8.0 WATER RECYCLING

8.1 Wastewater Collection and Treatment

The production and use of recycled water is limited in the District because residences are mostly on individual septic systems. However, a portion of the wastewater generated in the area is collected and treated by small private and publicly owned package wastewater treatment plants serving individual developments. The Los Angeles County Department of Public Works (LACDPW), Waterworks and Sewer Maintenance Division operates and maintains the collection and treatment systems of three publicly-owned treatment plants (Malibu Mesa Water Reclamation Plant, Malibu Water Pollution Control Plant and Trancas Water Pollution Control Plant) serving the area. The total treatment capacity of these facilities is approximately 312,500 gallons per day (gpd).

The Malibu Mesa Water Reclamation Plant provides primary, secondary and tertiary treatment, with disinfection by an ultraviolet system. Tertiary treatment is provided by coagulation, rapid mix, flocculation and sand filtration. The Malibu Water Pollution Control Plant provides primary and secondary treatment with sand filters and disinfection. The Trancas Water Pollution Control Plant provides primary and secondary treatment with sand filters. Table 8.1 shows the treatment plants' average and maximum flow rates for 2004 and wastewater collection and treatment averages and capacities for all three facilities.

Table 8.1 Wastewater Treatment

Wastewater Treatment (in gallons per day)					
Treatment Plant Name	**Location (City)**	**Average Daily Volume (2004)**	**Maximum Daily Volume (2004)**	**Year of Planned Build-out**	**Maximum Daily Volume**
Malibu Mesa Water Reclamation Plant	Malibu	124,300	153,000	Build-out Complete	200,000
Malibu Water Pollution Control Plant	Malibu	27,200	40,200	Build-out Complete	51,000
Trancas Water Pollution Control Plant	Malibu	69,400	99,500	Build-out Complete	150,000
Total			292,700		401,000

Source: Los Angeles County Sewer Maintenance Districts

8.2 Wastewater Disposal Methods

The effluent produced from the wastewater treatment plants is disposed using a seepage pit system, leach field disposal system, or recycled and used for irrigation. Table 8.2 shows the current and estimated wastewater disposal and recycled water use within the District.

Table 8.2 Wastewater Disposal & Recycled Water Use

Estimated Wastewater Disposal & Recycled Water Use (MG - million gallons)							
Destination	**Treatment Level**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
Rivers/Stream	**Tertiary**	0	0	0	0	0	0
Landscape	**Tertiary**	45.5	45.5	45.5	45.5	45.5	45.5
Leachfield	**Tertiary**	25.3	25.3	25.3	25.3	25.3	25.3
Seepage Pit	**Tertiary**	9.9	9.9	9.9	9.9	9.9	9.9
Total		80.7	80.7	80.7	80.7	80.7	80.7

Source: Los Angeles County Sewer Maintenance Districts

8.3 Recycled Water Currently Being Used

The Malibu Mesa Plant serves approximately 3,360 persons. The wastewater is treated to Title 22 standards for landscape irrigation. Pepperdine University uses the treated wastewater to irrigate approximately 126 acres. In 2004, nearly 100% of the 45.5 million gallons of wastewater treated at the Malibu Mesa Plant was used for landscape irrigation purposes.

Regional Recycled Water Programs

In 1991, the West Basin MWD Board of Directors authorized the West Basin Recycled Water Program to recycle up to 100,000 AF/year of wastewater from the City of Los Angeles Hyperion Treatment Plant. Deliveries of recycled water from the project began in March 1995, and today West Basin MWD distributes recycled water to over 150 customers. West Basin MWD's goal is to conduct a phased expansion of the West Basin Recycled Water Program so that by 2030, recycled water sales will reach 60,000 AF/year, which is close to 3 times the amount produced currently (21,500 AF in 2005). To date, the program has saved over 48 billion gallons of imported water that would have otherwise been delivered for non-potable uses.

The District is also within the service area of the West Basin MWD's Recycled Water Program. Under this program, the West Basin MWD serves recycled water in 13 Southern California cities. At this time, the District does not receive recycled water from the West Basin MWD because the conveyance and transmission facilities do not exist to serve the District. Although the program does not service the District with recycled water, it does provide an indirect benefit. The Recycled Program reduces demand for potable water and, therefore, increases the availability of imported water for all the West Basin MWD's customers including the District.

8.4 Potential Uses of Recycled Water

Potential uses of recycled water in the District are landscape irrigation at parks, schools, and commercial centers. The recycled water facilities in the District have limited potential to expand due to the limited capacity of the existing treatment plants. Excess capacity still exists in the treatment facilities as shown in Table 8.1. However, the wastewater collection volume within the service area is not likely to increase more than the current plant capacities.

8.5 Plan For Optimizing the Use of Recycled Water

In an effort to optimize the use of recycled water within the greater region, MWD prepared the Southern California Comprehensive Water Reclamation and Reuse Study (SCCWRRS). Under SCCWRRS, MWD has encouraged the collection and use of recycled water in Southern California. In conjunction with West Basin MWD, Metropolitan Water District, and the California Department of Water Resources, the SCCWRRS proposes a plan designed to take advantage of potential surpluses in recycled water that could serve needs in areas throughout the region.

The SCCWRRS consists of a three-part, six-year comprehensive effort to identify regional reclamation systems. Metropolitan Water District's goal is to promote efficient use of all water resources by increasing the use of recycled water and identifying opportunities for and constraints to maximizing water reuse in Southern California.