

WATER PLANNING COMMITTEE

AGENDA FOR

FEBRUARY 25, 2010

Javier Saunders – Chair
 Rua Petty – Vice Chair
 Betty Ferguson – Vice Chair
 Jim Barrett
 Marilyn Dailey
 Keith Lewinger
 Bud Lewis

John Linden
 Barry Martin
 Dan McMillan
 Mark Muir
 Joseph Parker
 Fern Steiner
 Mark Watton

1. Roll call – determination of quorum.
2. Additions to agenda (Government Code Section 54954.2(b)).
3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.
4. Chair’s report.
 4-A Directors’ comments.

I. CONSENT CALENDAR

II. ACTION/DISCUSSION

- | | | |
|----|--|-----------------|
| 1. | Water Supply conditions. (Information) | Lesley Dobalian |
| 2. | Coordination of Regional Surface Water Storage Reservoirs. (Information) | Ken Weinberg |

III. INFORMATION

- | | | |
|----|--|-----------------|
| 1. | Presentation on the Water Utility Climate Alliance release of Decision Support Planning Methods White Paper. | Cheryll Stewart |
| 2. | Water Resources report. | Ken Weinberg |
| 3. | Fiscal Year 2010 Water Supply Allocations monitoring. (pickup packet) | Dave Fogerson |



IV. CLOSED SESSION

V. ADJOURNMENT

Doria F. Lore
Clerk of the Board

NOTE: This meeting is called as an Water Planning Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action. All public documents provided to the committee or Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.



February 17, 2010

Attention: Water Planning Committee

Water Supply Conditions (Information)

Purpose

To provide a status report on water supply conditions.

Background

Drought Management Plan: Stage 3 “Mandatory Cutbacks”

Drought Response Level: Level 2 “Drought Alert”

The National Weather Service continues to predict that El Niño conditions will last into the spring 2010, bringing with it above-average precipitation throughout most of California.

Water supply availability from the Bay-Delta remains dynamic and uncertain due to restrictions on pumping. On February 5, 2010, federal Judge Oliver Wanger suspended salmon-related restrictions on export pumping for 14 days. The judge found the restrictions, coming at a time of abundant rains in Northern California, had resulted in the loss of up to 90,000 acre-feet of export water supply in a single week with minimal benefit to fish species. The federal Central Valley Project suspended pumping restrictions on February 6, but the State Water Project did not lift the restrictions. On February 10, Judge Wanger ruled against a request to prevent the implementation of pumping restrictions for the Delta smelt, which were activated on February 11. Restrictions for the Delta smelt are more onerous than those imposed to protect the salmon.

Discussion

State Water Project

DWR’s initial allocation for water delivery to the State Water Project contractors in calendar year 2010 remains at five percent. An update is expected later this month, with a final allocation likely in May 2010.

California’s water supply conditions for the State Water Project on February 15, 2010, are as follows:

- Lake Oroville Reservoir Storage: 52 percent of average or 36 percent of capacity
- San Luis Reservoir Storage: 78 percent of average or 65 percent of capacity
- Northern Sierra Precipitation 8-Station Index: 98 percent of average since October 1, 2009
- DWR conducted its second snow survey of the season on January 29, 2010. Snow water content statewide was 115 percent of normal for the date, compared with only 61 percent of normal this time last year. Snow water equivalents based on electronic sensor readings are shown in Table 1 through February 16, 2010.

Table 1. Snow Water Equivalents	
Region	% Average
Northern Sierra	125
Central Sierra	85
Southern Sierra	102
Statewide	103
Source: DWR CDEC. 2/16/10	

Colorado River

The Lower Colorado's water supply conditions on February 16, 2010, are as follows:

- Lower Colorado River water year precipitation to date: 83 percent of normal
- Current Basin snowpack: 82 percent of normal
- Lake Powell inflow forecast for February 2010: 77 percent of normal

Metropolitan Water District of Southern California Water Surplus and Drought Management Planning

Metropolitan Water District of Southern California (MWD) provided an updated Water Surplus and Drought Management (WSDM) report dated January 26, 2010. There is little change from last month's projected demands and available supplies for calendar year 2010. Consistent with last month's report, MWD concludes that under DWR's initial five percent Table A allocation, even with utilization of WSDM storage of approximately 884,000 acre-feet (nearly 90 percent of its total available WSDM storage), there would still be a remaining supply need of about 172,000 acre-feet. MWD concludes that, based on DWR's conservative allocation procedures, the five percent Table A allocation is likely to increase nine years out of ten. Further, MWD has the option to continue implementation of its Water Supply Allocation Plan from July 1, 2010, through June 2011, if needed. MWD staff will continue to pursue resource options, including extraordinary conservation, Colorado River transactions, SWP transactions, groundwater recovery, near-term Delta actions and local resources.

Local Conditions

According to the National Weather Service, cumulative precipitation from July 1, 2009, through February 15, 2010, is as follows:

- San Diego at Lindbergh Field: 6.78 inches, or 104 percent of normal
- Ramona at Ramona Airport: 12.83 inches, or 134 percent of normal

The Water Authority has the following in storage through January 31, 2010:

- Water Authority Local carryover storage: 41,040 AF
- Water Authority Semitropic groundwater storage bank: 16,117 AF

Local reservoir storage increased by approximately 33,000 acre-feet, or 13 percent, from January 4, 2010, to February 8, 2010. This reflects increases due to runoff and imported water deliveries into storage, along with withdrawals that occurred during this period.

Prepared by: Lesley Dobalian, Water Resources Specialist

Reviewed by: Ken Weinberg, Director Water Resources



February 17, 2010

Attention: Water Planning Committee

Coordination of Regional Surface Water Storage Reservoirs (Information)

Purpose

To provide information on current efforts to coordinate Water Authority and member agency storage volumes and reservoir operations.

Background

Surface water supplies represent a significant single local resource within the Water Authority's service area. In an average weather year, local runoff can account for approximately 7 percent of the region's water supply or 60,000 acre feet. In a very wet year, reservoirs will capture enough runoff to meet 20-25 percent of the region's annual water demand. When the raising of San Vicente Dam by 117 feet is completed in 2012, the region will have over 700,000 acre feet of surface water storage in 25 reservoirs owned by 12 agencies including the Water Authority. Good management of the region's reservoir system is an important facet of optimizing local and imported water supplies and the hydrologic cycle, with the operational constraints of the aqueduct system.

At the December 2009 meeting of the Water Planning Committee, staff received direction to report back to the Committee on an operating plan for all the reservoirs in the region. This Memorandum is in response to that Committee direction.

Discussion

The region's reservoirs, along with the water rights linked to these reservoirs, are owned and managed by individual water agencies. As a result, each member agency is responsible for preparing reservoir specific operating plans, and there is currently no single plan addressing coordinated operations of the region's reservoirs. However, the Water Authority and its storage member agencies have long recognized that coordination of near term and long term storage operations has been an important feature of water resources management in the county. Storage serves an important role in optimizing the cyclical patterns of wet and dry weather and the seasonal variations in water demand. Because of the sporadic nature of local runoff in San Diego County regional reservoir capacity can only be maximized in conjunction with the storage of imported water. The Water Authority's aqueducts are critical to effectively utilizing the region's storage capacity. The relationship between surface water storage and aqueduct operations can provide significant benefits to the following areas:

- ***Efficient Use of Aqueduct Capacity*** – Placing imported supplies in local storage when aqueduct capacity is available reduces daily and seasonal peak fluctuations and increases annual aqueduct delivery capacity.
- ***Efficient Use of Local Resources*** – Most surface storage reservoirs within the San Diego region were designed to maximize the capture of surface runoff. Annual surface yields can vary substantially due to fluctuating hydrologic cycles, providing an opportunity during drier years to place imported supplies into storage.
- ***Efficient Use of Local Treatment Plants*** - Member agencies have made significant investments to expand local treatment plants. The ability to draw upon local storage when

aqueduct capacity is restricted maximizes those investments and reduces the need to import treated water supplies.

Historically, efforts to coordinate reservoir operations and optimize the use of reservoir storage have primarily been the focus of seasonal shift delivery programs, such as the recently expired Surface Storage Operating Agreement (SSOA) program developed with MWD. Under this program, up to 70,000 acre-feet was placed into local reservoirs in the winter months when aqueduct capacity is low, and withdrawn by member agencies in concert with the Water Authority when aqueduct capacity is restricted due to increased demands. Other ongoing efforts to coordinate regional storage use and aqueduct operations include weekly reporting of storage levels by member agencies; identification of storage assets, Water Authority and member agency storage accounts in the Aqueduct Operating Plan; and projections for average annual local water yields contained in the Urban Water Management Plan and the Regional Water Facilities Master Plan. These other efforts afford a more general view of reservoir operations and include essentially all surface water reservoirs in San Diego County. However, they do not contain the detailed operational criteria or annual operating plans used by member agencies to manage their storage volumes.

In accordance with member agency agreements for the Emergency Storage Program and Carryover Storage Project, the Water Authority is responsible for preparing Reservoir Regulation Manuals (RRM) for the Olivenhain Reservoir/Lake Hodges system and for San Vicente Reservoir. These manuals will be used by the Water Authority to establish detailed operating criteria and develop annual operating plans. The RRM considers issues such as:

- Monthly storage targets for emergency, seasonal, and annual carryover storage
- Reservoir capacity needs to optimize local surface water supplies
- Requirements for water quality management
- Storage targets to maximize opportunity for seasonal credits for water purchase
- Reservoir capacity needs for flood control obligations
- Reservoir requirements to support recreational activities

To date, the Water Authority has completed the RRM for Olivenhain Reservoir/Lake Hodges system and will implement this plan in conjunction with the city of San Diego when the Lake Hodges projects are operational. In addition, the RRM for San Vicente Reservoir, covering the period when the reservoir is drawn down for construction of the dam raise project, is also complete and being implemented with the city of San Diego. Finally, the Water Authority is preparing the RRM for San Vicente Reservoir covering the period after all construction work is completed.

New efforts to further coordinate regional reservoir operations are focused on the annual Aqueduct Operating Plan as the vehicle to enhance efficiencies of untreated water conveyance and overall storage for the region. In the long-term, coordination and optimization of the region's storage assets will be an important component of the 2012 update of the Regional Water Facilities Master Plan. The member agencies that operate reservoirs will be important participants in the Master Plan update and member agency reservoir operations will be taken into account in planning for regional reliability and meeting member agency demands while maximizing opportunities to fill reservoirs.

Prepared by: Paul Gebert, Senior Water Resources Specialist

Reviewed by: Ken Weinberg, Director Water Resources



February 17, 2010

Water Planning Committee

Water Utility Climate Alliance release of Decision Support Planning Methods White Paper. (Information).

Purpose

This report provides information on the Water Utility Climate Alliance's activities related to the release of two white papers

Discussion

The Water Utility Climate Alliance (WUCA) was formed in January 2007 in part, as a result of a national Water Utility Climate Change Summit held in San Francisco. The summit was attended by more than 200 water and wastewater utility executives, government officials, climate-change experts, and environmental leaders, including the Water Authority's General Manager, Maureen Stapleton. Following the summit, the general managers of eight of the nation's largest water providers formed an alliance to provide leadership and collaboration on climate change issues affecting the country's water agencies. The eight agencies include: Denver Water, Metropolitan Water District of Southern California, New York City Department of Environmental Protection, Portland Water Bureau, San Diego County Water Authority, San Francisco Public Utilities Commission, Seattle Public Utilities, and Southern Nevada Water Authority. Recently two additional water agencies, Central Arizona Project and Tampa Bay Water joined the alliance.

The objectives of WUCA are to:

- Improve and expand climate change research so water managers can consider the potential implications climatic changes may have on water resource planning;
- Promote and collaborate in the development of adaptation strategies and tools to reduce the impacts of rising temperature and changes in precipitation patterns on our infrastructure and water supplies; and
- Create mitigation approaches to reduce greenhouse gas emissions of WUCA member agencies.

Since its formation WUCA has been asked to provide comment on the U.S. Climate Change Science Program's (CCSP) Summary of Revised Research Plan, Implementing the National Water Program Strategy: Response to Climate Change, and has participated in discussions with NOAA on development of a National Climate Service. In addition staff representatives were invited to participate in a NOAA sponsored meeting "Workshop on Advanced Climate Modeling and Decision-Making in Support of Climate Services" held in the fall of 2009. Workshop attendees in addition to WUCA staff included global climate modelers and researchers, experts in downscaling, and federal agency staff.

Starting in early 2009 WUCA staff began the development of two white papers. The first white paper “Options for Improving Climate Modeling to Assist Water Utility Planning for Climate Change” was released in December 2009. This paper provides water utilities with an overview of climate science, climate modeling and downscaling techniques, as well as an explanation of the strengths and limitations of current climate model projections. Further, the paper recommends several climate science improvements to better meet the planning needs of water utilities.

The second white paper: “Decision Support Planning Methods: Incorporating Climate Change Uncertainties into Water Supply Planning” was released on January 27, 2010. Water utility planning is typically based on static climatic conditions; however considering climate conditions based on historical conditions does not adequately address the possibility of a changing climate.

The present range of climate projections for many regions is great and many agencies are not comfortable selecting one projection over another. While more sophisticated climate models and methods are in the development phase, it may be many years before the range of projections are substantially narrowed. In many cases utilities cannot wait to make these decisions and to engage in adaptation until considerable improvements in climate modeling are made. Many water utilities will have substantial decisions to make with potentially significant financial, social, and environmental impacts that can be affected by climate change.

As a result, new approaches are needed to incorporate the wide range of climate projections into water utility planning. This report was developed to present multiple-outcome planning techniques to water utilities interested in incorporating climate change into their planning. Adaptation to climate change will be facilitated by new decision support planning methods (DSPMs) to address the uncertainties of climate change. These methods will help utilities systematically characterize and comprehend multiple uncertainties. The white paper discusses five DSPMs: 1) Classic decision analysis, 2) Traditional scenario planning, 3) Robust decision making, 4) Real options, and 5) Portfolio planning. These methods were selected because of their use in and applicability to water utilities. Classic decision analysis and scenario planning are standard methods, while the remaining three are variations on the first two. Classic decision analysis assigns probabilities to uncertainties, traditional scenario planning develops equally likely scenarios based on the uncertainties, and the others combine different variations of these two approaches. At the moment there are few examples of the application of these methods for climate change planning.

The Water Authority’s Water Planning staff reviewed the decision support planning methods discussed in the white paper and selected the traditional scenario planning method to consider potential future scenarios and develop adaptation strategies as part of the 2010 update to the Urban Water Management Plan.

In addition to incorporating the planning methods discussed in the white paper, the Water Authority in conjunction with Dr. Dan Cayan of Scripps Institution of Oceanography has submitted an application to the Climate Prediction Applications Postdoctoral Program. This program partially funded by NOAA will provide a postdoctoral climatologist, who will be based

at Scripps, to work with Scripps and the Water Authority to evaluate the possible changes in precipitation that may affect the San Diego region. This research will also include improved quantification of likely availability of water supplies from the Sierra Nevada and the Colorado River basin under current projections of climate change. Also in conjunction with Scripps, the Water Authority has submitted a proposal to San Diego Foundation's Blasker Environment Grant to fund the remaining portion of the program. If both applications are approved, the postdoctoral climatologist will start in early July.

Additional information is available on the WUCA website www.wucaonline.org. The white papers can be downloaded from the website.

Prepared by: Cheryll A. Stewart, Special Projects Manager

Reviewed by: Sandra L. Kerl, Deputy General Manager

February 17, 2010

Attention: Water Planning Committee

Water Resources Report

Purpose

This report includes the following exhibits for January 2010:

- Rainfall totals for the month and water year to date
- Deliveries to Member Agencies (Exhibit A)
- Water Use by Member Agencies (Exhibit B)
- Storage Available to Member Agencies (Exhibit C)
- Firm Water Deliveries to Member Agencies (Exhibit D)
- Summary of Water Authority Member Agency Operations (Exhibit E)

RAINFALL TOTALS (inches)						
Station	January 2010		2009-2010 WATER YEAR (October 2009 through September 2010)			
	Actual	Normal	Actual	Normal	Departure	% Normal
Lindbergh Field (N.O.A.A.)	3.38	2.28	5.78	5.10	0.68	113
Lake Cuyamaca (Helix W.D.)	10.02	6.34	21.23	15.82	5.41	134
Lake Henshaw (Vista I.D.)	11.59	5.74	20.21	12.19	8.02	166

Sources: National Weather Service, Helix Water District, Vista Irrigation District.

MONTHLY WATER RESOURCES REPORT

Water Deliveries to Member Agencies

(acre-feet)

JANUARY 2010

AGENCY	January		12 Months Ended January	
	2010	2009	2010	2009
Carlsbad M.W.D.	1,194.9	1,323.5	17,942.3	20,945.0
Del Mar, City of	53.0	71.2	1,164.3	1,219.4
Escondido, City of	811.9	1,675.0	22,765.7	20,776.4
Fallbrook P.U.D.	512.5	1,055.5	14,967.5	15,099.6
Helix W.D.	3,767.7	3,278.2	33,939.3	45,559.2
Lakeside W.D.	184.9	211.7	3,560.6	4,182.6
National City, City of ¹	259.0	612.6	3,853.1	2,953.4
Oceanside, City of	1,445.1	1,824.8	27,598.8	31,627.7
Olivenhain M.W.D.	1,023.3	1,315.4	21,080.2	24,636.8
Otay W.D.	1,905.2	1,793.6	32,769.2	36,722.0
Padre Dam M.W.D.	699.0	911.3	13,331.5	15,564.8
Pendleton Military Reservation	1.5	3.9	65.7	84.2
Poway, City of	428.1	583.8	12,030.2	14,685.1
Rainbow M.W.D.	637.2	1,541.2	25,990.3	25,112.4
Ramona M.W.D.	636.1	566.7	7,108.1	9,518.6
Rincon Del Diablo M.W.D.	308.3	446.4	6,750.2	7,966.3
San Diego, City of ¹	11,189.8	10,545.8	194,185.0	206,871.3
San Dieguito W.D.	238.0	247.6	2,437.1	3,912.7
Santa Fe I.D.	282.2	480.3	6,249.3	8,806.6
South Bay I.D. ¹	729.9	1,731.0	14,913.2	13,570.6
Vallecitos W.D.	921.6	1,210.5	17,371.7	20,257.1
Valley Center M.W.D.	927.4	1,822.3	33,235.1	34,707.5
Vista I.D.	1,120.9	1,352.4	16,415.0	16,516.8
Yuima M.W.D.	30.9	0.0	2,576.3	2,399.8
Deliveries To SDCWA Agencies ¹	29,308.4	34,604.7	532,299.7	583,695.9
Deliveries To SDCWA Storage ²	150.5	3,195.3	4,362.0	15,766.2
TOTAL MEMBER AGENCY DELIVERIES	29,157.9	31,409.4	527,937.7	567,929.7
Deliveries To Other Agencies	75.0	69.0	771.2	888.0
Deliveries From SDCWA Storage	0.0	0.0	0.0	0.0

¹ January 2010 deliveries include 150.5 AF to city of San Diego SDCWA storage accounts. January 2009 deliveries include 1,531.8 AF to Sweetwater Authority SDCWA storage account; 1,504.6 AF to SDCWA's subaccount in Helix WD's El Capitan account; and 158.9 AF to city of San Diego SDCWA accounts.

² Deliveries to SDCWA storage accounts are deducted to calculate member agency deliveries.

MONTHLY WATER RESOURCES REPORT
Estimated Water Use by Member Agency
 (acre-feet)

JANUARY 2010

AGENCY	Imported Source S.D.C.W.A.		Local Sources						January Totals	
	2010	2009	Surface Water		Groundwater		Reclaimed Water		2010	2009
			2010	2009	2010	2009	2010	2009		
Carlsbad M.W.D.	1,025.9	1,303.5	0.0	0.0	0.0	0.0	122.7	125.5	1,148.6	1,429.0
Del Mar, City of	53.0	71.2	0.0	0.0	0.0	0.0	1.2	2.0	54.2	73.2
Escondido, City of	1,135.2	1,774.4	303.5	0.0	0.0	0.0	2.8	5.1	1,441.5	1,779.5
Fallbrook P.U.D. ¹	573.6	689.4	0.0	0.0	0.0	0.0	23.5	23.4	597.1	712.8
Helix W.D.	2,150.9	2,277.6	0.0	76.3	12.2	12.4	0.0	0.0	2,163.1	2,366.3
Lakeside W.D.	184.9	211.7	0.0	0.0	44.8	78.6	0.0	0.0	229.7	290.3
National City, City of ²	259.0	212.2	0.0	81.6	240.9	313.2	0.0	0.0	499.9	607.0
Oceanside, City of ²	1,445.1	1,824.8	0.0	0.0	241.6	145.9	0.0	0.0	1,686.7	1,970.7
Olivenhain M.W.D.	1,023.3	1,315.4	0.0	0.0	0.0	0.0	48.4	46.1	1,071.7	1,361.5
Otay W.D.	1,905.2	1,793.6	0.0	0.0	0.0	0.0	122.9	90.6	2,028.1	1,884.2
Padre Dam M.W.D.	695.8	910.9	0.0	0.0	0.0	0.0	39.5	29.4	735.3	940.3
Pendleton Military Reservation ³	76.5	72.9	0.0	0.0	660.0	475.2	80.0	105.0	816.5	653.1
Poway, City of	522.3	742.6	55.4	0.3	0.0	0.0	0.0	0.0	577.7	742.9
Rainbow M.W.D.	787.2	1,538.2	0.0	0.0	0.0	0.0	0.0	0.0	787.2	1,538.2
Ramona M.W.D.	315.4	439.6	0.0	0.0	0.0	0.0	13.9	40.9	329.3	480.5
Rincon Del Diablo M.W.D.	308.3	446.4	0.0	0.0	0.0	0.0	296.6	284.8	604.9	731.2
San Diego, City of	12,753.9	11,350.2	19.4	4,201.2	63.6	0.0	350.0	354.1	13,186.9	15,905.5
San Dieguito W.D.	238.0	247.6	169.1	200.0	0.0	0.0	28.1	29.2	435.2	476.8
Santa Fe I.D.	290.0	476.6	227.2	268.7	0.0	0.0	72.6	77.3	589.8	822.6
South Bay I.D. ²	730.0	599.6	0.0	230.6	162.1	214.9	0.0	0.0	892.1	1,045.1
Vallecitos W.D.	915.5	1,158.6	0.0	0.0	0.0	0.0	0.0	0.0	915.5	1,158.6
Valley Center M.W.D.	927.4	1,822.3	0.0	0.0	0.0	0.0	34.0	32.3	961.4	1,854.6
Vista I.D.	1,120.9	1,352.4	0.0	0.0	0.0	0.0	0.0	0.0	1,120.9	1,352.4
Yuima M.W.D.	30.9	0.0	0.0	0.0	72.1	67.9	0.0	0.0	103.0	67.9
TOTAL USE	29,468.2	32,631.7	774.6	5,058.7	1,497.3	1,308.1	1,236.2	1,245.7	32,976.3	40,244.2
PERCENT CHANGE	-10%		-85%		14%		-1%		-18%	

¹De Luz figures included in Fallbrook P.U.D. total.

²Brackish groundwater use included in groundwater totals.

³Pendleton's imported water use includes water delivered by South Coast Water District.

PRIMA

Water Resources Department

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MONTHLY WATER RESOURCES REPORT

Reservoir Storage

(acre-feet)

JANUARY 2010

MEMBER AGENCY	Reservoir	Capacity	% of		% of		Change During Month
			JANUARY 2010	Capacity	JANUARY 2009	Capacity	
Carlsbad M.W.D.	Maerkle	600	175	29%	497	83%	125
Escondido, City of ¹	Dixon	2,606	2,272	87%	2,386	92%	(140)
	Wohlford	6,506	2,210	34%	1,778	27%	216
Subtotal		9,112	4,482	49%	4,164	46%	76
Fallbrook P.U.D.	Red Mountain	1,335	827	62%	369	28%	(90)
Helix W.D.	Cuyamaca	8,195	1,791	22%	914	11%	1,116
	Jennings	9,790	7,789	80%	8,974	92%	1,612
Subtotal		17,985	9,580	53%	9,888	55%	2,727
Poway, City of	Poway	3,320	3,048	92%	3,102	93%	(30)
Rainbow M.W.D.	Beck	625	268	43%	194	31%	(127)
	Morro Hill	465	124	27%	64	14%	8
Subtotal		1,090	392	36%	258	24%	(119)
Ramona M.W.D.	Ramona	12,000	3,143	26%	3,893	32%	319
San Diego, City of ²	Barrett	37,947	26,918	71%	25,698	68%	2,566
	El Capitan	112,807	49,322	44%	46,724	41%	3,956
	Hodges	33,550	18,096	54%	19,325	58%	4,468
	Lower Otay	49,510	26,591	54%	24,792	50%	1,203
	Miramar	7,185	5,635	78%	5,493	76%	1,265
	Morena	50,207	6,147	12%	6,814	14%	865
	Murray	4,818	4,168	87%	4,044	84%	217
	San Vicente	90,230	25,089	28%	29,812	33%	2,353
Subtotal		415,939	166,756	40%	169,819	41%	18,171
San Dieguito W.D./Santa Fe I.D.	San Dieguito	883	490	55%	428	48%	(15)
Sweetwater Authority	Loveland	25,400	13,442	53%	10,138	40%	2,332
	Sweetwater	28,079	5,493	20%	5,522	20%	1,113
Subtotal		53,479	18,935	35%	15,660	29%	3,445
Valley Center M.W.D.	Turner	1,612	1,553	96%	1,612	100%	(10)
Vista I.D. ³	Henshaw	51,774	8,293	16%	6,150	12%	3,966
MEMBER AGENCY TOTAL WATER IN STORAGE		569,129	217,674	38%	215,840	38%	28,565
SDCWA Accounts (Source: CWA Monthly Storage Reports)	El Capitan		14,341		13,165		(79)
	Lower Otay		6,514		7,469		(56)
	San Vicente		13,158		13,677		159
	Sweetwater		7,028		5,236		(67)
Subtotal			41,040		39,546		91
TOTAL WATER IN STORAGE		569,129	252,200	44%	247,917	44%	28,578
OTHER AGENCIES							
Metropolitan Water District	Skinner	44,264	36,585	83%	34,661	78%	(20)
	Diamond Valley	800,000	384,693	48%	408,239	51%	415
State Water Project	Oroville	3,521,797	1,190,456	34%	1,020,262	29%	160,918
TOTAL OTHER WATER IN STORAGE		4,366,061	1,611,734	37%	1,463,162	34%	161,313

¹ City of Escondido storage does not include water allocated to Escondido Mutual Water Company or its rights to a portion of the unallocated water in Lake Henshaw.

² Includes reserves subject to City's outstanding commitments to the San Dieguito W.D., and the California American Mutual Water Company. SDCWA has storage contracts in City of San Diego reservoirs in the amount of 40,000 a.f. if capacity is available.

³ Vista I.D. storage includes both allocated and unallocated water in Lake Henshaw.

PRIMA

Water Resources Department

MONTHLY WATER RESOURCES REPORT
Estimated Tier 1 Deliveries to Member Agencies
 (acre-feet)

Through January 2010

AGENCY	CY2010 Tier 1 Threshold¹	CYTD Firm Deliveries²	% of Tier 1 Threshold
Carlsbad M.W.D.	18,228.5	1,194.5	6.6%
Del Mar, City of	1,408.3	53.0	3.8%
Escondido, City of	23,496.9	811.9	3.5%
Fallbrook P.U.D.	11,716.9	449.4	3.8%
Helix W.D.	38,421.4	3,767.7	9.8%
Lakeside M.W.D.	4,718.2	184.9	3.9%
Oceanside, City of	28,848.1	1,445.1	5.0%
Olivenhain M.W.D.	18,876.4	1,023.3	5.4%
Otay W.D. (excludes Tijuana deliveries)	32,173.0	1,905.2	5.9%
Padre Dam M.W.D.	14,310.8	699.0	4.9%
Pendleton M.R./South Coast	1,141.3	76.5	6.7%
Poway, City of	13,563.8	428.1	3.2%
Rainbow M.W.D.	23,470.5	556.8	2.4%
Ramona M.W.D.	8,067.0	607.5	7.5%
Rincon Del Diablo M.W.D.	7,307.0	308.3	4.2%
San Diego, City of	215,438.4	11,039.3	5.1%
San Dieguito W.D.	4,692.0	238.0	5.1%
Santa Fe I.D.	7,882.8	282.2	3.6%
Sweetwater Authority	13,094.7	988.9	7.6%
Vallecitos W.D.	14,476.9	901.3	6.2%
Valley Center M.W.D.	24,801.0	692.7	2.8%
Vista I.D.	17,550.5	1,120.9	6.4%
Yuima M.W.D.	94.0	2.0	2.1%
MEMBER AGENCY TOTAL	543,778.4	28,776.5	5.3%
Less: QSA deliveries calendar year to date		(12,308.3)	
Plus: CWA purchases for own account³		150.5	
Estimated Tier 1 deliveries calendar year to date		16,618.7	3.1%

¹Tier 1 threshold is equal to all firm deliveries up to 90% of a member agency's historic maximum year firm demand. (CY10 Tier 1 limits not yet updated to reflect IAWP opt-out volumes for 2010.)

²Firm deliveries are net of IAWP certifications received.

³Includes forced deliveries and temporary carryover storage agreements with Helix WD and Sweetwater Authority.

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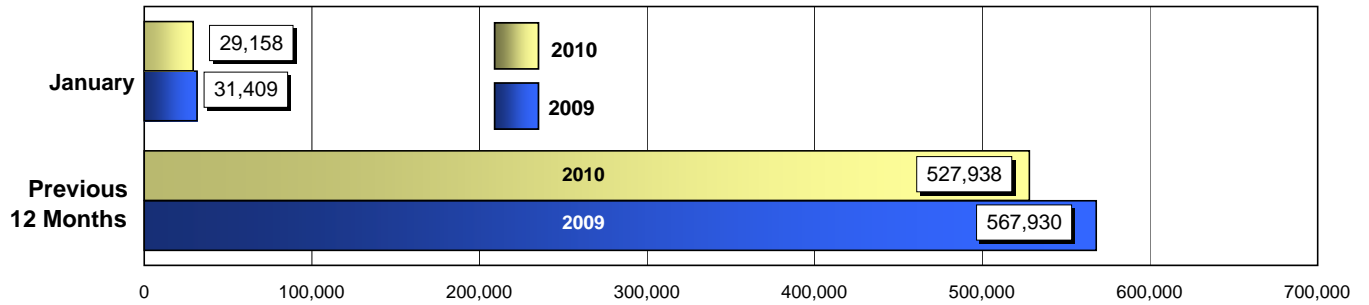
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MONTHLY WATER RESOURCES REPORT

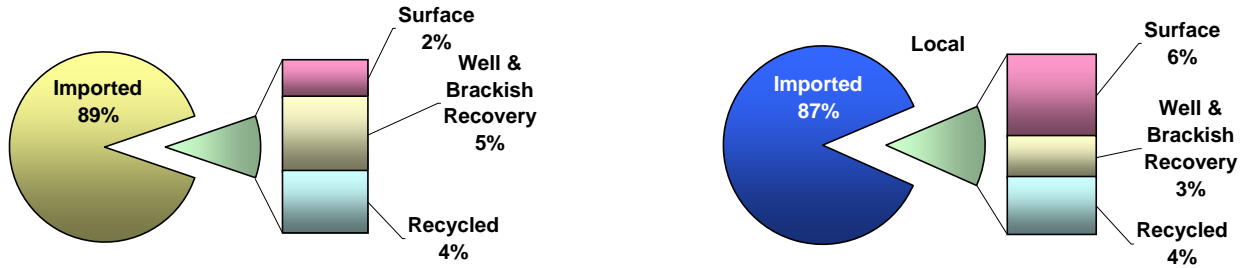
Summary of Water Authority Member Agency Operations (acre-feet)

JANUARY 2010

Member Agency Deliveries



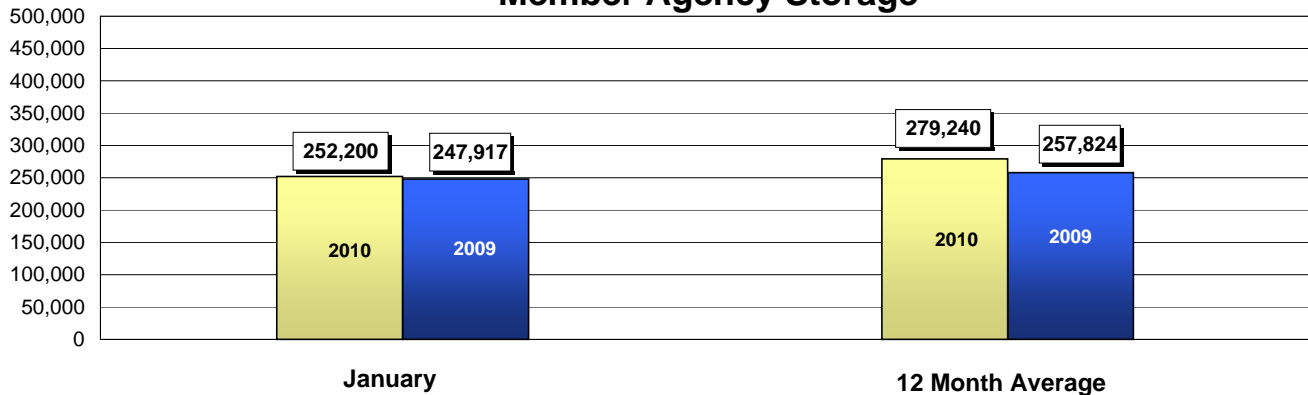
Member Agency Water Use



JANUARY 2010

Previous 12 Months

Member Agency Storage



January

12 Month Average