

# Five-Year Plan for Coordinated Assessments Partnership

October, 2019 – September, 2024 (Adopted August 1, 2019, rev. September 2, 2020)

## Introduction

The Coordinated Assessments Partnership (CAP) is a collaborative process to efficiently share fish information within the Pacific Northwest by providing access to standardized derived information needed for reporting and decision-making by natural resource managers and regulators. The information shared through the CAP represents the partners' best available science and, when appropriate, these entities' (federal/tribal/state agencies or others) endorsed official records such as those used in regulatory fish assessments for the Endangered Species Act (ESA) or other reporting requirements. The CAP is co-sponsored by the Pacific Northwest Aquatic Monitoring Partnership (PNAMP) and Pacific States Marine Fisheries Commission (PSMFC) StreamNet Program (StreamNet), with participation by federal, tribes, states and tribal consortia fish biologists and data stewards who ensures data quality and flow.

The CAP was initiated in the Columbia River Basin during 2010 with PNAMP and StreamNet co-sponsoring the effort. The CAP has been funded through multiple sources secured by the co-sponsors, PNAMP and StreamNet, and the numerous federal, tribes, states and tribal consortia partners that engage in the CAP. Participation in the CAP has thus far reflected the early focus of the CAP, namely providing coordinated assessments for Columbia River Basin salmon and steelhead populations. Bonneville Power Administration (BPA) has been an important source of funding for CAP activities that support BPA's work consistent with the Northwest Power and Conservation Council's (NPCC) Columbia River Basin Fish and Wildlife Program (FW-Program) and Endangered Species Act (ESA). Progress made by the CAP also has been made possible by significant in-kind contribution from all CAP partners, National Oceanic and Atmospheric Administration (NOAA) funding, and several Environmental Protection Agency Exchange Network grants secured by CAP partners since 2010 that have significantly advanced infrastructure and sharing.

The geographic scope of the CAP is the Pacific Northwest with a focus on sharing natural and hatchery origin fish information and fish habitat-related information, such as fish population high level indicators (HLIs) and supporting metrics. The CAP 5-year Plan and annual revisions includes sharing Pacific Northwest information for: population estimates for natural origin and hatchery origin salmon and steelhead, as well as sharing information for white sturgeon; habitat carrying capacity and other HLIs to inform regional decision-making and reporting. The HLIs shared through the CAP are made accessible through the Coordinated Assessments Exchange (CAX) data system, with the data informing the HLIs and metrics being maintained in multiple state, tribal, federal and other partners' data management system. The CAP relies on collaboratively developed Data Exchange Standards (DES) to support data flow between partners and the CAX, and continues to advance the quality of metadata that is a critical component of maintaining the value and usability of datasets. Information made accessible through the CAX follows the data sharing agreement and data exchange standards (DES) agreed to by the CAP partners. HLIs and metrics currently accessible through the CAP's CAX data

system consist mostly of Columbia River Basin salmon and steelhead HLIs, such as population level estimates of natural spawner abundance and juvenile outmigrants, and supporting trend. As the scope of the CAP expands, the CAX is also providing access to HLIs for Oregon Coast and Puget Sound salmon and steelhead populations and superpopulations.

Information shared through the CAP provides standardized information that informs status assessments for and management of ESA-listed and non-listed species. The CAP also supports the NPCC’s FW-Program performance assessments such as the Program Tracker, BPA reporting, and analytical tools such as life cycle models that inform environmental resource management.

**Vision**

High level indicators (HLIs) are prioritized, and data to meet these are standardized and shared to meet specific regional needs, following an adopted data sharing agreement and end-user license agreement.

**Existing CAP HLIs**

The current adopted and draft fish health HLIs shared using the CAP Data Exchange Standards (DES) are:

<u>Natural Origin Salmon and Steelhead HLIs</u> <u>(Adopted)</u>	<u>Hatchery Origin HLIs (Draft)</u>
<ul style="list-style-type: none"> <li>• Spawner abundance and/or escapement (with / without jacks)</li> <li>• Smolt to adult ratio (percentage)</li> <li>• Recruits per spawner: adults</li> <li>• Recruits per spawner: juveniles</li> <li>• Presmolt abundance</li> <li>• Number of outmigrants</li> <li>• Proportionate natural influence (PNI)</li> </ul>	<ul style="list-style-type: none"> <li>• Recruits per spawner: adults</li> <li>• Number of fish spawned</li> <li>• Proportion of hatchery broodstock that are natural origin fish</li> <li>• Egg take</li> <li>• Proportionate natural influence (PNI) of supplementation hatcheries (with / without jacks)</li> <li>• Egg to release survival rates for hatchery programs</li> </ul>

*\*Note that the hatchery Indicators are currently not being shared through the CAP. Further action will be dependent on additional direction from the StreamNet Executive Committee.*

## 5-Year Work Goals and Targets

This is the second five-year plan for the project. In June, 2019 the StreamNet Executive Committee discussed this plan as an outline for CAP going forward for the next five years. The plan was reviewed and updated by the StreamNet Executive Committee and adopted August 1, 2019. Entities represented on the StreamNet Executive Committee are Bonneville Power Administration (BPA), Columbia River Intertribal Fish Commission (CRITFC), the Confederated Tribes of the Colville Reservation (Colville Tribes), Idaho Department of Fish and Game (IDFG), Montana Fish, Wildlife & Parks (MFWP), National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA), Northwest Power and Conservation Council (NPCC), Oregon Department of Fish and Wildlife (ODFW), Pacific Northwest Aquatic Monitoring Partnership (PNAMP), Pacific States Marine Fisheries Commission (PSMFC), U.S. Fish and Wildlife Service (USFWS), and Washington Department of Fish and Wildlife (WDFW). The intent is for the CAP to be a collaborative, consensus-based effort. All participants, including non-StreamNet partners, are encouraged to share any concerns or issues they may have about this document or CAP in general. We will attempt to address such concerns to the greatest extent possible.

The plan is revisited annually to ensure alignment with regional priorities and changed as needed if regional priorities change.

The overarching goals of the 5-year workplan are:

- Maintain, update, and automate existing data flow.
- Continue to work with tribes via coordination with the tribal Inter-Tribal Monitoring Data (ITMD) Project.
- Maintain contact with NOAA, BPA and NPCC Fish & Wildlife Program Sponsors on data priorities and data management issues they wish to address.
- Maintain and refine existing DESs.
- Facilitate problem-solving with partner agencies (and others) on an ongoing basis.
- Discuss any potential new indicators with the StreamNet Executive Committee prior to initiating flow of data, such as new indicators to track towards targets that might benefit from regionally standardized data, and any data category focused on new efforts for regional data standardization under CAP.
- Involve the right people to address any new efforts that clearly fill a defined need and are prioritized for standardization, identifying experts to inform the development of the indicator(s) and DES.
- Finalize DESs for new indicators (if any) adopted the previous year and populate new indicators with data.

The specific targets for this 5-year workplan are:

**CAP and StreamNet Program** will:

- Maintain, update, and automate data flow for existing HLIs to, with a focus on current population priorities.

- Maintain data flow for traditional data trends on high priority trends (see here for priority populations: <https://www.streamnet.org/ca-priority-data/>).
- Refine, improve processes, and share data efficiencies, as possible, for existing DES.
- Finalize DES tables and populate the relevant data for new indicators adopted by the StreamNet Executive Committee and CAP.
- Obtain data from entities who have data but have not had the capacity to share it with the CAX. Assistance from **BPA** in identifying entities for BPA funded data is anticipated. Explanation for why gaps remain will be captured and summarized to inform ongoing efforts.
- Produce a newsletter highlighting accomplishments by CAP and partners to be shared by email with the CAP Outreach Forum twice a year [*Addendum 2020*].
- Include an annual summary report in the annual report to BPA produced by the **StreamNet**.
- Schedule a CAP workshop if warranted.
- Draft the next 5-year plan, at least 6-months prior to the expiration of the current plan, based on a review of CAP status and an assessment of regional data needs.

**BPA, NOAA, and the NPCC will**

- Specify any changes in data priorities, including priority populations, traditional StreamNet data series, and desired new indicators that they wish to share. In addition, **StreamNet** will remain apprised of and will respond to overall policy direction as it is forthcoming, including:
  - NPCC FW-Program Amendments,
  - Columbia Basin Partnership Taskforce of NOAA Fisheries’ Marine Fisheries Advisory Committee,
  - Federal Biological Opinions (BiOps), Environmental Impact Statement (EIS), etc.
- Provide guidance related to new data priorities and data gaps to be addressed. For BPA funded projects, **BPA** will identify specific BPA-funded projects where long-term datasets are not in the CAX. **StreamNet** will facilitate attempts to obtain data and fill in data gaps in the CAX.
- Identify any specific data gaps that they wish to prioritize addressing for the calendar year.

**StreamNet PSMFC staff** and the **StreamNet Executive Committee** will address the data needs identified by BPA, NOAA, and NPCC by facilitating discussion of these topics via the CAP process. Once identified and coordinated, obtaining this information will become a priority for **CAP and StreamNet Program**.

The **CAP Core Team and StreamNet Program** will lead scoping exercises planned for this 5-year workplan for potential indicators on “carrying capacity”, “white sturgeon”, and “hatchery fish”.

- Carrying Capacity, [*Addendum 2020*] the **StreamNet Program** and **CAP Core Team** will initiate a discussion initially limited to a “scoping exercise” of potential

indicators for “carrying capacity”. The approach for the carrying capacity indicator consists of these steps:

1. **BPA** will describe the purpose and definitions they envision for this indicator, as well as how it would be used.
  2. **PNAMP, with assistance by PSMFC** StreamNet staff, will convene the PNAMP Fish Monitoring Workgroup to facilitate a broader discussion with relevant experts in the Basin to scope out the feasibility and extent of this topic. This workgroup will include relevant habitat and fish experts and they will assess what content/data would be available to support this indicator. Discussions will also explore methods to calculate this indicator.
  3. **PSMFC StreamNet staff** will convene a core group of the DES Development Team to scope a draft, general outline, of a DES table for the carrying capacity indicator based on the information provided by the Fish Monitoring Workgroup.
  4. The **StreamNet Executive Committee** will then be briefed on the outcome of the scoping exercise by the Fish Monitoring Workgroup and DES Development Team. If the proposed new carrying capacity indicator is approved to go forward, the Fish Monitoring Workgroup and the DES Development Team will develop and finalize the DES table for this indicator.
- White Sturgeon, [Addendum 2020] **StreamNet** and **CAP Core Team** conduct a scoping exercise for a White Sturgeon abundance indicator (similar to natural origin salmon abundance (NOSA) in salmon and steelhead). The approach for this consists of these steps:
    1. Further definition is needed before proceeding to development. Once this is completed, the proponents of this indicator will describe the purpose of this indicator and how it would be used at a meeting of the **StreamNet Executive Committee**.
    2. If directed to proceed by **StreamNet Executive Committee, StreamNet Program** and **CAP Core Team** will request the assistance of the PNAMP Fish Monitoring Workgroup to facilitate a broader discussion with relevant experts in the Basin to scope out this topic. This discussion should inform what content/data would be available to support this indicator and agreement on methods to calculate this indicator.
    3. **PSMFC StreamNet staff** will convene a core group of the DES Development Team to scope a draft, general outline, of a DES table for the white sturgeon indicator.
    4. **StreamNet Program** and **CAP Core Team** will then convene a small group of F&W managers to discuss and report back to the **StreamNet Executive Committee** and seek their approval to go forward. If approved, the Fish Monitoring Workgroup and the DES Development Team will develop and finalize the DES table for this indicator.
  - Progress on hatchery indicators will be made pending securing funding for this work. Specific steps will be identified at that time.

The **StreamNet Executive Committee** will review and revise the CAP 5-year plan annually, including consideration of any new indicators or data groups.

## Implementation Approach

The CAP is co-sponsored by PNAMP and StreamNet, with its successful implementation relying on the support and expertise of federal, tribal and state partners, and the Columbia River Inter-Tribal Fish Commission's (CRITFC) Inter-tribal Monitoring Data (ITMD) project. The CAP's CAX data system also relies on the Columbia Basin Fish & Wildlife Library to provide access to documents and reports that contain contextual supporting information for data sets. The relationships among the groups engaged in the CAP are illustrated in Figure 1. The CAP partners reflect the entities engaged in providing and managing the HLI data shared through the CAX and the regional entities relying on these HLIs for their decision-making processes and reporting. As the scope of the CAP expands to encompass more of the Pacific Northwest and additional fish related topics, the partners assemblage will reflect that expansion. The CAP is guided by a 5-year Plan and coordination of its implementation is accomplished through the CAP Core Team.

Implementation of the CAP in the Columbia River Basin is informed by the CAP 5-year Plan that is annually revisited by the StreamNet Executive Committee to ensure alignment with regional priorities. The StreamNet Executive Committee includes Columbia River Basin representatives of CAP participating entities and provides high-level policy guidance to the StreamNet Steering Committee which contributes to the CAP 5-year plan implementation. The StreamNet Steering Committee in turn guides the work accomplished by the StreamNet Technical Team, which coordinates with the DES Development Team. The broader overarching CAP Core Team coordinates implementation of the CAP 5-year Plan among CAP partners, including StreamNet participants.

Data from the CAP are maintained and shared via the CAX<sup>1</sup>, which is hosted by the StreamNet Program<sup>2</sup> at PSMFC. The PNAMP<sup>3</sup> facilitates discussions and activities needed to support implementation of the CAP, maintains the historical records of CA<sup>4</sup>, and coordinates regional communication via the CAP Outreach Forum's distribution list. The CRITFC ITMD Project serves a coordination and support role with the CRITFC member tribes in facilitating their participation in the CAP. StreamNet also supports Columbia River Basin implementation of the CAP 5-year Plan by funding data stewards in state agencies and the Colville Tribes, supporting the CAX data

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<sup>1</sup> CAX interactive mapper <https://cax.streamnet.org/>

<sup>2</sup> StreamNet Program <https://www.streamnet.org/>

<sup>3</sup> PNAMP <https://www.pnamp.org/>

<sup>4</sup> Historical documents related to CAP are maintained by PNAMP <https://www.pnamp.org/project/coordinated-assessments-for-salmon-and-steelhead>

system and its quality control/validation processes, and as possible, by funding specific infrastructure and sharing capacity tasks with Columbia River Basin partners.

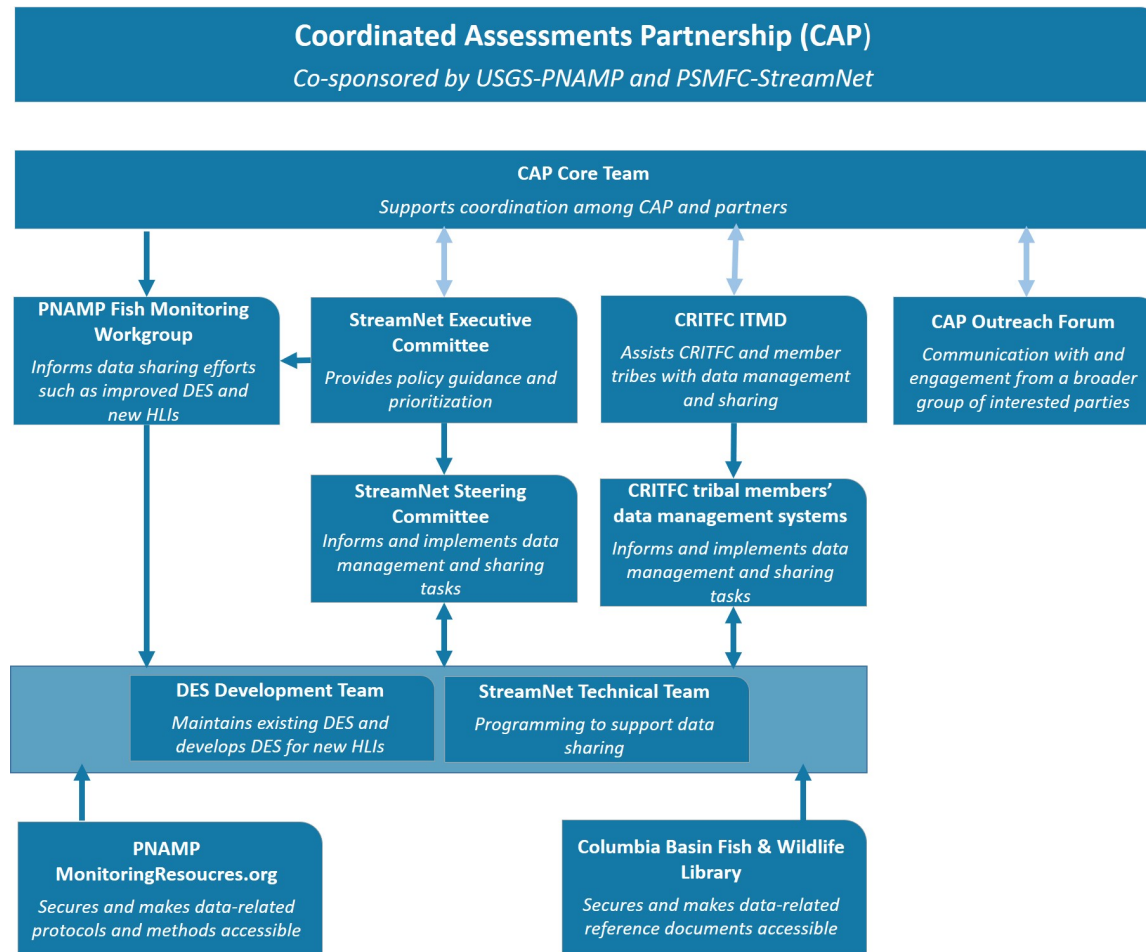


Figure 1: Relationship among the groups supporting and informing implementation of the Coordinated Assessments Partnership. The three double-headed arrows indicated a back and forth exchange between the CAP and these three groups: StreamNet Executive Committee, CRITFC ITMD, and CAP Outreach Forum. The other single headed arrows indicate guidance provided to another group related to CAP implementation.

### Work Groups and Related Projects

**CAP Core Team** - The CAP Core Team meets monthly to coordinate implementation of the CAP among partners, including partners receiving funding from BPA and other federal grants. The Core Team is comprised of representatives from BPA, PNAMP, PSMFC-StreamNet Program Manager, StreamNet Steering Committee, NOAA Fisheries, and the ITMD Project – staff who are directly responsible for ensuring that CAP produces usable results. Depending on the tasks being addressed by the CAP Core Team additional representatives may be invited such as representatives from US Fish and Wildlife Service and Washington State Governor’s Salmon Recovery Office. The CAP Core Team supports discussion among projects implementing the CAP 5-year Plan, directs requests for work to the appropriate CAP team or committee level,

monitors implementation, reports to StreamNet Executive Committee and StreamNet Steering Committee, and generally serves to maintain forward momentum. The CAP Core Team also informs and directs periodic CAP Workshops, as needed. The CAP's history and related documents are maintained on the PNAMP website at <https://www.pnamp.org/project/coordinated-assessments-for-salmon-and-steelhead>. All detailed technical documents for the CAX are available at <http://www.streamnet.org/coordinated-assessments-xct-development/>.

**Data Exchange Standard Development Team (DDT)** – The DDT determines Data Exchange Standard (DES) fields and definitions and import/export guidelines. The DES is the document that defines the data in the CAX database. This group consists of both data management professionals and the biologists who are responsible for calculating indicators and metrics. Actual team membership is fluid and depends on the species/indicators/geography of the data. New DDT may form as the CAP moves to other data categories, such as bull trout or hatchery performance. The chair of the DDT is the PSMFC StreamNet biologist. The most current DES is available on the StreamNet website at: <http://www.streamnet.org/coordinated-assessments-des/>. The DDT meets as necessary to modify existing DES tables and to develop new DES tables.

**CAP Outreach Forum** – This is the broadest group of participants in CAP. The individuals that belong to this group are kept informed about the CAP mainly through email updates including general information, when new versions of the DES tables are completed, and for workshop invitations. For example, these participants are invited to periodic CAP workshops, and asked as needed, to provide broader regional input on DES updates, high-level strategic guidance for CA, annual and five-year CAP work plans, CAX status, and other CAP activities in the region. Typically, the workshops and other events to receive input from this group are hosted and facilitated by the PNAMP with support from StreamNet staff.

**StreamNet Executive Committee** – This group provides the annual high-level guidance and decision-making for CAP. This includes review of the CAP high-level indicators, products, and the 5-year CAP work plan, and making decisions on priorities in terms of species, populations, and indicators addressed in the CAP. The StreamNet Executive Committee is made up of mainly Columbia River Basin policy staff and project leaders from representatives of tribal, federal, state and other organizations managing and using fisheries data, including the entities funded through the StreamNet Program, the StreamNet funding entities (BPA and NPCC), and regulatory agencies (NOAA and USFWS); current members are listed on the StreamNet website. An invitation to interested tribes to join this committee has been made and they participate as feasible. The chair is the PSMFC Executive Director. All agendas, documents, and meeting notes are available on the StreamNet website at <https://www.streamnet.org/resources/documents-and-publications/streamnet-executive-committee/>.

**StreamNet Steering Committee (StreamNet Steering Committee)** – The StreamNet Steering Committee helps to implement the decisions of the StreamNet Executive Committee, with emphasis on the Columbia River Basin tasks included in the CAP 5-year Plan and what is within



contracted scope of work. This group includes active participation by representatives of tribal, federal, state and other organizations managing and using fisheries data including the entities funded through StreamNet as well as BPA, NPCC, NOAA and USFWS. This committee is composed of representatives at the data manager level; current members are listed on the StreamNet website. The chair is the PSMFC StreamNet Program Manager. The StreamNet Steering Committee meet twice a year with some conference calls as needed in-between meetings. All agendas, documents, and meeting notes are available on the StreamNet website at <https://www.streamnet.org/resources/documents-and-publications/streamnet-steering-committee/>.

**StreamNet Technical Team** – This group is responsible for the programming details necessary to adequately flow data from partner data systems to the CAX and other StreamNet systems. This group is composed primarily of PSMFC and state and tribal agency staff from entities funded through StreamNet who implement data management actions. The chair is one of the PSMFC StreamNet technical experts.

**CRITFC ITMD Project** –The purpose of the CRITFC ITMD project is to assist CRITFC and its member tribes in the timely and accurate capture, storage, processing, and dissemination of data for management of anadromous fish and their habitats. There are four main objectives for the ITMD project: 1) assist CRITFC and member tribes to develop cost effective computer architectures and data management strategies for anadromous fish and habitat data, 2) provide data management services to the tribes, 3) assist member tribes to build internal Capacity for improved data management, and 4) enable tribal participation in regional data management and coordination processes. It is important that the ITMD Project fully coordinate and integrate appropriate activities with the CAP to ensure consistent data sharing for Columbia Basin salmon and steelhead.

**Pacific Northwest Aquatic Monitoring Partnership (PNAMP)** – PNAMP supports collaboration and coordination around aquatic monitoring, including discussion of data collection, sharing, and documentation. One of PNAMP’s key projects is MonitoringResources.org, a tool to document monitoring metadata (metadata is required as part of the CAX exchange, though use of MonitoringResources.org is not required). PNAMP members include, tribal, and federal entities (see PNAMP website for current members) collaborating to support aquatic resource monitoring and information sharing. PNAMP contributes to the CAP by facilitating monthly CAP Core Team meetings, the PNAMP Fish Monitoring Work Group and CAP Workshops. PNAMP maintains the historical records of the CAP, maintains the CAP Outreach Forum distribution lists and coordinates regional communication with the CAP Outreach Forum. The CAP history and related documents are maintained on the PNAMP website at: <https://www.pnamp.org/project/coordinated-assessments-for-salmon-and-steelhead>.

**PNAMP Fish Monitoring Work Group (FMWG)** – The FMWG supports collaboration, communication and coordination among fish monitoring practitioners in the Pacific Northwest for effective monitoring assessment methods and efficient data sharing. The tasks addressed by

the FMWG are identified by PNAMP partners as well as through the CAP and StreamNet Program. The FMWG contributes to the CAP and StreamNet Program by providing a venue for discussion of topics related to CAP/StreamNet task implementation (Figure 3). Membership of this workgroup is fluid to reflect the appropriate subject matter experts (e.g. fisheries biologists, program managers, etc.) to address specific tasks, and is drawn from the CAP General List of participants.

## Appendix A: Acronyms

BPA	Bonneville Power Administration
BiOp	Biological Opinion
CAP	Coordinated Assessments Partnership
CAX	Coordinated Assessments Exchange
Colville Tribes	Confederated Tribes of the Colville Reservation
CRITFC	Columbia River Inter-Tribal Fish Commission
DDT	CAP Data Exchange Standard Development Team
DES	Data Exchange Standards
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FMWG	Fish Monitoring Workgroup
FW-Program	Columbia River Basin Fish and Wildlife Program
HLI	High Level Indicator
IDFG	Idaho Department of Fish and Game
ITMD	Inter-Tribal Monitoring Data
MFWP	Montana Fish, Wildlife & Parks
NOAA	National Oceanic and Atmospheric Administration
NOSA	Natural Origin Spawner Abundance
NOSA	Natural Origin Spawner Escapement
NPCC	Northwest Power and Conservation Council
ODFW	Oregon Department of Fish and Wildlife
PNAMP	Pacific Northwest Aquatic Monitoring Partnership
PNI	Proportionate Natural influence
PSMFC	Pacific States Marine Fisheries Commission
StreamNet	StreamNet Program
USFWS	US Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife