

**ATTACHMENT NO. 3**

**EXCERPT FROM THE DRAFT EIR (pages 3-20 through 3-23)**

### **3.5 PROJECT NEED AND OBJECTIVES**

#### **NEED FOR PROJECT**

It is common knowledge that Southern California could not exist without its extensive imported water system. There are three main parts to the region's imported water system: the Los Angeles Aqueduct (operated by the Los Angeles Department of Water and Power); the State Water Project (operated by the Department of Water Resources); and the Colorado River Aqueduct (operated by the Metropolitan Water District). The MWD and others operate numerous transmission pipelines necessary to distribute imported water supplies throughout the region.

Although the region has made a significant financial investment in the imported water system and the system has met all of the region's supplemental water supply needs (with the exception of a one year period from March 1991 to March 1992), there is present concern regarding the amount of water that will continue to be available for delivery through the imported water system. Increasing regulatory activity and environmental water use needs in Northern California and in the Mono Lake area have reduced the amount of imported water supply (compared to system capacity and earlier projections) that is available to Southern California. Likewise, there is a fundamental change occurring in the availability and use of Colorado River water because California, for the first time, will be required to reduce the amount of Colorado River water it uses. California is currently finalizing its Colorado River Water Use Plan. Implementation of the Plan will, among other things, result in a reduction of up to 1 million acre feet per year as compared to the highest amount diverted in the past 25 years (from a high of 5.4 million acre feet per year to the California allotment of 4.4 million acre feet per year).

Solutions to potential water shortage and reliability problems include water management programs on imported water systems as well as an increased reliance on many different sources of water supply and a continued emphasis on water conservation through implementation of State-approved Best Management Practices (BMP's). Orange County has implemented several successful programs including ultra low flow toilet and low flow shower head programs, conservation based rate structure programs, landscape conservation programs and commercial, industrial and institutional conservation programs. However, according to the Orange County Water District Master Plan Report (Section 5.6.2), potential conservation savings will be limited to no more than 30,000 to 60,000 acre feet per year. This amount is hardly sufficient to offset anticipated water shortages due to increases in population and economic activity.

Water recycling (reclamation of wastewater to produce water that is safe and acceptable for various non-potable uses, but not approved for drinking and other domestic uses) is a technology that has provided a valuable source of water supply for Southern California. Southern California (and Orange County in particular) leads the way in producing recycled water to offset potable water demands. In 1996 the major imported water supplier in the region, MWD, adopted its so-called "Southern California's Integrated

Water Resources Plan” (IRP) representing a dramatic shift in water management and resource planning for the region. The IRP identified 80 different local recycling projects producing over 150,000 acre feet per year of water supply available to the region. Depending upon technological advancements and economic constraints, the IRP projected that as much as 800,000 acre feet of recycled water could be made available to the region by 2020. Recycled water projects will certainly be relied upon to meet the demands of projected growth in the region. However, recycled water has not been approved for drinking or for other potable uses.

Desalinated seawater can be made directly available for drinking and other potable uses. Consequently, seawater desalination was also one of several potential resource options identified in the IRP. The IRP also recommended that groundwater recovery projects, storage projects, water recycling projects, water transfer projects and water conservation projects be included in the “resource mix”. The IRP states that based on feasibility studies on potential projects, about 200,000 acre-feet per year (of desalinated ocean water) could be developed by 2010 (p. 3-12.) The proposed Poseidon Seawater Desalination Project represents an opportunity to develop approximately 56,000 acre-feet per year, or approximately one fourth of the potential for seawater desalination development identified by the 1996 IRP.

Further, as a new reliable and sustainable water source, water produced through the desalination process may become increasingly important in meeting increasing water demands generated by anticipated statewide population growth and related development activities. In this regard, the California Department of Water Resources (DWR) provides an assessment of anticipated statewide population growth and related water consumption statistics in their “Bulletin 160 series”. The DWR employs these projections in developing and implementing long-range strategies addressing California’s water demands. Information from Bulletin 160-98 (the most recent of the Bulletin 160 series) is presented in Table 3-1, *CALIFORNIA - 1995 TO 2020 WATER DEMANDS AND RELATED STATISTICS*.

**Table 3-1  
CALIFORNIA - 1995 TO 2020 WATER DEMANDS AND RELATED STATISTICS**

	<b>1995</b>	<b>2020 Forecast</b>	<b>Change (percentage)</b>
Population (million)	32.1	47.5	+15.4
Irrigated crops (million acres)	9.5	9.2	-0.3
Urban water use (million acre feet)	8.8	12.0	+3.2
Agricultural water use (million acre feet)	33.8	31.5	-2.3
Environmental water use (million acre feet)	36.9	37.0	+0.1

**Source:** California Department of Water Resources, Bulletin 160-98: California Water Plan

Based on the State's assessment of future water availability, and the water demand information presented in Table 3-1, DWR projects 2020 statewide water shortages at approximately 2.4 million acre feet in an average water year, and 6.2 million acre feet in drought years. Effects of water shortages are typically evidenced in required rationing,

curtailment of development, and environmental impacts to biologic resources. In general, anticipated statewide shortages can be expected to translate to equivalent local and regional shortages, with similar economic and environmental effects. Senate Bill (SB) 221 and SB 610 require demonstration of water supply reliability prior to development.

In a more localized context, Bulletin 160-98 presents an assessment of existing and projected water supplies and demands for the South Coast Hydrologic Area. Extending eastward from the Pacific ocean, the South Coast Hydrologic Area (South Coast Region, or Region) is generally defined as that area bounded by the Santa Barbara-Ventura County line and the San Gabriel and San Bernardino mountains on the north, and a combination of the San Jacinto Mountains and low-elevation mountain ranges in central San Diego County on the east, and the Mexican border on the south.

The South Coast is California's most urbanized region. Although it covers only about 7 percent of the State's total land area, it is home to approximately 54 percent of the State's population. The largest cities in the region are Los Angeles, San Diego, Long Beach, Santa Ana, and Anaheim. Although highly urbanized, about one-third of the Region's land is publicly owned. About 2.3 million acres is public land, of which 75 percent is national forest.

Previously discussed anticipated statewide water shortages will likely be reflected locally within the South Coast Region, and as indicated in Table 3-2, will become acute under drought conditions where demands may exceed available water sources by up to 21 percent.

## **PROJECT OBJECTIVES**

The overall objective of the project is to provide Orange County and the surrounding region with a long-term, reliable, high quality local source of potable water. Project implementation will create a local drought-proof supply of domestic water and would reduce Orange County's dependence on imported water, consistent with the goal of integrated water resource management. A key advantage of the selected site is to utilize existing ocean intake/discharge lines of sufficient seawater volume to avoid the impact of constructing new ocean intake/discharge facilities.

The project is intended to realize the following objectives:

- ❖ Provide a reliable local source of potable water to Orange County and the surrounding region that is sustainable independent of climatic conditions and the availability of imported water supplies or local groundwater supplies;
- ❖ Provide product water that meets or exceeds the requirements of the Safe Drinking Water Act (SDWA) and the Department of Health Services (DHS);
- ❖ Reduce salt imbalance of current imported water supplies by providing a potable water source with lower salt loads for blending with existing supplies;

**Table 3-2  
SOUTH COAST REGION WATER BUDGET (THOUSAND ACRE FEET) <sup>1</sup>**

	1995		2020	
	Average	Drought	Average	Drought
<b>Water Use</b>				
Urban	4,340	4,382	5,519	5,612
Agricultural	784	820	462	484
Environmental	100	82	104	86
<b>Total</b>	<b>5,224</b>	<b>5,283</b>	<b>6,084</b>	<b>6,181</b>
<b>Supplies</b>				
Surface Water	3,839	3,196	3,625	3,130
Groundwater	1,177	1,371	1,243	1,462
Recycled and Desalted	207	207	273	273
<b>Total</b>	<b>5,224</b>	<b>4,775</b>	<b>5,141</b>	<b>4,865</b>
<b>Shortage</b>	<b>0</b>	<b>508</b>	<b>944</b>	<b>1,317</b>

**Source:** California Department of Water Resources, Bulletin 160-98: California Water Plan.

- ❖ Remediate the subject site of on-site contaminants resulting from approximately 35 years of use as a fuel oil storage facility in order to protect the health and safety of those in the surrounding community;
- ❖ Create ecosystem and biologic resources benefits that may accrue due to decreased pressures on existing water resources and reduced contamination within receiving waters; and
- ❖ Minimize demands on the existing imported water system.

<sup>1</sup>

Water use/supply totals and shortages may not sum due to rounding.