diaz (PSMFC), Ken Fetcho (OWEB), Jiaming Yang (CRITFC), Brady Allen (BPA), John Cassinelli (IDFG), Jake Chambers (ODFW), Brodie Cox (WDFW), Michelle Groesbeck (WDFW), Tami Wilkerson (CRITFC FWL), Erin Benham (PSMFC)

#### **Links shared during the meeting:**

- The Pacific Coastwide Fishing Regulations Database: <https://fishregs.psmfc.org/>
- Salmon Data Mobilization publication: <https://doi.org/10.23849/npafcb7/x3rlpo23a>
- Salmon Data Mobilization - StreamNet: <https://www.streamnet.org/resources/salmondatamobilization/>
- Salmon Research and Monitoring Interest Group: <https://www.rd-alliance.org/groups/salmon-research-and-monitoring-ig/activity/>
- Salmon Data Discovery Tool: <https://sddt.psmfc.org>
- Basin-Scale Events and Coastal Impacts: <https://beci.info>
- StreamNet Partner Resources: <https://www.streamnet.org/resources/partners-resources/>
- 2025 Steelhead Meeting homepage: <https://web.cvent.com/event/c21a2829-aee9-43b1-826f-6125dd2f7819/summary?i=102wcwAJqEavcPPipC0c7g&locale=en-US>
- Okanogan Basin Monitoring Reports: <https://www.okanoganmonitoring.org/Reports/ViewReportsForType/8>
- ODFW Salmon and Steelhead Recovery Tracker: <https://nrimp.dfw.state.or.us/RecoveryTracker>

- Knowledge Exchange Workshop Series 2025: Rewetting Our Waterways: Floodplain Restoration in an Occupied Landscape: <https://pnamp.org/event/knowledge-exchange-workshop-series-2025-rewetting-our-waterways-floodplain-restoration-in-an-occupied-landscape/>
- Terradapt: <https://terradapt.org/>

#### **Action Items: (assigned to)**

- **Fish Monitoring Inventory Collaboration:** Coordinate with Greer to update StreamNet/CAP fish data availability content using the results of the fish monitoring inventory effort. (Greer, PSMFC)
  - **Greer will have information to share in Summer of 2026**
- **Criteria Sharing for Data Gap Prioritization:** Share regional criteria used for prioritizing data gaps in the WA SRFB with Monica or the PNAMP team to inform standardized approaches in ongoing and future monitoring inventories. (Greer)
  - **Greer sending Meg information for distribution to KBFC team**
- **Add Greer as a future presenter:** on a new exciting tool to track landscape scale change. It is called the Terradapt Salmon Habitat Mapper
- **Effectiveness Monitoring Symposium Planning:** Draft and circulate an abstract for the effectiveness monitoring symposium at the upcoming AFS conference, soliciting input from a core group of IMW effectiveness monitoring workgroup members to identify speakers and panelists. (Erin, PSMFC)
- **Data Management Symposium Planning:** Draft and circulate an abstract for a symposium for a data focused symposium at the WD AFS conference in May 2026. Identify subtopics and speakers to provide diverse perspectives. (Mari, Kasey)
- **Tracking Monitoring Resources Outreach Impact:** Track and report the number of completed documentation tasks and time spent as part of the new outreach approach to project sponsors in Monitoring Resources, to evaluate effectiveness and communicate progress to stakeholders. (Sam Cimino, Mari Williams)
- **PNAMP Strategic Plan Refresh Input Collection:** Conduct one-on-one meetings with members and distribute a survey to Steering Committee members during winter and spring to gather input for the PNAMP strategic plan refresh, summarizing findings for discussion at the next PNAMP Steering Committee meeting. (Russell Scranton, BPA will provide recommendations for contacts at BOR) (Nancy, Jen, supported by Erin)
  - **Russell recommended John Powell, Nancy/Jen/Erin will follow up with John**
- **Salmon Data Discovery Tool Promotion:** Reach out to Monica to arrange a meeting or provide additional information to those interested in the Salmon Data Discovery Tool. (Monica and Ken Fetcho, OWB)

- **Monica and Ken connected and are setting up a meeting**
- **OWEB Monitoring 101 Recording Distribution:** Send the recording and link of the OWEB Monitoring 101 presentation to interested parties after the board meeting on October 28th. (Ken Fetcho/Meg)
  - **Posted on PNAMP YouTube channel:** [https://youtu.be/LGH1jEp7yFs?si=\\_ecAr9ZoHlq2FbZo](https://youtu.be/LGH1jEp7yFs?si=_ecAr9ZoHlq2FbZo) and will be ICYMI in December newsletter
- **Floodplain Workshop Information Sharing:** Circulate the link and information for the upcoming PSC/GSRO Knowledge Exchange Workshop on floodplains and floodplain restoration to interested participants. (Meg)
  - **Posted on PNAMP website and in PNAMP newsletters**
- **Web-Based Query and API Enhancements:** Develop HCA tabular query tool; user testing with FMWG before launch. (PSMFC Dev team)
  - Emailed Phil Sandstrom POC for API testing.
- **CAP Strategic Plan Document Revisions:** Incorporate feedback from Executive Committee members on terminology (e.g., "region" vs. "Pacific Northwest"), goal wording, and milestone reporting structure into the revised CAP strategic plan draft and redistribute for review before Thanksgiving. (Meg)
  - **Milestone Reporting Structure:** Add clarifying language to the CAP strategic plan indicating which milestones are to be reported to the Steering Committee and which to the Executive Committee and specify the reporting process for issues that require escalation. Identify how or what progress will be identified.
  - **Data Providers Section Update:** Move the list of data providers and their contributions from the CAP strategic plan document to a section on the CAP webpage, ensuring the information remains accessible and referenced in the annual report.
  - **Appendix B Data Categories Clarification:** Revise Appendix B to clarify the inclusion of "resident Salmonids" instead of specifically "bull trout," and consider adding a bullet to investigate stock abundance estimates for other species, with rationale for inclusion. (Meg)
  - **Persistent Identifiers Milestone:** Clarify the milestone language regarding persistent identifiers in the CAP strategic plan, specifying the intent to track and report on the use of CA data through persistent identifiers such as DOIs for datasets. (Mari)
  - **Sustainable Modernization, Security, and Maintenance:** Edit the location of this goal within the CAP strategic plan to correctly position it near the top of the 11 goals. Edit the phrasing of the goal to include improved data storage and flow security and automation through digital or technical developments. (Meg)

## NOTES:

**Partner Presentation: Salmon Recovery Funding Board Monitoring in Washington State (Greer Maier-WA GSRO)** Link to recording: [https://youtu.be/\\_o\\_jqVFk4I](https://youtu.be/_o_jqVFk4I)

**Governor's Salmon Recovery Office Monitoring Program Update:** Greer Maier from the [Governor's Salmon Recovery Office](#) (GSRO) provided a comprehensive update on the Washington Salmon Recovery Funding Board's (SRFB's) salmon monitoring program, including a new grant program, the status and future of the SRFB's Intensively Monitored Watersheds (IMWs), and the development of a fish monitoring inventory. The GSRO's role is to coordinate with agencies, tribes, and partners to advance salmon recovery. They also work on orca recovery. Greer's area of focus is science and monitoring. Washington salmon recovery efforts are structured into geographic regions that generally align with the ESU/DPS. The [Salmon Recovery Funding Board](#) (SRFB) is the backbone of salmon recovery in Washington. The SRFB receives about \$2.35 million each year for monitoring, depending on the WA state PCSRF award.

- **Monitoring Program Structure and Goals:** Greer explained the transition from a three-legged stool (action effectiveness, fish-in-fish-out, and intensively monitored watersheds (IMW)) to a two-bucket system for monitoring investments, focusing on a regional grant program (bucket 1) and a statewide long-term monitoring/IMW program (bucket 2). The program's five goals include generating strategic information, guiding restoration, supporting adaptive management, fostering communication, and collaboration.
- **Two types of monitoring being supported:**
  - **Statewide Projects:** These will be SRFB directed funds for state-led monitoring programs that benefit all regions and address widespread information needs. Currently, these funds are supporting implementation of IMW.
    - IMW funding timelines have been set by the SRFB based on when the restoration occurred and when implementers believe they will have enough data to have statistically significant results: Lower Columbia IMW monitoring will end in 2032, Hood Canal and Straits in 2028, and Skagit IMW will continue longer (2041) due to ongoing restoration. The wrap-up includes synthesis efforts, practitioner involvement, and plans for publications and data sharing.
  - **Regional Grant Program:** The regional grant program, launched in 2025 with newly unobligated PCSRF funds, allows regions to submit up to two projects (capped at \$300,000 each) focusing on life stage bottlenecks, limiting factors, and project effectiveness. The selection process involves regional prioritization, Science Advisory Panel review, and aims to address high-priority data gaps.

- The Science Advisory Panel developed a strategic framework for this monitoring grant program to focus priorities with a stepwise process that links recovery goals to identification of survival bottlenecks and limiting factors that lead to the development of targeted restoration and recovery actions that can be monitored for success. The results are communicated and implemented through adaptive management.
- It is a biannual grant program with two grant opportunities available for each region for each cycle, intending to both spread the funding around and not overwhelm any specific region in any given year.
- Each region has its own process for selecting projects they will submit for funding.
- No match is required, and monitoring projects cannot exceed three years.
- Manual is available at <https://rco.wa.gov/wp-content/uploads/2024/12/MON-Manual18M.pdf>
- **Fish Monitoring Inventory Collaboration:** Greer described the fish monitoring inventory, which is intended to inform future monitoring investments. The project will inventory existing fish/VSP data resources for priority populations (e.g., from WDFW, StreamNet) and involve regional interviews (next step) to identify data gaps and assess data confidence. Collaboration with state and tribal partners, BPA, and other entities is integral, with plans to expand to habitat monitoring data starting next year.
- **Questions and Discussion:** The participants discussed collaboration, data collection methods, and integration with other monitoring resources. Greer clarified the data inventory's scope, metadata collection, and the intent to share results for updating related datasets and tools.

#### **PNAMP Project Short Updates: Next generation of Effectiveness Monitoring and IMWs (Erin Benham, Tim Copeland, and Jen Bayer)**

**Effectiveness Monitoring and Upcoming Conference Planning:** The evolution of effectiveness monitoring was discussed as well as, plans for a symposium at the Western Division/OR American Fisheries Society conference, and strategies for incorporating lessons learned from IMWs and human dimensions into future monitoring efforts. Erin Benham has joined the project.

- **Next Generation Effectiveness Monitoring:** Discussion centered on adapting monitoring approaches to changing conditions, leveraging regional and cross-agency collaboration, and focusing on resilience, relevance, and respect. The need to economize and maintain information flow for restoration decision-making was emphasized.
- **Conference Session Planning:** The group is organizing a symposium for the Western Division/Oregon Chapter American Fisheries Society conference in May, aiming to present lessons from effectiveness monitoring, IMWs, and to explore future approaches for effectiveness monitoring. The planning

includes writing a symposium abstract, soliciting speakers' abstracts, forming a diverse discussion panel to include a variety of perspectives. We will incorporate 2025 SRC plans that were canceled but also reach out broadly to include work from Klamath Falls, California and around the Columbia (the SRC was focused on Washington). UCSRB's science conference is in January, and Phil Sandstrom will provide contacts that present relevant content there. Jen is looking for volunteers to help plan; Greer and Ken are interested. Recommendation for panel discussions after talks. Ian recommends that there be a strong focus on human dimensions, as restoration work can be limited by community support. Examples from IMWs showed that projects with strong human dimension components were more successful, and future efforts will include dedicated outreach and education. Restoration work can be limited by public support. Ongoing efforts include synthesizing lessons from IMWs, preparing publications, and ensuring transferability of findings. Greer, Ken, and Tim are leading a paper focused on process and social challenges in long-term monitoring, aiming to inform future program design. Steve W recommends the dissertation by Christopher Page, ACOE fish biologist.

#### **PNAMP Project Short Updates: MonitoringResources.org (Sam Cimino)**

**Monitoring Resources Tool Updates and Outreach:** Sam Cimino, Mari Williams (new PSMFC addition to PNAMP team and MR support) provided updates on the Monitoring Resources tool, including new features, outreach strategies to project sponsors, and plans for improving data documentation and user support.

- **User Support and Outreach:** A new approach involves proactive outreach to project sponsors to assist with fulfilling BPA contract requirements including documenting methods and protocols and entering actual sampling locations to validate sample designs. ODFW is currently working through this with assistance, and new staff are learning by observing the process. The team will prioritize sponsors based on need and provide tailored support, aiming to improve data completeness and accuracy. BPA now requires validating sampling locations as a requirement to fulfill their contracts, but previously completed projects did not have this requirement. Encourage one-on-one engagement to fulfill contracting requirements. While the entry hurdle is large, it becomes easier to reuse established projects. Recommended to work with sponsors to finish their basics and then follow up on the actuals for data events planned. Time invested must be balanced and tracked to provide a return on investment accounting. Some sponsors have versioning concerns or misunderstandings between the meanings of draft and finished products.
- **Tool Development and Features:** Recent enhancements include adding focal species to sample designs enabling you to use filters for them on the explorer map, improved mapping and metric and indicator filtering, adding PSMFC Fish Facilities layer to the map, and allowing users to extend sample designs across multiple and additional years. Upcoming prioritized plans involve shifting product ownership to organizations, highlighting best practices, auto-populating metrics from data sheets, and developing an image library for species identification and condition. The CRB Fish and Wildlife Library will assist with the image library, which would support, augment, or replace printed field guides. The team is pursuing improved interoperability with other data platforms including StreamNet, CAX, and CBFish.

- **Data Repository and Sample Design Updates:** Efforts are underway to update sample designs with accurate data repository references and addressing outdated or closed repositories. Coordination with co-managers and contract managers will ensure that sample designs reflect current data storage practices.
- **Feedback and Evaluation:** The team encourages feedback from users to guide future development and plans to track the impact of outreach efforts, including metrics on completed documentation and time spent. Reminders and support will be integrated to help users meet contract and reporting requirements. A user survey will be sent out in 2026 to review the team and site progress towards planned improvements and usability.

### **PNAMP Steering Committee "Focus & Refresh" (Nancy and Jen)**

**PNAMP Steering Committee Strategic Plan Refresh:** A process for refreshing the PNAMP Steering Committee's strategic plan was outlined, including outreach to members, evaluation of the Charter, and efforts to engage new (and old) organizations and ensure broad representation.

- **Strategic Plan and Charter Review:** The committee will conduct interviews and surveys with members to gather input on the future direction of PNAMP. The process will align with changes in partner organizations and regional strategies.
- **Membership and Representation:** A review of signatory and courtesy members is underway to identify gaps in participation and opportunities to engage new entities or existing courtesy entities, such as ODFW and individual tribes. The goal is to ensure the committee reflects the current landscape and leverages diverse expertise.
- **Timeline and Next Steps:** The refresh process will include one-on-one meetings (target is January), surveys, and a summary of findings for discussion at the next committee meeting in late May or early June. The aim is to finalize updates in time for alignment with BPA reporting and to support ongoing collaboration. Russell Scranton, BPA will provide recommendations for contacts at USBR.

### **Spotlight: Fishing Regulations Database Project Update (Greg Wilke)**

**Pacific Coastwide Fishing Regulations Database:** Progress update on the Pacific Coastwide Fishing Regulations database, funded by the Pacific Salmon Commission, detailing data compilation, GIS integration, and plans to leverage AI for efficiency.

- **Database Development and Scope:** The project compiles fishing regulations for all five salmon species across Alaska, Oregon, Washington, and the Pacific Salmon Commission area, focusing on mark-selective regulations but expanding to all regulations due to their complexity and overlap.
- **Data Compilation and QA/QC:** Over 18,000 regulations have been entered, with ongoing QA/QC to ensure accuracy. The team is working with state agencies to integrate existing datasets and address temporal and spatial variability in regulations. Most of the entries done so far have been manually

entered, but staff are working with WDFW to access what they have available digitally. ODFW has some spatial data for regulations that could be leveraged and a database of regulation text.

- **GIS Integration and Mapping:** A key component is creating regulation-specific polygons and matching them to coded wire tag recovery areas, using USGS 3DHP as the base layer. The project aims to support interactive mapping and facilitate analysis of fishing opportunities and harvest.
- **AI and Automation Pilot:** A pilot using large language models is underway to automate extraction of regulation details from brochures, with the goal of increasing efficiency and coverage. The team plans to expand this approach to cover entire states.
- **Stakeholder Collaboration:** The project collaborates with state agencies (e.g., WDFW, ODFW), the Coded Wire Tag Project, and technical committees (TCDS) to ensure data utility and integration. Plans include making the database and query tools available for broader analysis and application.
- **Key Takeaways:** Everyone sees the broader application potential of the tool and wants more species, areas, and regulations added, and staff resources and project complexity mean they can't add structure, function, or data fast enough.

#### **Shared Project Short Updates: Emerging Technologies Information Sessions (Sam)**

**Emerging Technology Information Sessions (ETIS) Meeting Planning:** The last sessions were held virtually in early 2025. It was a great success, and thanks go out to everyone who helped find presenters or presented themselves.

- **Webinar Series Recap:** The winter webinar series covers topics including modeling, AI and Machine Learning, Data QA/QC, genetics, and remote sensing, with presentations available on the [PNAMP YouTube channel](#) and over 700 views recorded. There were typically three presenters per session.
- **ETIS 2026 Planning:** The [next ETIS conference](#) is scheduled for October 26-28 at Skamania Lodge, Washington. The planning committee is being formed, and the event will be in-person. The agenda will be coordinated to avoid overlapping with presentations from Western Division AFS. In person participation will involve a fee to cover the facility costs.

#### **Spotlight: Research Data Alliance and Salmon Data Mobilization (Lara Erikson and Tom Bird-DFO)**

**RDA Salmon Data Mobilization Interest Group Overview:** A comprehensive overview of the Research Data Alliance (RDA) Salmon Data Mobilization Interest Group, including its formation, structure, working groups, and ongoing efforts to standardize and mobilize salmon data across the Pacific and Atlantic regions.

- **Interest Group Formation and Purpose:** Lara explained that the RDA Salmon Data Mobilization Interest Group (SDM IG) was formed in response to recommendations from a [synthesis paper](#) endorsed by the North Pacific Anadromous Fish Commission, aiming to create a peer support network for salmon data mobilization and community building.

- **Group Structure and Membership:** The RDA SDM IG is led by three chairs representing the Pacific and Atlantic regions, with ongoing efforts to expand to eight chairs for broader representation; membership is open and currently includes 45 members, with meetings held quarterly and working groups meeting more frequently.
- **Working Groups and Outputs:** Working groups under the interest group focus on specific, time-limited tasks. Currently this includes a working group focused on salmon ontology and controlled vocabularies; aging structures, methods, and data management; and best practices for salmon data mobilization, with outputs including terms of reference, technical papers, and tools for data integration and standardization. The power of AI provides an opportunity to refine the accuracy of aging, especially at outlier ages, if the data could be compiled across collections. If discussing storage of physical structures for aging, reach out to universities, specifically UW.
- **Knowledge Modeling:** This highlights the need to have a consistent and replicable approach to describing the information contained in different data systems. If different names are given to the same thing, or the same name given to different things, how do we reconcile these differences in an efficient, informative, reproducible way? The approach takes concepts that we are locally familiar with and decomposes them into relatable ideas/methods. This formal splitting down of things is relatively relatable between different organizations. An easy example of this issue is the use of abundance and or escapement to describe spawner estimates. The group is using ontology as a guide to connecting data systems.
- **Technology Neutrality and Collaboration:** RDA emphasizes technology neutrality, allowing working groups to choose their preferred platforms for documentation and collaboration, and leverages existing RDA tools, guidelines, and standards to promote interoperability and best practices.
- **Ongoing and Upcoming Initiatives:** Current initiatives include the development of ontologies for salmon data integration, archiving and AI analysis of scale samples and other aging structures, and the completion of a best practices paper, with support from PSMFC through SharePoint and Teams for collaboration and document sharing. Links at [Salmon Data Mobilization - StreamNet](#).

### **Salmon Data Discovery Tool (Monica Diaz - PSMFC)**

**Salmon Data Discovery Tool Development and Launch:** PSMFC, in partnership with NOAA, has a newly launched Salmon Data Discovery Tool. Monica detailed its features, user management, data upload process, and the motivations behind its creation to improve public access and discoverability of salmon-related datasets.

- **Tool Purpose and Motivation:** The tool is a response to widespread frustration over the difficulty of finding and accessing salmon data, aiming to provide a centralized, public-facing resource for data sharing and discovery across ecosystems and life stages.

- **Key Features and Functionality:** The tool allows users to create accounts, upload datasets with metadata, search by keywords, ecosystem, and geography, and view data stories that bundle related datasets, reports, and code.
- **User and Data Management:** User management includes admin controls, e-mail verification, and the ability for users to edit or archive their data; upload multiple versions of data under one entry; data upload is user-driven with required metadata and citation fields, and public users can report errors for review by data owners and admins.
- **Data Scope and Contribution:** The tool currently focuses on West Coast salmonid data and is open to contributions from any entity. Dataset scope is intentionally broad, meant to include any data that informs management of salmon such as environmental, geographical, or ecological metrics.

#### **PNAMP Fish Monitoring Work Group (Meg, Mari Williams, Sam, and Nancy)**

**PNAMP and StreamNet Project Updates and Upcoming Tasks:** PSMFC staff provided updates on completed and ongoing Fish Monitoring Work Group tasks, such as the PIT Tag Data and Analysis Webinar Series, Coordinated Assessment (CA) standards, PIT tag dashboard development, and upcoming working groups and mapping initiatives. Task group information is available on the [webpage](#) with information on tasks, products, summaries, and other related documents or resources.

- **Completed Projects and Resources:** The PIT Tag Data and Analysis Webinar Series was completed with significant participant engagement. The CAP Terms and Definitions task group is in final wrap up, with a task summary in draft and the updates to the DESs finalized, incorporating new terms and definitions into the latest and draft versions of the HCA and NCA DESs.
- **Ongoing and Paused Initiatives:** Active tasks include the carrying capacity standards that is producing a peer reviewed paper and best management practices white paper (currently paused due to lead author furlough), continued evaluation of PIT tag webinar feedback, and the resumption of the Rotary Screw Trap dashboard task with new funding. The RST tool will be updated with new data and will have an expanded geographic scope to allow for data from outside of the CRB to be submitted if it is complete and fits the data structure determined by the development team. The dashboard is shifting towards a data upload tool like the SDDT for providers to submit or edit their data in the tool.
- **Upcoming Task Groups:** New task groups will address consistency and representation of SAR data in CAX and the development of draft focal species polygon maps for the Columbia River Basin. The maps will be drafted from what has already been provided or are publicly available from partners and within PSMFC. This project will provide data for reporting and management decisions that include a historical range of species, not just current distribution. Funding has been secured from BPA for this, and it will begin in 2026. Jon Bowers, ODFW, will make sure their staff connect with Nancy on the focal species maps to support the effort. The project will be promoted through the FMWG, newsletters, and presentations at regional meetings. Pacific Fisheries Management Council and NOAA Fisheries are

getting ready to update the Essential Fish Habitat layers and boundaries, and the task will be coordinated with that effort.

### **Update on Coordinated Assessments Partnership (Mari)**

In FY25, the CAP published a new version of the Hatchery Coordinated Assessments (HCA) Data Exchange Standard (DES) on July 28<sup>th</sup>, 2025. This is the first update since the pilot and goes into effect on Oct 5<sup>th</sup>, 2025. With hatchery data flowing into the CAX, staff were asked to provide a workshop at the WA/BC chapter of AFS in March 2025. StreamNet staff provided API access to the data for the workshop.

CAP used the FMWG to run a task group to address term and definition clarification requests made at the 2024 CAP workshop. The task group completed their review in Jan 2025 and handed off recommendations to the DDTs for processing to consensus. Terms and Definitions changes to both NCA and HCA DESs were provided as the result of two DDT meetings and two surveys that went out to the larger CAP group. A summary of the task group's actions and outcomes is being drafted.

There were 2110 new records added to the CAX in 2025 until the end of September. Many of them are hatchery data.

#### **FY25 Accomplishments**

- Hatchery Coordinated Assessments (HCA)
  - The Hatchery Coordinated Assessments Data Exchange Standard (DES) was updated. This is the first update since the pilot – The new version is version\_20250728
  - StreamNet and PNAMP conducted a user Training Workshop at AFS WA/BC (March 2025) with Canada DFO: “Tracking hatchery data from eggs to spawners across regions”
- Use PNAMP Fish Monitoring Work Group to support CAP needs
  - The Terms and Definitions task for the HCA DES was completed and partially included in HCA DES vers 20250728. The Terms and Definitions Task will inform the next vers of both HCA and Natural Coordinated Assessments (NCA) DESs
- Records updates
  - There were 2110 new records added to the CAX.

In FY26, the CAP HCA DDT will begin revising the hatchery metric DES to provide data in a table comparable to the natural origin spawner abundance table, possibly called hatchery origin spawner abundance (HOSA).

During HCAX development the group was unsure of the best approach, but data providers proved that they could provide hatchery origin SARs, which requires a HOSA-type metric for calculation.

CAP partners continue to push for modern, reproducible workflow optimizations across the CAX. StreamNet is committed to providing metadata, such as DESs, controlled vocabulary, and Data Share/Use Agreement, in a machine-readable format. Staff continue to pursue connections and consistency with other data systems such as Monitoring Resources, RMIS, PTAGIS, and other web services.

The FMWG will support a task group to address the SAR/SAS issues identified in the ISAB report published in April. It will bring together the subject matter experts to review how and what data are currently in the NCA SAR table and how we can make data similarities and differences clearer for data users.

Outreach planned for FY2026 includes a data management symposium at the Western Division/Oregon chapter meeting of AFS in May 2026. The Conference theme is “Perspectives” that provides us many opportunities for presenting data management topics. Kasey (ODFW) and Mari (PSMFC) are currently leading the development. Abstracts are due by the end of November.

- Aim to add a HOSA type table
- The HCA DDT will implement changes informed by 2023 CAP Workshop.
  - CAP will complete the integration of Terms and Definitions task into DESs.
  - CAP will consider new standards that may develop from FMWG task groups (such as the carrying capacity or terms and definitions of task groups).
  - The aim is to modernize metadata publishing.
  - We aim to connect CAX to systems such as Monitoring Resources, RMIS, PTAGIS, and other web services.
- The PNAMP Fish Monitoring Work Group will be utilized to support CAP needs such as creating a SAR/SAS Task Group to better define and standardize these terms.
  - We will begin outreach for the Western Division AFS 2026 “Perspectives” Conference

### **2026 Conferences (Mari)**

- PSMFC/PNAMP staff will be attending three 2025 conferences to promote StreamNet and PNAMP.
- - 9th Annual Lamprey Information Exchange
  - Northwest Fish Culture Concepts 74th Annual Meeting
  - PSMFC 2025 Steelhead Meeting
- PSMFC StreamNet and PNAMP will be leading the coordination and collaboration of two symposia at Western Division AFS and the ETIS Hybrid conference.
  - AFS Western Division Portland – May 2026
    - Data management symposium
    - Effectiveness Monitoring symposium
  - ETIS – Hybrid conference in Oct 2026 Skamania Lodge, WA

### **Round Robin (Jen/All)**

**Agency and Partner Round Robin Updates:** Representatives from various agencies and organizations, including BPA, OWEB, Colville Tribe, CRITFC, Idaho Fish and Game, Northwest Power and Conservation Council, ODFW, WDFW, USGS, and others, shared brief updates on staffing, funding, ongoing projects, and upcoming events relevant to salmon monitoring and data management.

- **Staffing and Organizational Changes:** BPA and other agencies reported significant staffing changes and impacts from federal administration transitions, with ongoing efforts to rebuild capacity and adapt to new agreements and funding landscapes.

- **Funding and Grant Updates:** OWEB highlighted record demand for monitoring grants and the launch of a targeted tribal grant program, while other agencies discussed challenges in securing funding for habitat monitoring and restoration projects.
- **Project and Program Highlights:** Updates included the completion of a long-term habitat monitoring plan in the Upper Columbia, the addition of mapping components to ODFW's recovery tracker, WDFW's development of a new hatchery management system, and ongoing strategic planning at CRITFC.
- **Upcoming Events and Collaboration Opportunities:** Participants announced upcoming workshops, symposia, and conferences, such as the floodplain restoration workshop, IMW symposium, and regional meetings, inviting collaboration and information sharing across agencies and partners.

**Notes: (highlights identified by PSMFC staff, detailed updates can be submitted via email)**

- Jody Lando, BPA – 2 categories, year of change.
  - Bonneville had a lot of changes, staff losses, only recently started hiring and can't hire external people right now
  - Changes to long-term agreements- some ended, Columbia Basin Agreement was terminated- significant impacts from a technical and policy standpoint
  - Items that remain the same— desire to build effective and collaborative relationships. This meeting is a highlight every year, commitments with NOAA and FWS for BiOps
  - Excited about today's meeting seeing how PNAMP transitioned to PSMFC
- John Arterburn, CCT – recently completed long-term habitat status and trend monitoring in the Methow - funded by BPA. Link to report: [OBMEP](#)
  - Upper Columbia Salmon Recovery Board identified as a top priority for Upper Columbia as part of the RCO statewide monitoring but didn't get any money from WA state
  - Currently working with other funding agencies
- John Cassinelli, IDFG – Some staff changes but lots of staff are working on these programs, currently navigating complexity that has been added to things
- Tim Copeland, IDFG – Restoration funding is drying up, trying to figure out what's next. The Western Division/Oregon AFS meeting is an opportunity to help determine what comes next. Volunteer, attend, and participate.
- Heather Hendrixson, NPCC – working on the Fish and Wildlife Program amendment. Recommendations and public comments have been received, and they are revising the program with regular work sessions. Preparing draft amendments and currently going through that with council members. Then council members will plan to release a draft and will incorporate any final edits before being finalized and put on the website.
  - Formal public hearings
- Ian Tattam/Jon Bowers, ODFW – Ian is the new inland science program manager

- Added a map component to the salmon and steelhead tracker: LINK - <https://nrimp.dfw.state.or.us/RecoveryTracker>
- Phil Sandstrom, WDFW – Enjoyed SN SC meeting earlier in the month, especially the presentations from ODFW, aided them in some of the work they are doing
  - Hatchery Management system is now operational in IOS and Windows
  - Phil is now the vice-President of the WA-BC AFS chapter
- Brodie Cox, WDFW – Electronic Harvest tagging is being implemented into mobile apps by the end of December. Also refining the coded wire tag processing to get data in faster
- Denise Kelsey, CRITFC – No announcements, staff is in the middle of Strategic Planning
  - Annual Work Plan
  - Jiaming Yang, ITMD Project – no updates
  - Tami Wilkerson, CBFWL - no updates, participants are appreciative of the summary of published papers and datasets from the library
- Courtney Shaff, OWEB - We are in the middle of our open solicitation monitoring applications, receiving the most applications ever (\$7.2 million worth) and only have \$2.5 million to give so have some hard decisions to make
  - Giving a monitoring 101 talk for the board, how we spend the money and the results
  - Jody Lando, BPA- would love a link to the 101
    - Courtney Shaff, OWEB- OWEB got \$19 mil in most recent PCSRF award
  - Getting to launch our 2<sup>nd</sup> year of tribal project development grant- tribal targeted monitoring – up to \$100,000 of non-competitive funding
    - \$1 million total in the OWEB spending plan
  - [Monitoring 101](#) video starts at 5:06
    - Slides at [2025-Oct-ItemG-X-Monitoring 101-Presentation.pdf](#)
- Steve Waste, USGS emeritus – A lot of staff movement. Going to continue to be involved with long-term monitoring
  - Impressed how this group has advanced over the last 1.5yrs. Thanks to Jen and Nancy for working things out.
- Greer Maier, WA GSRO – Convening the floodplain and floodplain restoration workshop -
  - [Knowledge Exchange Workshop Series 2025: Rewetting Our Waterways: Floodplain Restoration in an Occupied Landscape - Pacific Northwest Aquatic Monitoring Partnership](#)
  - Put Greer on the agenda for a future meeting to present the Terradapt on salmon
 

<https://terradapt.org/>

## **Day 2: October 23, 2025 9:00am-12:00pm**

### ATTENDEES:

In person: Nancy Leonard (PSMFC), Mari Williams (PSMFC), Meg Dethloff (PSMFC), Sam Cimino (PSMFC), Tim Copeland (IDFG), Russell Scranton (BPA), Steve Waste (USGS emeritus), Mike Banach (PSMFC), Greg Wilke (PSMFC), Lara Erikson (PSMFC)

Online: Jody Lando (BPA), Jen Bayer (PNAMP advisor), Donella Miller (CRITFC), John Bowers (ODFW), Denise Kelsey (CRITFC), John Arterburn (CCT), Heather Hendrixson (NPCC), Greer Maier (GRSO), Phil Sandstrom (WDFW), David Schmetterling (MFWP), Jiaming Yang (CRITFC), John Cassinelli (IDFG), Jake Chambers (ODFW), Brodie Cox (WDFW), Tami Wilkerson (CRITFC FWL), Erin Benham (PSMFC), Ian Tattam (ODFW)

### Action items: (Assigned to)

- **Web-Based Query and API Enhancements:** A web-based query tool for accessing hatchery data is under development, with the API already updated since March; a smaller in-house group is working on the web query mockup, which will undergo user testing with the Fish Monitoring Work Group before production launch.
  - **Send Phil Sandstrom POC for testing APIs so he can distribute to WDFW**

### CAP Strategic Plan Update Recommendations from members

- **Security and Automation Wording:** Edit the CAP strategic plan to correctly position and phrase the goal related to improved security and automation, ensuring clarity and proper emphasis. (Meg)
- **Persistent Identifiers Milestone:** Clarify the milestone language regarding persistent identifiers in the CAP strategic plan, specifying the intent to track and report on the use of persistent identifiers such as DOIs for datasets. (Mari)
- **Appendix B Data Categories Clarification:** Revise Appendix B to clarify the inclusion of "resident Salmonids" instead of specifically "bull trout," and consider adding a bullet to investigate stock abundance estimates for other species, with rationale for inclusion. (Meg)
- **CAP Strategic Plan Document Revisions:** Incorporate feedback from Executive Committee members on terminology (e.g., "region" vs. "Pacific Northwest"), goal wording, and milestone reporting structure into the revised CAP strategic plan draft and redistribute for review before Thanksgiving. (Meg)

### NOTES:

**Updates on Data Sharing and Technical Developments:** Updates on the finalized data sharing use agreement, ongoing development of a web-based query for hatchery data in CA, API accessibility of HCA data, and the status of the time series information table, highlighting collaborative efforts and opportunities for user testing.

- **Data Sharing Use Agreement Update:** PSMFC reported that the data sharing use agreement has been updated to better incorporate hatchery data fields developed with support from the EPA Exchange Network grant, and that the finalized text is now posted on the StreamNet website and included in data downloads.
- **Web-Based Query and API Enhancements:** The HCA tabular query tool, a web-based query tool, for accessing hatchery data is under development, with the API data views available since March; a smaller in-house group is working on the web query mockup, which will undergo user testing with the Fish Monitoring Work Group before production launch.
  - **Send Phil Sandstrom POC for testing APIs so he can distribute to WDFW**
- **CAP Strategic Plan:** The CAP five-year work plan has been redeveloped into the CAP Strategic Plan and will be reviewed during the meeting.
- **Time Series Information Table Implementation:** The time series information table, previously referred to as the data status table, has been implemented and included in the HCA DES released in July.

### StreamNet Technical Team Update (Sam)

**StreamNet Tech Team and Data Standards Progress:** Sam updated the group on StreamNet Tech Team activities, including membership updates, the need for team chairs, Charter revisions, recent approvals of updated HCA data exchange standards, and ongoing efforts to improve data layers and task teams.

- **Tech Team Membership and Leadership:** Sam encouraged the attending partners to review the SN TT membership list and notify him of changes. Sam also highlighted the need for team chairs, especially from outside PSMFC, to increase involvement in the DES development and tech teams.
- **Charter and Meeting Scheduling:** The StreamNet Charter is being updated to include the Data Exchange Standard Development teams, with the next tech team meeting scheduled for January 13th and invitations to be sent to the email list.
- **Data Exchange Standards Updates:** Recent meetings covered the approval and implementation of the new hatchery HLI DES, effective October 5th, which includes the new time series info table and updated terminology. A more extensive review and update to the HCA DES will be forthcoming. Contact Sam if you'd like to be involved in that task group.
- **SAR v SAS:** A new task group (FMWG) for smolt-to-adult return and survival is being formed in response to ISAB report recommendations.
- **Improvements to Data Layers:** Efforts are underway to refine the fish facilities layer by adding direct release locations, update dam categorization, and explore the feasibility of mapping extirpated areas for restoration, with input from state agencies.

- **Rotary Screw Trap Dashboard Revamp:** PSMFC announced new funding and plans to revamp the Rotary Screw Trap dashboard into a more user-friendly tool, expanding its scope beyond the Columbia River Basin and enabling direct data updates by contacts and BIOS, with interest from regions such as Klamath and Puget Sound.
  - **Dashboard Modernization and Funding:** PSMFC received funding to transform the Rotary Screw Trap tool to function more like the Salmon Data Discovery Tool, allowing for easier and more direct updates by users.
  - **Expansion Beyond Columbia River Basin:** While the tool initially focused on the Columbia River Basin, there is growing interest from Klamath and Puget Sound regions, and the tool is being developed to accommodate broader participation.
  - **User-Driven Data Updates:** The new system will enable partners to update trap locations and metadata directly, reducing the need for intermediary steps and keeping the database more current and relevant. PSMFC staff are currently reaching out to contacts to update both the data and the contacts lists.
  - **Task Group Reestablishment:** A Fish Monitoring Work Group task is being reestablished to oversee the Rotary Screw Trap data and metadata, ensuring ongoing accuracy and completeness.

### **CAP Strategic Plan (Nancy, Mari, Meg)**

**CAP Strategic Plan Revision and Review:** Nancy led a detailed review of the draft CAP Strategic Plan, focusing on restructuring goals, clarifying terminology, refining objectives, and aligning milestones with actionable and measurable outcomes.

- **Plan Structure and Content Updates:** The plan was restructured to follow the strategic plan format used for the most recent StreamNet Strategic Plan, including mission and vision statements, background, and a comprehensive section on objectives, and strategies, with significant rewriting to fit the new structure.
  - **Objectives Discussion:** Key goals discussed included maintaining and updating existing data flows, refining data exchange standards, promoting interoperability, supporting knowledge sharing, developing data preservation protocols, strengthening tribal engagement, addressing regional data priorities, and ensuring effective communication. The project would benefit from having more than just PSMFC staff facilitating meetings.
    - **Wording and Prioritization:** Committee members debated the wording and order of objectives, particularly regarding the importance of sustainable modernization and maintenance, with consensus to move this higher in the list to reflect its critical nature and to add security to the goal statement

- **Terminology and Regional Scope Clarification:** Concerns were raised about undefined terms such as 'region' and the use of acronyms like FAIR and CARE, leading to agreement on defining these terms. The term "region" is not defined, and the group agreed to using 'Pacific Northwest' with a focus on the Columbia River Basin, with the understanding that it includes Montana.
  - **Persistent Identifiers Milestone:** Clarify the milestone language regarding persistent identifiers in the CAP strategic plan, specifying the intent to track and report on the use of persistent identifiers such as DOIs for datasets. (PSMFC)
- **Milestone Alignment and Reporting:** The group reviewed proposed milestones for each goal, deciding which should be reported to the Steering Committee versus the Executive Committee, and refined the language to ensure milestones are actionable, measurable, and aligned with the plan's objectives.
  - **Milestone 1:** This is a technical milestone, and the group agreed that the Tech Team routinely reports to StreamNet Steering Committee on progress or problems, who reports any blocks or problems to the Executive Committee.
  - **Milestone 2:** Technical milestone, agreed to report problems to ExCom when SC cannot resolve them.
  - **Milestone 3:** Technical milestone, agreed to the same reporting structure as 1 & 2
  - **Milestone 4:** Outreach and communication should be reported to the ExCom including the type and summary of the outreach performed
  - **This milestone was identified as alignment with milestone 9 and recommended to be combined.**
  - **Milestone 5:** no comments
  - **Milestone 6:** Summarize any training opportunities that come up. Engagement can also be identified or tracked by data submittal trends.
  - **Milestone 7:** Survey of partners.
  - **Milestone 8:** May need some logic flow assistance, add examples, identify the agencies attending meetings along with the number of participants to identify gaps.
  - **Milestone 9:** To be combined with 4.
  - **Milestone 10:** Add "Persistent Identifiers" to the end of the milestone title.
  - **Milestone 11:** Technical milestone, should be filtered through the SN SC. Should be higher in the list and include security, such as that seen by the SBT when their digital data flows protected their data from the cyber-attack on the Tribe's resources.
- Strengths, Weaknesses, Opportunities, and Threats:
  - Threats need to include whether the Partnership can do anything about them
- **Review and Refinement of Future Data Categories and Indicators (Appendix B):** Updates to Appendix B of the strategic plan, focused on clarifying data categories, considering new indicators such as stock abundance for resident species, and addressing the inclusion of invasive species and genetic data.

- **Resident Salmonids and Stock Abundance:** The committee agreed to generalize references to 'resident salmonids' instead of specific species like bull trout and discussed the potential to add stock abundance as an indicator for additional species, such as lamprey, sturgeon, resident salmonids, with attention to the complexities of standardizing such data such as inclusion of all life stages in the abundance count and anadromous/stream vs lake populations
- **Inclusion of Invasive Species and Predators:** There was discussion about the need for data on invasive species and fish predators, with suggestions to explore the feasibility of including such indicators in the coordinated assessment framework, recognizing existing national databases and the need for regional relevance.
- **Genetic Data Considerations:** The group acknowledged ongoing internal work to explore the inclusion of genetic data, such as PBT results, and agreed to keep this as an open item for future development as resources allow.

**Clarification of Data Category Processes:** PSMFC outlined the process for vetting new data categories, distinguishing between those suitable for data exchange standards and those better addressed through publications or guidance, and emphasized the need for ongoing review and partner input. Develop a section for review and not recommended for DES items like carrying capacity.

- **Sections to detach as reports/references available on the website:**
  - **Data Providers Section Update:** Move the list of data providers and their contributions from the CAP strategic plan document to a supporting material or website section, ensuring the information remains accessible and referenced in the annual report. (PSMFC)
  - **Budget:** Add information for data coming outside of the CRB, such as the Oregon coast data and possibly California in the future. Could show it as cost share.

**Next Steps:** Nancy outlined the next steps for finalizing the strategic plan and requested that any further input or corrections be submitted before the end of the following week, aiming to circulate a revised draft before Thanksgiving and finalize the plan for adoption in January 2026.

#### **Member Updates (brief additions to the larger update round provided during the joint session)**

Executive Committee members with additional updates: John Arterburn, John Cassinelli, David Schmetterling, and Ian Tattam.

Staff note highlights:

- David Schmetterling, MFWP - reported ongoing efforts to streamline data provision processes
- John Arterburn, CCT - emphasized the ongoing challenge of maintaining and modernizing data systems in the face of rapid technological change. Nancy encouraged members to communicate technological challenges and share experiences, highlighting the value of co-learning and collaboration across the group.

- Ian Tattam, ODFW - highlighted working on hatchery data management and EPA Exchange Network grant funding.
- John Cassinelli, IDFG – will be assigning tasks to staff.