REGIONAL WATER DATA MANAGEMENT PROJECT

Final Report to RAC

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BACKGROUND

- **DWR - Data Management Standard for IRWMPs**

- **2013 San Diego IRWM Plan**

- **RWDMP**
  - **WHAT:** regional, web-based data mgmt. system (DMS)
  - **WHY:** consistent, sharable data, and fewer gaps in data collection and analysis efforts
  - **HOW:** stakeholder-driven, collaborative process

ADVISORY WORKGROUP (AWG)

- 12 members, 4 alternates
- water policy knowledge & working experience with DMSs
- Provided strategic guidance

AWG Efforts:

- Recommended prioritization approach
- Developed Stakeholder Group (SHG) structure
- Used SHG input to develop DMS design recommendations
- Reviewed DMS recommendations outline & report
- Developed recommendations for next steps
- Participated in SHG workshops

STAKEHOLDER GROUP WORKSHOPS

- 60+ Stakeholders

- Two all-day workshops

- Purpose: inform development of recommendations for the DMS

PURPOSE OF DMS

- The stakeholders and the Advisory Work Group the DMS should provide:
  - Simplified **access to existing data** sources;
  - Direct **access to SD-IRWM-generated** data;
  - User-defined **interactive access** to key data sets;
  - Efficient **sharing** of data resources; and
  - Effective **integration** and use of data resources.

> *A common data management system will facilitate discoverable and accessible watershed data for the region. The regional DMS provides a shared platform for assessment and decision-making while reducing unnecessary duplication of data collection efforts.*

OTHER SYSTEMS REVIEWED

- California Environmental Data Exchange Network (CEDEN)
- Surface Water Ambient Monitoring Program (SWAMP)
- California Integrated Water Quality System (CIWQS)
- Geotracker
- Beachwatch
- California Geoportal
- West Coast Governors Alliance, Ocean Data Portal (WCGA ODP)
- California Data Exchange Center (CDEC)
- Integrated Water Resources Information System (IWRIS)

DESIRABLE FEATURES

- **Consistency of data and quality control,**
- **System scalability,**
- **Use of open source, and**
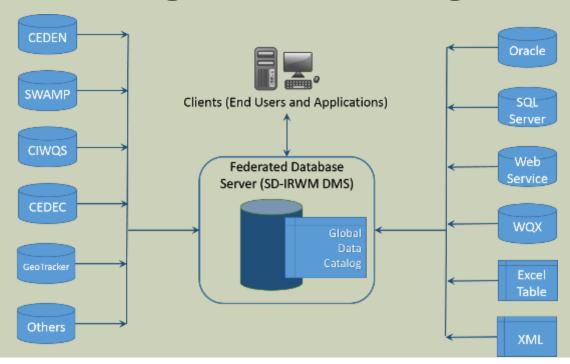- **Federated DMS architecture.**

Database	Consistent data and QC	Scalable System	Opensource Platform	Federated Architecture
CEDEN	X	X		
SWAMP	X	X		
CIWQS	X	X		
Geotracker	X	X		
Geoportal	Metadata only	X	X	X
WCGA ODP	Metadata only	X	X	X
CDEC	X	X		
IWRIS		X		X

TASKS FOR A REGIONAL WATER DATA MANAGEMENT SYSTEM

- Meets needs/provides benefits that are shared by multiple stakeholders in the region;
- Promotes interoperability of systems;
- Builds on innovative technology to optimize gathering, analysis and sharing; and
- User-friendly

DESIGN AND STRUCTURAL RECOMMENDATIONS

- Do **NOT** build a new data system, leverage existing systems using federated architecture/web services.
- Focus efforts on standards for metadata and development of a global data catalog.

GOVERNANCE AND DATABASE MANAGEMENT STRATEGY

- Develop priorities and requirements for:
  - Data formats
  - QA/QC
  - Documentation
  - Data availability
  - Funding for Operations and Maintenance

GOVERNANCE RECOMMENDATIONS

- Designate a staff position with specific responsibility to conduct system maintenance and updates to the global data catalog.

- Develop written memorandums of understanding among participating organizations.

  - Address data and metadata standards and procedures should a member organization fall short of meeting expectations.

- Plan regular system reviews every 3-5 years to evaluate the effectiveness and future priorities to guide maintenance and development of the DMS.

RECOMMENDATIONS REPORT

- **Full Report available at: www.projectcleanwater.org**

- **Linked under:**
  Community Resources
  → Regional Water Data
  Management Project