2014 - Spring Groundwater Levels

Roy Hull, Engineering Geologist

CA Department of Water Resources

May 6th, 2014





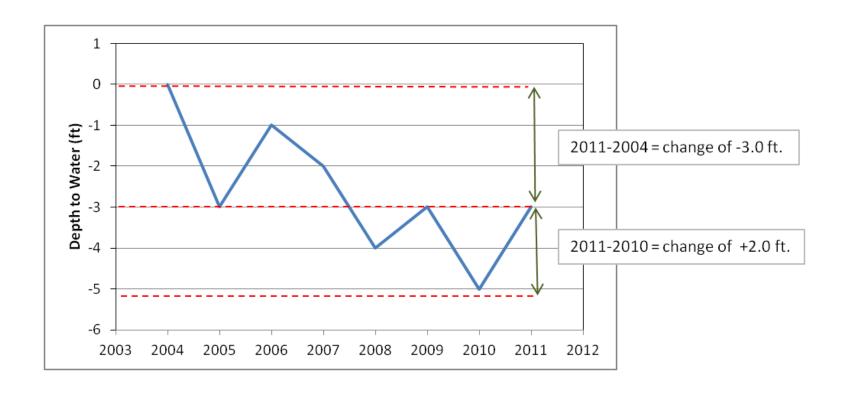
Agenda

- Spring Measurement Glenn County Area Maps
- Spring Measurement Statistics
- Select Hydrographs
- GW Information Center (New and Improved)

Understanding GWL Change

2014 V 2013 Annual

2014 V 2004 Long term (11 yrs.)



Understanding GWL Change

- Precipitation Amount and Timing
 - Previous season Very little and early in season
- Land Use
 - Truck crops to orchards, new orchards
- Source
 - GW, SW or Mix
- Location of measurement
- Irrigation Methods and Timing
 - Flood or (micro) drip
- Timing of measurements results could be lower or higher...
 - but never below the low or above the high
- Transfers

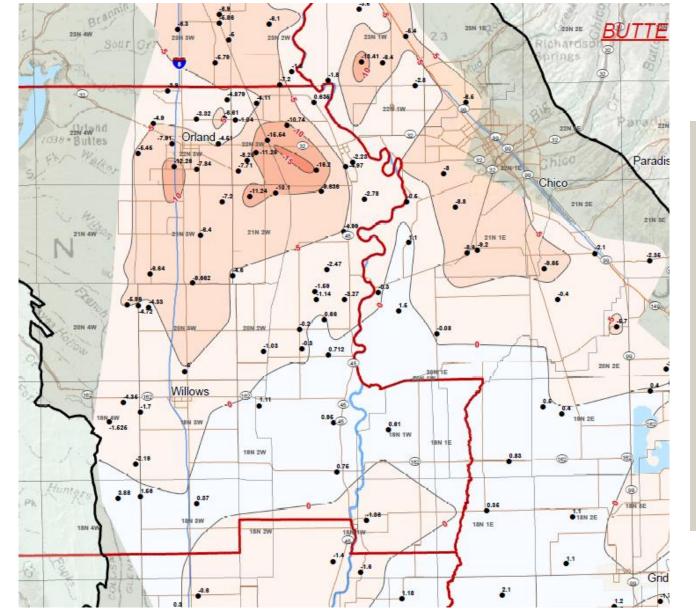
Annual Change (13v14)

Spring Shallow

1ft



200ft



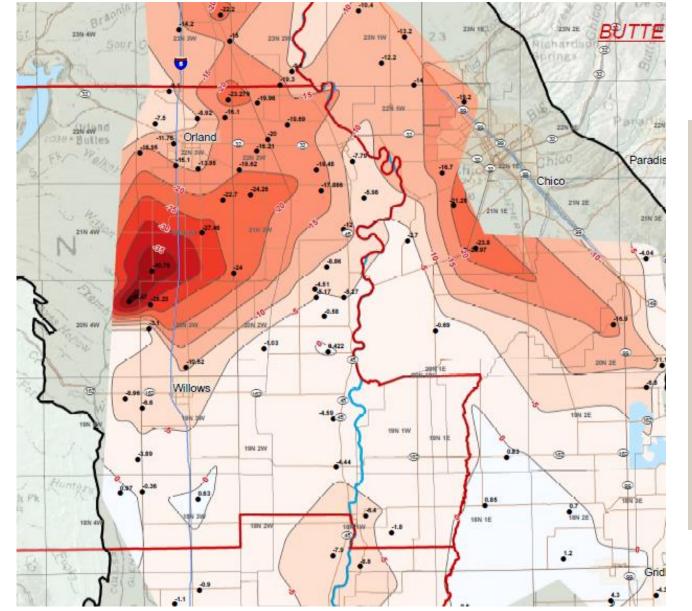


Spring Shallow

1ft



200ft

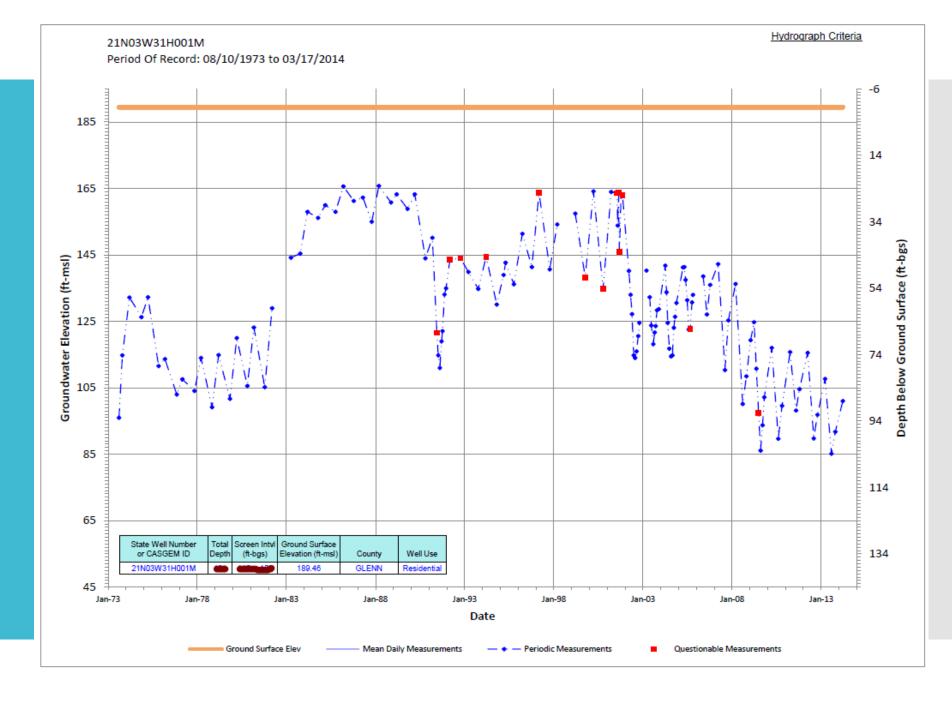




Long term and Annual Change

Spring Shallow

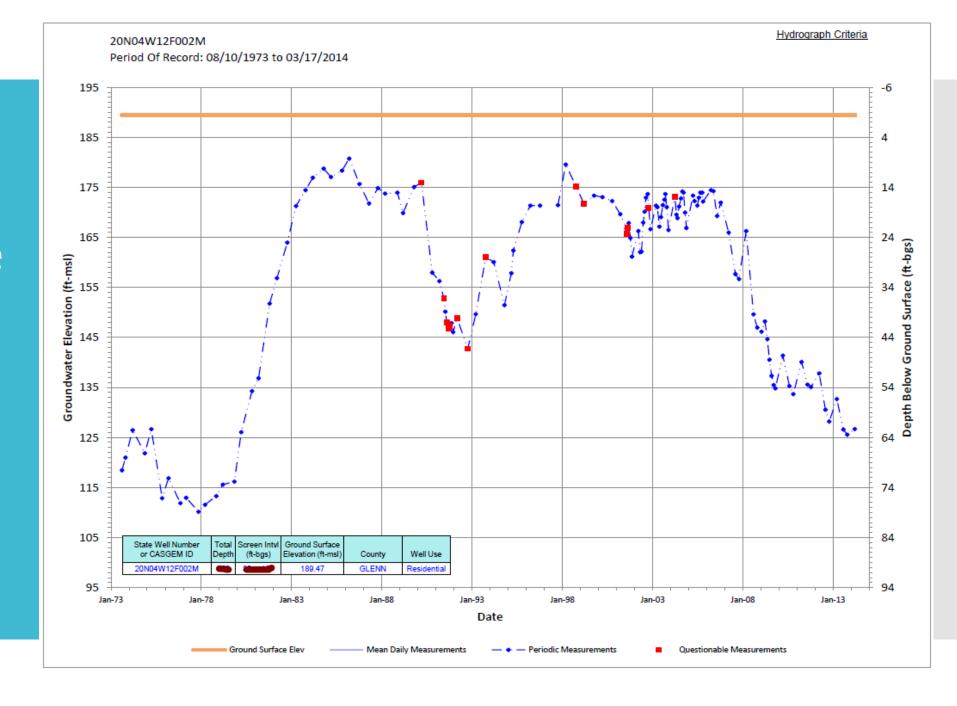
21No3W31Hoo1M



Long term and Annual Change

Spring Shallow

20N04W12F002M



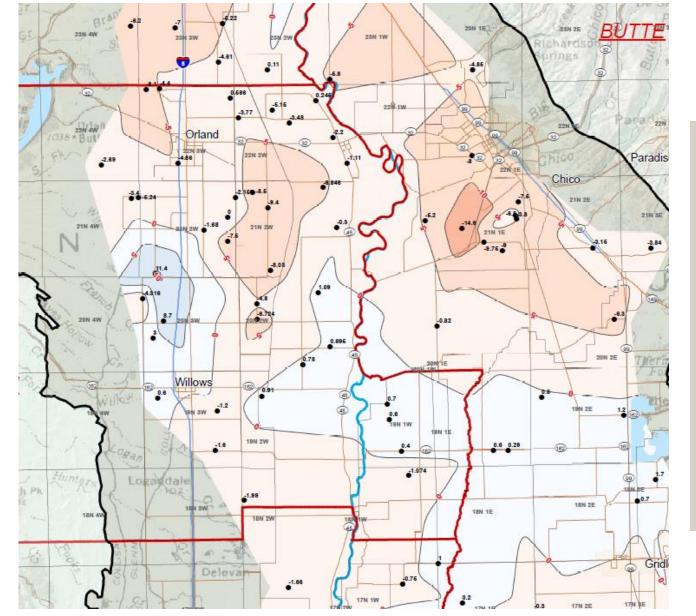
Annual Change (13v14)

Spring Intermediate

200ft



6ooft

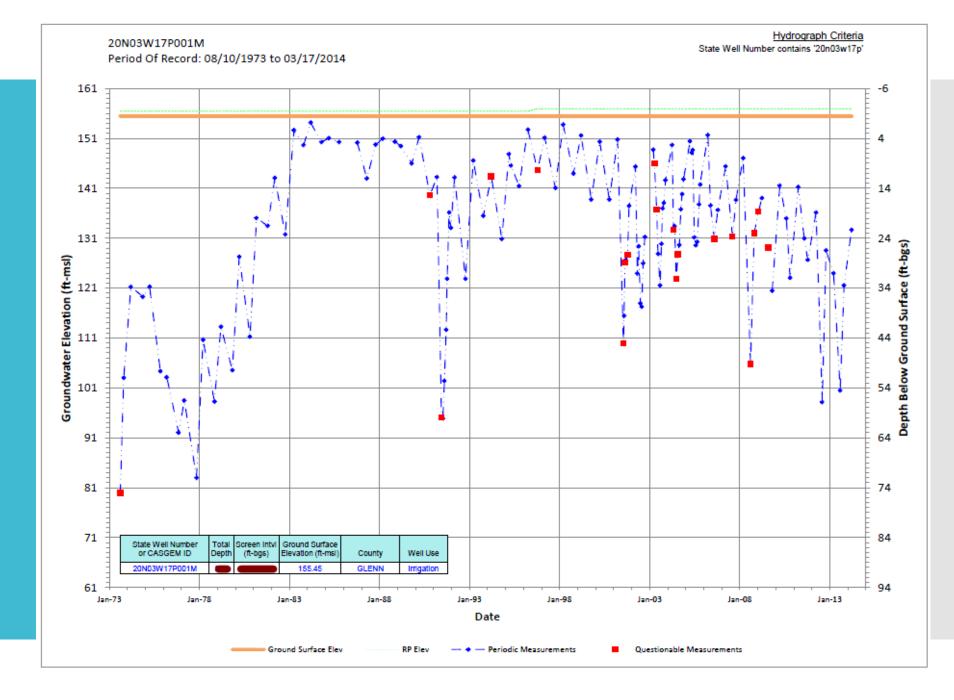




Annual Change (13v14)

Spring Intermediate

20No3W17P001M

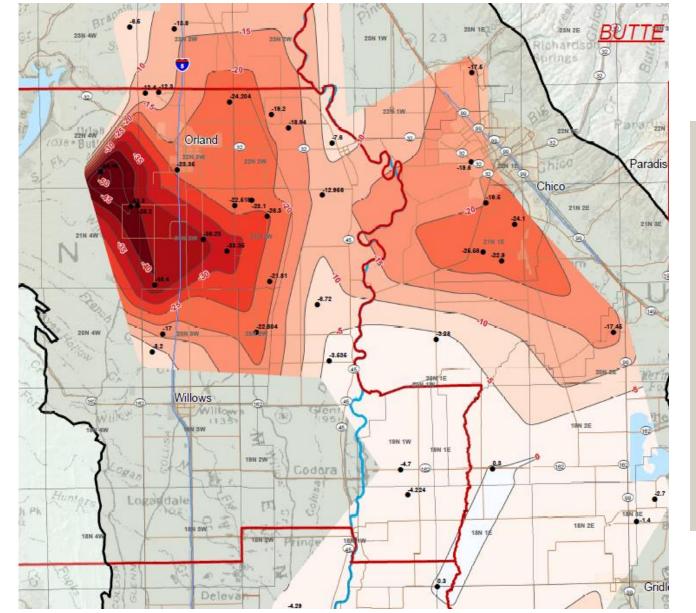


Spring Intermediate

200ft



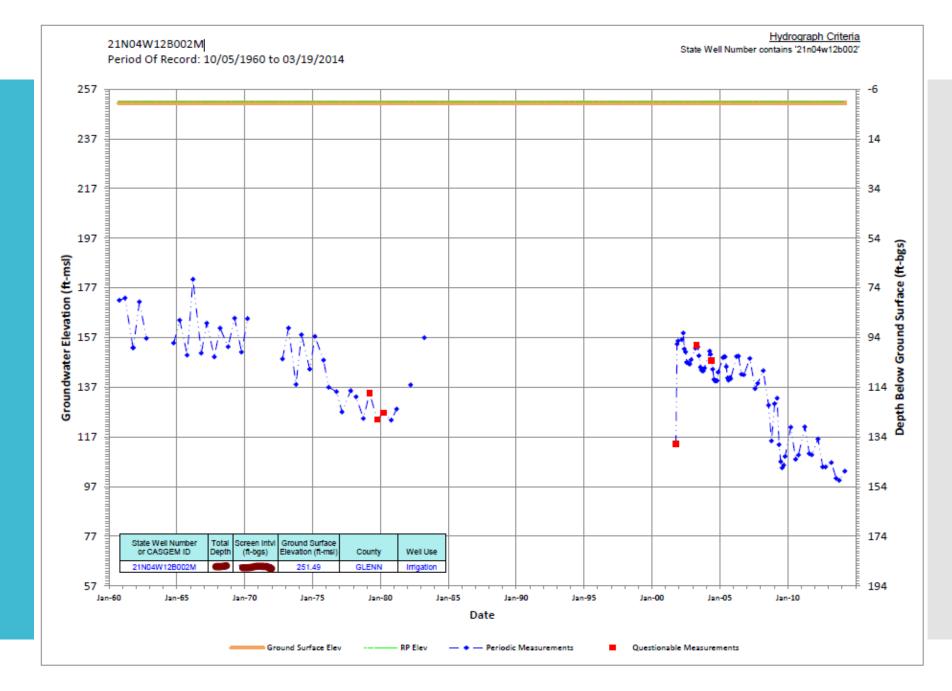
6ooft





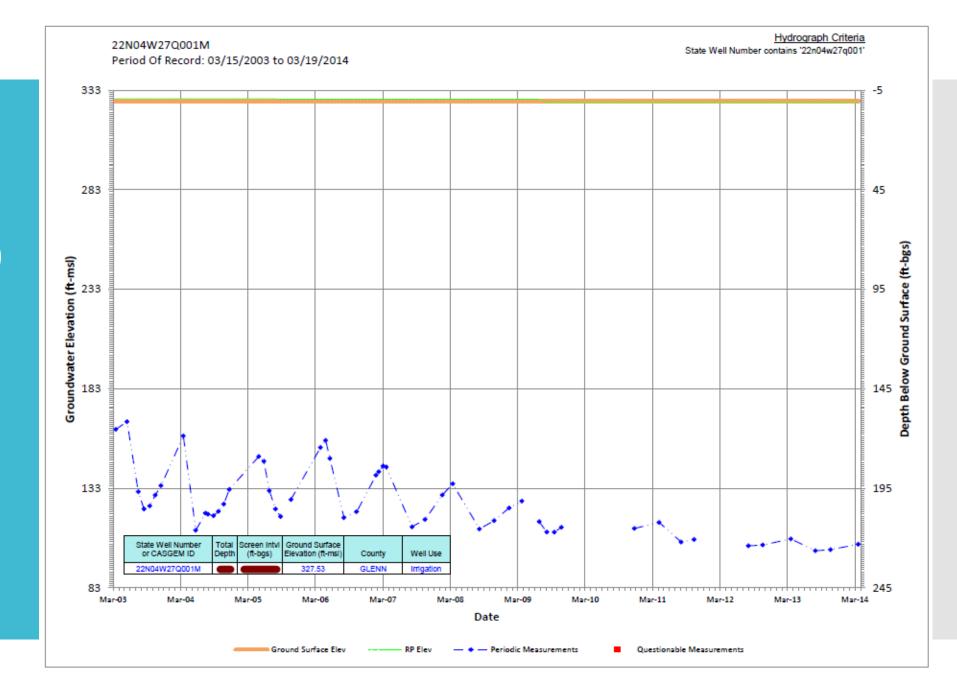
Spring Intermediate

21N04W12B002M



Spring Intermediate

22N04W27Q001M



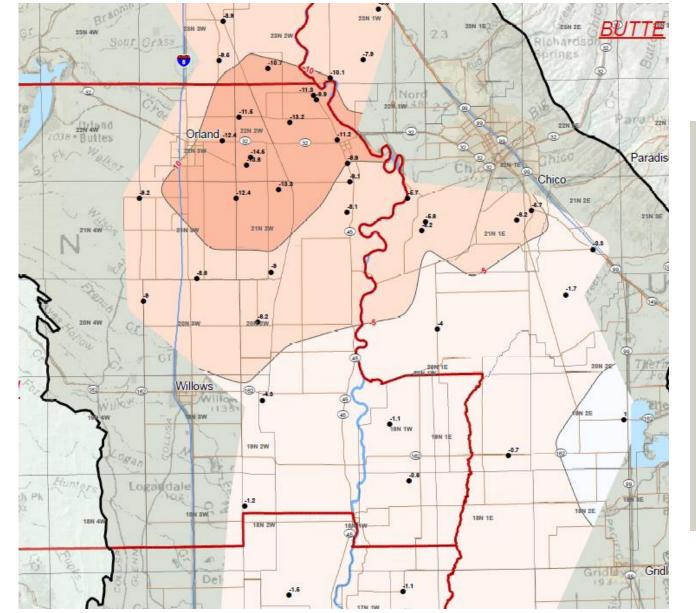
Annual Change (13v14)

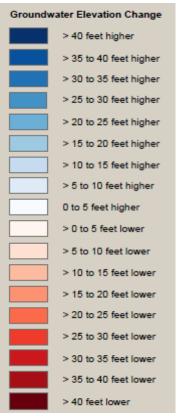
Spring Deep

6ooft



1000ft

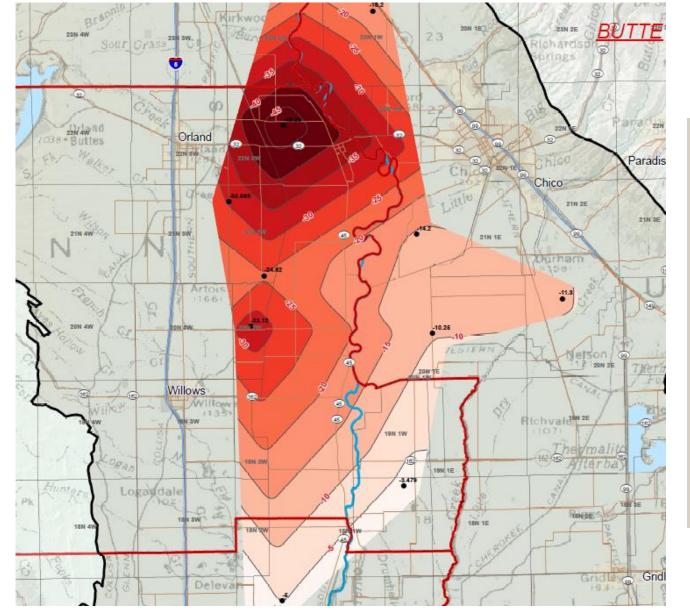




Spring Deep

6ooft

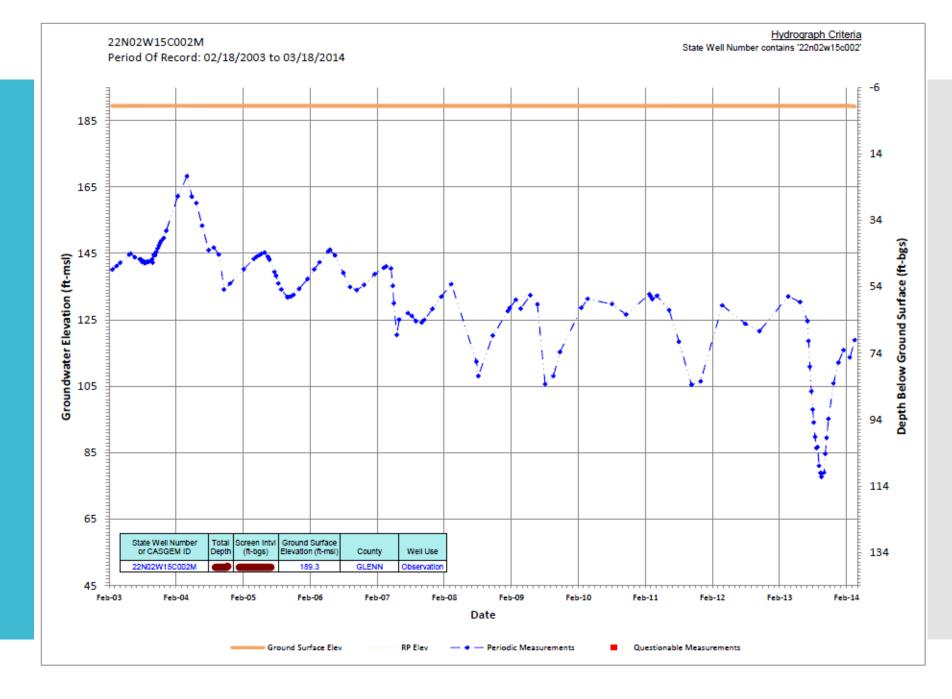






Spring Deep

22No2W15C002M



Spring Statistics

Glenn Co

2012 V 2014 Annual

2004 V 2014 Long-Term

		Glenn	All CO			Glenn	All CO
Shallow	Max Increase	3.9	5.8	Shallow	Max Increase	1.0	4.3
	Max Decrease	-16.2	-16.2		Max Decrease	-46.5	-46.5
	Avg. Change	-4.4	-3.4		Avg. Change	-12.6	-9.6
Inter	Max Increase	11.4	11.4	Inter	Max Increase	NA	11.0
	Max Decrease	-9.4	-21.0		Max Decrease	-54.5	-54.5
	Avg. Change	-2.0	-2.9		Avg. Change	-21.7	-14.1
Deep	Max Increase	NA	1.6	Deep	Max Increase	NA	NA
	Max Decrease	-14.5	-14.5		Max Decrease	-49.4	-49.4
	Avg. Change	-9.1	-5.9		Avg. Change	-28.2	-13.8



DWR Groundwater Information Center

http://water.ca.gov/groundwater/

New GW Information Center



Introduction

The Groundwater Information Center is DWR's portal for groundwater information, groundwater management plans, water well basics, and statewide and regional reports, maps and figures. California's groundwater provides approximately 30 to 46 percent of the State's total water supply, depending on wet or dry years, and serves as a critical buffer against drought and climate change. Some communities in California are 100 percent reliant upon groundwater for urban and agricultural use.

DWR has a long-standing history of collecting and analyzing groundwater data, investigating and reporting groundwater conditions, implementing local groundwater assistance grants, encouraging integrated water management, and providing the technical expertise needed to improve groundwater management practices. DWR will continue to work with local agencies and regional organizations to provide data that enables sustainable groundwater management. The Groundwater Information Center website will be updated as new information becomes available.

http://water.ca.gov/groundwater/

Groundwater Information Center

- Groundwater Basics
- « Groundwater Management
- a Groundwater Well Information
- * Well Completion Reports
- Well Standards
- Well Inquiries
- Well Permitting Agencies
- Groundwater Data and Monitoring
- · Groundwater Data Reports
- * CASGEM
- · Water Data Library

Highlights

Drought Response – Groundwater, April 2014

- Groundwater Management Plans
- Use Interactive Map to Find and View Plans
- · Drought Info
- # B118 "California's Groundwater"

Contacts

Map and More Maps



Groundwater Data Reports

Groundwater data and related information can be reported in a variety of formats, including maps, figures, and written reports.

This page provides access to PDF documents which report groundwater conditions in a variety of formats.

Documents are organized by report type (for example, "groundwater elevation maps") and by region. Statewide reports, or reports that cover large regions of the state are found on this page, whereas local reports are available at Region Office Reports and Data below

Statewide Reports

+ Groundwater Level Change Maps

Reports and Data Organized by Regional Office

Groundwater data collection, management, and reporting typically occurs at a regional level, and is conducted by staff at one of the four Department Region Offices.

- + Northern Region
- + North Central Region
- + South Central Region
- + Southern Region

Groundwater Information Center

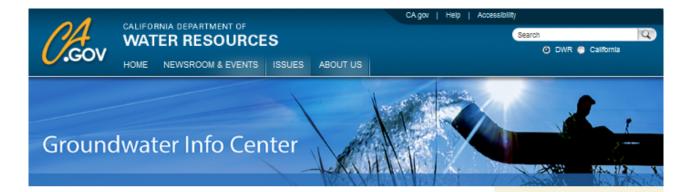
- Groundwater Basics
- # Groundwater Management
- ... Groundwater Well Information
- * Well Completion Reports
- # Well Standards
- ⇒ Well Inquiries
- Well Permitting Agencies
- ... Groundwater Data and Monitoring
- Groundwater Data Reports
- · CASGEM
- * Water Data Library

Highlights

- Drought Response Groundwater, April 2014
- Groundwater Management Plans
- We Use Interactive Map to Find and View Plans
- Drought Info
- B118 "California's Groundwater"

Contacts

GW Management



Groundwater Management

In 1992, the State Legislature provided an opportunity for more formal groundwater management with the passage of Assembly Bill (AB) 3030, the Groundwater Management Act (Water Code §10750 et seq.).

Groundwater management, as defined in DWR's Bulletin 118 Update 2003, is the planned and coordinated monitoring, operation, and administration of a groundwater basin, or portion of a basin, with the goal of long-term groundwater resource sustainability. Groundwater management needs are generally identified and addressed at the local level in the form of Groundwater Management Plans. If groundwater management needs cannot be resolved at the local level, additional actions such as enactment of ordinances by local entities with jurisdiction over groundwater, passage of laws by the Legislature, or decisions by the courts may be necessary to resolve the conflict. The DWR's role in groundwater management is to provide technical and financial assistance to support local agencies in their groundwater management efforts.

Key Legislation

Legislation that has been incorporated into the California Water Code includes AB 3030, SB 1938, AB 359, and provisions of SB X7 6 and AB 1152. These significant pieces of legislation establish, among other things, specific procedures on how groundwater management plans are to be developed and adopted by local agencies. The legislation also defines the required and voluntary technical components that must be part of every groundwater management plan and groundwater level monitoring plan. The



Key Legislation section provides final legislation packages and summaries for review.

Groundwater Management Plans in California

AB 359, introduced in 2011, brought about changes to the California Water Code that, among other things, requires local agencies to provide a copy of their groundwater management plan to DWR and for DWR to provide public access to those plans. The information provided in this section will help the public locate, view, and download groundwater management plans that have been provided to DWR. Beyond the individual plans, this section also provides related statewide maps and contact information.

Developing a Groundwater Management Plan

This section provides information to assist local agencies in developing, adopting, and updating groundwater management plans.

Groundwater Information Center

- Groundwater Basics
- « Groundwater Management
- « Groundwater Well Information
- » Well Completion Reports
- ≫ Well Standards
- ≫ Well Inquiries
- ≫ Well Permitting Agencies
- « Groundwater Data and Monitoring
- » Groundwater Data Reports
- CASGEM
- ⇒ Water Data Library

Highlights

Drought Response – Groundwater, April 2014

- » Groundwater Management Plans
- We Use Interactive Map to Find and View Plans
- ⇒ Drought Info
- B118 "California's Groundwater"
- Contacts







