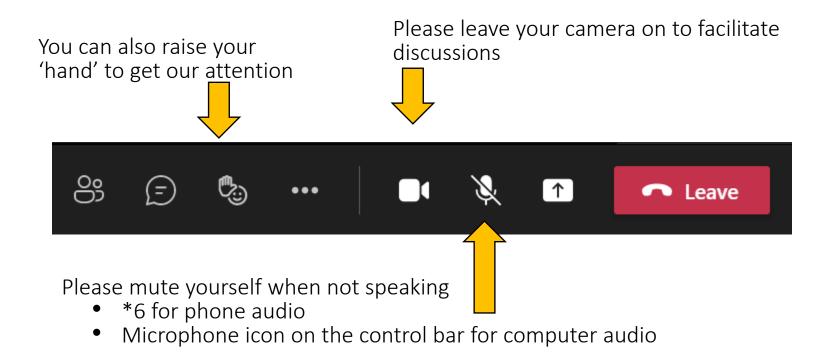
StreamNet Executive Committee Meeting September 9, 2021 9:00 AM – 12:30 PM (PDT)

join the meeting Or call in (audio only) +1 207-387-0436,,809023071# United States, Portland Phone Conference ID: 809 023 071#



Welcome and Introductions



Agenda (times are approximate)

TIME **AGENDA ITEM** Welcome and Introductions 9:00 Lightning updates on data tasks/projects 9:15 Stretch Break 9:45 NPCC 2020 Addendum objectives / Program Tracker data needs 9:50 Proposed change to CAP Fish HLI (CAX) data display per FMWG Data 10:15 Display task group recommendations Proposed updates to Five-Year Plan for the Coordinated Assessments 10:35 Partnership 10:50 StreamNet Program Budget high-level update 11:00 Executive Committee Member Updates (verbal updates) 12:30 Adjourn

Lightning Fast Updates



Sailfish top speeds have been estimated to be up to 67 miles/hr

- HCAX Jen
- FMWG Task Groups Russell
- Technical Teams Mike
- QA/QC Nancy
- Query Tools Greg
- Website Nancy

HCAX Progress Update



Coordinated Assessments **Partnership** Fish and Habitat Data Exchange

Hatchery indicators Coordinated Assessment eXchange

Jen Bayer (USGS)

HCAX Overview



Goal: identify and share key salmon and steelhead hatchery indicators across the Pacific Northwest using standardized metrics and HLIs to:

- improve consistency in the information communicated with the public, and used for environmental reporting required for regional decision-making in multiple forums
- contribute to reporting on salmon and steelhead for states, tribes, tribal consortia, federal agencies and other partners
- CAP task funded by EPA through WA GSRO
- Facilitated by PNAMP & StreamNet staff
- Builds off previous work, including StreamNet DES, CAX, RMIS, FINS, PTAGIS

HCAX Project Participants

- BPA
- Chelan PUD
- Confederated Tribes of the Colville Reservation*
- Confederated Tribes of the Umatilla Indian Reservation
- CRITFC
- Idaho Power
- IDFG
- NOAA
- NPCC

- ODFW
- PSMFC/RMIS
- PSMFC/StreamNet*
- Shoshone-Bannock Tribes
- USFWS
- USGS/PNAMP*
- WA Governors Salmon Recovery Office*
- WDFW*
- Yakama Nation Fisheries
- * indicates EPA EN grant partners





HCAX Schedule

2021

- Workshop 1: confirm metrics/indicators
- Biologist Work Group Meetings: identify and agree on field-names, definitions, and develop standardized pick-lists
 2022
- Data Managers Work Group Meetings: develop data sharing rules and procedures

2023

• Testing and implementation



PNAMP Fish Monitoring Work Group (FMWG) Progress Update Iightning update



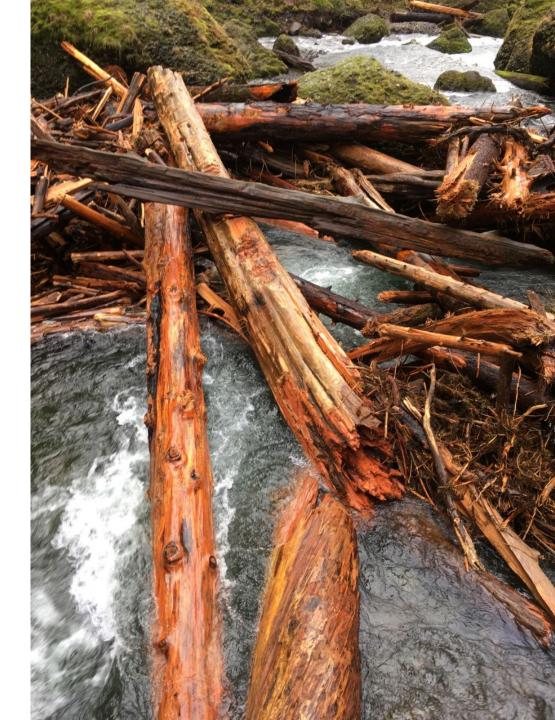
pacific northwest aquatic monitoring partnership

Russell Scranton (BPA) and Jen Bayer (USGS)

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

FMWG Objective & Purpose

- Provide a forum for collaborative development of tasks that advance regional fish monitoring practices;
- Support the CAP Effort and StreamNet by facilitating discussions among data providers and reporting/decision makers related to fish monitoring data sharing and reporting needs.
- Make the workgroup meetings a forum where new information can be exchanged and openly discussed by peers, or open opportunities for new workshops that inform monitoring practices.



StreamNet/CAP Related FMWG Task Groups

Task Group	Status	Task Leads
Data Display on CAP Fish HLI tools (CAX)	Completed. Recommendations shared with StreamNet	Greg Wilke (formerly Tom Iverson)
Fish populations names and boundaries	First meeting mid/late September	Van Hare
Clarify "smolt equivalent" to improve the CA DES	First meeting late September	Mike Banach, Russell Scranton
Upcoming task groups - Carrying capacity DES - Snorkel & e-fishing DES	Initiating soon	Kasey Bliesner, Russell



Fish Monitoring Work Group Meetings

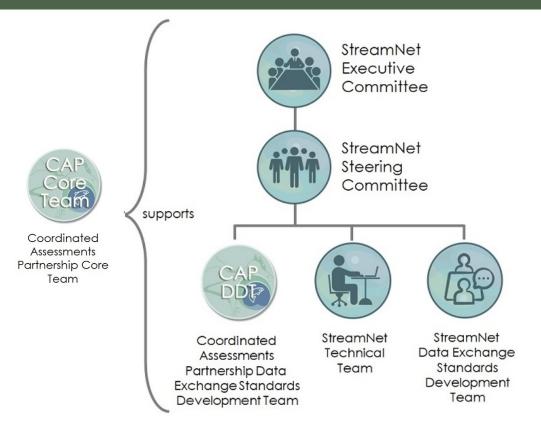
- Three or four times per year
- Each meeting will include:
 - Information sharing: emerging technology/hot topics
 - Progress on Tasks
 - Discussion of what's on the horizon/new ideas

Next Meeting October 21st 10:00-11:30

Task Meetings At the discretion of the Task leader and/or online in Teams

StreamNet & CAP Teams

Mike Banach



Upcoming Meeting Topics



CAP DES **Development Team**

Next meeting a.s.a.p., to accomplish priority #1 and start on priority #2. Priority #3 right on their heels.

- Priority 1: Add TrendID to HLI tables
- Priority 2: Break age data into its own table
- Priority 3: Better define "smolt equivalent" (FMWG first)
- "Null record" type fields for confidence limits, age data, MethodNumber



Next combined meeting hopefully this fall to discuss:

- Retiring deleted TrendIDs
- StreamNet Technical Team



StreamNet DES **Development Team**

- How are we submitting & processing references these days?
- Locations: current situation and where do we go from here?
- Dam table & hatchery table: current data and where do we go from here?





Nancy

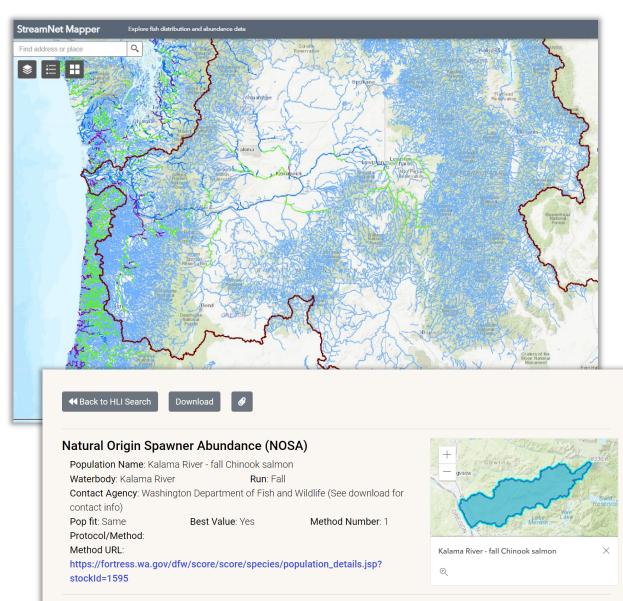
Quality Control – GIS

Planned updates and QA/QC

- Fish distribution refresh
- Population boundaries
- Fish monitoring locations (aka 'trend locations')

PSMFC regional GIS team

 Van and Kate will contact compilers to confirm regional map features (survey locations) are in sync with partners



Quality Assurance/Control Plan for CAP Fish HLIs (draft plan)

Considers

- 2019 QA/QC procedures summaries by StreamNet-funded members
- Summary of 2021 interviews with data providers and data consumers
- Findings from manual review of CAP Fish HLI records, focused on NOSA and OutJuv HLIs

Provides

- a consistent set of tasks across all data stewards
- guidance for identifying problematic fields
- highlights current problematic fields and issues to be addressed
- Identified issues outside of QA/QC procedure that need to be resolved by existing groups

Next Steps

- October, draft QA/QC Procedures reviewed by SN SC members, CAP DDT members, and ITMD members
- Nov-December, draft document is revised and reviewed
- January, document is finalized and implementation plan outlined

Data Quality Perceptions CAP Standardized Values

- Can CAP enhance data consumer confidence in data quality?
 - perhaps by explicitly stating that CAP data content
 - is dynamic,
 - is the most up-to-date data from partners,
 - undergoes these QA/QC processes,
 - data category labels may differ among sources but these are converted to agreed upon CAP data exchange standards
 - facilitate discussions, as needed, between data providers and regional partners to inform what data are used in regional tools
 - if available, provide information on the rationale (at a high level) for values included by these tools which could inform why reported data may differ
 - Other suggestions?

Question: ExCom support PSMFC staff to explore options for improvements?

Query Tools lightning update

Greg Wilke





CAP Fish HLIs Query



Data Store



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

- new tabular query reflecting input received
- some functions still being worked on
- integrated query retired

Data Category B Species		F	Run			Compiled By			
AJI		~ All		~	All		~ All		~
Year	Popula	tion Name							
All	~ All					~			
19909 Trends	_								
« Previous	5 1 2 3 4 5 6	7 8 9 10	Next » 10	25 100 Down	nload Clear S	Selections 🖋			
TREND ID \$	DATA CATEGORY \$	STREAM \$	RIVER MILE	SPECIES \$	RUN \$	PRODUCTION \$	LIFE STAGE \$	COUNT TYPE \$	YEARS
53619	Freshwater	Butte Creek	from RM 0 to	Coho	N/A	Unknown	Adult	Freshwater	1978-
	Harvest		RM 35.57	salmon				sport	1994
180642 Hatcher	Hatchery Returns	Fork Creek	from RM 0.33	0.33 Steelhead	Winter	Hatchery	Adults and jacks	Total live fish	1995-
			to RM 0.33						2008
90569	Fish Counts	Humbug	from RM 0 to	Steelhead	Winter	Natural	Adults and half-	Index of live	1968-
		Creek	RM 11.34				pounders	fish	1969
100313	Hatchery Returns	Snake River	from RM 56.9	Steelhead	Summer	Hatchery	Adults and jacks	Total live fiels	2003-

Fish Monitoring Data Tabular Query



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

• Draft tabular query (companion to map query) supporting more filter options





Repository of data sets available for download that don't fit our standardized system

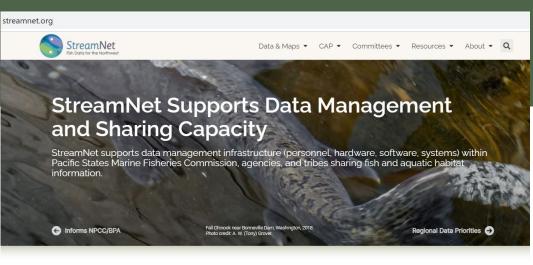
• CY2022 will refresh query to improve user-experience

Data Store

StreamNet Website

lightning update

Nancy



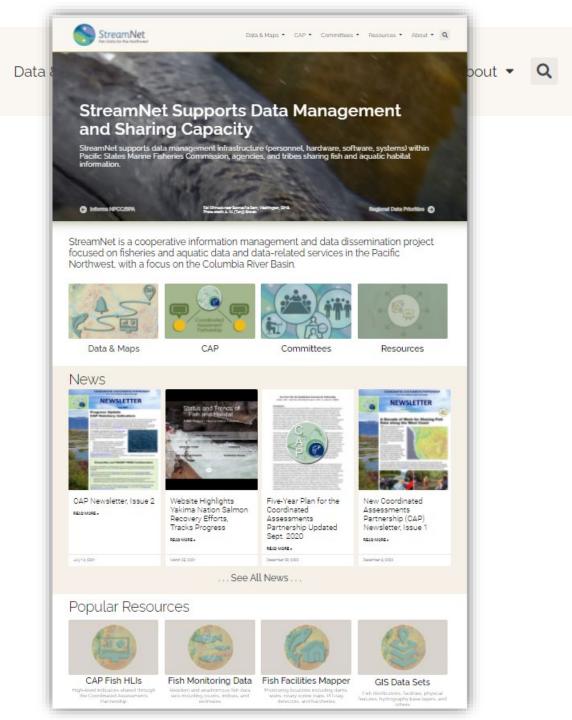
StreamNet is a cooperative information management and data dissemination project focused on fisheries and aquatic data and data-related services in the Pacific Northwest, with a focus on the Columbia River Basin.





Website updated per input from StreamNet Steering Committee, teams, and others

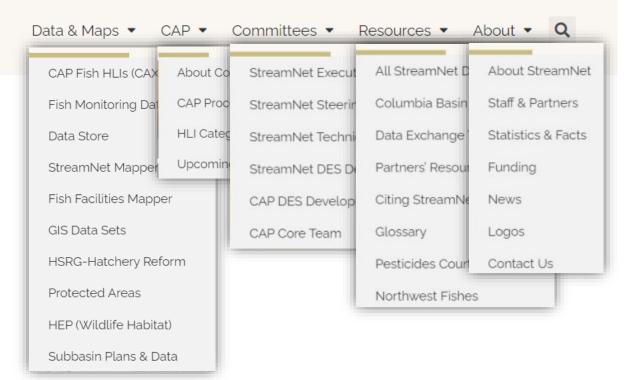
• Keep, and build upon, style of website





Website updated per input from StreamNet Steering Committee, teams, and others

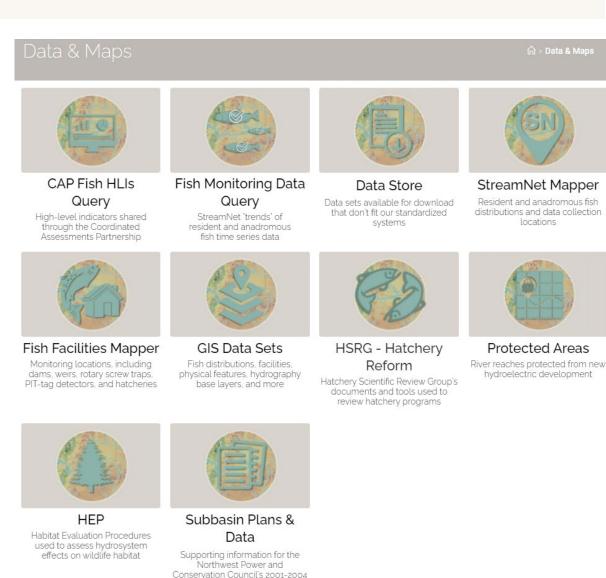
- Kept, and build upon, style of website
- Reorganized menu, page content, and flattened navigation of site





Website updated per input from StreamNet Steering Committee, teams, and others

- Kept, and build upon, style of website
- Reorganized menu, page content, and flattened navigation of site
- Increased visibility of data tools and added information on committees and teams
- Integrated archived Hatchery Reform-HSRG content
- Simplified maintenance by reducing customization and consolidating documents

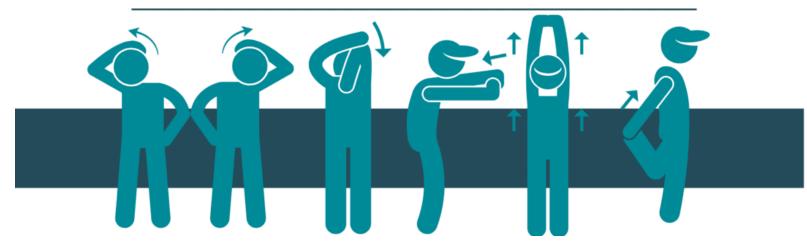


subbasin plans

Stretch Break

be back in 5 minutes

Back at 10:05



https://integratedwork.com/blog/simple-quick-stretches-to-do-at-your-home-office

Update on NPCC 2020 Addendum Objectives / Program Tracker Data Needs



- NPCC SPI progress (Patty O'Toole, Leslie Bach)
- Status of NPCC request related to CAP Fish HLIs and related trends (Nancy)

NPCC 2020 Addendum Goals, Objectives and Indicators Update

Patty, Leslie, Kris

2020 Fish and Wildlife Program Addendum

The program's **goals** and **objectives** are consistent with the Act and with the program's vision, describing the changes in the environment and the biological performance that are needed to achieve the vision.

All the program's substantive strategies ... contribute to achieving the program's goals and objectives... The Council needs an effective way to measure progress in implementing these strategies.

...this addendum identifies a set of **strategy performance indicators** that can be used to assess progress in implementing the program strategies and improve the ecological and population conditions of the focal species.

Strategies listed in Part I of the 2020 addendum

- Habitat
- Non-native and Invasive Species
- Predator Management
- Protected Areas and Hydroelectric Development and Licensing
- Water Quality
- Climate Change (uses indicators from other strategies)
- Estuary
- Plume and Nearshore Ocean
- Mainstem Hydrosystem Flow and Passage

- Wildlife
- Fish Propagation and Hatchery
- Wild Fish
- Anadromous Fish
 Mitigation in Blocked
 Areas
- Resident Fish Mitigation
- White Sturgeon
- Pacific Lamprey
- Eulachon
- Public Engagement

105 indicators

Addendum Part I Workgroup

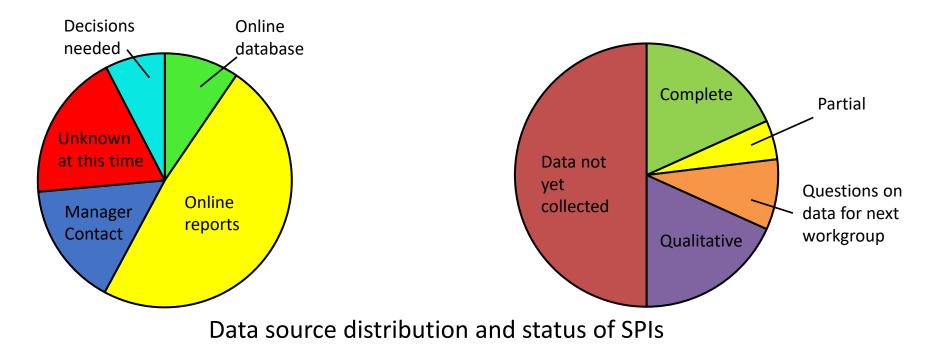
Strategy Performance Indicators

- Compile data
- Refine indicators
- Report on goals, objectives, and indicators
- Review data tools



Strategy Performance Indicators

- Data compilation ongoing for numerous SPIs using readily available data sources
- Some of the remaining SPIs will require assistance from fish and wildlife managers
- StreamNet is providing critical data compilation and analysis support for a number of the SPIs

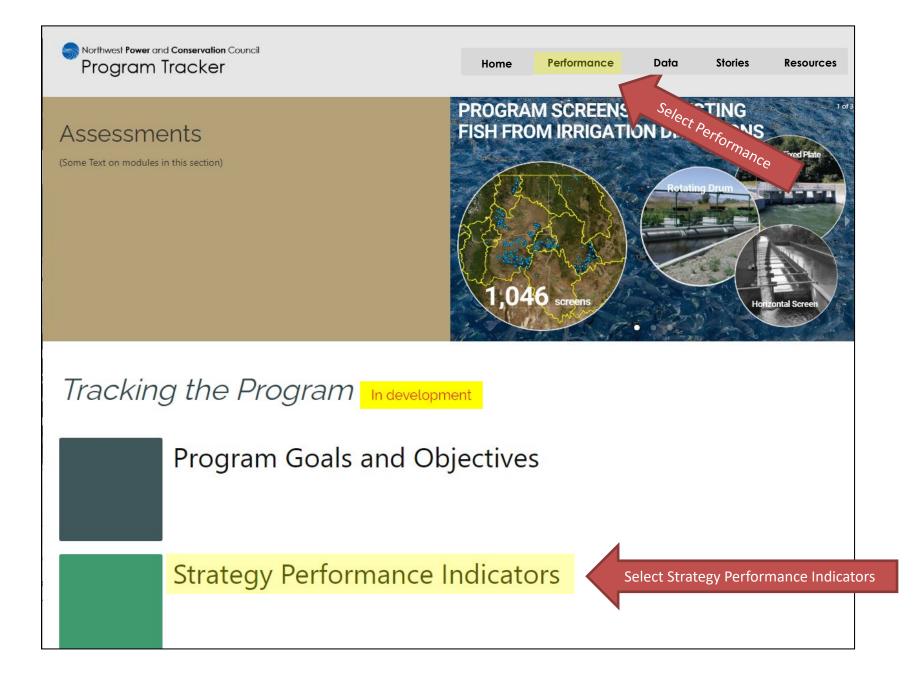


Strategy Performance Indicators: First Set

- Salmon and Steelhead Abundance (From Coordinated Assessments)
- Dam Counts
- Adult Survival
- Bull Trout Abundance
- Predator Management Caspian Terns
- Predator Management Pinnipeds
- Lake Trout removal

Strategy Performance Indicators 2nd (Current) Set

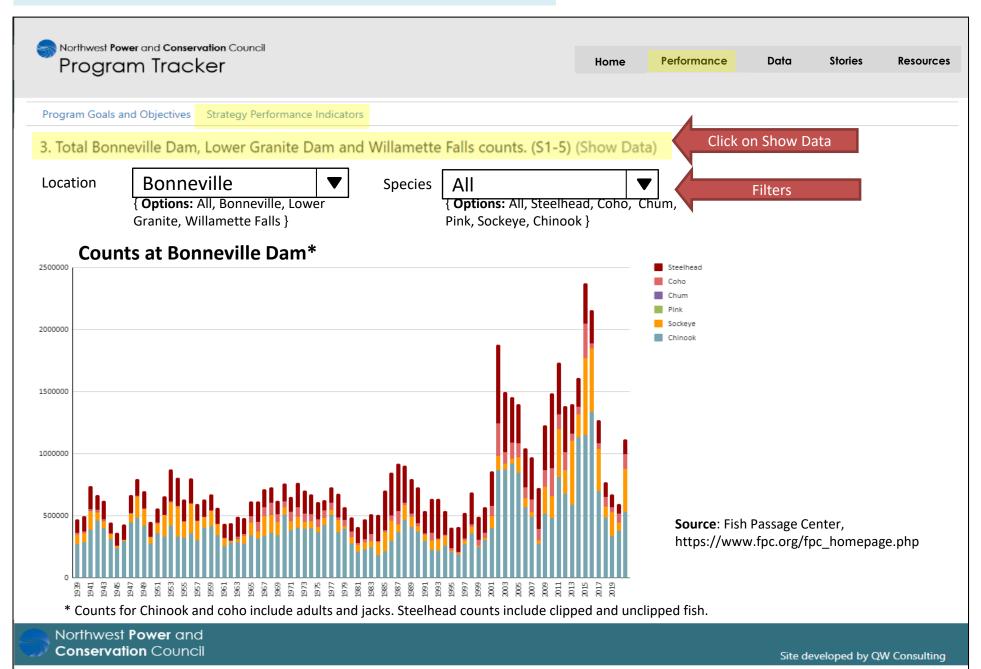
- Water Quality Strategy
 - Mainstem temperatures
 - Total Dissolved Gas
- Mainstem Hydrosystem Flow and Passage Strategy
 - Juvenile Survival
 - Flows
 - Travel Times
 - Powerhouse Encounter Rates
 - Percent Transported
 - SARs
- White Sturgeon
 - Abundance
 - Other



Indicator **Example: Dam Counts**

	Northwest Power and Conservation Council Program Tracker	Home	Performance	Data	Stories	Resources	
	Program Goals and Objectives Strategy Performance Indicators						
	Strategy Performance Indicators In development						
1.Select Strategy	Strategy Wild Fish Strategy	Show All Data	Hide All Data				
	Wild Fish						
2. Click on Show Data	 Progress toward the following regionally agreed-upon adult abundance escapement targets for natural- origin salmon and steelhead. These targets were developed by the NOAA Marine Fisheries Advisory Committee's (MAFAC) Columbia Basin Partnership Task Force. For the complete details on these targets and supporting information go to A Vision for Salmon and Steelhead, Goals and Pathways for Restoring Thriving Salmon and Steelhead to the Columbia River Basin. Phase 2 Report of the Columbia Basin Partnership Task Force to the NOAA Fisheries Marine Fisheries Advisory Committee, July 16, 2020 version. See Objective S1 above for the relationship of these targets to the program. (S1-3, S5-1) (Show Data) Abundance of populations tracked as identified through Coordinated Assessments Partnership. (S1-4) (Show Data) Total Bonneville Dam, Lower Granite Dam and Willamette Falls counts. (S1-5) (Show Data) Trends in genetic diversity measures (heterozygosity, allelic diversity, private alleles, etc.) (S7-1) (Show Data) 						
	Northwest Power and Conservation Council				Site developed	by QW Consulting	

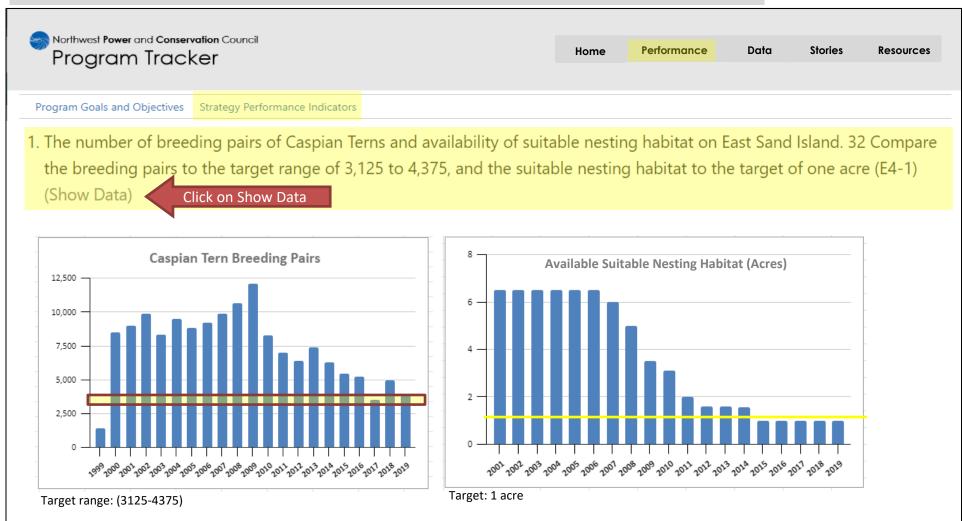
Indicator **Example: Dam Counts**



Indicator Example: Predation – Caspian Terns

	Northwest Power and Conservation Council Program Tracker Home Performance Data Stories Resources							
	Program Goals and Objectives Strategy Performance Indicators							
	Strategy Performance Indicators Indevelopment							
	Strategy							
Select Strategy	Predator Management Show All Data							
	Predator Management							
Click on Show Data	1. The number of breeding pairs of Caspian Terns and availability of suitable nesting habitat on East Sand Island. 32 Compare the breeding pairs to the target range of 3,125 to 4,375, and the suitable nesting habitat to the target of one acre (E4-1) (Show Data)							
	 Cormorant colony size at East Sand Island. Compare to management goal that colony size does not exceed management average of 5600 breeding pairs (E4-2) (Show Data) Predation rate on ESA-listed juvenile salmonids by Caspian Terns in the Columbia Plateau region compares to target of less than 2% (E4-3) (Show Data) Exploitation rate on Northern Pikeminnow measuring nine inches or greater in total length (228 mm fork length). 35 Compare the exploitation rate to the 10-20 percent annual target. (E4-4) (Show Data) Emigration, spatial distribution, and index of abundance of non-native Northern Pike in the Columbia River Basin. 36 Evaluate trend to determine if the numbers and range are reducing over time. (E4-5) (Show Data) Counts of sea lions observed at Bonneville Dam, the lower Columbia River, estuary and Willamette Falls. Compare trend to determine if the impacts are decreasing over time. (E4-6) (Show Data) Proportion of the adult salmon and steelhead run consumed by sea lions in the lower Columbia River and estuary, with emphasis on upper Columbia spring Chinook and wild Winter Steelhead. (E4-7) (Show Data) Number of adult salmon and steelhead, White Sturgeon, and Pacific Lamprey consumed by sea lions at Bonneville Dam, the lower Columbia, estuary and Willamette Falls. (E4-8) (Show Data) Annual average catch rate of Lake Trout in Upper Priest, Flathead, and Pend Oreille lakes (R1-1, R3-1) (Show Data) 							

Indicator Example: Predation – Caspian Terns



Source: Roby et al. 2020. Monitoring and evaluation of efforts to reduce predation on ESA-listed salmonids by Caspian terns nesting at East Sand Island, Columbia River Estuary.

http://www.birdresearchnw.org/2019_BPA_Final_Annual%20Report_v2.pdf

Next Steps

- SPIs requiring specific discussion with managers:
 - Resident fish
 - Sturgeon
- Habitat SPIs Cbfish, other databases
- StreamNet and HCAX work on MAFAC data collection and Hatchery indicators
- First year progress report

NPCC salmon and steelhead CAP Fish HLIs task request update

Mike and Nancy

NPCC Request

1) Summarize within MAFAC stock groups, by indicating the number of populations with NOSA and/or escapement estimates

- Whether the estimates represent a whole or partial population
- Whether the estimates include or excludes jacks

2) Summarize within MAFAC stock groups, by indicating the number of populations with adult abundance trends

3) Information display

- For populations with no data in StreamNet/CAP, indicate known availability of data (e.g. none, located elsewhere)
- Display the population polygons for the 216 extant populations and 117 extirpated populations, some of which are being reintroduced (total = 333).
- Display the polygons for 27 MAFAC stocks.

Next agenda item reviews proposed approach based on FMWG Data Display Task Group Recommendations for StreamNet ExCom

				C	C	C		Details provided:
MAFAC CBPTF 24 Groups	Populations in Group	Number of pop without data	Number of pop with data	Count of populations with NOSA / Escapement	Count of populations with trend data	Count of populations with both	Comment	NOSA
CBPTF Lower Columbia Chum group	17	12	5	4	3	2	StreamNet splits Cowlitz into fall & SU	_
CBPTF Lower Columbia Coho group	25	2	23	23	13	13	Includes Willamette.	 Whole w/ jacks
CBPTF Lower Columbia Fall Chinook (late bright) grp	2	0	2	2	2	2		 Whole w/o jacks
CBPTF Lower Columbia Fall Chinook (tules) group	21	1	20	19	17	16		 Partial w/ jacks
CBPTF Lower Columbia Spring Chinook group	9	3	6	6	5	5		- Partial w/o jacks
CBPTF Lower Columbia Steelhead group	30	4	26	24	18	16		
CBPTF Mid Columbia Coho	5	5	0	0	0	0	Reintroduced Hatchery Fish	_
CBPTF Mid Columbia Sockeye	2	2	0	0	0	0	Historical/Reintroduced Hatchery Fish	Escapement
CBPTF Mid-Columbia Spring Chinook group	12	6	6	3	3	0		 Whole w/ jacks
CBPTF Mid-Columbia Summer Steelhead group	20	3	17	17	11	11		- Whole w/o jacks
CBPTF Mid-Columbia Summer/Fall Chinook group	1	1	0	0	0	0	Mid-C Deschutes R.	- Partial w/ jacks
CBPTF Snake River Coho	5	5	0	0	0	0	Reintroduced Hatchery Fish	•••
CBPTF Snake River Fall Chinook	2	1	1	0	1	0		 Partial w/o jacks
CBPTF Snake River Sockeye group	6	5	1	1	1	1		
CBPTF Snake River Spring/Summer Chinook group	52	15	37	35	35	33		Trends
CBPTF Snake River Summer Steelhead group	26	3	23	22	12	11		
CBPTF Upper Columbia Coho	4	4	0	0	0	0	Reintroduced Hatchery Fish	 Spawner Abund. Est.
CBPTF Upper Columbia Fall Chinook	1	1	0	0	0	0	Hanford, Yakima R, PRD-CJD, and Blocked Area pops	 Spawner Counts
CBPTF Upper Columbia Sockeye aroup	2	2	0	0	0	0	Wenatchee, Okanogan, Blocked area	- Dam / Weir Counts
CBPTF Upper Columbia Spring Chinook group	5	2	3	3	3	3	StreamNet splits Okanogan into native and reintroduced.	- Redd Counts
CBPTF Upper Columbia Summer Chinook group	4	1	3	2	3	2		
CBPTF Upper Columbia Summer Steelhead group	5	1	4	4	3	3		- Fish Counts
CBPTF Willamette Spring Chinook group	7	0	7	5	7	5		 Freshwater Harvest
CBPTF Willamette Winter Steelhead group	4	0	4	4	4	4		- Fish Abundance Est.
Total	267	79	188					
	1							

Proposed change to CAP Fish HLIs (CAX) Data Display per FMWG Data Display Task Group Recommendations

Greg

Recommendations from FMWG Task Group

1) General recommendations

- Remove "Non-TRT" in population names and keep the ESA status field
- Provide a filter for HLIs data categories
- Provide additional filters to sort content
- 2) Subpopulation HLIs data

3

- Include with population scale HLIs data, with population scale estimates appearing at the top of the list.
- Suggestions on how to label subpopulation scale HLIs and their display.

StreamNet Proposed Approach to Address Task Group Recommendation #3

Populations without data



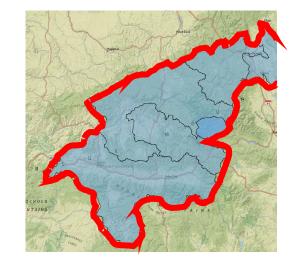
Question: ExCom support PSMFC staff to work on implementation as proposed?

StreamNet Proposed Approach to Address Task Group Recommendation #4

Superpopulations and other groupings

	Species	none	¥
\bigcirc	Run	none	~
۲	Superpopulation	none	•
\bigcirc	MAFAC Stock	none	~
\bigcirc	Other	none	~

Question: ExCom support PSMFC staff to work on implementation as proposed?



Proposed updates to Five-Year Plan for the Coordinated Assessments Partnership



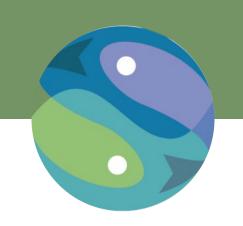
Nancy

Five-Year Plan for Coordinated Assessments Partnership October, 2019 – September, 2024 (Adopted August 1, 2019) *proposed rev. <u>draft</u> <u>August 31,2021</u>*

- 1. Update Hatchery Indicator content to reflect 2020-2023 tasks
 - Page 2: Remove draft hatchery HLIs from table add note about HCAX process
 - Page 6: Describe ongoing HCAX process and refer to HCAX webpage for details
- 2. Update CRITFC related text
 - Page 3: clarify 2 bullets referring to CRITFC member tribes, ITMD, other tribes
 - Page 10: update CRITFC ITMD project description
- 3. Update text on data gaps in CAP Fish HLIs
 - Page 4, pending ExCom input on Data Display Recommendations (previous agenda item), update bullet regarding explanation for populations without data in CAP Fish HLIs (explanation of gaps)

Question: ExCom support edits as proposed?

FY 2022 StreamNet Budget



Nancy

FY 22 Overview

• BPA-StreamNet \$2,072,446

Colville Tribes	\$22,586	WDFW	\$468,050
Sitka	\$67,500	PSMFC direct	\$431,935
IDFG	\$324,694	Other subcontracts	\$0
MFWP	\$165,049	PSMFC in-direct/overhead	\$75, 867
ODFW	\$516.765		

• IJFA-StreamNet \$87,254 (pending)

(ODFW incl \$53,061 portfolio funds)

Supports PSMFC staff and subcontracts supporting SN-CAP Technical Support (Ray Beamesderfer), Shoshone Bannock Tribes data mgmt./flow, and PNAMP facilitation and coordination

• EPA-StreamNet \$194,814 (FY21, 22, 23 combined)

Supports PSMFC staff and subcontracts supporting IDFG and ODFW Does not include EPA WA GSRO subcontracts with WDFW, Colville Tribes, and PNAMP

• StreamNet Program manager ~4-months of StreamNet Program manager covered by other projects

Executive Committee Member Updates



All

Steering Committee Member Updates

(Follow below random order, verbal updates)

Entity	Executive Committee member
NPCC	Patty O'Toole
MFWP	Don Shaar
WDFW	Dan Rawding
CRITFC	Sheryn Olson / Zach Penney
IDFG	Lance Hebdon
NOAA-Fisheries	Greg Sieglitz
ODFW	Tom Stahl / Art Martin
Colville Tribes	John Arterburn
USFWS	Johnna Roy
PNAMP	Jen Bayer
BPA	Jody Lando / Rodrigo George
StreamNet (PSMFC)	Nancy

2022 StreamNet Executive Committee Meeting

identify dates to avoid for doodle poll

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
е т	Aug 28	29	30	31	Sep 1	2	3
5	4	5 Labor Day	6	7	8	9	10
	11	12	13 tentative NPCC meeting	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	Oct 1

