**StreamNet Steering Committee Meeting**

**September 19-20, 2023**

Washington Department of Fish and Wildlife

Natural Resources Building
 1111 Washington St. SE, Olympia, WA 98501

Microsoft Teams Hybrid Meeting

**Attendees:**

In-person: Nancy Leonard, Meg Dethloff, Monica Diaz, Mari Williams, Brodie Cox, Cedric Cooney, Dawn Anderson, Sheryn Olson, Mike Banach, Todd Gilmore

Online: Kris Homel, Matt Schwartz, Evan Brown, Jen Bayer, Jake Chambers, Nadine Craft, Greg Wilke, George Batten, Brady Allen, Kasey Bliesner, Clark Watry, Michelle Groesbeck, Jiaming Yang (CRITFC), Kurt Tardy, Rebecca Croy (SBT), Ryan Branstetter, Tami Wilkerson, Greg Lippert, Vaughn Gilmore (YN), Denise Kelsey, Sam Cimino

**Action Items:**

Jen Bayer to locate potential NHD speaker for next meeting of SN SC.

Mari to work with Mike to add appropriate CAP workshop action items to SN TT January agenda.

Evan will estimate when data updates usually happen (season or date range vs date).

Nancy to incorporate input captured during meeting (see meeting notes) and post-meeting on MAFAC dashboard and Screw Trap dashboard (see meeting notes)

Steering Committee members and observers please provide comments: on the dashboard tools to be incorporated into the tool before the ExCom meeting

* MAFAC dashboard: Submit comments by Oct 18th
* Screw trap dashboard content review by Oct 18

FMWG Fish Management Unit Boundaries: Mari emails the group [this doc,](https://prod-is-cms-assets.s3.us-west-2.amazonaws.com/pnamp/prod/a26a3730-2af8-11ee-9fb9-0d1603bac9b4-2023-07-24PNAMP_FMWG_FishMgmtUnitBoundariesandAttributes_Recommendations_Final.pdf) please provide feedback by Oct 18th

Brodie and Nancy to set up follow up conversation on how IDFG hatchery system will be informing the FINSnet data system used for Lower Snake River hatcheries. Interested individuals include Nancy, Brodie, and Evan later will discuss (might loop in Clark).

Dawn will aim to schedule Ryan Kovatch geneticist to present at a future meeting, ideally 2024 SN SC meeting in Montana.

Jen and Nancy to firm up the final HCAX meeting considering the broad range of preference from March, late April, to May, avoiding when North of Falcon meeting occurs in April.

QA/QC task: StreamNet data stewards are asked to perform the QA/QC records between end of the SN SC meeting and Spring SN SC meeting now that the tool has been updated and ready to be used.

Cedric will confirm dates for the SN SC FEB 2024 meeting – Salem ODFW week of February 5th/12th, heavy on 12th

**Meeting Documents:**

All meeting documents are available from the StreamNet Steering Committee webpage:

 <https://www.streamnet.org/committees/sn-steering-committee/>

**Meeting Notes:**

**IDFG Spotlight:**

IDFG Spawning Ground Survey Mobile App, Evan Brown

IDFG is overcoming resistance from people using tablets. Tablets were tested in the field against paper users and found the tablets were more reliable and time efficient. People using tablets were able to collect and upload data and have it QA/QC’ed days ahead of paper versions.

IDFG embedded survey maps within the ESRI 123 form.

Stream and lake surveys are planned additions for the app.

ArcSDE is able to manage their data.

IDFG has 15 users testing and will increase it to 30, with paper forms as backups. Will probably need about 50 or 60 users, as one user for each pair of surveyors will be enough. Will be sharing cost and equipment with wildlife for hunter check stations, etc. when SGS aren’t occurring.

Brodie – cost of Survey123 and tablets have been a barrier

Kasey - We move all of our data from Survey123/Arc to Access databases at the end of the season to avoid storage costs.

Clark - we migrate all of our Survey123 data to a SQL back-end database and then into custom datasets within our central data management system.

**Member Updates**

**WDFW:** Brodie Cox - SPI database is getting its finishing touches, and will be modeled on CAX. The User interface is completed and is in the process of being rolled out.

Hatchery M&E database update – full presentation will be in the morning of day 2. It will deliver HCAX data to StreamNet.

* Lower Columbia recovery dashboard is pulling data from the database.
* Fish traps and surveys – flutter based mobile component. Will be expanding to east side. This will give the spawning ground side of the survey data when merged.
* CWT mega tracker – Currently feeds into hatchery M&E database.
* Creel expansions in mobile-form based surveys are being sent to the regional biologists.
* FINs-HMS (hatchery management system) data exchange has been set up and is of interest to others – Nancy, Brodie, Evan, and Clark will continue the conversation outside of this meeting.

FIsh Washington App- Reporting system duplication, will hopefully change and use the database the way it’s supposed to be used with regulations geographically tied with closures, etc

Fish regulations application and catch records on two different platforms with different teams but will look the same.

**MFWP:** Dawn Anderson -

* working on hydro layer conversion,
* presented the updates to managers this month
* sNIPs genetics data moving forward and Ryan Kovatch, geneticist, will be asked to present at a future meeting;

**Colville Tribes:** George Batten -

* HCAX pipeline set up; API code rewritten in C sharp, folded HCAX files into that.
* Created a data dictionary for the database; renders to html file and gives some basic info about the tables (last updated, new data column); just internal right now, but will post to GitHub.
* Updated the Okanogan project website to a modern platform.

**USFWS:** Todd Gilmore - USFWS has a data manager for the region, no big updates on the hatchery database side yet.

**Shoshone-Bannock Tribes:** Kurt Tardy and Rebecca Croy - migrating data from input to reports and dashboards, tribal access to useful data.

**ODFW:** Cedric Cooney -

1. Megan Griffiths was hired in August as our StreamNet Data Assistant. She has been actively learning the ODFW hatchery management system, compiling draft hatchery data for the DES, and other StreamNet related activities.
2. Completed Hatchery Coordinated Assessments data exchange standard SQL table development and internal validation rules in our internal server database.
	1. Staff have been testing tables and StreamNet validation rules with draft hatchery data using the API and will continue to do so for a few weeks.
	2. Staff are compiling draft data sets for 7 Hatchery Programs around the state. Each program does not have data for all indicators in the Hatchery DES yet, so far returns, broodstock, and release have been available for most programs.
	3. On Monday, staff officially validated and submitted to the StreamNet API, 9 hatchery data records each for the HatcheryXHatcheryStock and HatcheryProgram tables.
3. Completed the data migration to our internal SQL server database; for data and information from the old “ODFW Salmon & Steelhead Recovery Tracker” external website hosted at PSMFC that will be taken off-line soon.
	1. Currently, staff are designing and testing a new website for ODFW recovery planning data hosted at ODFW HQ and managed by NRIMP staff in Salem.
4. ODFW staff validated and submitted all currently available data for both CA natural origin indicators and fish monitoring (trend data) for the Oct. 2022 – September 2023 contract year.
5. Other updates:
	1. ArcMap to Pro migration continues
	2. Fully implemented GIS license pooling
	3. NHD to 3DHP - still a problem but no solutions to report for the PNW
	4. Private Forest Accord implementation continues; one position still vacant and 3 positions expired before they could be filled
	5. OR conservation plan GIS position still not filled (open since Nov. 2021)
	6. Data sharing agreements: The new bill allows more flexibility in Jan. 2024

**IDFG:** Angie Schmidt and Evan Brown -

* Lake Stream Database QAQC for Generalized Fish Distribution updates
* Hatchery Returns updates
* Redd Counts updates
* NOSA updates
* RperS updates
* NOJA updates
* Spawning Ground Survey Mobile app is in development and testing
* SCPfish (Scientific Collecting Permit database) is in development and testing
* AOP (Aquatic Organism Passage) is in development and testing
* FINS is in development and maintenance
* Working on personnel enhancements with PSMFC to accommodate HCAX development, testing, and compilation.

**CRITFC:** Sheryn Olson, Denise Kelsey, Tami Wilkerson -

* Personnel:
	+ Donella Miller is the new CRITFC Fishery Science Dept Manager, who came from Yakama Nation Fisheries where she worked for over 20 years. Donella said she can serve on the StreamNet Executive Committee.
	+ At YNF, Vaughan Gilmore is the new Data Analyst for Yakama Klickitat Fisheries Program. Welcome Vaughan.
	+ And at ITMD, Jiaming “Jammin” Yang is our new Data Systems Specialist. He has been focused exclusively on the CDMS (centralized data management system).
* CDMS: Big news. Last week a new, extensive upgrade for the CDMS was deployed at CRITFC: v.2.3 to 3.0.1. This brings the tribal CDMS version up to the same version as the Umatilla’s. We still need to upgrade NPT and Warm Springs. This was made possible by the NOAA grant.
	+ With grant funding we can get quite a bit more done quickly. For example, Warm Springs – Big strides using QW consulting to develop Survey123 for all their data collection project, most all their legacy data is now in the CDMS repository.
* Grants: Congratulations to the NPT, Umatilla and Yakima, who all were just notified they were awarded the EPA EN grant ($300,000 each for 3 years). The grant is to increase capacity to perform data management; though its major purpose is specifically for transferring data to the EPA’s WQX – e.g., water quality & metrics.
* NOAA grant/WCOA: Rosie Gradoville, CMOP/CRITFC, Jiaming, Sheryn working to engage with the West Coast Ocean Alliance, their Tribal Caucus, and their Data Portal development.

**CRITFC Library:** Tami Wilkerson – Journal access is now available via free user account, just email her.

**PNAMP:** Jen Bayer -PNAMP is funded by EPA to facilitate a toxics working group; data published to WQX. Meeting Tuesday to introduce new resources – short videos related to WQX input and output

MonitoringResources - BPA workflow training is available, next opportunity is in November.

Newsletter first week of October.

**NPCC:** Kris Homel – No updates

**BPA:** Russell Scranton, Matt Schwartz, Brady Allen – No updates

**NOAA:** Mari Williams - Salmon Data Discovery Tool

**StreamNet Technical Team:**

Changing standard procedures for documentation, Tami will be hosting a meeting on how to properly reference and cite their documents.

Georeferencing in the DES will modify how the query system works. There are changes to required fields in shapefiles.

Russell – Folks are only providing beginning point, not end points. Use NHD or new NOAA layers. No standardization. If everyone is creating GIS point files there will be a disconnect.

EB response –The fundamental level of survey data has the unique stream identifier (llid or locationID) and beginning and ending x,y, if not a segment, the points are the same. Take those x,ys and connect them to the line and calculate the distance. This offers static data points while hydrography (NHD, etc) may change. This happens at the SQL level, not the surface level that any biologist would see.

Jake worked with Van and redid ODFW trends with GIS feature classes for trend data, not CAX polygons. They use NHD, but Van can work with them on creating feature classes. They (ODFW data coordinators) receive lat/longs from biologists.

Russell says that biologists aren’t submitting the GIS layers or not completing the full data. THe issues he brought up were: Not everybody has the same structure or support – tribal partners and universities that they fund do not go through the states. ISEMP data is not linked to a superclass, just a database. Dan Isaak found large distributions not included in layers. The networks don’t come together: Llids with StreamNet GIS layers aren’t referencing something real if that’s not being maintained. Not all data has been updated. Not all funded data collection is done the same way. What is the hydrography that is going to be used or shared? Trend data hasn’t been updated in a long time for some unnamed entities.

Have Van clearly document in the DESs how they are using their own layers to help clear things up for Russ.

Mike’s respose – All the data is going through the coordinators, it is not being submitted directly by the biologists. StreamNet used to maintain a 1:100k map, but funding ended and it has not been kept up to date. There is not a unified hydrography layer anymore. Everyone makes their own squiggly lines and those go to Van. They may not match the 1:100k hydro layer but we don’t use that anymore.

Legacy data only gets updated to the new requirements, georeferenced layers/ adding Lat/longs if need be. Have clear documentation on what hydrography is to be used, even if “using mixed hydrography” - which Van is already doing.

Evan’s response - Make sure you specify what hydrography you are using to “connect the dots” if you are using one it should be fine. He hasn't seen issues with points being connected that aren’t accurate or misrepresented by which hydrography they use as long as the hydrography is known.

The new DES is almost ready. The current version is 3 years old. Most changes are just catching the DES up to what they already do and have agreed to do, I.e. Locations, data submissions via API

Jen will send out links for NHD changes/ updates. NHD speaker for next meeting of SN SC?

 <https://www.usgs.gov/3d-hydrography-program/3d-national-topography-model-call-action-part-1-3d-hydrography-program>

<https://www.usgs.gov/national-hydrography/national-hydrography-dataset>

MonitoringResources links to Trends data – many to many relationships. It can capture BPA project numbers in trends, but it is not without complications. Linking to the study plan summary might be the best option right now.

A boundary was set at the technical meeting that Updating legacy data is not going to be a priority.

Decided to have twice a year tech meeting in Jan and June. Having meeting next month to get comments and input on what is working and what's not for DES.

QA/QC Greg: updated the HLI QA task, added a new set of records with better geographic weighting on which populations to sample, and clarified what task time is. He added a data category so that one can click one or more record issues. This update will be due by the spring SC meeting.

Evan: Trends data – It's hard to keep track of data submittals. He will try to estimate when data updates usually happen (season or date range vs date) (see figure below).

Russell asked to get live summaries of current counts that compare to previous years such as are available here:

<https://idfg.idaho.gov/fish/chinook/dam-counts>

<https://idfg.idaho.gov/fish/chinook/returns>

Cedric in response to Russell said folks may need to go to those sources (listed above) for those comparisons because getting those things organized into SN is not easy.

Funding is going away, so some data won’t be updated again, and we will no longer be able to provide this information. Biologists can’t be expected to fill out live summaries because they are in the field so long which means they can't update public data daily/weekly because they haven’t necessarily been sent to data management yet.

Nadine - Some data (indicators/metrics) in CAX is not part of the biologists’ SOW. This is also part of what could be cross walked to update contracts.



**CAP mapper updates**

Looks great, show to ExCom.

**HCAX updates**

Final meeting for HCAX needs to be scheduled: Cedric says late April, Evan says March, Brodie says May, has North of Falcon in April.

Joint AFS April 29-May 2nd

**September 20th**

In person: Todd Gilmore, Nancy Leonard, Monica Diaz, Sheryn Olson, Mari Williams, Dawn Anderson, Brodie Cox, Cedric Cooney, Brian Donahoo, Meg Dethloff, Mike Banach

Online: Jen Bayer, Kasey Bliesner, Brady Allen, Evan Brown, Jake Chambers, Nadine Craft, Denise Kelsey, George Batten, Michelle Groesbeck, Jiaming Yang, Kris Homel, Matt Schwarts, Shaina Schwartzel, Tami Wilkerson

**WDFW spotlight**

**Hatchery assessment** – This project aims to investigate if hatcheries are helping or hurting the native populations? This work will also help feed data into HCAX and other data streams.

There are M&E goals for adaptative management that are the primary targets of this work.

WDFW’s fish books and future brood programs were built in java 12+years ago and are out of date.

Lower Columbia recovery dashboard grant is exactly like HCAX and they are leveraging the work from and for each project.

It is an enterprise system. They restructured the database from the ground up. It can shortcut directly to data entry forms on tablets. The goal is to connect fish survival from egg to returning adult.

Genetics databases are identified as legacy systems that need to be moved into the enterprise system.

Efficiencies are the focus, not staff elimination. They are replacing paper forms and starting with the end user in mind. By creating efficiencies for the hatchery managers, they can focus on fish more and less on paperwork management.

They have Developed 6 forms now, focusing on the front end of data entry in the hatch house right now.

Data entry allows real time average calculations, etc. Histogram of measurements as points added.

Flutter to allow android, iOS, and web. It is in AWS system so could expand to tribes and PUDs.

First workable node will be rolled out in November, adult collection is being pushed for the next node.

Flutter and ESRI have developed an integration

**CAP Workshop (Mari) combined with Draft list of Task with Jen and Nancy**

Organized workshop based on some major questions. Key items associated with the major questions, and then created action items to help resolve/ support those key items. (which are in the slides).

Creating an action plan for a couple year out, to work on the projects that were identified at the meeting (on Project Identified slide)

Jake: A lot of the key ideas are right up the Technical Committees wheelhouse and can be added to the January agenda.

We are already developing presentations, so we can share and collaborate with other members, because similar projects are being developed. There are a lot of hurdles like the government limiting what can be recorded and published w/o approval. One of the ways to work around this is PNAMP (Jen) has worked on publishing on YouTube and using the controls on what is publicly searchable. Another solution was to use the PNAMP website to find things.

There are cheat sheets users have created for HCAX that can be shared with others.

Outreach has a Tech Talk that Meg leads.

Content and delivery improvements: a lot of this can be covered in the Tech teams meeting agenda. Data citation automation was well received. Sheryn brought up needing a bit more metadata. There is a lot to do and deciding what to do next so collaborating with the tech team and others to decide what to work on next without getting overwhelmed. Collaborating will also help with knowing what other people have already done like George working on controlled vocabulary and leveraging that.

Funding: share proposals so others could benefit through the process, especially if someone already had a successfully written one. Jen highlighted a proposal due soon <https://www.nfwf.org/programs/fisheries-innovation-fund/electronic-monitoring-and-reporting-grant-program-2023-request-proposals>

Electronic Monitoring and Reporting Grant Program 2023 Request for Proposals

Applicant Webinar [View Recording]: Thursday, August 24, 2023 at 3:00 PM Eastern Time Full Proposal Due Date: Monday, October 16, 2023 by 11:59 PM Eastern Time Examples of ET include any electronic tool used to support fisheries monitoring both onshore and at sea, including electronic reporting (e.g., e-logbooks, tablets, and other input devices), electronic monitoring (e.g., electronic cameras and gear sensors on-board fishing vessels), and vessel monitoring systems or electronic tools to improve data processing, management, or access.)

A lot of times it looks like the proposal wording won’t work for you, but turns out you can because you found out someone else got it, so sharing the proposals in a folder would be helpful for others to know.

**Revised draft MAFAC CBPTF Dashboard**

Can we highlight populations (chum) with data used to generate the geomeans, highlight populations within the ESU shape. Or highlight the population in the stock population dropdown. - may not have consistent population representation across years

17 extant chum populations? Where did that come from? Mike will review and send the details to Kris Homel

Snake River steelhead powder river population extant??? MW to look at extant/functionally extirpated/etc

Recommendation from Evan- Can we get the query/selection criteria as part of the URL to facilitate sharing and documentation?

Current data – these stock estimates are based on compilation of data from multiple sources

Have goals included at the population level to go with the goals at the MAFAC level

KH and EB approve showing the EC in November. Please provide feedback and comments by October 18

**Salmon Data Discovery Tool Fish Monitoring Work Group Task**

Brodie is interested in this – has been tasked with doing a similar task for WDFW data, codes, and products.

Cedric knows there is interest in ODFW doing the same but hasn’t been tasked with it yet

Sheryn – controlled vocabulary need/benefit (crosswalks if needed between metadata standards, i.e. WDFW metadata standards vs NOAA standards), metadata tool (the duck)

A question was asked, Are you looking to point people to the data locations or something else, like a possible redirct to a website?

Monica’s response: The data will be stored on the website so consumers can directly access and download data. We can have links for people to see data that is not NOAA data and redirect people to their websites to get more data if they need to

**Fish Monitoring Work Group**

Oct 19th whole group meeting

Fish Management Unit Boundaries and Attributes methods officially recommended and are ready to move into the testing/application phase.

As for sending out the document, Evan suggests folks give him emails to send out the doc with proposed boundaries and polygons. Review by Oct 18th – Mari will email the group, [this doc is also available on PNAMP.](https://prod-is-cms-assets.s3.us-west-2.amazonaws.com/pnamp/prod/a26a3730-2af8-11ee-9fb9-0d1603bac9b4-2023-07-24PNAMP_FMWG_FishMgmtUnitBoundariesandAttributes_Recommendations_Final.pdf)

Mixed hydrography! Used the 24k hydro and the [WBD dataset](https://www.usgs.gov/national-hydrography/watershed-boundary-dataset) from USGS.

Russell/BPA is looking to use this as the focal species range.

Smolt trap – location movement based on PTAGIS rules for moving arrays.

We could show smolt traps as active/inactive to document previous/historical locations.

Mike asked about variations of smolt traps beyond screw traps – response was there are only screw traps.

Dawn commented that dashboards are often not mobile friendly. They are using experience builder and recommend thinking about mobile access first.

Action item – check the MAFAC dashboard for mobile access, add this to documentation/procedures

Screw trap dashboard content review by Oct 18.

Jake recommended adding a legend for the trap list on the the screwtrap dashboard.

**Prep for StreamNet ExCom Meeting**

Joint meeting with PNAMP SC like last year.

No requests to shift topics proposed

Russell - juvenile data type? Should this be brought into the 5-year plan? put this to the SN TT to see if they are internally organized to be able to do this.

Russell asks about location updates and sensitive data such as spawner locations, redd locations, juvenile locations. Live fish surveys. Russell identifies the concerns or considerations for modelers as they can't easily get redd locations.

Location information about ESA listed species is considered sensitive and States and Tribes have protection rights.

Questions brought up: Do we bring this up to the ExCom, scope out how we’d handle storage and access? Do we want to exchange sensitive data and what? What data is sensitive? Where can you find/ask for access to sensitive data?

Data sharing agreements would be required, with access explicitly described.

Evan’s response – No. No point in bringing this up again. SN’s purpose is to provide regionally standardized, summarized data. States provide more detailed data for research and management purposes and have responded with the data to FOIA, but then have a clear leak if the data appears outside of the FOIA agreement.

ODFW agrees. WDFW agrees.

Russell says the definition of sensitive information is changing.

Nancy’s response that if someone is looking for data not available in SN, SN directs the user to the appropriate data steward.

ExCom will listen and not make a decision if sensitive data hosting by SN is considered.

Evan responds that if it’s point data about T&E or SGCN – this is raw data and is sensitive. We already share detailed, sensitive data for research and management purposes and share summarized data through SN/CAX and raw data through IFWIS, all vetted by biologists who collected it and their bosses for approved release.

BPA contact is Jody Lando.

Sheryn O - Data type (raw, QA/QC'd, summarized,) plus Sensitive Data need to be defined. Data can be findable and/or discoverable, but not accessible -e.g. there could be a link to a database, but user profiles in place to prevent access. Splash page could have a contact person.

**Next StreamNet Steering Committee meeting prep**

Fall 2024 in Montana

FEB 2024 meeting – Salem ODFW week of February 5th/12th, heavy on 12th (tentative, Cedric will get us dates)