4.0 PLANNING FOR THE FUTURE

4.1 Programs to Maximize Resources and Minimize Imported Supplies

As a regional provider and resource planning agency, Municipal Water District of Orange County (MWDOC) is committed to identifying ways of maximizing the area's existing water resources in an effort to minimize its dependency on imported supplies. To that end, the agency has taken a proactive stance, participating in the following efforts:

4.1.1 Integrated Regional Water Management Plan

In 2000, the Legislature passed the *Integrated Regional Water Management Planning (IRWMP) Act*, which allows a regional water management group to prepare and adopt an IRWMP that includes qualified programs or projects or qualified reports or studies. The intent of the Legislature is to encourage local agencies to work cooperatively to manage their available local and imported water supplies to improve the quality, quantity, and reliability of those supplies.

Recognizing the sustainable future of the MWDOC service area depends upon the successful management of local and imported water supplies, MWDOC has been working with the County of Orange (lead) and the 24 cities and special districts serving the water and wastewater needs of south Orange County over the years to develop and integrate regional strategies that address, raise community awareness, and coordinate numerous and varied projects that:

- Protect communities from drought;
- Enhance local water supply and system reliability;
- Ensure continued water security;
- Optimize watershed and coastal resources;
- Improve water quality throughout the watersheds;
- Safeguard habitat.

In addition, these projects, which are based on a watershed approach, include one or more of the following water management elements:

- Programs for water supply reliability, water conservation and water use efficiency;
- Storm water capture, storage, treatment and management;

- Removal of invasive non-native plants;
- Creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands
- Non-point source pollution reduction, management, and monitoring;
- Groundwater recharge and management projects;
- Water banking, water exchange, water reclamation, desalting, and other treatment technologies;
- Planning and implementation of multipurpose flood control programs that protect property; improve water quality, storm water capture and percolation; and protect or improve wildlife habitat;
- Watershed management planning and implementation; and
- Demonstration projects to develop new drinking water treatment and distribution methods.

In August 2004, this diverse group came together as a single unit to create stronger regional partnerships and connectivity, to maximize the efficiency of their efforts, and to identify funding opportunities and apply for competitive grants.

Specifically, the South Orange County Integrated Regional Water Management (IRWM) Group provides a framework for coordinating planning activities and projects related to water management and watershed protection that have been studied and funded, or are in need of funding, and integrating them into a water management plan with multiple regional benefits.

To date, nearly 100 short- and long-term projects have been identified and prioritized based on the overall benefit they provide the south county region and their readiness for implementation.

4.1.2 Water Use Efficiency Program

California's water is a valuable and limited natural resource. There is a continuing need to conserve and efficiently utilize existing water supplies. Interest in water use efficiency (conservation) has been heightened by the continued growing need for water throughout California. The growth in water demand will continue due to the projected increase in population, along with increases in commercial and industrial activity. Water use

efficiency and demand management programs will help to stretch existing water supplies to meet these growing needs.

MWDOC recognizes water use efficiency as an integral component of the current and future water resource strategy for Orange County. Along with groundwater, recycled water, and imported water, water use efficiency is recognized as a low-cost source of new supply for the region. An ethic of efficient use of water has been developing over the last 14 years of water use efficiency programs implementation.

MWDOC demonstrated its commitment to water use efficiency in 1991 by voluntarily signing the Memorandum of Understanding(MOU) Regarding Urban Water Conservation in California (CUWCC). The California Urban Water Conservation Council was formed through adoption of this MOU and is considered the “keeper” of the 14 Best Management Practices (BMPs), with the authority to add, change, or remove BMPs. The CUWCC also monitors BMP implementation of the MOU. As a signatory to the MOU, MWDOC has committed to a good-faith-effort to implement all cost-effective BMPs.

Relative to urban water supply and management in general, the term "Best Management Practices" refers to policies, programs, rules, regulations and ordinances, and the use of devices, equipment, and facilities that, over the long term, have been generally justified and accepted by the industry as providing a "reliable" reduction in water demand. These methodologies and technologies are both technically and economically reasonable, are not environmentally or socially unacceptable, and their practice is not otherwise unreasonable for most water suppliers to carry out.

These 14 BMPs include technologies and methodologies that have been sufficiently documented in multiple demonstration projects that result in more efficient water use and conservation.

As a regional wholesaler of imported water, MWDOC's current Water Use Efficiency Program includes regional programs implemented on behalf of its member agencies revolving around the 14 BMPs identified in Table 4-1-2-A and the following four basic goals:

- Provide ongoing water use efficiency program technical support for member agencies that are implementing programs locally;

- Assume the position of lead agency to develop and implement water use efficiency programs that are more cost-effectively implemented on a regional basis rather than a local basis;

- Secure outside funding from Metropolitan’s Conservation Credits Program, the U.S. Bureau of Reclamation, and other sources; and

- Identify the need for and conduct studies to evaluate the effectiveness of existing and potential water use efficiency programs for the region.

Table 4-1-2-A: Memorandum of Understanding Best Management Practices Implementation Responsibility and Regional Programs in Orange County

BMP #	EFFICIENCY MEASURE	Applies to:		MWDOC Regional Program
		Retailer	MWDOC as a Wholesaler	
1	Home Water Surveys	√		√
2	Residential Plumbing Fixture Retrofits	75% Saturation goal achieved in 2001		
3	System Water Audits, Leak Detection and Repair	√	(1)	√
4	Metering With Commodity Rates	√		
5	Large Landscape Conservation Programs	√		√
6	High-Efficiency Washing Machine Rebate Programs	√		√
7	Public Information Programs	√	√	√
8	School Education Programs	√	√	√
9	Commercial, Industrial, and Institutional Programs	√		√
10	Wholesale Agency Assistance Programs		√	√
11	Conservation Pricing	√	√	√
12	Conservation Coordinator	√	√	√
13	Water Waste Prohibition	√		√
14	Residential ULFT Replacement Programs	√		√

(1) MWDOC does not own or operate a distribution system; water wholesaled by MWDOC is delivered through the Metropolitan distribution system and meters.

Source: Municipal Water District of Orange County

In the event of a discrepancy between the information shown above and that contained within a local retail agency's Urban Water Management Plan, the local retail agency's data takes precedence.

Section 5 of this Plan provides a detailed description of MWDOC's overall water use efficiency efforts including regional program descriptions, implementation achievements to date, water savings realized, and research activities.

4.1.3 Orange County Water Reliability Plan

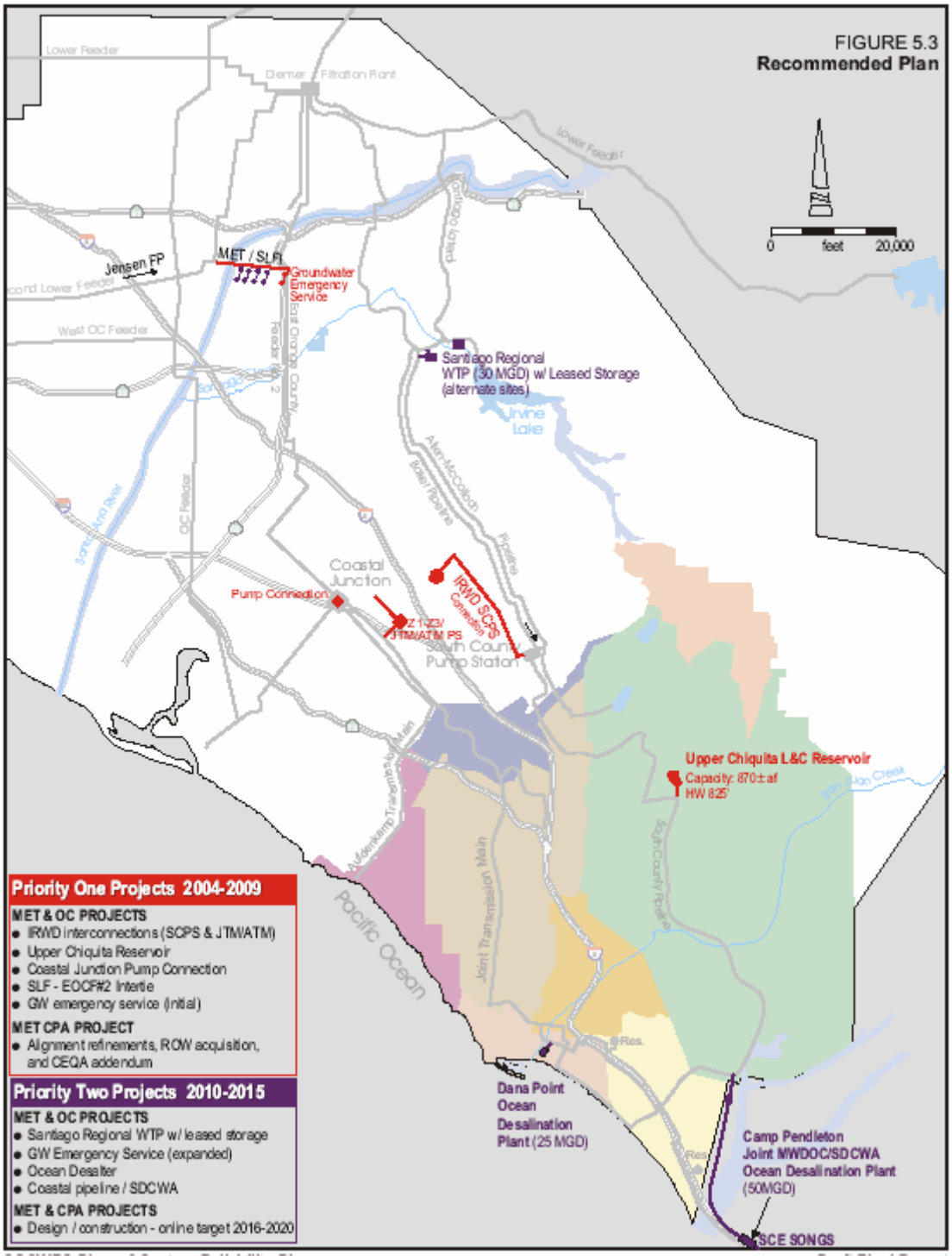
Under this program, MWDOC completed its *Orange County Water System Reliability Study*, which currently consists of separate planning documents for both the south and north county areas. The primary focus of these efforts is developing system reliability improvement plans that will more fully protect Orange County from major facility outages due to earthquakes, facility component or structural failures, or from other causes.

Especially vulnerable areas, such as south Orange County, which receives 95% of its potable water supply from a single regional Metropolitan treatment plant (Diemer Filtration Plan) located more than 35 miles from the

area, will significantly benefit from this program. The Diemer Filtration plant is situated close to the Whittier Fault, which poses a major risk to this facility and the reliability of water supply to South Orange County. Under a collaborative reliability improvement program, MWDOC and Metropolitan have been working cooperatively on various regional reliability improvements. Metropolitan has recently completed its Infrastructure Reliability and Protection Program (IRPP) for the Diemer Filtration Plant and its Orange County distribution system. MWDOC, with the cooperation of eight south Orange County agencies and with funding support from the U.S. Bureau of Reclamation, has developed the South Orange County Water Reliability Study. The Phase 2 System Reliability Plan was released in September 2004. This study recommended several reliability improvements to be implemented under two phases spanning 10 years.

Figure 4-1-3-A shows the recommended reliability improvements. Work is underway on implementing the Phase 1 program. These projects are: (1) two lined and covered reservoirs with emergency interconnections to the South County Pipeline in Santa Margarita Water District (lead agency with MWDOC coordination); (2) emergency interconnections from the IRWD to the South County Pipeline and to the Joint Transmission Pipeline and Aufdemkamp Transmission Pipeline (IRWD lead agency with MWDOC coordination); (3) East Orange County Feeder No. 2 emergency interconnections by construction of the Orange County Cross Feeder and pump risers at the Coastal Junction facility (Metropolitan lead agency with MWDOC coordination); (4) groundwater emergency pump-in service to the East Orange County Feeder No. 2 (MWDOC lead planning agency); and (5) the Dana Point Ocean Desalination Project (MWDOC lead planning agency).

Figure 4-1-3-A: Recommended Reliability Improvements



Source: Municipal Water District of Orange County, *South Orange County Water Reliability Study*, Figure 5.3

The Dana Point Ocean Desalination Project will provide both system reliability benefits as well as a new potable-water supply source in south Orange County. Feasibility investigations are now underway. MWDOC's goal is to determine the feasibility of the project by mid-2006. Primary areas of investigation are feedwater supply using a subsurface intake system, concentrated ocean water disposal utilizing the regional wastewater system outfall, and a project power study. Upon completion of these investigations, the overall project feasibility report would be prepared and costs estimated. At that time, the project will be reviewed and a go/no-go decision considered. Should the project proceed, the next steps will include developing arrangements to preserve the identified sites, conducting a pilot plant and demonstration project to develop the treatment process and cost parameters, and preparation of the full project California Environmental Quality Act documentation.

4.1.4 South Orange County Water Reliability Study

Approximately 95% of south Orange County's potable water supply is imported from Northern California and the Colorado River. This water is treated locally at the Diemer Filtration Plant in Yorba Linda and delivered via two aging pipelines, the East Orange County Feeder No. 2 and Allen McColloch Pipeline. To ensure continued water reliability for south Orange County, 11 Orange County agencies, Metropolitan, and the U.S. Bureau of Reclamation joined together to fund the *South Orange County Water Reliability Study* (SOCWRS) - Phase 2 System Reliability Plan. MWDOC headed these efforts.

The purpose of this planning effort, conducted from 2003-04, was to:

- Identify risks, including earthquakes, that pose the greatest threat to the regional water treatment and distribution infrastructure;
- Identify ways to bolster source-of-supply and regional distribution systems;
- Building on earlier engineering investigations and studies Develop a list of projects that accomplish the above objectives, and identify appropriate investments;
- Allow for flexibility in phasing. Most notably project operational dates and sizing should be flexible to account for changes in local resource development (LRPs);

The plan builds on a number of prior studies, including: SOCWRS Phase 1, which served as the foundation for this effort; Metropolitan's Central Pool Augmentation Project, currently in project and right-of-way refinement; Santa Margarita Water District's Lined and Covered Reservoir investigations to increase local storage for emergency needs;

IRWD's Water Resources Master Plan Update and Planning Area-6 Sub-Area Master Plan; and various Orange County Water District (OCWD) plans and groundwater basin operations studies.

To determine the economic impacts of water shortages, MWDOC retained the services of the Orange County Business Council. According to the Orange County Business Council, the economic impacts could reach $1.7 billion, depending on the shortage scenario. Even a relatively short 10-day outage of 20% carries a projected impact of over $60 million. These numbers illustrate the tremendous potential cost to south Orange County from water system outages.

Key planning principles used to guide the formulation of alternatives and the plan included:

- Developing priorities for accommodating Metropolitan planned shutdowns of seven days of average demand and for emergency outages of up to 31 days of summer demand;

- Evaluating compatibility of project components with existing and future supply needs, with preference for projects providing multiple purposes, and seeking economies of scale through regional joint use facilities;

- Making better use of existing, underutilized infrastructure assets;

- Identifying Metropolitan system investments that can provide for flexibility in system operation, which would maintain and improve system capability and reliability for Orange County; and

- Selecting appropriate projects that can be phased and modified to changing conditions.

Projects were identified and an action plan developed. The recommended projects fell into three categories and are the building blocks of the Base Plan and the Contingency Plan. They included: (1) regional distribution system; (2) storage/treatment; and (3) ocean desalination. Implementation of the recommended plan will commence upon reaching agreement with the south Orange County agencies on the priority projects, gaining plan acceptance, and developing a business plan and organizational structure for implementation of the plan.

4.1.5 Assist Member Agencies to Participate in Metropolitan's Incentive Program for Local Supply Development

MWDOC plays a key role in assisting its member agencies in getting the financial assistance from Metropolitan's incentive programs through the competitive selection process.

Capital risk is a significant constraint to increased local supply project development. Most of the local supply projects require significant capital investments in treatment and distribution system. Uncertainty of market demands creates a risk to the cost recovery required for the repayment of capital debt. This large capital risk often deters agencies from undertaking the development of new supplies.

Metropolitan developed several incentive programs to assist local agencies in overcoming this obstacle. In its role as the regional provider, MWDOC works hard to assist its member agencies to obtain this financial assistance by showing evidence that those local projects do offer regional benefits to offset regional supply shortages.

Followings are summary of the incentive programs:

- Local Projects Program (LPP) – Metropolitan implemented the LPP in 1982 to assist local agencies with the development of recycled water supply projects. Between 1986 to 1990, the LPP contribution for a project was a minimum of $75 per acre-foot of production, which roughly equaled Metropolitan's avoided energy cost for pumping an equivalent amount of water through the State Water Project. In April 1990, Metropolitan modified the LPP contribution to $154 per acre-foot. In August 1995, Metropolitan converted the program again. The contribution for a project for the converted program ranged from $0 to a maximum of $250 per acre-foot, based on the difference between the project's unit cost and Metropolitan's treated water rate;

- Groundwater Recovery Program (GRP) – Metropolitan initiated the GRP in 1991 to encourage local agencies to treat and use degraded groundwater for municipal purposes. Metropolitan provided financial assistance based on the difference between the project unit cost and its treated water rate, up to a maximum of $250 per acre-foot;

- Competitive Local Resources Program (LRP) – In June 1998, Metropolitan retired the aforementioned incentive programs and established the Competitive LRP in their places. The Competitive LRP uses a competitive Request for Proposals process to encourage the development of cost-effective recycled and groundwater

recovery projects. This program offers financial incentives of up to $250 per acre-foot; and

- Seawater Desalination Program (SDP) – Metropolitan and its member agencies view seawater desalination as a future component of a diversified water supply portfolio. In Metropolitan's Integrated Resource Plan Update, Metropolitan identified a target of 750,000 acre-feet per year of local water production by 2025 that could include up to 150,000 acre-feet per year of seawater desalination. Metropolitan initiated the SDP in 2001 and provides financial assistance of up to $250 per acre-foot for 25 years for desalinated seawater that is developed and used within Metropolitan's service area. MWDOC has submitted a proposal on behalf of its member agencies for an amount of 28,000 acre-feet per year of seawater desalination. Currently, MWDOC is working on executing the contract with Metropolitan under this proposal.

Table 4.1.5 summarizes the projects within MWDOC's service area that have been awarded with the incentive program contract.

Table 4-1-5-A: Local Supply Projects within MWDOC's Service Area that Have Been Awarded with Metropolitan's Financial Incentive Program Contracts

Lead Agency Name	Project Name	Met Sponsorship		Types	Usage	Status
		Contract Type	Contract Yield [1]			
Irvine Ranch Water District	IRWD **Irvine Desalter**	GRP 91	6,700	GW Recovery	Potable and Non-Potable	Construction
Irvine Ranch Water District	IRWD **Michelson and LAWRP Reclamation 2005 Upgrades**	LRP 04	8,500	Reclamation	Non-potable	Construction; on-line 12/2006
Irvine Ranch Water District	IRWD **Michelson Reclamation** Project	LPP	10,000	Reclamation	Non-Potable	In Operation
Mesa Consolidated WD	Mesa CWD **Colored Water Treatment Facility Phase I**	LRP 98	5,650	GW Recovery	Potable	In operation
Mesa Consolidated WD	Mesa CWD **Colored Water Treatment Facility Phase II**	LRP 98	5,650	GW Recovery	Potable	In planning
Moulton Niguel WD	Moulton Niguel **Reclamation Expansion Phase II-III** Plus DWR Loan	LPP	8,000	Reclamation	Non-Potable	In operation
Moulton Niguel WD	Moulton Niguel **Reclamation Expansion Phase IV**	LRP 98	1,276	Reclamation	Non-Potable	In operation
MWDOC	MWDOC **South OC Ocean Desalination** Project	ODP 05	28,000	Ocean Desal	Potable	Planning
Orange County Water District	OCWD **Green Acres Reclamation** Project	LRP	7,000	Reclamation	Non-Potable	In Operation
Orange County Water District & Orange County Sanitation District	OCWD & OCSD **Ground Water Replenishment System**	LRP 04	31,000	Reclamation	Potable (indirectly)	Construction; On line Summer 2007
San Clemente, City of	San Clemente Water Reclamation	LPP	1,500	Reclamation	Non-Potable	In Operation
San Juan Capistrano, City of	San Juan Capistrano **Desalter**	GRP 98	4,800	GW Recovery	Potable	Construction
San Juan Capistrano, City of	San Juan Capistrano **Non-Domestic Water System Expansion**	LRP 98	2,895	Reclamation	Non-Potable	Planning
Santa Margarita WD	SMWD **Oso Reclamation** Plant (Existing)	LPP	3,360	Reclamation	Non-potable	In Operation
Santa Margarita WD	SMWD **Chiquita Reclamation** Project	LRP 98	2,772	Reclamation	Non-potable	Construction; on-line 2005-06
South Coast WD	South Coast WD **Capistrano Beach Desalter**	GRP 98	1,300	GW Recovery	Potable	Design
Trabuco Canyon WD	**TCWD Reclamation Expansion** Project	LPP	800	Reclamation	Non-potable	In Operation
Tustin, City of	**Tustin Desalter (17th Street)**	GRP 91	2,800	GW Recovery	Potable	Operation

[1] A typical contract provision has MET pay on yield up to 20% over the Contract Yield amount.
[2] South Coast WD South Laguna Reclamation Project not included because MET contract expired in 3/04 after its full 20 years.
Source: Muncipal Water District of Orange County

In the event of a discrepancy between the information shown above and that contained within a local retail agency's Urban Water Management Plan, the local retail agency's data takes precedence.

4.1.6 Cooperative Agreement with Orange County Water District

For the water supply sustainability in this region, it is critical that MWDOC and Orange County Water District (OCWD), work cooperatively for the benefit of the public. MWDOC manages the imported water supplies into the county in conjunction with Anaheim, Fullerton, and Santa Ana. OCWD manages the local supplies and groundwater storage levels of the Lower

Santa Ana River Groundwater Basin. On August 15, 2001 and again on April 23, 2003, MWDOC and OCWD adopted a *memorandum of understanding* (MOU) to coordinate mutual water resources planning, supply availability, and water use efficiency programs for the benefit of the Orange County region.

Such a program requires MWDOC and OCWD to look outside of their strict borders and traditional missions because of the interconnectedness of water issues affecting Orange County. Due to their regional natures, MWDOC as a water wholesaler and OCWD as a groundwater basin manager, both are appropriate agencies in Orange County to lead such a program.

With this program, the Boards of Directors of both MWDOC and OCWD jointly declare the following to be desirable and mutually acceptable objectives:

- Staffs from both agencies should continue working together to prepare and pursue actions toward developing an overall water supply and system reliability program for Orange County;

- Staffs are directed to coordinate with the Metropolitan and its Orange County member agencies to discuss new ideas to further this program;

- Key planning activities within the Orange County are identified as such:

    - Evaluate Orange County Demand;

    - Identify availability/reliability of Metropolitan supplies;

    - Develop groundwater management plans, including coastal pumping transfers and other programs addressing Santa Ana River Watershed issues;

    - Develop a recharge master plan;

    - Develop a long-term facilities plan;

    - Develop an Emergency Service Plan (Orange County Basin to serve areas outside of the Basin during emergency situation;

    - Facilitate responses to Metropolitan Local Resources Program (RFP) for funding assistance;

    - Complete South Orange County Reliability Study;

- Develop water transfers, dry year options, storage;
- Develop water use efficiency master plan and enhanced conservation;
- Implement Metropolitan conjunctive use project;
- Evaluate rate structure refinements; and
- Coordinate and support each others on issues related to legislative, regulatory, and water supply.

- The program creates a joint planning committee, which will continue to meet to monitor progress and make recommendations for the two Boards, which shall also periodically meet on a joint basis.

Not yet adopted, a resolution has been drafted by this joint program to work together to manage supplies during drought and non-drought situation. Goals identified are:

- Avoid water-rationing situations caused by prolonged droughts through proactive management of supplies during both drought and non-drought situations and through efficiency of use of existing supplies;
- Minimize the impacts of prolonged droughts to Orange County; and
- Accelerate the refill of the groundwater basin following any drafting of storage during a drought situation.

4.1.7 Role in Ocean Water Desalination Feasibility Investigation

South Orange County, home to about 500,000 residents and growing, obtains most of it water from imported sources (86% of total, 98% of potable). This imported water is delivered through two pipelines and treated at the Diemer Filtration Plant, as much as 35 miles away from portions of south Orange County. The two pipelines are the Allen McColloch Pipeline and the East Orange County Feeder No. 2. The Diemer Filtration Plant, located in Yorba Linda, was built in 1964 and supplies almost 100% of the treated imported supplies to Orange County. The Diemer FiltrationPlant, the Allen McColloch Pipeline, and the East Orange County Feeder No. 2 pipeline are essential for supplying water, particularly to south Orange County. An outage of any one of the three facilities has the potential to create supply problems until service is restored. In particular, an outage of the Diemer FiltrationPlant would be an extremely difficult event with which to deal. Development of additional local supplies in south Orange County,

such as ocean desalination facilities, can help improve the reliability of the area.

MWDOC recently completed the South Orange County Water Reliability Study, which examined and evaluated options for providing greater water supply and system reliability. A recommendation from the study is the development of an ocean water desalination facility that would provide south Orange County with a new local source of water. Such a project would also provide relief to the area that is almost entirely dependent on imported water, has only two imported water delivery pipelines to serve more than 500,000 people, and is subject to interruptions should it experience another imported water pipeline outage like it did in 1999.

While still in the feasibility stage, MWDOC is considering constructing a 10-20 Million Gallon per Day (MGD) reverse osmosis (RO) ocean desalination facility to supply water to south Orange County. The facility would produce a new water supply of 12,000-to-24,000 acre-feet per year, diversify the sources of supply, provide drought protection, improve system reliability, and improve water quality by providing a lower level of Total Dissolved Solids (TDS) in the supply. This will be especially helpful in expanding water recycling opportunities for south Orange County.

Potential sites for a south Orange County ocean water desalination facility include Dana Point and a somewhat larger facility at Camp Pendleton that could provide water service to Orange County, San Diego County, and could improve the water security to the U.S. Marine Corps at Camp Pendleton. The project at Camp Pendleton would be a joint effort between MWDOC and the San Diego County Water Authority and would potentially use the existing intake and outfall facility from the San Onofre Unit 1, which is currently in the process of being decommissioned.

In February/March 2005, MWDOC conducted the first phase of its hydrogeology and water quality testing at a possible ocean water desalination site in Dana Point at Doheny State Beach. Results of the initial testing are promising, and MWDOC is now continuing to the next phase of feasibility testing. Throughout this effort, MWDOC has worked closely with the city of Dana Point, the South Coast Water District, which serves this part of the county, and the California State Department of Parks and Recreation. MWDOC has also done target community outreach to such important stakeholders as the Surfrider Foundation, Orange County Coastkeeper, and other environmental groups.

4.1.8 Southern California Comprehensive Water Reclamation and Re-use Study

MWDOC participated, as a member of its Project Advisory Committee (PAC), in the Phase II of this comprehensive regional study on the use of recycled supply.

This is a six-year comprehensive effort that fully examined recycled water opportunities from a regional perspective to develop a long-term planning strategy to develop recycled water supplies for *Southern California. Southern California Comprehensive Water Reclamation and Re-use Study* (SCCWRRS) was developed by three phases: Phase IA, Phase IB, and Phase II. The following paragraphs describe each of the phrases:

- Phase IA – The primary purpose of this phase was to compile available information on supply and demand for both fresh and recycled water throughout southern California. At the end of this phase, the study concluded that without increased water recycling, the water supply would remain relatively constant through the year 2040, while demand would increase. It also concluded that the water demand shortfall in the near term could be met with recycled water if the projected recycled water supplies are put to beneficial uses;

- Phase IB – The study gathered inputs and used analysis tools to optimize recycled water use from the regional perspective and, in the process, to identify constraints to maximizing reuse. The major conclusion reached during this phase was that a regional water recycling project that spans the entire study area does not appear practical at this time; however, sub-regional systems warranted further evaluation. The sub-regional areas evaluated in this phase were grouped into geographical regions that facilitated the development of reclamation systems to meet the regional recycling goals. These regions include the Los Angeles Basin region, Orange County region, San Diego region, and Inland Empire region;

- Phase II – This phase of the study focused on developing a long-term regional recycling strategy and identifying short-term opportunities for implementing the strategy. In Phase I, participation was limited to the United States Bureau of Reclamation and eight agencies representing a variety of water recycling interests in Southern California. In Phase II, participation was expanded to include local agencies potentially affected by the implementation of projects arising from the SCCWRRS. In response to the invitation to participate, MWDOC, joined with other 70 local agencies from across Southern California, and became an active participant in the development and analysis of regional water recycling projects. Local agencies were integral participants in the decision-making process of Phase II.

  The objective of this phase was to examine opportunities for short-term and long-term implementation. Unlike typical master planning activities, the SCCWRRS analyses examined two distinct time horizons, which were defined as 2010 (short-term) and 2040 (long-term). Through the short-term analysis, 34 projects distributed

across Southern California were identified for short-term implementation. Of these, 15 projects were identified as regional projects. All projects identified within Orange County were grouped in the regional projects category. The regional projects include a number of agencies, both water and wastewater, cooperating regionally to produce and deliver recycled water. This phase also develop a long-term regional recycling strategy for projects through 2040.

The short term projects have a total potential yield of approximately 451,500 acre-feet per year of additional recycled water, of which 114,600 acre-feet per year were with Orange County. The long-term strategy is expected to satisfy additional demand of 296,300 acre-feet per year by 2040, of which 52,500 acre-feet per year should be within Orange County.

References:

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