

Hydrologic Data Management System (HydroDMS)

Presented to: SCGA Board




November 10, 2010

Vision

- Consistent, common database
- Public outreach and education
- Easy access to data
- Analysis of data
- Streamline reporting/
BMO compliance

**Sacramento Central
Groundwater Authority**



Basin Management Report
2007 – 2008




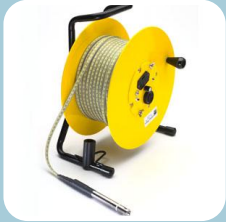
Table 3 Water Use in the Central Basin, 2005-2008

	Groundwater Water Usage (Acro-Feet)			
	2005	2006	2007	2008
Water Purveyors ¹				
Elk Grove Water Service	5,397	6,365	6,963	6,460
Cal-Am	23,391	22,775	23,651	24,769
GSWC	12,639	13,129	9,754	9,162
SCWA	27,686	29,019	30,450	34,220
Agricultural ²	167,062	166,148	165,234	164,320
Agricultural – Residential ²	7,852	7,946	8,041	8,136
SUBTOTAL	244,026	245,382	244,093	247,067
	Surface Water Usage (Acro-Feet)			
City of Sacramento	94,762	97,370	103,971	n/a
GSWC	5,228	5,343	9,124	9,437
SCWA	5,454	4,330	5,403	3,345
Rancho Murietta CSD	1,840	1,938	1,946	1,873
SUBTOTAL	107,284	108,981	120,444	n/a
	Recycled Water Usage (Acro-Feet)			
SCWA	1,121	1,056	1,052	1,008
Rancho Murietta CSD	600	600	600	600
SUBTOTAL	1,721	1,656	1,652	1,608
	Remediated Groundwater Pumping (Acro-Feet)			
Aerojet ³	11,682	16,356	17,105	17,793
Mather Field ⁴	-	-	-	-
Kiefer Landfill ⁵	-	-	-	-
SUBTOTAL	11,682	16,356	17,105	17,793

Tasks

1. Evaluation and interpretation of lithologic data
2. Acquisition, evaluation, and interpretation of groundwater quality data
3. Acquisition, evaluation, and interpretation of groundwater pumping data
4. Acquisition, evaluation, and interpretation of groundwater elevation data
5. DMS data update
6. Development of IWRIS interface and tools for SCGA DMS
7. Public outreach
8. Report preparation
9. Project management and coordination

Data



Groundwater Level Data

- DWR WDL
- Municipal Water Purveyors
- Aerojet Operations
- Original Database



Groundwater Pumping Data

- Purveyor Pumping Data
- SacIWRM Estimated Pumping for Ag and Ag Residential
- Remediation Operations
- Original Database



Groundwater Quality Data

- DPH data
- USGS- Data collected, not included because of lack of well identifiers
- DWR WDL- Data collected, not included because of lack of well identifiers
- Remediation Operations- Data requested, but not received
- Original database



Lithology

- USGS/DWR database
- DWR scanned log images were digitized
- Original database

Where is the Data?

- ✔ WRIME hosted
- ✔ Cogent Communications Data Center
- ✔ San Francisco
- ✔ Dedicated cabinet
- ✔ Advanced Cisco firewall
- ✔ Backup server



Maintenance

- ✓ No software licensing fees
- ✓ Common platform that is easy to maintain

Overview of HydroDMS

Manage, analyze, and view all your water data in one place!

- Web-enabled analysis tools previously only available in a GIS environment
- Easily create reports and maps for Annual and/or Biennial Reporting
- Easy-to-use, modular design allows for future enhancements

Database

- Single database designed to contain all Sacramento County hydrologic related data
- Currently, includes SCGA and SGA available data
- Custom access privileges allow for appropriate level of access to data/information



HydroDMS

SCGA

- Super Admin
- Power User
- User

Agency A

- Admin
- Power User
- User

Agency B

- Admin
- Power User
- User

SGA

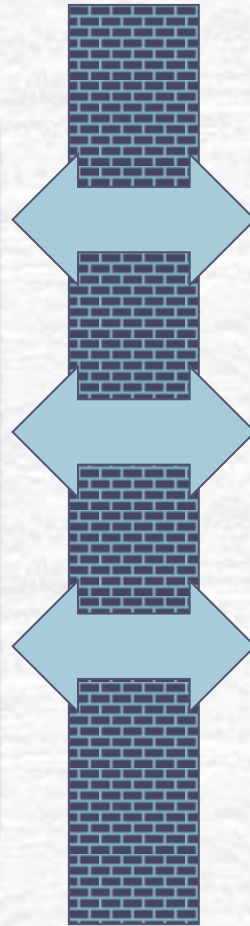
- Super Admin
- Power User
- User

Agency C

- Admin
- Power User
- User

Agency D

- Admin
- Power User
- User



User Permissions

User Type	Setup Access Rights	User Setup	Data Entry/Edit	Data Import	Data Validation	Data Analysis	Data View
Super Admin	•	•	•	•	•	•	•
Power User			•	•		•	•
User							•
Agency Admin	•	•	•				•
Agency Power User			•				•
Agency User							•

HydroDMS Modules

Data
Manager

Model
Manager

Data
Viewer

Toolbox

Publish
Manager

User
Manager

Demo

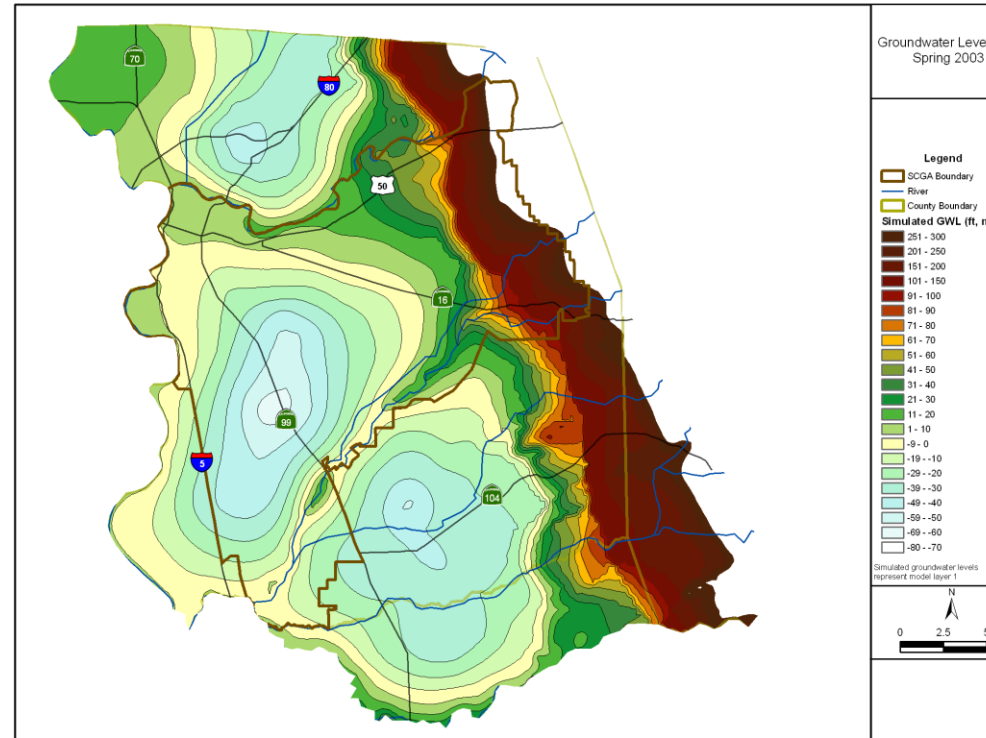


Biennial Report

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COUNTY OF SACRAMENTO

MUNICIPAL SERVICES AGENCY

DEPARTMENT OF WATER RESOURCES

DRAWN: August 2009
BY: R. Boybal

NOTE: THIS GROUND WATER CONTOUR MAP IS FOR COMPARISON PURPOSES ONLY. SPECIFIC INFORMATION SHOULD BE OBTAINED BY INDEPENDENT INVESTIGATION.

HydroDMS Development Team

- ☞ Jeanna Long, PM
- ☞ Jim Blanke, Hydrogeology
- ☞ Jon Traum, Data Analysis & GIS
- ☞ Yamin Noor, Web & GUI Programmer
- ☞ Farhad Navaei, Graphical Tools Developer
- ☞ Saquib Najmus, Chief Architect
- ☞ Ali Taghavi, User Interface, and PIC

What's Next?

Future Data Enhancements

- User Access Permissions
- SB6 Tools
- BMO Threshold Levels
- Well Log Images
- Reconcile the Overlap Areas
- Surface Water Data
- Climatological Data

Maintenance

- Ongoing user support
- Hosting
- Software updates



Questions