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## News Release

Release No. 0164.10

Contact:

Terry Bish (202) 720-5974

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### USDA ANNOUNCES WATER CONSERVATION PROJECT ASSISTANCE

WASHINGTON, April 5, 2010-Natural Resources Conservation Service (NRCS) Chief Dave White today announced the availability of \$61.2 million in financial assistance funding for Agricultural Water Enhancement Program (AWEP) projects. This funding will help producers conserve surface and ground water and improve water quality on agricultural land.

"By working with our partners, we will see more water conservation on working lands and more opportunities to improve water quality," said White.

AWEP projects are implemented by NRCS entering into partnership agreements with eligible entities. NRCS works with these partners to help landowners plan and implement conservation practices in project areas established through the agreements.

Of the \$61.2 million, approximately \$40.4 million will be made available to AWEP partners whose projects were approved during last fiscal year and approximately \$20.7 million will be available for new project proposals.

The following partnership entities are eligible to submit proposals for funding: federally recognized Indian Tribes, States, units of local government, agricultural associations, and other groups of producers--such as irrigation associations, agricultural land trusts, or other nongovernmental organization--that have experience working with agricultural producers. When an AWEP project area has been approved and announced, individual producers may apply for program benefits through their local NRCS office.

Types of water enhancement activities intended with this request for proposal are:

- Water quality or water conservation plan development;
- Water conservation restoration or enhancement projects;
- Water quality or quantity restoration or enhancement projects;
- Irrigation system improvement and irrigation efficiency enhancements;
- Activities designed to mitigate the effects of drought; and
- Related activities determined to help achieve water quality or water conservation benefits on agricultural land.

Deadline for partner organizations to submit a proposal is 3:00 May 17, 2010. The Food, Conservation, and Energy Act of 2008 (Farm Bill) established AWEP. To view the full request for proposal, for additional AWEP information, or to apply visit: [www.nrcs.usda.gov/programs/AWEP/](http://www.nrcs.usda.gov/programs/AWEP/).

For additional information about NRCS and conservation programs that may be available for you, visit: [www.nrcs.usda.gov](http://www.nrcs.usda.gov), or visit the nearest USDA Service Center in your area. 2010 represents the 75th year of NRCS helping people help the land. Since its inception in 1935, the NRCS

LAO

Liquid Assets:

# Improving Management of the State's Groundwater Resources

MAC TAYLOR • LEGISLATIVE ANALYST • MARCH 24, 2010



## EXECUTIVE SUMMARY

California's water system is facing a series of challenges affecting water availability, reliability, and delivery. Groundwater management is one of the state's most critical liquid assets—a key component of both local and statewide efforts to better manage water supply and water quality in the state. This report builds upon our previous 2008 publication, *California's Water: An LAO Primer*, in which we provided an overview of California's water system and related legislative policy considerations, including issues related to groundwater. Our focus and primary goal of this report is to outline ways that groundwater management could be improved from a statewide perspective in a way that builds on recent legislative efforts to address this subject area and, to the extent possible, maintains local control over day-to-day management of groundwater systems.

In our view, reevaluating how groundwater is managed is necessary if it is to achieve its full potential as a reliable source of water. In this report, we (1) provide more background on the state's current approach to groundwater management; (2) address current issues with groundwater management, including the impact of water quality on water supply; (3) address the disconnect between the law and science of groundwater; and (4) review other states' approaches to groundwater management.

We also present the Legislature with a series of actions that would be phased in over a period of time to address current and emerging groundwater management issues. In particular, we recommend that the Legislature:

- Phase in a more comprehensive groundwater monitoring system to allow the state to focus funding and technical assistance efforts in the areas of greatest need.
- Establish Active Management Areas (a defined geographic area where specific rules are established to govern the withdrawal and use of groundwater), in circumstances where groundwater overdraft potential or the extent of pollution problems are the highest.
- Bring science and law together to modernize groundwater law to accurately reflect the physical interconnection of surface water and groundwater.
- Consider phasing in statewide groundwater permitting over a multiyear period, based on data from expanded monitoring requirements, while maintaining local control over implementation of permitting to the extent possible.

## RECOMMENDED STEPS TO MORE EFFECTIVELY MANAGE CALIFORNIA'S GROUNDWATER

***The Stakes Are High in Groundwater Management.*** As we have mentioned, the potential to use groundwater to increase water supply, either by introducing water from another source into the ground as a storage basin or by encouraging the natural refilling of groundwater basins is a significant option to address the state's water supply needs. However, successful implementation of this solution into the state's management of water is hampered by the state's lack of regulation or monitoring of groundwater resources. Management of groundwater supplies—to the extent that it does occur—resides mainly at the local level and thus, by its very nature, does not address water needs from a statewide perspective. As a result, groundwater quality is not protected under state regulation and enforcement as comprehensively as surface water quality. As we have discussed, the consequences of insufficient action to protect these water resources are high. Once contaminated, groundwater loses some of its potential to serve as a water supply source. The situation has already led to costly emergency

efforts to clean up contaminated supplies and to provide substitute sources of water to communities dependent upon groundwater.

For the reasons stated above, and to build upon the work the Legislature has already done, we recommend that the Legislature adopt four fundamental changes to the way the state manages groundwater. These recommendations, which are summarized in Figure 9, represent the first steps that the state could take so that, in the long run, it is in a position to more strongly and effectively manage its groundwater resources. We recommend a shift to a more comprehensive groundwater management regime, similar to those being implemented successfully by other states, in order to avoid future water emergencies from the contamination of groundwater supplies and to make California's statewide water supply system more reliable.

### **Strengthen Monitoring Requirements**

The state needs, but now lacks, comprehensive data on groundwater extraction, ground-

**Figure 9**

### **LAO Recommendations for Improving Groundwater Management**

<b>Problem</b>	<b>Recommendation</b>
Monitoring not comprehensive statewide	Phase in a comprehensive monitoring system to allow the state to focus funding and technical assistance efforts to the areas in greatest need.
Current management efforts not necessarily focused on most challenged groundwater areas	Establish Active Management Areas where groundwater overdraft potential and/or extent of pollution problems are the highest.
Groundwater law does not reflect scientific reality	Bring science and law together by modernizing groundwater law to accurately reflect the physical interconnection of surface water and groundwater.
Groundwater use and rights unclear, leading to distribution and management issues	Consider establishing statewide groundwater permitting over a multiyear period based on data from expanded monitoring requirements. Maintain local control over implementation of state permit granted at either district or basin level to the extent possible.

water levels, and groundwater quality. For this reason, we recommend that the state phase in a comprehensive groundwater monitoring program over a period of years modeled after the best such measures adopted by other western states. Our analysis of other states finds that while no other single state program is an obvious perfect fit as a model for California, there is much to be learned from the examples of other state programs. Building on recent legislation that strengthens monitoring requirements, the Legislature should further require local water districts to submit standardized extraction data from all groundwater wells, as in Texas and Arizona.

The DWR should be directed to assess and integrate this information into the California Water Plan, thereby helping the state to more effectively plan for future water supplies, especially during dry years. The state will then be in a position to target assistance to groundwater basins with supply or contamination problems, while allowing local authorities who do not need state fiscal or technical assistance in their management of groundwater supplies to continue working on their own.

### **Establish AMAs**

In some areas of the state, local management will be sufficient to both plan for and manage groundwater basins. Indeed, many areas of the state are successful in their management of groundwater, as is demonstrated by the Orange County Water District's approach to water management (see box on next page). There, a long-term approach to groundwater management has led to relatively reliable water supply, with a significant portion derived from groundwater.

However, for those groundwater basins with the potential for established overdraft or with groundwater pollution, we recommend the state

establishment of an AMA, as is the policy in most western states. In these basins, the state would recognize that issues of statewide importance—ensuring the preservation of water quality and reliability of the state's water supply—must in some instances take precedence over a local desire for full control over management in the basin. However, as in Arizona, it is possible for there to be significant local input into the AMA process and for each AMA to have varying goals that reflect each locality's unique circumstances. For example, some AMAs may require restrictions on certain uses of water for a period of time (such as the imposition of certain conservation measures), while others may have more stringent or permanent rules aimed at restricting overdrafting of the basin as a whole.

### **Bring Law and Science Together**

The erroneous distinction now reflected in California law between surface water and groundwater is an impediment to the establishment of surface water rights that accurately reflect the science of water. As DWR has stated, and as is acknowledged in other western states, groundwater can have a significant impact on the availability of surface water supplies. Indeed, all groundwater at some time starts as surface water. The lack of legal and regulatory acknowledgment of this interaction has led to time-consuming and expensive litigation involving both public and private entities. As a starting point for reform in this area, we recommend that the Legislature amend statute to remove the current legal distinction between percolating groundwater and subterranean streams. This is a necessary step to allowing the interaction of surface and groundwater to be integrated into the administration of water rights in the state.

### **Consider Groundwater Permitting, While Maintaining Some Local Control**

Our prior three recommendations provide a good starting point for improving state groundwater policy, in that they (1) provide better information through monitoring on the status of groundwater supplies, (2) integrate science and law in this area, and (3) test AMAs as a tool to manage these water supplies primarily locally. However, the Legislature may ultimately determine that further steps are needed in the longer run to address the state's groundwater problems. Thus, we recommend that the Legislature con-

sider phasing in the establishment of a state-administered water rights system for groundwater as is the case in most other western states.

Additional information is expected from DWR in 2012 regarding the status of the state's major groundwater basins. Once it has reviewed this additional information, the Legislature should evaluate how a groundwater permitting system could complement the Legislature's policy as reflected in existing groundwater statutes, and in conjunction with any existing AMAs. The Legislature would then be in a position to direct both DWR and SWRCB to develop an appropri-

### **ORANGE COUNTY WATER DISTRICT: A LONG-TERM APPROACH TO GROUNDWATER MANAGEMENT**

Following a precipitous drop in groundwater levels in some areas of the Orange County groundwater basin, the Orange County Water District was formed in 1933 by an act of the Legislature to "represent the water users and landowners of the Coastal Plain in all litigation involving outsiders." The basis for the creation of the district was to protect the water supply serving the over 160,000 acres of then-mainly agricultural land in the district.

The act did not restrict water use within the basin. Rather, it allowed the district to charge water users to both protect existing water supply as well as to purchase or develop water supplies from outside sources to satisfy the demand of water users in the district. In 1953, a replenishment assessment ("pump tax") and monitoring program was established by amending the original act. Those who pumped groundwater were required to report twice per year the amount of groundwater extracted (a district-run water quality monitoring program was later added), and to pay an assessment per acre-foot of water extracted.

Using mainly income from the pump tax, the district's activities have included (1) efforts to reduce sea water intrusion (a situation in which groundwater levels drop below sea level, allowing salt water to enter the groundwater); (2) the extensive purchase of surplus water from outside sources, including from the State Water Project and Colorado River supplies, to offset overdraft in the basin; and (3) the development of a project to de-mineralize and purify wastewater into pure drinking water, known as Water Factory 21. The efforts of the basin are largely considered a success as they have been able to hold back seawater intrusion into the groundwater basin and to maintain an adequate level of water supply for customers using their various groundwater management methods.

ate groundwater rights system that, as we discuss below, maintains local control to the extent possible and that is based off of standardized monitoring data and established science. We do not, however, recommend that the state mirror entirely the existing water rights system that now exists in California for surface water. To acknowledge the significant achievements of local groundwater management efforts, and to build on our recommendations for increased monitoring and establishment of AMAs, we recommend the Legislature consider establishing statewide groundwater use permitting while retaining some local control. To accomplish this, permits could be granted at either the basin or district level (rather than to individual water users), thereby allowing locals some discretion as to the use of water within their jurisdictional boundaries. We recommend that DWR have the authority to set levels of water use within a basin as a whole for each water user if more deliberate management is required due to overdraft problems or the contamination of groundwater supplies.

We recommend phasing in this new statewide permitting system over a ten-year period after other strategies have been put in place that are a prerequisite to establishing an effective permitting system. Specifically, the state at present does not have standardized groundwater use reporting, nor does it have a clear picture of the full extent to which groundwater supplies are being contaminated. By first implementing comprehensive groundwater monitoring and establishing AMAs, the SWRCB would be in a better position to work with locals to establish clear parameters for groundwater-related water rights based on standardized data and established science. It would also have the experience of managing groundwater within AMAs.

### **New Groundwater Strategies Likely to Result in Long-Term Savings**

In the short term, implementation of the various recommendations we have proposed above would result in modest administrative costs for state and local water agencies. We recommend that these costs be offset by fees similar to the way the state pays for the regulation of surface water use and water quality. We believe a strong case can be made for having groundwater users and polluters of groundwater pay for the costs of state groundwater regulatory programs.

In the long term, we believe it is likely that the set of strategies we propose would result in savings to public and private entities across the state. This is because these efforts would eventually decrease the need for costly water rights adjudications and help to avoid the cost of clean up or treatment of degraded groundwater for use in water supply. There would also likely be reduced long-term future costs related to overdrafting of groundwater basins, including emergency response measures to aid communities for which valuable groundwater supplies have been depleted.

### **Fine-Tuning These Reform Concepts**

This report addresses, in a high-level conceptual way, the basic set of changes we have concluded are needed to improve groundwater monitoring and management from the state's perspective. However, implementation of these concepts would involve resolving many important technical issues. If the Legislature wishes to pursue the approaches we have outlined, we recommend that it direct the three state agencies primarily responsible for groundwater management—the DPH, DWR, and SWRCB—to jointly report at hearings on the groundwater management models we have identified in other states

## AN LAO REPORT

and their practical application for California. The hearings would engage the departments and other important stakeholders, such as local water jurisdictions, in a review of other state models relevant to the management and regulation of groundwater. California state agencies should weigh in on

the implications of changes on local control, state-wide planning, information gathering, and forecasting. The Legislature could then be apprised of current best practices in the field of groundwater management most suitable to protect the state's valuable liquid asset, its groundwater.

### LAO Publications

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This report was prepared by Catherine Freeman with assistance from Heather May, and reviewed by Mark Newton. The Legislative Analyst's Office (LAO) is a nonpartisan office which provides fiscal and policy information and advice to the Legislature.

To request publications call (916) 445-4656. This report and others, as well as an E-mail subscription service, are available on the LAO's Internet site at [www.lao.ca.gov](http://www.lao.ca.gov). The LAO is located at 925 L Street, Suite 1000, Sacramento, CA 95814.

**GLENN COUNTY SPRING 2010 GROUNDWATER LEVEL MEASUREMENTS**

\* WSE = REF PT- DEPTH BELOW REF PT (above sea level)

<u>SWN</u>	<u>MEASURE DATE</u>	<u>REF PT ELEV</u>	<u>GROUND SURFACE ELEV</u>	<u>DEPTH BELLOW REF PT</u>	<u>QM CODE</u>	<u>NM CODE</u>	<u>SPRING 10 WSE*</u>	<u>BMO LEVEL 1</u>	<u>BMO LEVEL 2</u>	<u>BMO LEVEL 3</u>	<u>2009 TO 2010</u>
<b><u>BOS Dist 3 Sub-area 10</u></b>											
21N03W33A04M	3/24/2010	175	174	54.46			120.54	130.2	130.2	117.2	N/A
21N03W31M01M	3/25/2010	162.1	161	35.9			126.2	130.6	130.6	117.2	N/A
21N03WD02M	Discontinued						0				
20N03W12C01M	3/25/2010	160	159	35.7			124.3	125.7	125.7	117.7	N/A
20N03W23G02M	3/23/2010	147	146	23.8			123.2	118.2	118.2	112	↑
20N03W33J01M	3/24/2010	137.3	136	7.35			129.95	118.6	118.6	110.5	↑
CALWater 002-01	3/25/2010	134	134	12			122	116.1	116.1	113.2	↑

**BOS Dist 5 Sub-area 9**

21N02W02B02M	3/26/2010	163	162.8	24.8			138.2	136.1	136.1	130.23	N/A
21N02W09M02M	3/26/2010	179.5	179	38.2			141.3	142	142	132.8	N/A
21N02W23G01M	3/25/2010	152.5	152	26.7			125.8	125.1	125.1	118.7	N/A

**East Corning Basin Sub-area 8**

21N01W04N01M	3/25/2010	135.3	135	18.6			116.7	114.9	114.9	111	↑
22N02W11Q01M	3/22/2010	165	164	23.7			141.3	139.2	139.2	133.5	↑
22N01W29K01M	3/25/2010	142.3	142	16.6			125.7	119.5	119.5	112.1	↑

Sub-areas 8, 9, and 10 have recently modified the BMO's

**Orland/Artois Sub-area 5**

21N03W31H01M	3/23/2010	187.5	187	72.9			114.6	123	123	103	↓
20N03W07K03M	3/23/2010	166	166	37.25			128.75	113	113	91	↓
20N03W17P01M	3/23/2010	154.5	153	15.4			139.1	120	120	103	↓
20N04W12F02M	3/23/2010	187.5	187	48.6			138.9	129	129	106	↓
21N03W31R02M	Discontinued										
21N03W18B02M	3/23/2010	222	221.6	113.2			108.8	139	139	119	↓
21N04W24A02M	4/8/2010	231.5	230	121.8			109.7	129	129	111	↓
21N03W20D02M	Discontinued										
22N02W31C01M	3/24/2010	204	203	17			187	183	183	176	↑
21N03W12C02M	3/25/2010	204	202	36.9			167.1	172	172	164	↑
21N03W11G01M	3/25/2010	200.3	200	34			166.3	170	170	162	↑
22N03W34A01M	3/24/2010	233.5	233	11.5			222	218	218	213	↑
21N03W22H01M	3/25/2010	202	202	56.6			145.4	150	150	139	↑
21N02W09M02M	3/26/2010	179.5	179	38.2			141.3	144	144	135	↑
21N03W24P01M	3/25/2010	178.5	178	48.4			130.1	137	137	124	↑
21N02W20B01M	Discontinued										

Sub-area 5 BMO's are currently being reevaluated

**Orland Unit Water Users Association Sub-area 4**

22N03W03D01M	3/22/2010	268.5	268	78.2			190.3	186.6	186.6	181.6	↑
22N03W17E01M	Discontinued										
22N03W12Q03M	3/22/2010	230.5	230	31.3			199.2	185.5	185.5	181.5	↑
22N03W21F02M	3/22/2010	263	262	20.2			242.8	239.5	239.5	235.6	↑
22N03W30C01M	3/22/2010	285.5	285	102.1			183.4	174.9	174.9	165	↓

**GLENN COUNTY SPRING 2010 GROUNDWATER LEVEL MEASUREMENTS**

\* WSE = REF PT- DEPTH BELOW REF PT (above sea level)

SWN	MEASURE DATE	REF PT ELEV	GROUND DEPTH		QM CODE	NM CODE	SPRING 10 WSE*	BMO	BMO	BMO	2009 TO 2010
			SURFACE ELEV	BELLOW REF PT				LEVEL 1	LEVEL 2	LEVEL 3	
22N02W20Q01M	3/24/2010	199.5	199	12.8			186.7	184.2	184.2	179.3	↑
22N02W21D01M	3/26/2010	198.5	198	23.7			174.8	171.3	171.3	164.4	↑
22N03W34A01M	3/24/2010	233.5	233	11.5			222	218.1	218.1	213.8	↑

Sub-area 4 BMO's are currently being reevaluated

**Glenn-Colusa Sub-area 11**

19N02W29Q01M	3/23/2010	90	90	3.3			86.7	85.1	85.1	75.1	↑
19N03W26P01M	3/23/2010	101	98	2.9			98.1	94.7	94.7	89.2	↑
20N02W02J01M	3/23/2010	125.5	125	11.2			114.3	115.9	115.9	112.4	↓
20N02W05A01M	Discontinued										
20N02W11A01M	3/25/2010	123.5	123	7			116.5	114.6	114.6	108	↓
20N02W11A02M	3/25/2010	123	123	12.2			110.8	108.7	108.7	88.8	↑
20N02W11A03M	3/25/2010	123.5	123	17.8			105.7	96.5	96.5	72.7	↑
20N02W13G01M	3/25/2010	113.4	113	4.6			108.8	107.5	107.5	105.6	↑
20N02W29G01M	3/20/2010	117.5	117	7.2			110.3	109.2	109.2	107.5	↑

**Provident ID Sub-area 12**

19N02W13J01M	3/26/2010	86.6	86	10.4			76.2	78	78	72	↑
18N02W36B01M	3/26/2010	73.6	73	8.8			64.8	65	65	60	↑
19N02W34F01M	3/23/2010	84.5	83	4.9			79.6	79	79	76	↑
19N02W36H01M	3/23/2010	82.4	81.4	7.8			74.6	75	75	70	↑

**Princeton-Codora-Glenn ID Sub-area 14**

19N02W13J01M	3/26/2010	86.6	86	10.4			76.2	78	78	72	↑
18N02W36B01M	3/26/2010	73.6	73	8.8			64.8	65	65	60	↑
19N02W34F01M	3/23/2010	84.5	83	4.9			79.6	79	79	76	↑
19N02W36H01M	3/23/2010	82.4	81.4	7.8			74.6	75	75	70	↑

**Kanawha Water District Sub-area 7**

KWD-1	4/1/2010	154.3	154	14			140.3				↑
KWD-2	4/1/2010	161.35	160	10			151.35				↓
KWD-3	4/1/2010	140.4	139	12			128.4				N/C

**Glide Water District Sub-area 6**

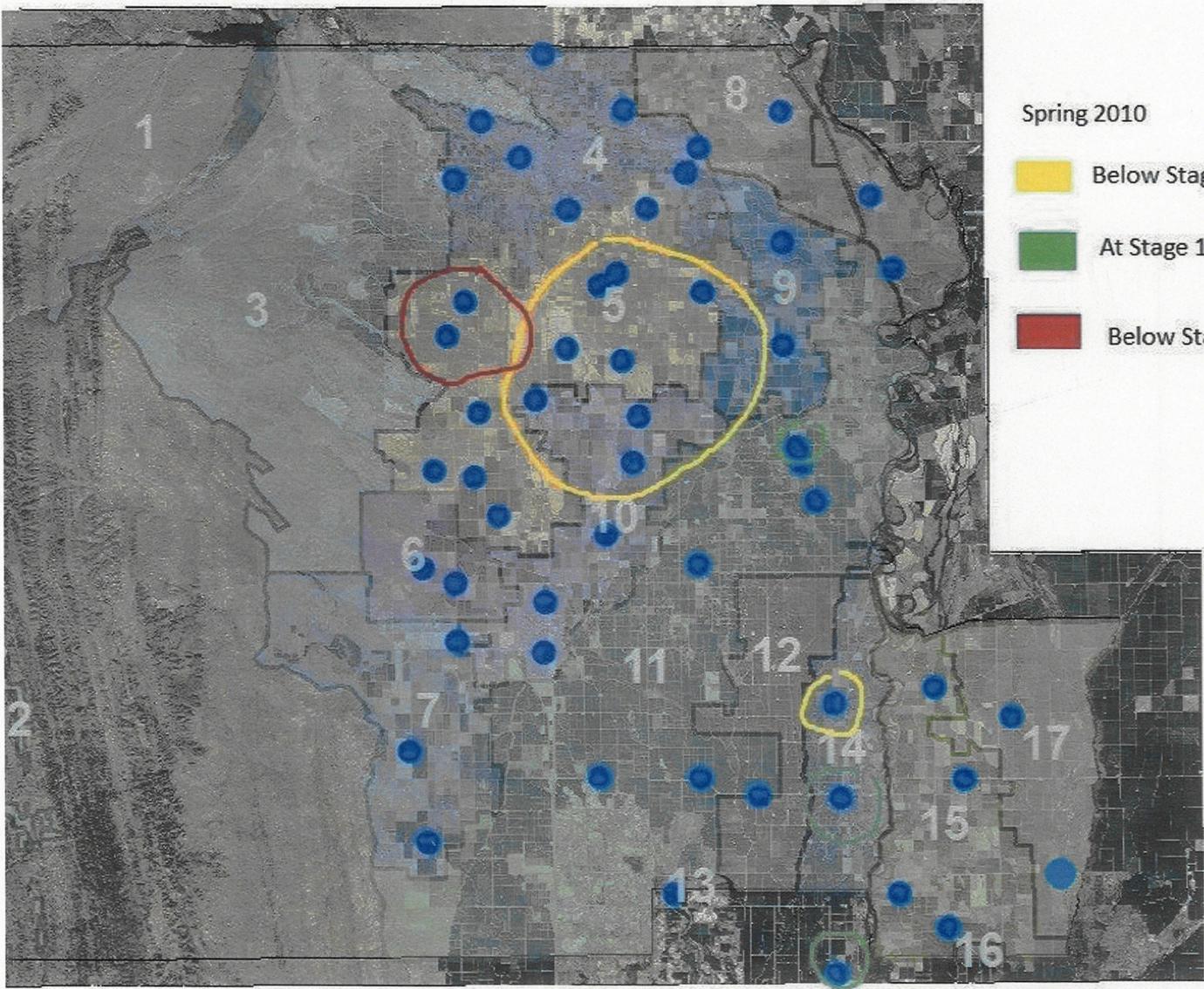
GWD-1	4/1/2010	156.75	156	30			126.75				↑
GWD-2	4/1/2010	158.2	158	18			140.2				↑
GWD-3	4/1/2010	174.75	174	18			156.75				↑

**RD 2106 & 1004 Sub-areas 15&16**

19N01W15D01M	3/23/2010	93.4	91	13.2			80.2	78	78	75	↓
19N01W27R01M	3/23/2010	81.5	81	8.4			73.1	67	67	63	↑
18N01W17G01M	3/23/2010	79	79	15.1			63.9	61	61	55	↑
18N01W22L01M	3/23/2010	70.5	70		3			63	63	61	

**Western Canal Sub-area 17**

18N01E05D01M	3/23/2010	75	75	3.1			71.9	64			↓
18N01W13Q01M	3/25/2010	85.9	85.9	2			83.9	80.9			↓

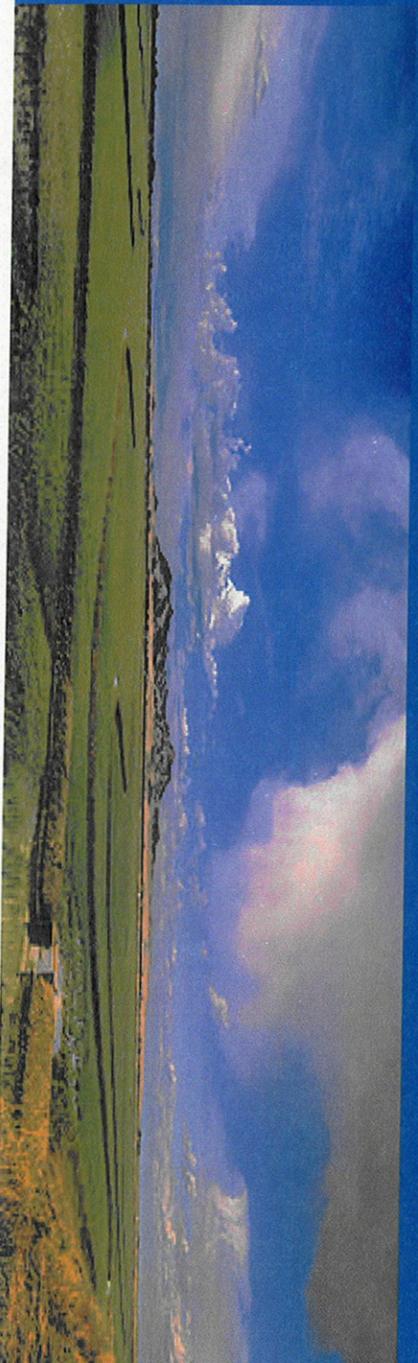


Spring 2010

- Below Stage 1/2
- At Stage 1
- Below Stage 3

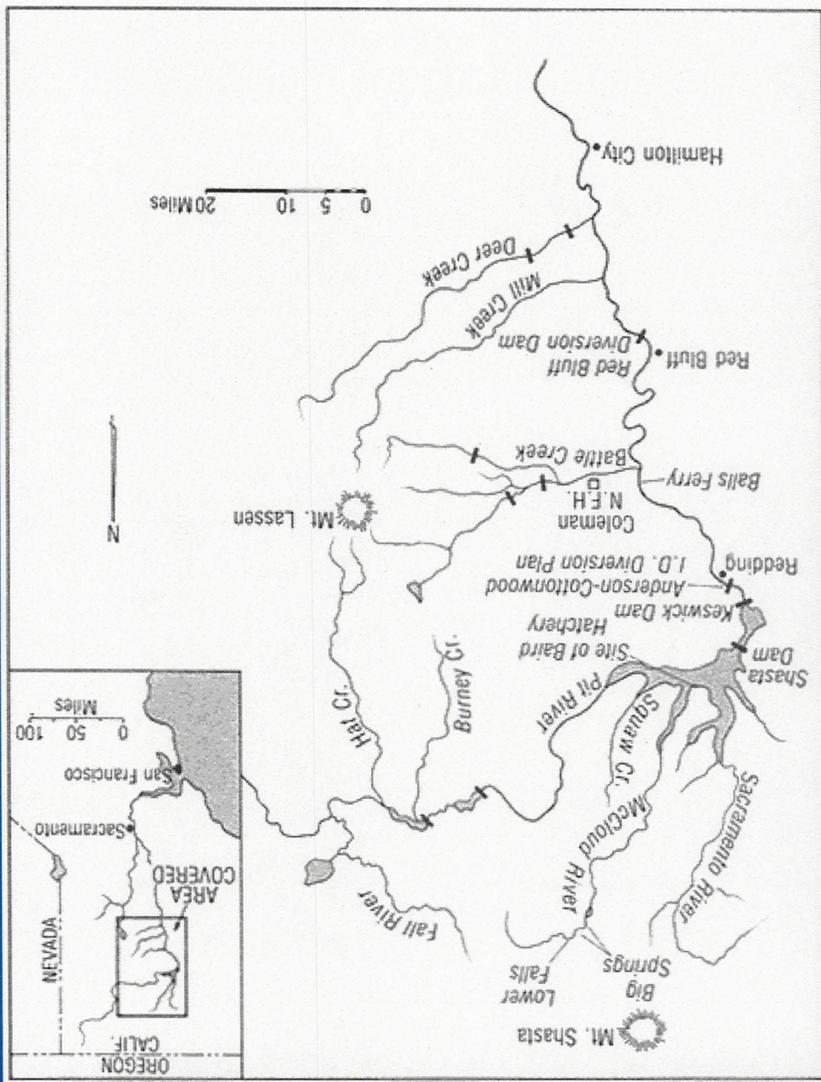
**Glenn-Colusa Irrigation District**  
**2010 Water Transfer Program**

**Thad Bettner**  
**General Manager**  
**April 13, 2010**



# 2010 Water Transfers

- South of Delta ag contractors still wanting to purchase supplies
- Fallowing transfers not possible for Sacramento River Settlement Contractors due to fish temperature requirements
- GCID limited Groundwater Pumping via private wells to 20,000 AF
- Pumping period will be from July 1 – September 30
- Draft Initial Study and Neg Dec public review period April 5 – May 6. [www.gcid.net](http://www.gcid.net)





**TECHNICAL MEMORANDUM NO. 1**

DATE: April 7, 2010 Project No.: 377-00-09-01

TO: Northern Sacramento Valley Steering Committee

FROM: Steve Macaulay, R.C.E. #C24878 Reviewed By: Gerry Nakano, R.C.E. #29524  
 Monique de Barruel, R.C.E. #69793

SUBJECT: Summary of Regional Meetings, Suggested Governance Options  
 Northern Sacramento Valley Integrated Regional Water Resources Planning

This technical memorandum includes summaries of the six, two-hour meetings/discussions held with water user and government representatives in each of the following counties: Shasta, Tehama, Butte, Glenn, Colusa, and Sutter (Figure 1). Additional detail about the region's hydrography and land and water use is also provided in the 2006 Sacramento Valley Integrated Regional Water Management Plan. The format for each summary is the same, and includes suggestions made at each meeting on what governance structures might work best for each area.

Following these summaries, we have outlined three recommended governance options for the Northern Sacramento Valley (NSV) Regional Water Management Group (RWMG). These options take into consideration a productive discussion of potentially acceptable governance structure options with the Steering Committee at its March 16 meeting.

28,237	841,166	23,100
July 2008, US Census Bureau		
January 2000, US Census Bureau		
March 2008, Placer County Water Agency		

Most Significant Water Issues: Significant issues related to the Endangered Species Act, particularly anadromous fish and giant garter snake. Continued conflicts at the TCT intake upstream at Red Bluff decrease supply reliability for their customers (expect new intake by 2012, more reliable supplies).

The Orland-Arroyo Irrigation District continues to experience long-term deficits in surface water

## Glenn-Colusa Irrigation District

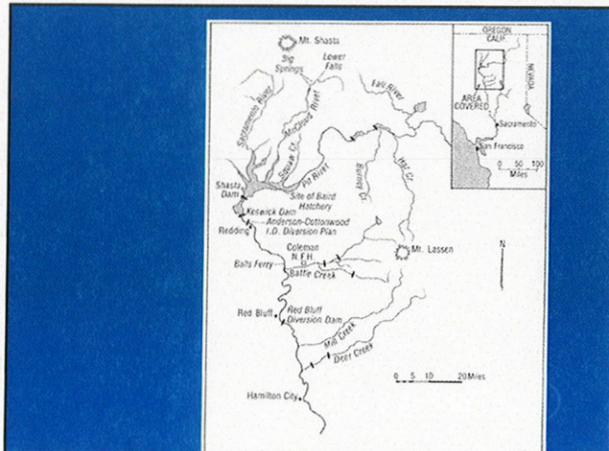
### 2010 Water Transfer Program

**Thad Bettner**  
**General Manager**  
**March 24, 2010**



## 2010 Water Transfers

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## 2010 Water Transfers

- Remaining Tasks
  - Need USBR approval (EA/FONSI completed)
  - Wells must meet specific approved criteria by Reclamation, DWR, Glenn County
  - Need Glenn County APCD Approval
  - Neg Dec Public Review and Comments
  - GCID Board Decision
  - Landowners need to enter into a Groundwater Well and Pumping Agreement
  - July – Sept transfer capacity unknown

## Revenue Allocation

### Landowner Payments

- Land fallowing - pay based on the foregone benefits as if the land was farmed.
- Groundwater pumping - pay the actual cost to pump groundwater to a District facility and amortized capital installation cost and operations and maintenance.

### District Operational Costs

- Funds to insure its annual budget is "made whole" from lands participating in a transfer and that no cost-shift occurs to lands remaining in production, actual costs for environmental documentation, inspections, operations etc.

### District Reserves

- Direct recognition that the District holds the water rights associated with the transfer "in trust" for all lands within the District, as well as the benefits that have accrued to the groundwater system through recharge from the canal and drain system, and the deep percolation of surface water during crop irrigation.

### Monitoring/Mitigating 3rd Party Impacts and Regional Sustainability

- The District's surface water supply and recharge activities are the sole reasons for a sustainable and readily available groundwater supply within or adjacent to the District. Any funds retained by the District for past, present, and future groundwater recharge and sustainability purposes will be used to protect, enhance, and insure the long term reliability of this resource as described in GCID's Conjunctive Use Policy. Funds retained for this item will be placed in a Special District Reserve for specific purposes as identified in the District's Reserve Policy.

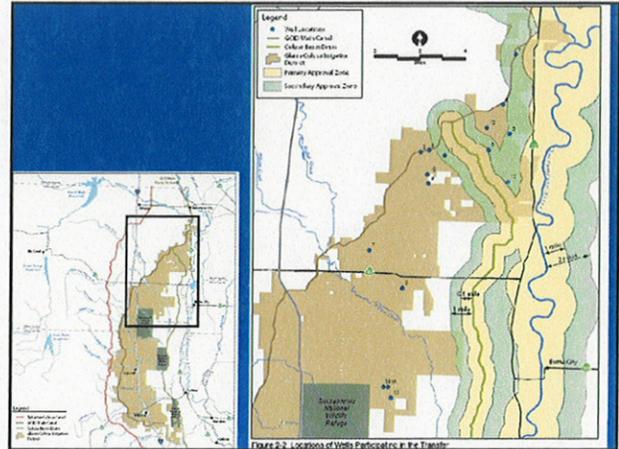


Figure 2-2. Locations of VMS Participate in the Transfer

