Municipal Water District of Orange County's 2010 Draft Regional Urban Water Management Plan

Planning and Operations Committee
May 2, 2011

Urban Water Management Plans

- Required pursuant to 1983 Urban Water Management Planning Act
  - (Water Code§§10610 – 10656)
- Threshold - Every urban water supplier that provides water to 3,000 or more customers or provides over 3,000 acre-feet of water annually
- Updates are due every five years
- Plans must be adopted by July 1, 2011

Major Elements of UWMPs

- Demonstrate reliability during normal, dry, and multiple dry years over 25-year period
- Detail water supply shortage contingency planning for 50% reduction and interruption of service
- Describe current and planned water demand management measures i.e. Water Use Efficiency
- Identify planned water supply projects including recycling and desalination

New Elements of UWMPs

- Report water use targets required to meet 20% per capita reduction by 2020 (SBx7-7)
- Implementation of water conservation measures condition for state funding for water management (AB 1420)
- Report water use projections for lower income households (SB 1087)
  - Retail Agency Only
- Describe and quantify indirect potable reuse of recycled water (§ 10633 (d))

SBx7-7 20% by 2020

- Based on Governor's goal to achieve a 20% statewide reduction in per capita water use by 2020
- Reductions can be achieved through either water use efficiency or recycled supplies
- Agency can choose among four methods for measuring a 20% reduction
- Agency can join a "Regional Alliance" to achieve compliance

Overview of MWDOC's Regional Urban Water Management Plan

MWDOC's Regional Approach

- MWDOC Regional UWMP focus
- Provide analysis and information at the regional level
  - Water Demands & Supplies
  - SBx7-7 20% by 2020 - Regional Alliance
  - Water Use Efficiency activities & efforts
  - Water supply contingency planning
- Specific information and data on individual member agencies will not be covered in MWDOC's UWMP
  - Demonstrates coordination
  - Prevents conflicting information
- Similar to MET's approach for their Regional UMWP
  - "County-level" analysis

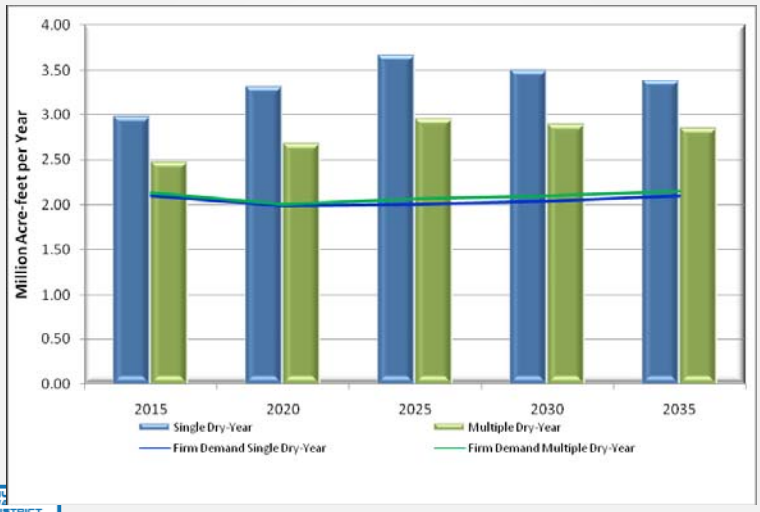
Overview of MWDOC Plan

- MWDOC's RUWMP demonstrates the supply capabilities to meet expected demands from 2015 to 2035 under average, single-dry year, and multiple dry-year conditions
  - Includes MET's 2010 RUMWP supply conditions assumptions which ensures reliability
  - Includes OCWD's and other groundwater basin's management reports
  - Includes local demand and supply information from the member agencies

Imported Supplies - Metropolitan

- Adopted it Regional UWMP in November 2010
- "Metropolitan has supply … sufficient to meet … demands from 2015 through 2035 under the single dry-year and multiple dry-year conditions."
- Captures the impacts to imported water supply reliability from the Delta pumping restrictions
- Integrates Metropolitan's water shortage allocation plan
- Assumes short-term and long-term success on improvements in the Bay-Delta

Metropolitan's Supply & Demand under Single & Multiple Dry Years



Normal Year Reliability

- **MWDOC demand and supply projections under normal year conditions**
  - **Factors in growth and weather**

	Fiscal Year Ending				
	2015	2020	2025	2030	2035
Total Demand	**526,487**	**542,767**	**558,210**	**563,690**	**567,970**
Groundwater	243,032	246,514	248,933	250,553	251,754
Surface Water	6,100	6,100	6,100	6,100	6,100
Recycled Water	51,658	55,699	59,324	59,492	59,597
Imported	225,697	234,454	243,853	247,545	250,519
Total Supply	526,487	542,767	558,210	563,690	567,970

Single Dry-Year Reliability

- **MWDOC demand and supply projections under Single Dry-Year conditions**
  - **Using FY 2001-02 which showed a 6.6% increase in demands from a normal year**

	Fiscal Year Ending				
	2015	2020	2025	2030	2035
Total Demand	**561,235**	**578,590**	**595,052**	**600,894**	**605,456**
Groundwater	243,032	246,514	248,933	250,553	251,754
Surface Water	6,100	6,100	6,100	6,100	6,100
Recycled Water	51,658	55,699	59,324	59,492	59,597
Imported	260,445	270,277	280,695	284,749	288,005
Total Supply	561,235	578,590	595,052	600,894	605,456

Multiple Dry-Year Reliability

- MWDOC d emand and supply projections under Multiple year period
  - Assumed three consecutive "single dry year" conditions of 6.6% increase in demands

		Fiscal Year Ending				
		2015	2020	2025	2030	2035
First Year Supply	**Total Demand**	**561,235**	**578,590**	**595,052**	**600,894**	**605,456**
	Groundwater	243,032	246,514	248,933	250,553	251,754
	Surface Water	6,100	6,100	6,100	6,100	6,100
	Recycled Water	51,658	55,699	59,324	59,492	59,597
	Imported	260,445	270,277	280,695	284,749	288,005
	Total Supply	561,235	578,590	595,052	600,894	605,456
Second Year Supply	**Total Demand**	**561,235**	**578,590**	**595,052**	**600,894**	**605,456**
	Groundwater	243,032	246,514	248,933	250,553	251,754
	Surface Water	6,100	6,100	6,100	6,100	6,100
	Recycled Water	51,658	55,699	59,324	59,492	59,597
	Imported	260,445	270,277	280,695	284,749	288,005
	Total Supply	561,235	578,590	595,052	600,894	605,456
Third Year Supply	**Total Demand**	**561,235**	**578,590**	**595,052**	**600,894**	**605,456**
	Groundwater	243,032	246,514	248,933	250,553	251,754
	Surface Water	6,100	6,100	6,100	6,100	6,100
	Recycled Water	51,658	55,699	59,324	59,492	59,597
	Imported	260,445	270,277	280,695	284,749	288,005
	Total Supply	561,235	578,590	595,052	600,894	605,456

Response to Shortages

- MWDOC RUWMP describes the stages of actions for reductions of water supplies of up to 50% through MWDOC's water supply allocation plan.
- The plan manages shortages by taking into account:
  - Investments in Local Resources
  - Demand Hardening from Conservation and Recycling
  - Economic Impacts to agencies heavily dependent on MWD
  - Extraordinary supplies into the service area
  - Adjustments in gains or losses of local supplies
  - A regional approach for Penalty Rates

Catastrophic Supply Interruptions

- Metropolitan comprehensive plans for stages of actions i.e. Emergency Storage – Diamond Valley Lake, WSDM Plan
- Orange County formed the Water Emergency Response Organization of Orange County (WEROC)
  - Coordinate emergency response plan for all of O.C. water and wastewater agencies
  - Provides a single point of contact for emergency response for the water and wastewater community
  - Identify available resources and mutual aid during a disaster
  - Utilizes prior planning work completed for the Golden Guardian Exercise in 2008

Local Supplies

- Orange County Water District
  - RUWMP assumes a Basin Pumping Percentage (BPP) of 62% throughout 25-year period per OCWD planning
  - Describes OCWD/OCSD Groundwater Replenishment System (GWRS)
- Recycled Water & Groundwater Recovery Projects
  - Coordinated with the member agencies and wastewater districts
- Ocean Desalination
  - Described the efforts in South Orange County – SOCOD and Huntington Beach Projects

SBx7-7 Orange County Regional Alliance

- Under the guidelines of SBx7-7, Orange County formed a Regional Alliance for all of retail water agencies to join
- Benefits of a Regional Alliance
  - It serves as an insurance policy for local compliance
  - No added risk to retail agencies
  - The entire Regional Alliance benefits from regional investments such as OCWD's Groundwater Replenishment System (GWRS)
- MWDOC RUWMP demonstrates how the Regional Alliance targets are calculated as well as the GWRS credit

Summary

- Based on the planning assumptions of MET, OCWD, and MWDOC's customer agencies, MWDOC is projected to have sufficient supplies to meet the demand of its service area under the hydrologic scenarios defined in the UWMP Act

VI. Schedule/Next Steps

Task	Date	Status
Kick off meeting	6/10	Complete
Initial Draft	1/11	Complete
60-day notice of intent	3/21/11	Complete
Final Draft	4/27/11	Complete
Public Hearing Notice	5/18/11	
Board Adoption	6/15/11	
Submit UWMP to DWR	7/1/11	