Western States Water Council’s
Water Data Exchange (WaDE) Update
Sara Larsen, WSWC

2015 Exchange Network National Meeting
Supporting the Business of Environmental Protection

September 29–October 1, 2015
Sheraton Philadelphia Society Hill Hotel
Philadelphia, Pennsylvania

http://www.exchangenetwork.net/en2015
ABSTRACT

The Western States Water Council (WSWC), in collaboration with the Department of Energy (DOE), Western Governors’ Association (WGA), Western States Federal Agency Support Team (WestFAST), Texas Council of Environmental Quality (TCEQ) and the Exchange Network, have been developing a water data exchange project for sharing and publishing water availability, water use, and other water planning information created by its member states’ water agencies. WSWC efforts include laying the foundation for the exchange by reviewing members’ water data and IT capabilities, and developing a common vocabulary that could support much of the states’ most commonly generated datasets. Member states are working hard to complete their WaDE deployments. Once existing state data are shared, the WSWC hopes to host a discussion on what workflow tasks/data elements could be included or modified by their members to arrive at a more comparable, regional picture of water data in the West.
Background: Data-sharing

Streamgages, Basin Budgets, Water Rights/Permits, Diversions and Consumptive Use, Regulatory Limits, Availability
Big Picture Goals

• To better enable the states to share data with each other, the public and federal agencies

• Encourage sharing of federal data using standardized schemas (formats) with the states, to assist with their planning efforts
Groundwork

• Variability between the states and a common schema (format) for water planning data
• Develop prototypes for databases and web services
• Outreach and education
• Encourage use of standardized data schemas where appropriate (WaterML, GWML, etc.)
Representational State Transfer (REST) Endpoint
http://www.state.gov/webservices/GetSummary...
Types of Data Exchanged

• Summary-level data

Availability Summary: 2,000 AFY

Water Use Summary: 1,500 AFY

Water Supply and Regulatory Information
Types of Data Exchanged

- Detailed/site-specific data

Water Rights/Permit Data
- Owner
- Beneficial Use
- Legal Status
- Priority Date

Diversions
- Locations, Amounts

Uses
- Locations, Amounts
- Return Flows
- Locations, Amounts
Types of Data Exchanged

- Detailed/site-specific data
Funding Status - 2015

• States had limited funding for WaDE so WSWC staff have worked to find additional resources (WA, OR, ID, OK, TX, CA, SD, and NV).

• Some states are deploying with minimal or no assistance (WY, UT, CO, NE, KS).
Technology Update for 2015

• WaDE Databases and web services are finalized for Version 0.2
• Cloud deployment option
• Online documentation for guiding partners on data-mapping, set up, etc.
If this is your first visit to WaDE, please step through the short tutorial below for an overview of what type of data are accessible within the WaDE portal, how to access them, and what their limitations may be. Enjoy!
Data shared within WaDE are organized by "reports," which are yearly encapsulations of the data, either a water year (Oct. 1st - Sep. 30th), an irrigation year (Nov. 1st - Oct. 31st), or a calendar year. There may be multiple reports for any given year based on the methods used to generate that report.

**NOTICE** For all data provided, please review the associated methodology information thoroughly to discover data provenance and quality before using, especially when comparing data between states or organizations.

**Organization: Utah Division of Water Resources**

Geospatial Reporting Unit: REPORTUNIT - 00-01-02

For a listing of methods used by Utah Division of Water Resources and shared within WaDE, click here.

To retrieve ALL of Utah Division of Water Resources's SUMMARY datasets OR ALL of its DETAILED (site-specific) datasets by report:

<table>
<thead>
<tr>
<th>Report</th>
<th>Data Category</th>
<th>View Entire Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>SUMMARY</td>
<td>All Summary Data</td>
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*Note: Requests for ALL DETAILED DATA may have more extensive data-retrieval times. Use the table below to access detailed datasets by data category and type.

To retrieve summaries or detailed datasets by report and by data category and type:
**NOTICE:** For all data provided, please review the associated methodology information thoroughly to discover data provenance and quality before using, especially when comparing data between states, organizations or applications.

**Organization:** Utah Division of Water Resources

**Geospatial Reporting Unit:** UT - CUSTOM - 00-01-02 - Park Valley

**Related Web Feature Service(s) (WFS):**

This summary is relevant for the reporting year: 2012

These data were reported on: 2015-05-22

### Water Use

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<th>Source Type</th>
<th>Irrigation Type</th>
<th>Acres Irrigated</th>
<th>Crop Type</th>
<th>Population Served</th>
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### Water Use

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### Derived Water Supply

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WGA, etc.
- Models, maps, planning, coordination, cooperation, visualization....

Sandia & Other Map Applications
- WaDE assembles estimates from state agencies using common data schema

WaDE: Data Aggregation
- State agency ingests NGWNN data into groundwater models to estimate current aquifer status or water availability - publishes estimate to WaDE

Data Review & Interpretation
- Example: Groundwater elevations or streamflow reported using WATERML, GWML, or other...

Sensor/Measurement Data

Policy
- Policy Tools

Research & Analysis

Data
Questions?

To learn more or to participate in workgroups, etc., please see:

www.westernstateswater.org

and click on the “WADE” tab

OR

email Sara Larsen: saralarsen (at) wswc.utah.gov