

Pacific Northwest Aquatic Monitoring Partnership (PNAMP)



A Presentation for:
Columbia River Toxics Reduction Working Group
Toppenish, WA
September 30, 2008

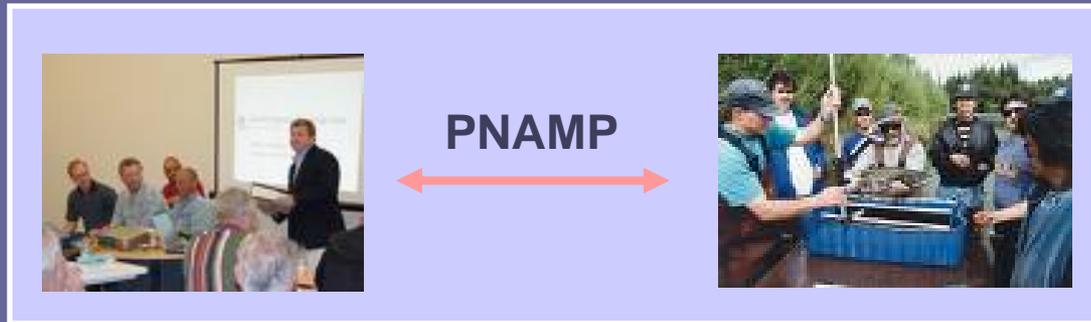
Sean M. Quigley, PNAMP Data Steward (US Geological Survey)

PNAMP Mission

To provide a forum to enhance the capacity of multiple entities to collaborate and produce an effective and comprehensive network of aquatic monitoring programs in the Pacific Northwest based on sound science designed to inform public policy and resource management decisions.

PNAMP Objectives

- Provide a technical forum to develop, coordinate and inform monitoring and evaluation programs
- Provide a forum for communication with decision makers



- Be a clearing house for sample design, protocol development, and data management activities
- Provide process to establish landscape/ecosystem indicators and metrics

PNAMP Partners



ACOE



US Army Corps
of Engineers



NPCC



BLM

OWEB

BPA



PSMFC



CDFG



USBR

CBFWA



USFS

CRITFC

Colville Tribes



USGS



WA ECY

EPA

WDFW



NOAA



WA GSRO

NWIFC

WA RCO

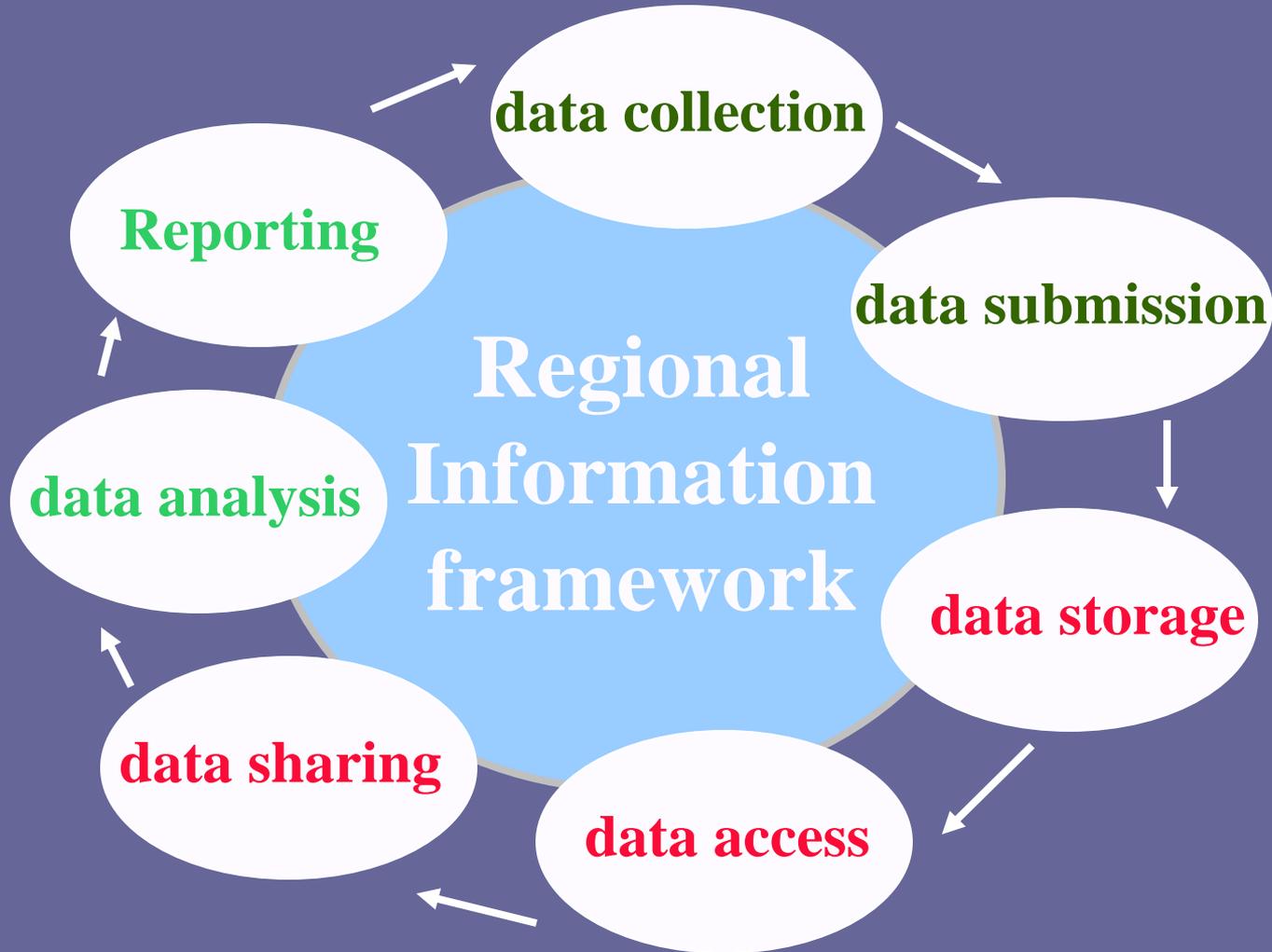


PNAMP Current Emphasis

- **Data Management Workgroup**

- Assist with the advancement of a regional environmental information management strategy and framework
- Assist with the advancement of regional data collection, sharing and exchange guidance
- Development of a “library” of long-term aquatic-monitoring protocols
- Development of a regional glossary of monitoring terms and “Data Dictionary”
- Obtain knowledge, needs, and lessons-learned through Technology Transfer meetings

Data Management



Data Management

- **Documenting Protocols – Metadata**
 - *Guidelines for long-term monitoring protocols, 2003, Karen Oakley, et. Al.*
 - Should act in a prescriptive (new data) and descriptive (historical data) manner
 - Attributes of methods
 - QA/QC of data input
 - Comparison of data management system elements for exchange/interoperability
 - Influence future data collection efforts, enable inventories and gap/overlap analysis, opportunity for improvement of agency guidelines through comparison

Data Management

- **General Data Management Guidelines (not exhaustive)**

1. Write a data management plan
2. Employ standards wherever possible
 - metadata
 - vocabularies, elements, coding
 - field data collection technologies
 - data interoperability/exchange formats
3. Collaborate with or piggy-back on other efforts
4. Identify appropriate archiving and Data Lifecycle Management practices

Data Management

- **Historical Data Assimilation**

- Is it worth the time and effort?

- may provide insight into additional needs

- data of unknown or dubious quality should be flagged and identified as such

- provide “user beware” statement

- Start with “Best Available” data already in digital format

Data Sharing/Interoperability

- **Centralized Repositories**

- **Advantages**

- maintenance and stewardship is divested to others

- Interfaces, portals, analysis tools can easily and dynamically assimilate information

- Standardized QA/QC, etc.

- **Disadvantages**

- Loss of control of data turnaround time and availability

- Ability to handle new information is limited

Data Sharing/Interoperability

- **Distributed Network**

- **Advantages**

- **Legacy systems are maintained, but use a common data exchange format (XML Semantic Schemas) with multiple crosswalks**

- **Easily supported by web portals with shared tools for analysis and reporting**

- **Disadvantages**

- **Initial implementation can be time consuming**

- **Lack of centralized control on data input and aggregation**

Data Sharing/Interoperability

- **Distributed Network – Central Repository Hybrid**
 - Create a centralized repository with input from stakeholders and affiliate groups who determine common elements
 - One-time decentralization of repository by affiliate groups who maintain legacy and enterprise information
 - Exchanges occur with centralized repository and between network partners

Data Steward

- **Purpose and utility of a Data Steward**
 - Acts as a liaison between network partners and repository at multiple levels
 - Assists with data input and QA/QC from field staff to data storage
 - Assists partners with developing and implementing exchange formats and crosswalks
 - Identifies and reports on the needs of local groups and data collection staff

Acknowledgements

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More Information

www.pnamp.org