

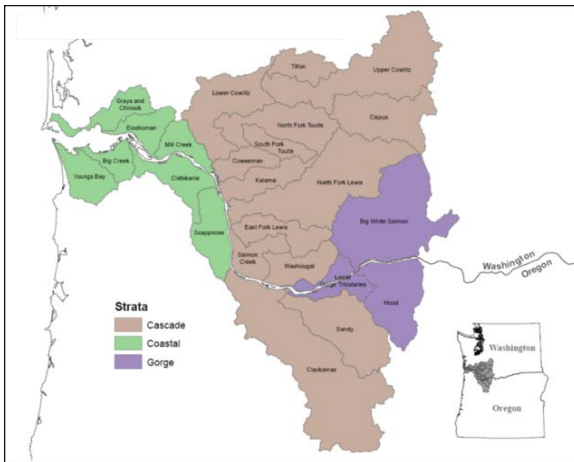


# pacific northwest aquatic monitoring partnership

## Integrated Status & Trends Monitoring Demonstration Project

### NEXT STEPS FOR THE FISH COMPONENT

**Overview**— Many salmonid populations in the Pacific Northwest are listed under the Endangered Species Act (ESA). Federal, state, and tribal organizations spend millions of dollars annually to assess the status and trends of these fish populations and to evaluate the effectiveness of recovery efforts. PNAMP's Integrated Status and Trends Monitoring (ISTM) Demonstration Project is intended to demonstrate approaches and utility of integrating the collection of information to address multi-scale questions about the status and trends of fish and their habitat. The [ISTM Fish component](#) has developed a step-wise approach to align and integrate monitoring efforts and data needed for evaluation. This approach facilitates effective and cost-efficient VSP monitoring through collaborative partnerships and innovative tools to prioritize, assess, manage monitoring efforts, and inform alignment of monitoring efforts across organizational boundaries. Regional salmonid recovery programs, such as the *Draft Anadromous Salmonid Monitoring Strategy* for the Columbia River Basin, can directly benefit from this approach.



**Where**—PNAMP's ISTM Fish component demonstrated an organizationally-integrated VSP monitoring approach for ESA-listed salmonid populations in the lower Columbia River (LCR) with Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish & Wildlife (WDFW), and the Lower Columbia Fish Recovery Board (LCFRB). PNAMP is currently exploring the possibility of using this approach to enhance VSP monitoring efforts in other locations in the Pacific Northwest.

**Approach**—The Prioritization and VSP Scoring tools produced by this first demonstration of the ISTM concept serve to enhance regional VSP monitoring efforts by contributing to the ability of monitoring programs to self-assess and assure the quality of their raw monitoring data, streamline the documentation of VSP monitoring efforts, and encourage sharing of data. The ability of individual organizations to assess and upgrade their VSP monitoring efforts is crucial to creating a strong regional VSP monitoring program.

The Prioritization tool links spatially explicit information on the recovery priority of a population with the feasibility/relative expense of obtaining the monitoring data. This tool supports management decisions by facilitating the identification of highest priority VSP populations at locations where monitoring efforts will be technically successful and most cost-effective. The VSP Scoring tool assesses the quality of monitoring data used to generate VSP indicators. The quality and reliability of a VSP indicator is directly linked to the precision and bias of the monitoring data used to calculate the indicator. The VSP Scoring tool uses an explicit scoring system to assess the quantitative strength of individual monitoring efforts based on the sampling design and methods used. By identifying monitoring gaps and strengths, feedback from this assessment encourages fisheries managers to implement strategies to improve the design and methods used in their VSP monitoring efforts. Ideally, this will result in gathering monitoring data that meets the highest regional data standards possible for VSP indicators.

The prototypes of Prioritization and VSP Scoring tools are currently in use by ODFW and WDFW as part of the LCR ISTM Fish Demonstration Project. Although the ISTM Fish interactive tools are still under development, future users will benefit from our effort to make these tools easy to access, understand, and use. Creation of additional interactive tools to facilitate VSP monitoring efforts and enhanced versions of the existing ISTM Fish component tools is expected to be an iterative process.

**Implementation**— The overall goal of the ISTM Fish component is to facilitate development of a strong reliable network of VSP monitoring efforts for salmon and steelhead that meet regional VSP data requirements as specified in the NOAA Guidance document. To achieve this goal, feedback from iterative application of these tools and from other avenues of input, will be critical to refine these tools as well as to identify and develop additional processes and tools needed. To this end, PNAMP is seeking opportunities with interested fisheries organizations and collaborative partnerships throughout the PNW to implement the ISTM Fish approach and its new tools. These opportunities would inform further development of the Prioritization and VSP Scoring tools culminating into a streamlined interactive version. Interested organizations will receive support from PNAMP staff to orient monitoring program managers and biologists to the new tools and to begin populating the tools with the detailed information on their VSP monitoring efforts. Further, PNAMP staff will be available to assist with further development of the Prioritization and VSP Scoring tools to accommodate organization specific monitoring information.

**Products to date include:**

2013: "Evaluation of the Alignment of Lower Columbia River Salmon and Steelhead Monitoring Program with Management Decisions, Questions, and Objectives". Rawding, D., and Rodgers, J. PNAMP 2012-001. <http://www.pnamp.org/document/4143>

2012: "Evaluation of the Data Collection, Storage, and Management for the Lower Columbia River Salmon and Steelhead Monitoring Program". Rawding, D., Rodgers, J., Cox, B., Cooney, C., Karnowski, M., Woodard, R. and Warren, D. PNAMP 2012-002. <http://www.pnamp.org/document/3715>

2010: "Identification and Prioritization of Management Decisions, Questions, and Objectives for Lower Columbia River Integrated Status and Trend Salmon and Steelhead Monitoring". Rawding, D., Rodgers, J., Graham Hudson, B. PNAMP 2010-004. <http://www.pnamp.org/document/3169>

**Related PNAMP Initiatives—**

- **[ISTM Habitat Component](#)**: facilitates development of an organizationally integrated approach to monitoring the freshwater habitats that support healthy salmonid populations and other native fishes.
- **[Master Sample Tool Component](#)**: demonstrated the use of a 'master sample' to create sample designs and the feasibility of a tool to track sites sampled and by whom (from the 'master sample'). A prototype of this tool was developed to support organizations working in the LCR under the ISTM Fish Demonstration Project. Currently, PNAMP is re-developing the prototype to support the entire Pacific Northwest region. The new tool is known as the **[Sample Designer](#)** and it will guide users in creating a sample design with a randomized, spatially balanced set of representative sampling sites for a study and will store documentation of that design in a web-accessible resource.
- **[MonitoringAdvisor.org](#)** and **[MonitoringMethods.org](#)**: websites to assist resource managers and biologists in the development and documentation of effective fish and habitat monitoring programs. These websites provide step-wise interactive resources designed to facilitate planning and documentation of fish and habitat monitoring programs.
- Other PNAMP initiatives related to the ISTM Fish component are the **[Coordinated Assessments](#)**, **[CRITFC's Salmon Population Crosswalk Database](#)**, and **[Methods Review](#)**.

More information on these and other PNAMP initiatives can be found at <http://www.pnamp.org> or by contacting PNAMP Coordinator [Jen Bayer](#).

