

### Action Items

1. **ODFW Staff** will follow-up with a review of their tool for verifier ODFW data to StreamNet data.
2. **ODFW Staff** will let -up StreamNet know whether their queries don't meet the ODFW requirements for open data sets.
3. **PSMFC StreamNet Staff** will contact Kurt Tardy and provide additional information on the Smolt Equivalent definition.
4. **All** to provide input on draft StreamNet Annual Progress Report to Bonneville by March 21 to Nancy.
5. **PSMFC StreamNet staff** will schedule a meeting with the StreamNet Technical Team/DDT to continue discussion on improving connections between StreamNet, MonitoringResources.org, and CBFish.org to facilitate documentation, standardize shared information across systems, and support regional needs.
6. **IDFG, MFWP, ODFW, and WDFW StreamNet data stewards** will review their assigned records for QC and provide input on the review tool by May 2.
7. **Nancy** will send calendar invite for the September 19, 2022 steering committee meeting to be held in person at PSMFC and virtually using MS Teams.

### Meeting Documents

- [Appendix I](#) – Agenda
- [Appendix II](#) – Attendance
- [Appendix III](#) – [PowerPoint slides](#)

#### 1. WELCOME AND INTRODUCTIONS

1. All attendees were asked to enter their contact info into the chat function on MS Teams. The Agenda may be found in Appendix I. The list of attendees may be found in Appendix II.
2. The PowerPoint presentation for this meeting is posted on the StreamNet website with these meeting notes. <https://www.streamnet.org/committees/sn-steering-committee/>

#### 2. SN SC MEMBER UPDATES AND SPECIAL SPOTLIGHT ON IDFG, SHOSHONE BANNOCK TRIBES AND WDFW

3. IDFG: Angie Schmidt *and Evan Brown with Chris Harrington for Spotlight*
  - 3.1. Developed a Verifier tool that compares their content vs StreamNet content and highlights discrepancies/ validates the data in all the tables within a few minutes. This tool replaces the StreamNet X tool previously used for QA/QC post data submittal. In theory, could make the tool work for others with a few modifications; ODFW has a similar system in place and will be in touch with/for lessons learned, etc.

#### Action Item 1

**ODFW Staff** will follow-up with a review of their tool for verifier ODFW data to StreamNet data.

4. IDFG StreamNet deliverables all up to date through 2021, dev and compilation of research weir trapping MDB continues
5. Shared some sources to facilitate app development: <https://docs.flutter.dev/get-started/codelab>
  - 5.1. Cedric was asked if the Oregon open data platform was Socrata <https://dev.socrata.com/> or Oregon homegrown? – Socrata is Oregon's platform.
6. ODFW presentation given by Cedric Cooney

- 6.1. Inventorying datasets within ODFW and submitted administrative datasets- will submit natural resources datasets (including StreamNet) later this year in response to Oregon Open Data initiative:
  - 6.1.1. Looking into whether StreamNet queries will meet criteria for open data standards so can point to that.
- 6.2. Data Sharing and Non-Disclosure Agreements are in use; initial agreement does not work with FOIA so developed templates to pilot with entities under those umbrellas (known as Sunshine Laws)
- 6.3. Appreciate input received related to their request for a standard species list
- 6.4. Deliverables are on-track
- 6.5. Discussion followed:
  - 6.5.1. Brodie said that WDFW doesn't have standards for open data sets which has resulted in a mixture of data sets that probably shouldn't have been open. WDFW is hiring an open data manager and will move to using a standard. All their data are posted on data.wa.gov sets.

**Action Item 2**

**ODFW Staff will let -up StreamNet know whether their queries don't meet the ODFW requirements for open data sets.**

7. CRITFC presentation given by Sheryn Olsen
  - 7.1. ITMD data group annual meeting will be held in April
  - 7.2. NPT and other tribes are working on QA/QC and thus Sheryn is interested in inviting Chris and Evan to share their verifier tool.
  - 7.3. Tribal Data Sovereignty Workgroup is looking at how to incorporate that tribal knowledge into scientific research. Different data requires different data disclosure. Products from this workgroup will be posted on CRITFC.org
  - 7.4. Doug Hatch is now acting Fisheries Science Dept Manager; Zach Penney has joined NOAA Fisheries as senior advisor.
8. CRITFC Library presentation given by Tami Wilkerson
  - 8.1. Continuing work on SN source reference documents. So far have vetted 7,500 sources and have found and fixed broken URLs.
9. USFWS presentation given by Todd Gilmore
  - 9.1. Decided not to use FINS for the national fish hatchery data (after multi-year planning and design efforts) and are now exploring other options; found it didn't meet the needs of the Lower to Mid-Columbia hatcheries – FINS would have had to reconfigure a major portion of the database to make it work for their needs. Want more financial focus; less biological.
  - 9.2. Currently filling vacancies related to data management positions including a data manager. Once have a data manager then this will help provide the guidance in terms of how to manage/where to house their national fish hatchery data.
10. MFWP presentation given by Dawn Anderson
  - 10.1. Genetics lab set up for the Westslope and Yellowstone cutthroat trout panel which is supported with StreamNet funds
  - 10.2. Having issues with Sentinel One, a cybersecurity software implemented by State IT, which is preventing our fish distribution geoprocessing script from completing. This is impacting our ability to update our full statewide fish distribution GIS layer. We are working directly with the vendor to solve the issues.

- 10.3. Working on QA/QC pilot, updates to hydro, and participating in HCAX adhoc data manager work group that is drafting the DES.
  - 10.4. Don Skaar retired at end of year; native species coordinator may be the replacement; Dawn can help out on ExCom until his replacement is identified.
  - 10.5. MT StreamNet staff and Matt Boyer are meeting with BPA to assist them in locating and viewing MFWP data. Education and outreach are always good to do.
11. WDFW presentation given by Brodie Cox with Ben Warren for Spotlight.
- 11.1. Working on a commercial reporting/enforcement app
  - 11.2. Developing a Green Crab reporting app
  - 11.3. Aquaculture reporting app allows for reporting harvest
  - 11.4. Sport Catch Reporting is going to transition from paper to electronic reports
  - 11.5. Have a lot of open positions to fill, e.g. project manager, commercial data manager, data entry, hatchery data manager, GIS lead.
  - 11.6. Ben demonstrated the new Pikeminnow app (created in Flutter) to register and report their catch. Flutter was easy to use for the app development, allowing to quickly learn how to use it within 3 months with no prior knowledge of Flutter.
    - 11.6.1. Not sure how program/ app would interact with unlicensed tribal users- need to discuss further with RecFin program
    - 11.6.2. Angie asked if they looked at ARK mobile.
    - 11.6.3. Dawn asked how they manage all their apps and the data at WDFW. Brodie responded that they use their PostgreSQL database setup. Postgre - API - cloud service - Admin -Front end application
    - 11.6.4. Found that other mobile platforms were not as good a fit for their needs, so used Flutter. Flutter is a google development and works on all mobile platforms. Brodie felt that it was a better fit for the target public user (less cost, more plastic, easier than ESRI, etc.)
    - 11.6.5. How is this information managed within WDFW? Pushed to their cloud service and managed through existing tools.
    - 11.6.6. Goal is automatic flow of data to Pikeminnow program.
    - 11.6.7. Question: Does Oregon have a similar pikeminnow app? Are Oregon residents able to also use the WDFW app? No answer provided at this time.
12. Shoshone-Bannock Tribes (SBT) presentation was given by Kurt Tardy with Rebecca Croy for Spotlight.
- 12.1. Initial solution to meet data sharing needs was to work with IDFG and send data directly for roll up and submission to meet requirements under the contract. However, ultimately wanted to be self-sufficient and make the process more efficient.
  - 12.2. worked with StreamNet staff (Nancy) to allocate funds for creation of a server database and contracted with QW Consulting (Ben & Neil) to move to electronic data collection in the field and storage
  - 12.3. Currently working to take the data and push it to StreamNet and CAX.
  - 12.4. Rebecca reviewed the electronic data collection sheets. SBT is using ESRI Survey 123. The new electronic forms are easier to use by biologists as it is clearer what information is needed and it also prepopulates some of the content. Having the data flow from the electronic forms to the survey reduces data entry error and it is also easy to access the data to review and make corrections. PIT Tag data is also set up to input directly into P4 from the file through the PTAGIS interface. Next focus is for the weir database, which documents fish passage, calculates number of adults and jacks along with other metrics.

13. Colville Tribes was not in attendance initially with George joining the meeting later.
14. The update from the Northwest Power and Conservation Council was provided by Kris Homel.
  - 14.1. Council working on program performance, developing a basin-wide summary of Fish and Wildlife program over the last 40 years, wrapping up review of anadromous fish habitat and hatchery projects
15. The Bonneville Power Administration (BPA) update was provided by Russell Scranton, Matthew Schwartz, and Tom Pansky.
  - 15.1. Internally BPA is hearing and providing good / positive feedback about StreamNet.
  - 15.2. BPA is beginning their 2-year rate/ budget process for FY24/25.
  - 15.3. Three datasets have been uploaded to the data store; links provided in chat.
    - 15.3.1. Last Week, the QRF (AKA Idaho IRA data) was uploaded to the StreamNet Data Store. [https://app.streamnet.org/datastore\\_search\\_classic.cfm?id=814&keywords=QRF](https://app.streamnet.org/datastore_search_classic.cfm?id=814&keywords=QRF)
    - 15.3.2. CHaMP monitoring.org data transfer with some AEM related fish data [https://app.streamnet.org/datastore\\_search\\_classic.cfm?id=780&keywords=CHAMP](https://app.streamnet.org/datastore_search_classic.cfm?id=780&keywords=CHAMP)
    - 15.3.3. The Fish Data Analysis Tools (FDAT) [https://app.streamnet.org/datastore\\_search\\_classic.cfm?id=775&keywords=FDAT](https://app.streamnet.org/datastore_search_classic.cfm?id=775&keywords=FDAT)
16. The National Oceanic and Atmospheric Administration (NOAA) update was provided by Mari Williams.
  - 16.1. Barry Thom will be the new Executive Director at PSMFC.
  - 16.2. Working on Regional Office Status Review. Can access 2022 Biological Viability Assessment Update for Pacific Salmon and Steelhead here <https://repository.library.noaa.gov/view/noaa/34363>
17. The PNAMP/USGS update was provided by Jen Bayer.
  - 17.1. Emerging Technologies Workshop is accepting abstracts: <https://www.pnamp.org/announcement/emerging-technologies-information-sessions-etis-hybrid-event-call-for-abstracts>
  - 17.2. Also calling for abstracts for AFS symposium: <https://www.pnamp.org/announcement/submit-your-abstract-for-a-pnamp-and-streamnet-hosted-symposium-at-national-afs>
18. The StreamNet update was provided by Nancy Leonard, Greg Wilke, and Mike Banach, Van
  - 18.1. Greg has been working on improving the query for fish marking data trends

### **3. UPDATE ON HCAX (Brodie Cox, WDFW, and CAP Core Team)**

(see meeting slide deck for details)

19. Phase 1 of HCAX was completed in December 2021 with the completion of HCAX Controlled Vocabulary\_v1.0, which is available on the HCAX project page [PNAMP.org](https://www.pnamp.org).
20. Phase 2 of HCAX initiated in January 2022 with formation of an ad hoc data team. This temporary team is composed of a subset of the data manager work group and/or representatives and CAP DDT members, and includes representation from USFWS and MFWP to facilitate flow of potential resident hatchery fish metrics. Recently also added Clark Watry (NPT) and Michelle Steg Geltner (YN) to the ad hoc group. The group met February 9 and assigned tasks to start drafting the first version of the HCAX DES. They have a check-in scheduled for March 2, 2022. Once the draft HCAX DES is completed it will be shared with the Data Managers Work Group for review.

**4. STATUS OF SN EXCOM SEPTEMBER 2022 RECOMMENDATION (Nancy Leonard)**

(see meeting slide deck for details)

21. PSMFC StreamNet staff have implemented part of the SN ExCom decisions to implement the recommendations from the PNAMP Fish Monitoring Work Group to improve the display of information on CAP Fish HLIs.
- 21.1. Some of the recommendations were addressed by a new tabular version of the CAP Fish HLIs query, which facilitated adding more filter options.
  - 21.2. Ongoing work by staff and consultant, Ray Beamesderfer is focused on vetting the data availability status for all salmon and steelhead populations in Idaho, Oregon, and Washington to be displayed on the CAP Fish HLIs.
  - 21.3. PSMFC StreamNet staff is awaiting further guidance from a FWMG MAFAC SPI task group, co-led by Lara Erikson (PSMFC) and Kris Homel (NPCC), before modifying the CAP Fish HLIs queries to display the MAFAC groupings.

**5. 2-MINUTE UPDATES ON FMWG TASK GROUPS RELATED TO STREAMNET**

22. Task co-leads (see meeting slide deck for details). Let Jen Bayer know if you want to participate in any of the FMWG task groups! See all task groups here: <https://www.pnamp.org/project/fish-monitoring-work-group>
23. MAFAC and NPCC SPI
- 23.1. This FMWG task group is focused on developing recommendations to inform how existing CAP Fish HLIs NOSA estimates and related data can be used to track progress towards the numerical goals for adult abundance identified by MAFAC and incorporated in NPCC's 2020 Addendum.
  - 23.2. Recommendations from this task group will be provided to the StreamNet Executive Committee and NPCC Fish and Wildlife Division to inform new CAP Fish HLIs display options for existing CAP Fish HLIs (supporting NPCC S1-3 reporting).
  - 23.3. Task leads are currently documenting how many combinations of different types of population abundance data (including missing data) exist within each MAFAC grouping.
  - 23.4. Results of this effort will inform subsequent steps and scope. Future tasks include drafting summary options, discussing these with the task group, developing suggestions on how to display this information within the CAP Fish HLIs tools, and updating / engaging with Columbia Basin Collaborative on initiative effort. Doodle poll for meeting dates and invitation to join the task group membership will be sent out once data types are summarized.
24. CAP DES Juvenile Outmigrant Refinement: Define Smolt Equivalent
- 24.1. This FMWG task group focuses on addressing issues with the existing data exchange standards. The first issue tackled by the task group was to improve what is meant by "smolt equivalents."
  - 24.2. Task group also discussed whether there was a need to add a field to classify outmigrant number's location relative to population boundary.
  - 24.3. Recommendation from the task group was discussed with the StreamNet Technical Team during its February 2022 meeting.
  - 24.4. The improved definition for smolt equivalent is now included in the current version of the CA DES's TotalNatural field of the JuvenileOutmigrants table.
  - 24.5. For more information on this task group visit its webpage on PNAMP's event page. Next meeting will be scheduled later in 2022.

24.6. Discussion

24.6.1. Brodie asked, 'what was the definition'. Mike provided the definition and it's included in the current version of the CA DES's TotalNatural field of the JuvenileOutmigrants table.

24.6.2. Kurt asked how the definition applies to sockeye/kokanee and chinook and whether it considers survival rate. Mike responded that it does consider survival rate and considers differences arising from different species/runs. Mike mentioned that the DES also has presmolt/smolt HLI metric.

**Action Item 3**

**PSMFC StreamNet Staff will contact Kurt Tardy and provide additional information on the Smolt Equivalent definition.**

25. Fish Population Names and GIS Boundaries

25.1. This FMWG task group is developing standard guidance on population names and boundaries (polygon layers) to be used by StreamNet tools. The current focus is on describing an approach that will be first applied to bull trout. Leveraging work done by IDFG with redband, and based on building up from linear distribution to HUC 6 to develop native range polygons. Once the draft approach is ready, the task leads will convene the group.

26. Rotary Screw Trap (RST) Data Collection Data Standards

26.1. This FMWG task group engages regional biologists to discuss common data fields associated with RST operation that are required for analysis. The objective is to provide standard outputs for trap operation data, fish condition data, and abundance data (beyond what is shared with PTAGIS). The group will produce standards for trap site information, trap sample event information, individual fish information such as fish condition data, mark and tag information, and trap efficiency that will initially be tested on IDFG and ODFW data. For more details on the task group's work and meetings see PNAMP's event page. The task group's next meeting will be after the 2022 field season ends.

26.2. Discussion

26.2.1. Tom Pansky wonders how juvenile and RST data is being coordinated/worked on with PTAGIS. Evan responded he has only seen raw trapping, tagging, and interrogation data in PTAGIS. Tom suggests that perhaps this is something the task group can look into and contact John Tenney at PSMFC.

27. Juvenile Density Data Standards (Snorkel & Electrofishing)

27.1. This FMWG task group is developing and proposing standards for juvenile fish distribution/density data from snorkeling or electrofishing, as well as improving data documentation on limitation and proper use of these data. Data categories being discussed include site/reach, sample event, species, abundance, sampling efficiencies, count/abundance, and sample units. For more details on the task group's work and meetings see PNAMP's event page. Next meeting will be after the 2022 season ends.

**6. CHECK IN ON NPCC PROGRAM TRACKER AND SPI DATA NEEDS – KRIS HOMEL, NPCC**

28. Kris went through a live demo of the Program Tracker website currently under development for Strategy Performance Indicators (SPIs) and associated data. Currently, many of the indicators come directly from StreamNet. Eventually any data available in StreamNet that relates to the SPIs will be automatically pulled into the Program Tracker. During the February 2022 Council meeting NPCC staff provided an update on the *Fish and Wildlife Program Strategy [Performance Indicators: Review and First Year Progress Report](#)*. This progress report is available on the Council's website as part of the February Council Meeting packet memo.

29. Discussion

29.1. Russell would like to see an estimated 10-year mean abundance added. Could use NOAA's status review reports for the 10-year mean abundance.

- 29.2. Evan wondering if trend IDs are used. Kris responded that yes, wherever they are available (which is why TrendIDs should not be reused).
- 29.3. Evan asked if it would it be helpful to maintain a retired TrendID and include a comment/ redirect? Kris responded yes.

## **7. BRAINSTORMING OPPORTUNITIES WITH OTHER REGIONAL SYSTEMS - ALL**

### 30. Discussion

- 30.1. Evan suggests that it would be useful to add links to all the various datasets associated with a particular sampling location, such as by adding links on the Fish Facilities locations to data sets. For instance, the Lower Granite Dam facility could include links to datasets in StreamNet, PTAGIS, RMIS, JuvAb, etc. Tom P. agrees that we should make it easy for people to find, share, and use the info we all need to help fish.
- 30.2. Should we make StreamNet datasets more visible by publishing these on Google Data? ArcGIS online? Would need to make the data sets XML readable.
- 30.3. Canada is looking into data mobilization and data harmonization.
- 30.4. Brodie supports consistency.
- 30.5. Consistency across platforms is key, along with ease of accessibility/use.
- 30.6. Russell suggests that based on his own use of CAX NOSA data and recent display for the Council efforts, and release of NOAA's new status assessment, he would like to know if the CAX also share an updated 10 year mean abundance value.
- 30.7. Tom P asked how many of existing regional systems are part of the NPCC Program? Could start with a list; then a diagram showing touch points/interconnections and so on.

## **8. ONGOING GROUP TASKS AND DEADLINES - NANCY**

(see meeting slide deck for details)

### 31. Update on closed FY2021 and new FY2022

- 31.1. With all the changes in staff during FY20-21 and challenges related to the pandemic, we still successfully managed to spend 96% of the FY20-21 budget. This includes the ODFW portfolio management funds and increased funding for PSMFC StreamNet.
- 31.2 All subcontracts for FY22 have been signed and returned. Current draft total for FY22-23 is \$4,246,126 but awaiting confirmation on the FY23 amount. We do not expect any reduction to StreamNet funded members' budgets. We aim to spend what we receive.

### 32. CY 2021 Annual Project Report to BPA

- 32.1. Input due on draft report on March 21. Please at a minimum review your sections. Nancy has already prompted some partners to do so who were not asked to provide content for the first draft. All can provide input on recommendations/lessons learned, and any other suggestions to improve the report. Once this round of edits is received a final draft will be shared on March 28th before the report is submitted to BPA on April 4th.

### **Action Item 4**

**All to provide input on draft StreamNet Annual Progress Report to Bonneville by March 21 to Nancy.**

### 33. Proposed work-session with SN TT, CAP DDT, MR.org

33.1. PSMFC and PNAMP staff did some initial exploratory work during 2021-2022 to assess which connections would be beneficial to have between StreamNet, MonitoringResources, and CBFISH to facilitate exchange of information and to support other regional needs. The outcome of this initial work was shared with the StreamNet Technical Team (SN TT) in February 2022. Several ideas were raised and there appeared to be interest by SN TT participants to engage in further discussions on how these connections could be made. Are SN members OK with a deeper dive and exploring how to better leverage these connections with their technical staff?

33.2. Discussion

33.2.1. Dawn would like more details on this task, and doesn't object.

33.2.2. Brodie and Evan support the task. Tom Pansky believes it is a good idea.

33.2.3. Sheryn volunteers Denise.

33.2.4. Russell asked if the project number is limited to BPA. Evan responded: no it includes other funding source project numbers such as Idaho Power Co, Avista, internal project numbers.

33.2.5. Overall, SN SC members are okay with PSMFC StreamNet setting up a meeting with SN TT, PNAMP MonitoringResources and other interested parties to further explore how these connections could be made.

**Action Item 5**

**PSMFC StreamNet staff will schedule a meeting with the StreamNet Technical Team/DDT to continue discussion on improving connections between StreamNet, MonitoringResources.org, and CBFish.org to facilitate documentation, standardize shared information across systems, and support regional needs to easily find, share and use fish data.**

34. Check in on manual/visual quality control (QC) review pilot

34.1. The first QA/QC plan was finalized and is posted on the StreamNet website. The visual QC pilot has been initiated with a subset of records assigned to IDFG, ODFW, MFWP, and WDFW with data stewards reviewing their own agency records for accuracy and MFWP serving as independent reviewer to assess content comprehension. A draft review tool was also developed by Greg to assign and track QC-ed records. View the QA/QC plan & pilot implementation plan posted here [on the StreamNet website](#)

**Action Item 6**

**IDFG, MFWP, ODFW, and WDFW StreamNet data stewards will review their assigned records for QC and provide input on the review tool by May 2.**

35. Initial discussion of 2023 CAP biennial workshop

35.1. One outcome of the preliminary work done in 2021 related to the QA/QC effort highlighted the need to restart having regular CAP workshops that brings together all CAP partners including biologists, data stewards, and data consumers (see pg. 11 of QA/QC Plan). Thus, PNAMP and StreamNet will revive holding biennial CAP workshops that will focus on data related issues and provide the opportunity to share what is and isn't working. It is expected that the CAP Core Team participants will need to be expanded to support planning the CAP workshop as was done to support the HCAX effort. Jen and Nancy will check back with group for input on timing, development of agenda, who to include, etc.

35.2. Discussion

35.2.1. Russell asked if the timing of the workshop should align to inform the NPCC Columbia River Basin Fish and Wildlife Program that is amended about every five years, thus perhaps hold the workshop every five years.

35.2.2. No concerns raised with including this in the FY23-24 SOW for BPA.

**9. SN TECHNICAL TEAM UPDATES – MIKE BANACH, GREG WILDE STREAMNET**





## StreamNet Steering Committee Meeting

March 3, 2022  
9:00 to 12:30 (PT)

36. Held the StreamNet Technical Team meeting February 2022. It had been two years since the last meeting and thus there was a lengthy agenda which wasn't completely covered in the scheduled time. The next meeting later in 2022 will address remaining and new agenda items. Some of the topics discussed during the February 2022 SN Technical Team meeting included:
- 36.1. Nancy wants to see stable TrendIDs - each time series to have a specific, reliable URL in the query systems that other data systems can use. Everyone agreed not to reuse TrendIDs.
  - 36.2. Want to be able to support the exchange of information among systems and will work with PNAMP to explore further.
  - 36.3. Have not maintained a region-wide stream layer due to lack of desire and GIS support.
  - 36.4. Eliminate rule for "all stages" requirement from Hatchery returns since only USFWS was following it
  - 36.5. Recommend to CA DDT that they eliminate CBFWA name field within the DES requirements, but the content will be retained in the CAX database.

### 10. NEXT MEETING - ALL

37. Monday September 19, with a later morning start to facilitate travel that morning. IDFG would like to host the Steering Committee meeting in Spring 2023.

#### Action Item 7

Nancy will send calendar invite for the September 19, 2022 steering committee meeting to be held in person at PSMFC and virtually using MS Teams.

### 11. ADJOURNMENT

38. Meeting was adjourned at 12:35

**Appendix I**

**StreamNet Steering Committee Meeting  
March 3, 2022  
9:00 to 12:30 (PT)**

Microsoft Teams meeting: [Click here to join the meeting](#)  
Or call in (audio only): +1 207-387-0436, 688157333#  
Phone Conference ID: 688 157 333#

Agenda

Time	<u>Agenda Item</u>
9:00	<u>Welcome and introductions (Nancy Leonard, StreamNet)</u>
9:15	<u>SN SC member updates and special spotlight on IDFG, Shoshone Bannock Tribes and WDFW (group)</u>
10:15	<u>Update on HCAX (Brodie Cox, WDFW, and CAP Core Team)</u>
10:25	<u>Status of SN ExCom September 2022 recommendation (Nancy)</u>
10:35	<u>2-minute updates on FMWG Task Groups related to StreamNet (Task co-leads)</u>
10:45	<b><u>BREAK</u></b>
11:00	<u>Check in on NPCC Program Track SPI data needs (Kris Homel, NPCC)</u>
11:10	<u>Brainstorming opportunities with other regional systems (group)</u>
11:30	<u>Ongoing group tasks and deadlines (Nancy)</u> <ul style="list-style-type: none"> <li>• <u>CY 2021 Annual Project Report to BPA</u></li> <li>• <u>Pilot visual quality control review</u></li> <li>• <u>2023 CAP biennial workshop</u></li> <li>• <u>Proposed work-session with StreamNet data stewards &amp; MonitoringResources</u></li> </ul>
Noon	<u>SN Technical Team updates (Mike Banach, Greg Wilke StreamNet)</u>
12:20	<u>Next Meeting (group)</u>
12:30	<b><u>Adjourn</u></b>

**Appendix II**

**Attendees**

<b>Name</b>	<b>Affiliation</b>	<b>Email</b>
Amy Roberts	PSMFC - StreamNet	<a href="mailto:aroberts@psmfc.org">aroberts@psmfc.org</a>
Greg Wilke	PSMFC - StreamNet	<a href="mailto:gwilke@psmfc.org">gwilke@psmfc.org</a>
Lara Erikson	PSMFC - StreamNet	<a href="mailto:lerikson@psmfc.org">lerikson@psmfc.org</a>
Mike Banach	PSMFC - StreamNet	<a href="mailto:mbanach@psmfc.org">mbanach@psmfc.org</a>
Nancy Leonard	PSMFC - StreamNet	<a href="mailto:nleonard@psmfc.org">nleonard@psmfc.org</a>
Matthew Schwartz	BPA	<a href="mailto:schwartz.matthew.d@gmail.com">schwartz.matthew.d@gmail.com</a>
Russell Scranton	BPA	<a href="mailto:rwscranton@bpa.gov">rwscranton@bpa.gov</a>
Tom Pansky	BPA	<a href="mailto:tepansky@bpa.gov">tepansky@bpa.gov</a>
Sheryn Olson (ITMD)	CRITFC	<a href="mailto:solson@critfc.org">solson@critfc.org</a>
Tami Wilkerson (CBF&W Library)	CRITFC	<a href="mailto:twilkerson@critfc.org">twilkerson@critfc.org</a>
Angie Schmidt	IDFG	<a href="mailto:angie.schmidt@idfg.idaho.gov">angie.schmidt@idfg.idaho.gov</a>
Chris Harrington	IDFG	<a href="mailto:chris.harrington@idfg.idaho.gov">chris.harrington@idfg.idaho.gov</a>
Evan Brown	IDFG	<a href="mailto:evan.brown@idfg.idaho.gov">evan.brown@idfg.idaho.gov</a>
Dawn Anderson	MFWP	<a href="mailto:dawanderson@mt.gov">dawanderson@mt.gov</a>
Kris Homel	NPCC	<a href="mailto:khomel@nwcouncil.org">khomel@nwcouncil.org</a>
Cedric Cooney	ODFW	<a href="mailto:cedric.x.cooney@odfw.oregon.gov">cedric.x.cooney@odfw.oregon.gov</a>
Nadine Craft	ODFW	<a href="mailto:nadine.m.craft@odfw.oregon.gov">nadine.m.craft@odfw.oregon.gov</a>
Jen Bayer	PNAMP/USGS	<a href="mailto:jbayer@usgs.gov">jbayer@usgs.gov</a>
Mari Williams	NOAA liaison/PSMFC	<a href="mailto:mwilliams@psmfc.org">mwilliams@psmfc.org</a>
Neil Ward	QW Consulting	<a href="mailto:neil.ward@qwconsult.com">neil.ward@qwconsult.com</a>
Kurt Tardy	Shoshone Bannock Tribes	<a href="mailto:ktardy@sbtribes.com">ktardy@sbtribes.com</a>
Rebecca Croy	Shoshone Bannock Tribes	<a href="mailto:rcroy@sbtribes.com">rcroy@sbtribes.com</a>
George Batten	Sitka Tech/ESA	<a href="mailto:george.batten@sitkatech.com">george.batten@sitkatech.com</a>
Todd Gilmore	USFWS	<a href="mailto:todd_gilmore@fws.gov">todd_gilmore@fws.gov</a>
Brodie Cox	WDFW	<a href="mailto:Brodie.Cox@dfw.wa.gov">Brodie.Cox@dfw.wa.gov</a>
Ben Warren	WDFW	<a href="mailto:Benjamin.Warren@dfw.wa.gov">Benjamin.Warren@dfw.wa.gov</a>
Greg Lippert	WDFW	<a href="mailto:gregory.lippert@dfw.wa.gov">gregory.lippert@dfw.wa.gov</a>
Michelle Groesbeck	WDFW	<a href="mailto:michelle.groesbeck@dfw.wa.gov">michelle.groesbeck@dfw.wa.gov</a>

## Appendix III

### StreamNet Steering Committee Meeting

**Thursday, March 3, 2022**  
**9:00 AM – 12:30 PM (PDT)**

Microsoft Teams meeting : [Click here to join the meeting](#)  
Or call in (audio only): [+1 207-387-0436,688157333#](#)  
Phone Conference ID: 688 157 333#



### Welcome and Introductions

*Please leave web cameras on to facilitate discussion*

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

### Welcome to newer participants/members

*(unmute and introduce yourself in below order)*

- Lara Erikson, PSMFC Program Manager assisting StreamNet
- Todd Gilmore, USFWS representative on steering committee
- Kurt Tardy, Shoshone-Bannock Tribes

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



### Agenda

(times are approximate)

9:00	Welcome and introductions
9:15	Updates, Announcement and Partner Spotlights
10:15	Update on HCAX upcoming March 11 <sup>th</sup> workshop
10:25	Status of SN ExCom September 2022 recommendation decision
10:35	2-minute updates on FMWG Task Groups related to StreamNet
10:45	Stretch Break
11:00	Check in on NPCC Program Tracker SPI Data Needs
11:10	Brainstorming opportunities with other regional systems
11:30	Ongoing StreamNet tasks and deadlines
NOON	StreamNet Technical Team updates
12:20	Next Meeting
12:30	Adjourn

### Updates, Announcements, and Spotlights

IDFG: Angie Schmidt  
and Evan Brown with  
Chris Harrington for Spotlight

Shoshone-Bannock Tribes: Kurt Tardy  
and Rebecca Croy for spotlight

ODFW: Cedric Cooney

Colville Tribes: John Arterburn, George Batten

CRITFC: Denise Kelsey

NPCC: Kris Homel

CRITFC Library: Tami Wilkerson

BPA: Russell Scranton, Matthew Schwartz, Tom Pansky

USFWS: Todd Gilmore

NOAA: Mari Williams

MFWP: Dawn Anderson

PNAMP: Jen Bayer

WDFW: Brodie Cox  
and Ben Warren for Spotlight

StreamNet: Nancy, Greg, Mike, Van

### Update: Hatchery indicators Coordinated Assessments eXchange (HCAX)

Brodie Cox (WDFW) and CAP Core team

- **Completed Phase 1, 2021:** HCAX Biologist Work Group
  - HCAX Controlled Vocabulary\_v1.0 available on HCAX project page [PNAMP.org](#) (field-names, definitions, info for standardized pick-lists)
- **Initiated Phase 2, 2022:** Data Managers Work Group
  - Jan 2022, ad hoc data team identified
    - Subset of data manager work group and/or representatives and CAP DDT members
    - USFWS and MFWP to facilitate flow of potential resident hatchery fish metrics.
  - Feb 9, ad hoc Data Team met to review DES tasks
  - March 2, 2020 ad hoc Data Team check-in develop data sharing rules and procedures (DES)
  - TBD, draft documents produced
- **Next:** completed draft DES documents will be reviewed by Data Managers Work Group



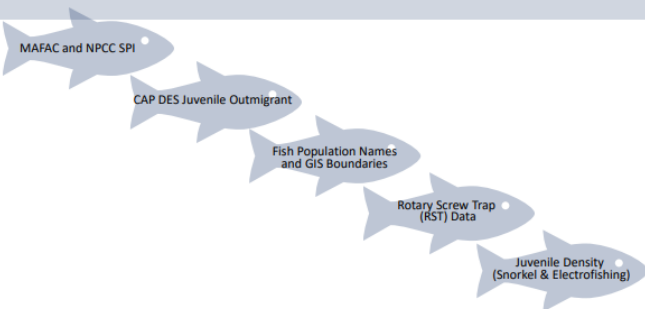
### Status of SN ExCom Sept 2022 decisions on CAP Fish HLLs

Nancy Leonard

Task	CAP Fish HLLs <a href="#">map query</a>	Draft CAP Fish HLLs <a href="#">tabular query</a>
Provide additional filters (e.g. population name, HLU, pop fit, methods, compiled by)	---	Done
Remove 'non-trt' from pop names	Done	Done
Display partial population estimates (subpop) with whole population estimates; place whole estimate at top and differentiate clearly from partial	Pending	Done displayed on separate rows
Provide info on data availability for all populations without CAP Fish HLLs/related trends		<ul style="list-style-type: none"> <li>• Completed draft of data availability March 2<sup>nd</sup></li> <li>• Next steps:                             <ul style="list-style-type: none"> <li>• Mock up the display for both queries</li> <li>• Confirm populations missing GIS polygons</li> <li>• Managers' review data info and assist with GIS polygons</li> </ul> </li> </ul>
Separate out HLLs for different groupings (e.g. Multiple pop, MAFAC-NPCC groups)	Pending FWMG MAFAC NPCC SPI task group initiated	Done via filter Whole, Multiple, Partial. New groupings will be added



### 2 minute updates on FMWG Task Groups related to StreamNet



### MAFAC and NPCC SPI

Task Team Leads:  
Kris Homel  
khomel@nwcouncil.org

Lara Erikson  
lerikson@psmfc.org

**Purpose:** Using existing CAP Fish HLLs to inform adult abundance estimates for the groups identified by MAFAC and incorporated in NPCC's 2020 Addendum.


#### Products:

- Develop draft recommendations compatible with MAFAC and the NPCC Program Tracker process/approach.
- Deliver final recommendations to the StreamNet Executive Committee and NPCC Fish and Wildlife Division to inform new CAP Fish HLLs display option for existing CAP Fish HLLs supporting NPCC S1-3 reporting.

**Next Steps:** Task leads are identifying how many combinations of different types of population abundance data (including missing data) exist within each MAFAC grouping. Results of this effort will inform subsequent steps and scope of effort.

Future tasks include drafting summary options, discussing these with the task group, developing suggestions on how to display this information within the CAP Fish HLLs tools, and updating / engaging with Columbia Basin Collaborative on initiative effort.

**Meeting:** Doodle poll for meeting dates and invitation to join the task group membership will be sent out once data types are summarized.



**CAP DES Juvenile Outmigrant Refinement: Define Smolt Equivalent**

**Purpose:** Address DES issues identified that benefit from FMWG task group input. First two items to be addressed are:  
 1) Explain what "smolt equivalents" means  
 2) Decide if DES needs a field to classify outmigrant number's location relative to population boundary


**Products:** DES appendix and adjusted language in juvenile outmigrants table

**Status:** **Completed.** Recommendation from the FMWG improving the "smolt equivalent" and tightening up the "location" descriptions are being shared with the StreamNet Technical Team in February.

**Meeting:** First meeting was held November 23, 2021 ([event page](#))  
 Next meeting will be scheduled later in 2022 and will address another item identified from the DES February 2021 survey (or other source) when it is ready for discussion.

**Task Team Leads:**  
 Mike Banach  
 mike\_banach@psmfc.org

Russell Scranton  
 rwsranton@bpa.gov



**Fish Population Names and GIS Boundaries**

**Purpose:** Defining Fish Population Names and Boundaries for StreamNet tools. This includes the local fish species informing the NPCC Addendum goals, objectives and indicators (e.g., bull trout, white sturgeon, cutthroat trout, redband trout, kokanee) Note, this task supports ideas identified during 2019 Smolt Analytics workshop (create Standard GIS layers and fields).


**Products:** List of recommended population names and boundaries (polygons layer) to be used by StreamNet tools;  
 Use the USGS National Hydrography Dataset (NHD) Watershed Boundary Dataset (WBD)

**Next Steps:** Task leads are preparing a draft strawfish describing an approach that will be first applied to bull trout.

**Meeting:** Once strawfish is ready the task leads will convene the group using a doodle poll to select the meeting date.

**Task Team Leads:**  
 Van Hare  
 vhare@psmfc.org

Evan Brown  
 evan.brown@idfg.idaho.gov



**Rotary Screw Trap (RST) Data Collection Data Standards**

**Purpose:** This task is to engage regional biologist to discuss common data fields associated with RST operation that are required for analysis. The objective is to provide standard outputs for trap operation data, fish condition data, and abundance data (beyond what is shared with PTAGIS). This information should be framed such that it provides an output consumable for population analysis or site-specific questions. The data standard will reference population names, location and data provider standards from CAP DES.


**Products:**  
 - Data Standards for Site Operation Data; Fish Condition Data & Count/Abundance and efficiency  
 - Initial test on IDFG, ODFW data

**Task Team Leads:**  
 Polly Gibson (ODFW)  
 polly.p.gibson@odfw.oregon.gov

Kasey Bliesner (ODFW)  
 kasey.bliesner@odfw.oregon.gov

Russell Scranton (BPA)  
 rwsranton@bpa.gov

Marika Dobos (IDFG)  
 marika.dobos@idfg.idaho.gov



**Rotary Screw Trap (RST) Data Collection Data Standards**

**Meeting:** First meeting February ([link](#)) complete by January 27  
 -Discuss data standard  
 -Find sticking points


**Data Categories:**  
 - Trap Site Information  
 - Trap Sample Event Information  
 - Individual Fish Information  
 - Trap Efficiency  
 - Mark and Tag Information  
 - Data Set Metadata

**Task Team Leads:**  
 Polly Gibson (ODFW)  
 polly.p.gibson@odfw.oregon.gov

Kasey Bliesner (ODFW)  
 kasey.bliesner@odfw.oregon.gov

Russell Scranton (BPA)  
 rwsranton@bpa.gov

Marika Dobos (IDFG)  
 marika.dobos@idfg.idaho.gov



**Juvenile Density Data Standards (Snorkel & Electrofishing)**


**Purpose:** Develop and propose data standards and a DES for juvenile fish distribution/density data from snorkeling or electrofishing

**Products:**  
 - Data standards and DES for Juvenile Distribution and Density Data  
 - Document on limitation and proper use  
 - Recommendations for data management and sharing systems

**Task Team Leads:**  
 Kasey Bliesner (ODFW)  
 kasey.bliesner@odfw.oregon.gov

Russell Scranton (BPA)  
 rwsranton@bpa.gov

Marika Dobos (IDFG)  
 marika.dobos@idfg.idaho.gov



**Juvenile Density Data Standards (Snorkel & Electrofishing)**

**Meeting:** First meeting February ([link](#)) complete by January 27  
 - Discuss data standard  
 - Find sticking points

**Data Categories:**  
 - Site/Reach Information  
 - Species Type Information  
 - Observed Count,  
 - Sample Unit Size  
 - Sample Event Information  
 - Abundance and Efficiency  
 - Estimated Abundance  
 - Data Set Metadata

**Task Team Leads:**  
 Kasey Bliesner (ODFW)  
 kasey.bliesner@odfw.oregon.gov

Russell Scranton (BPA)  
 rwsranton@bpa.gov

Marika Dobos (IDFG)  
 marika.dobos@idfg.idaho.gov

Item	Lead	Status	Start Date	End Date
Rotary Screw Trap (RST) Data Collection Data Standards	Polly Gibson (ODFW)	Complete	Feb 2022	Jan 2023
Juvenile Density Data Standards (Snorkel & Electrofishing)	Kasey Bliesner (ODFW)	In Progress	Feb 2022	Jan 2023

Item	Lead	Status	Start Date	End Date
Rotary Screw Trap (RST) Data Collection Data Standards	Polly Gibson (ODFW)	Complete	Feb 2022	Jan 2023
Juvenile Density Data Standards (Snorkel & Electrofishing)	Kasey Bliesner (ODFW)	In Progress	Feb 2022	Jan 2023

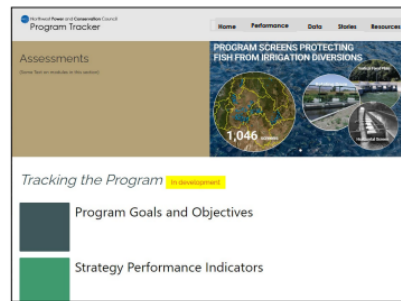
## Stretch Break

be back in 10 minutes



## Check in on NPCC Program Track SPI data needs

Kris Homel, NPCC

Tracking the Program **Assessments**

- Program Goals and Objectives
- Strategy Performance Indicators

### Brainstorming Opportunities with Existing Regional Systems

Nancy and group

Submit once and feed multiple needs  
 Improve consistency among systems for data providers/consumers  
 Efficient use of limited resources  
 HCAX could be initial driver among systems



### Ongoing StreamNet Group Tasks

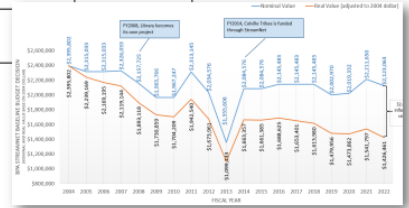
#### Update on closed FY2021 and new FY2022

Contract No	Date	Value	Invoiced	Unspent
78040 REL 17	10/01/2019 - 09/30/2021	\$4,232,243	\$4,071,267	\$160,975 (3.9%)
78040 REL 41	10/01/2021 - 09/30/2022	\$2,123,063		

FY20: \$2,021,648\* (doesn't reflect shifts to FY21)  
 FY21: \$2,210,595\*\* (doesn't reflect shifts from FY21)  
 FY20-21 total: \$4,232,243

FY22: \$2,123,063\*\*  
 FY23: pending confirmation  
 FY22-23 draft total \$4,246,126

\*ODFW portfolio addition included  
 \*\*PSMFC increase included



### Ongoing StreamNet Group Tasks

Update on closed FY2021 and new FY2022  
 CY 2021 Annual Project Report to BPA

- March 21, input due on draft
  - review your sections, add input on recommendations/lessons learned, and any other suggestions to improve
- March 28, final draft shared
- April 4, report submitted to BPA

### Ongoing StreamNet Group Tasks

Update on closed FY2021 and new FY2022  
 CY 2021 Annual Project Report to BPA  
 Proposed work-session with SN TT, CAP DDT, MR.org staff to explore initial connections between PSMFC/MR/CBfish as discussed in SN TT

Continue exploring best approach to make connections to support specific products  
 Automate or facilitate human identifying correct

Project #: [MonitoringResources.org Study Plan title/URL and/or Report URL](https://www.monitoringresources.org/StudyPlan.html?URL=and/orReportURL)

### Ongoing StreamNet Group Tasks

Update on closed FY2021 and new FY2022  
 CY 2021 Annual Project Report to BPA  
 Proposed work-session with SN TT, CAP DDT, MR.org staff to explore initial connections between PSMFC/MR as discussed in SN TT

#### Check in on manual/visual quality control (QC) review pilot

- Review your assigned records (18) by May 2
  - Data Stewards focus on accuracy
  - Independent focus on comprehension
- Provide input on process and the review tool
- QA/QC plan & pilot implementation plan are posted [on website](#)

### Ongoing StreamNet Group Tasks

Update on closed FY2021 and new FY2022  
 CY 2021 Annual Project Report to BPA  
 Proposed work-session with SN TT, CAP DDT, MR.org staff to explore initial connections between PSMFC/MR as discussed in SN TT

#### Initial discussion of 2023 CAP biennial workshop

- Purpose is to maintain exchange across all CAP partners (biologists, data stewards, consumers)
- Focus on issues beyond QA/QC data flow tasks (e.g. pg. 11 of [QA/QC Plan](#))
- When planning the workshop should we expand CAP Core Team participants (e.g. HCAX)?
- Month for 2023 workshop?

### StreamNet Technical Team Update

Mike Banach and Greg Wilke

Meeting held Tue Feb 8, 2022 1-4pm



### 2022 Fall StreamNet Steering Committee Meeting

identify dates to avoid for doodle pool

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Aug 21	22	23	24	25	26	27
		AFS meeting				
28	29	30	31	Sep 1	2	3
4	5	6	7	8	9	10
	Labor Day					
11	12	13	14	15	16	17
		tentative NRCC meeting				
18	19	20	21	22	23	24
			SN Executive Committee	PRC Disc meeting		