



pacific northwest aquatic  
monitoring partnership

# **Pacific Northwest Aquatic Monitoring Partnership (PNAMP)**

Presentation to Great Northern LCC, April 14, 2011

Presented by Jennifer Bayer, PNAMP Coordinator (USGS)

# What is PNAMP?

- PNAMP provides a forum for collaboration and coordination between state, federal, and tribal aquatic habitat and salmonid monitoring programs
- Open and inclusive process, voluntary participation
- Supported primarily by in-kind contributions of time from partners
- Facilitated by staff (through USGS)

# Who is PNAMP? Signatory Partners



ACOE



EPA



USFS



BLM



NOAA



USGS



BPA



NWIFC



WA ECY



CDFG



WDFW



CBFWA



OWEB



WA GSRO



CRITFC



PSMFC



WA RCO



Colville Tribes



USBR

# Drivers for Coordination

Land area affected by Endangered Species Act listing of salmon and steelhead

- 28 distinct population segments (6 endangered, 22 threatened)
- 176,000 square miles in WA, OR, CA
- 61% of Washington's land area, 55% of Oregon's, 26% Idaho's, 32% California's

**Beyond salmon...PNW entities have varied but overlapping mandates – current fiscal realities direct us to share resources**

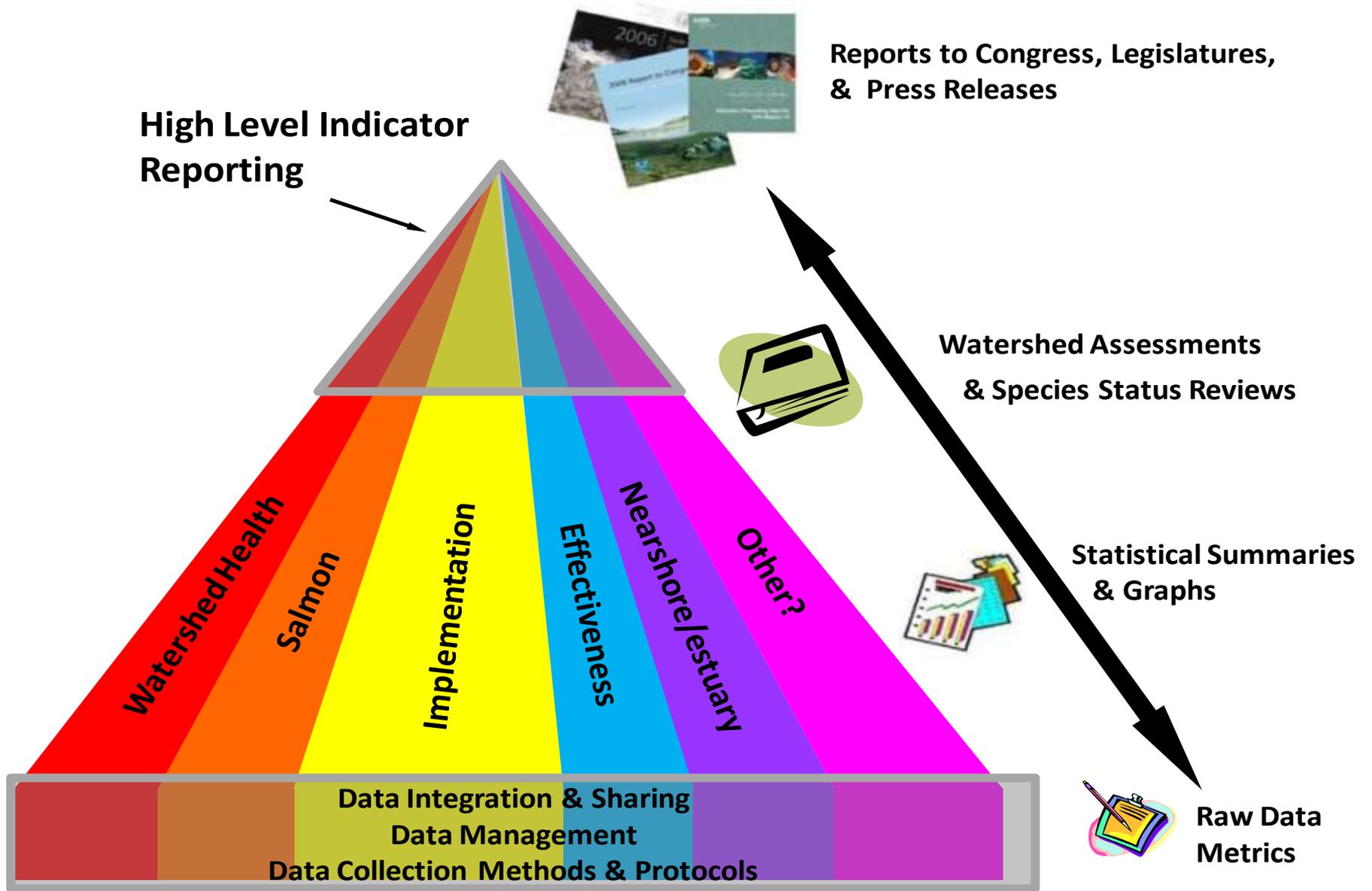
- **Data collection**
- **Sharing of results**



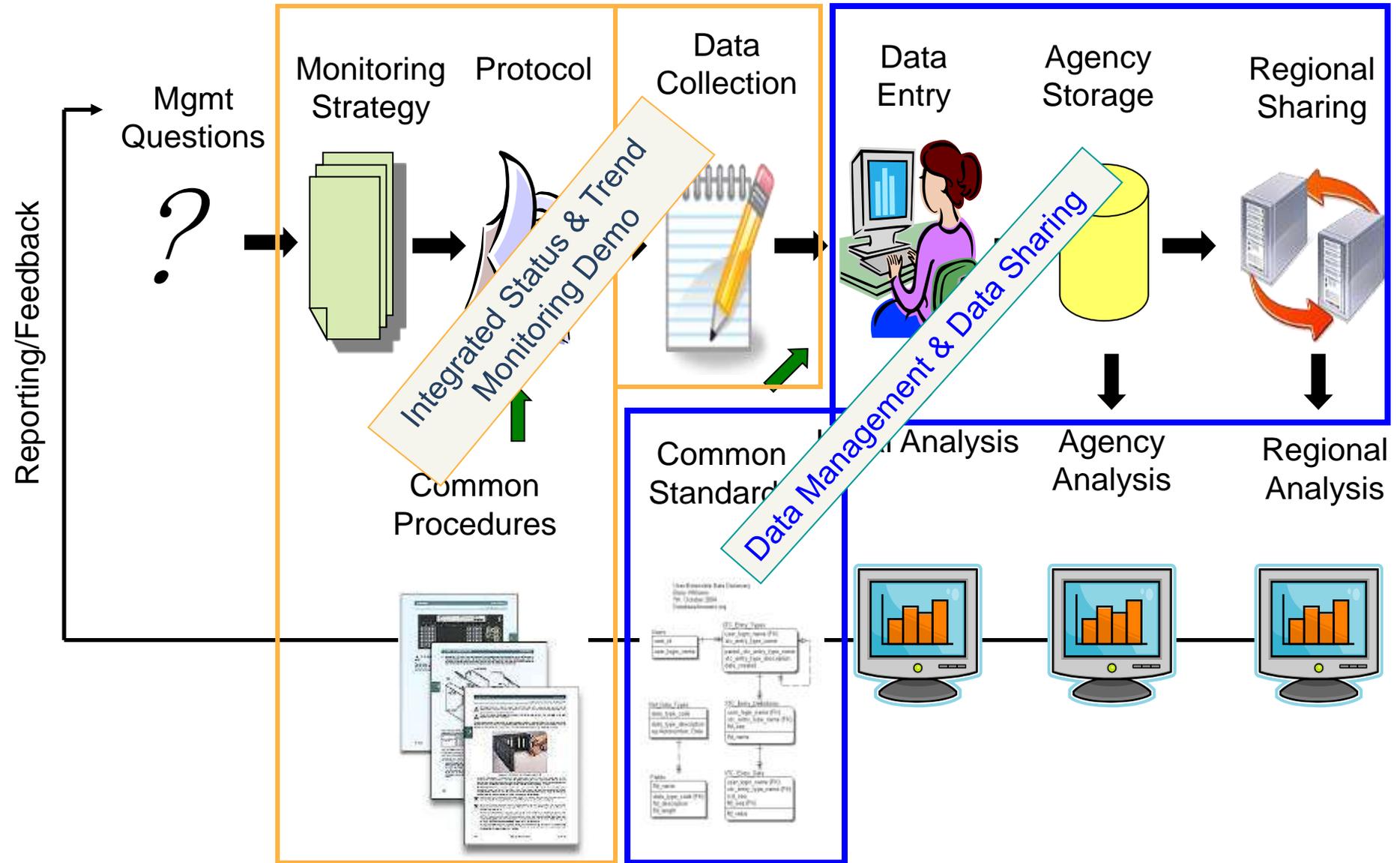
# PNAMP Assets

- PNAMP has developed, grown, and established a community of expert monitoring practitioners
- PNAMP products, tools, and services can be used by LCCs = save time & money
- PNAMP can share our experiences with LCCs as you develop your own communities of practice for monitoring

# Connecting Reporting to Data Collection



# Steps Needed to Feed into HLIs



# Key PNAMP projects of interest to LCCs

- **ISTM Demonstration:** habitat monitoring coordination & data sharing
- **Coordinated Assessments:** fish population data sharing (VSP indicators)
- **Monitoring Methods.org:** methods documentation & discussion

# Integrated Status & Trend Monitoring (ISTM) Demonstration Project

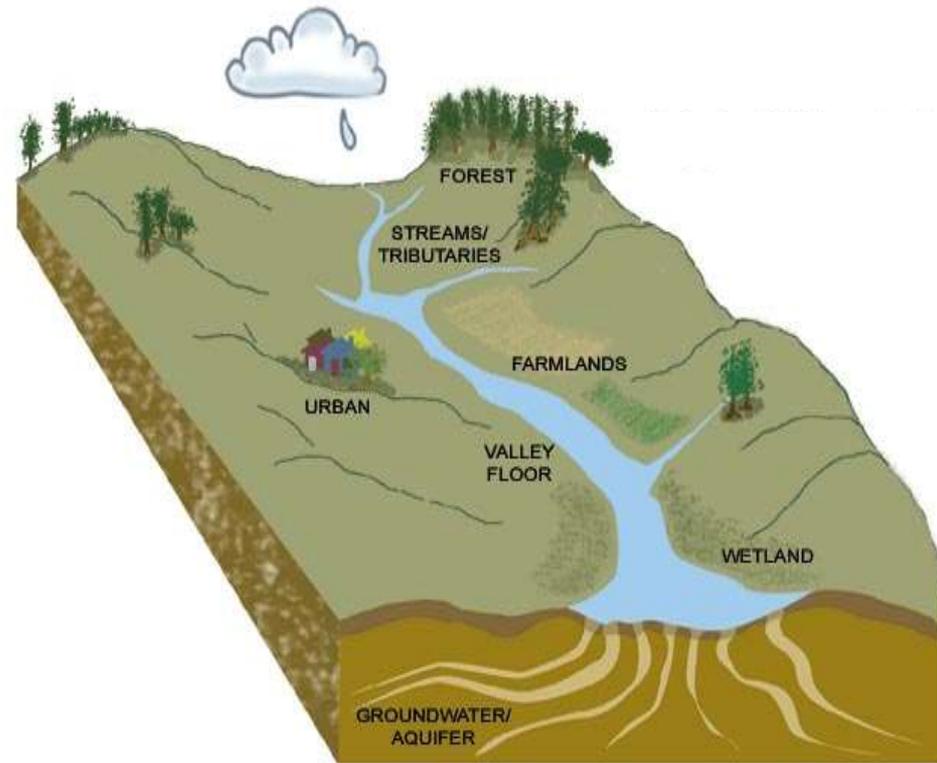
Common Question:

What is the status and trend of fish and/or the ecosystems that support them?



# Objectives of ISTM

1. Identify decisions, questions, and objectives
2. Review existing programs and designs
3. Establish design, sampling frames, analytical methods

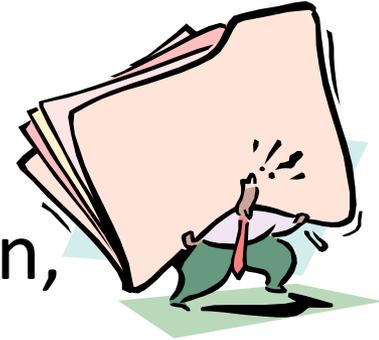


4. Use trade-off analyses to develop recommendations for monitoring
5. Recommend implementation and reporting mechanisms

# Anticipated Contributions of ISTM

- Coordination among participants
- Tools for designing monitoring programs and analyzing data
- Examples of how to integrate the master sample concept with existing monitoring efforts
- Specific recommendations for developing a coordinated, integrated, and efficient monitoring programs for fish and habitat in the LCR ESU
- Recommendations to other areas of the PNW on how they may develop more coordinated, integrated, and efficient monitoring programs for fish and habitat
- Recommendations on metadata requirements to describe survey designs, protocols, and resulting data

# Information management is fundamental to monitoring coordination



- Advancement of regional data collection, sharing and exchange guidance

Coordinated Assessments Project (with CBFWA)

- Development of a library of monitoring protocols & glossary of monitoring terms

MonitoringMethods.org Project (with State of the Salmon)

# Coordinated Fish Population Assessments

Columbia River Anadromous  
Fish Monitoring Strategy



Change in data management  
approaches is needed to  
achieve coordinated  
assessments and reporting



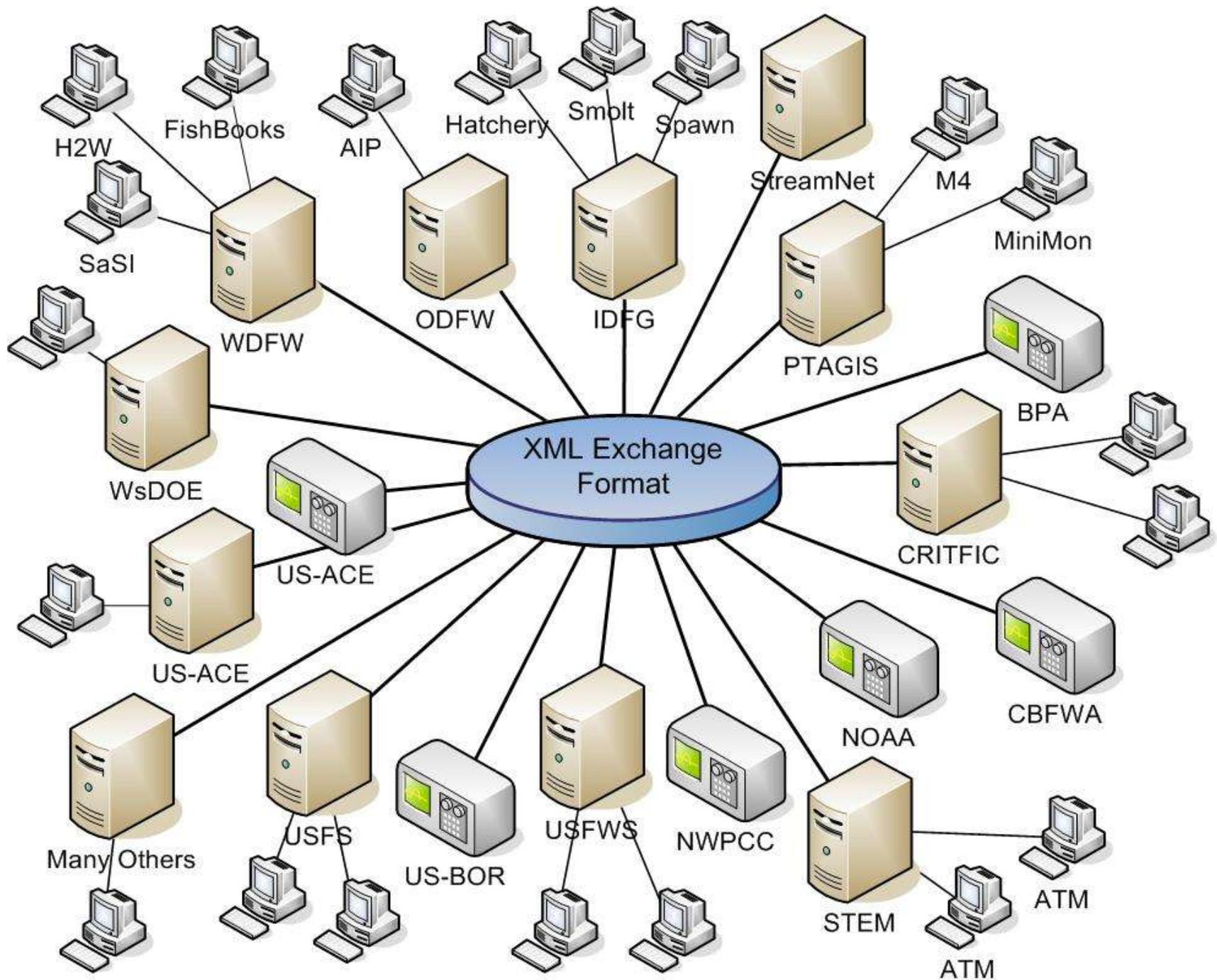
Northwest  
Power and  
Conservation  
Council



pnamp

# “Coordinated Assessments”: steps to report fish population indicators

1. **High Level Indicators:** define expected outcomes, report metrics, etc.
2. **Coordinated Monitoring Strategy:** prioritize what data to collect
3. **Coordinated Fish Population Assessment:** define what data and information to share
4. **Data Management :** provide infrastructure to share data





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Use the navigation above to begin browsing, creating, and learning.

Welcome to MonitoringMethods.org, the Pacific Northwest Aquatic Monitoring Partnership's Monitoring Methods, Metrics, and Indicators web site

#### BROWSE

Find techniques others are using or recommend

#### CREATE

Add or update your own methods or protocols

#### REVIEW

Recommend edits, rate techniques, participate in formal reviews

#### DISCUSS

Share what you've learned and find advice from your colleagues

#### Learn More:

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New to the Monitoring Methods site? Not sure where to begin? Select the user type below that best describes you and we'll show you how to get the most out of the site based on your individual needs and interests.

### Our Anatomy of a Protocol

"Protocol" is one of those terms that means many things to many people. Check out our definition to get a quick idea of what this application is about.

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### Quick Stats





# PNAMP Tasks 2011



## Monitor status and trends

Adult and  
juvenile fish

Habitat condition (remote  
sensing and field methods)

## Track implementation of restoration actions

Data dictionary and metrics

## Evaluate effectiveness of actions

Project -  
reach scale

Watershed scale –  
intensively monitored  
watersheds

Coordinate data access

Monitoring  
design,  
sampling  
protocols,  
and data  
manage-  
ment  
standards

Integrated Status & Trend  
Monitoring Demonstration

Master Sample Tracking Tool

Protocol/methods Workshop  
Series

Remote Sensing Applications

Monitoring Methods.org  
(protocol library and glossary)

Metadata Guidance  
Implementation & Tools

Effectiveness Monitoring  
IMWs/ Coordination

Data Management Best  
Practices

Coordinated Assessments (Fish  
Population Data)

Habitat Data Sharing  
Coordination

# Questions?

[www.pnamp.org](http://www.pnamp.org)



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