



**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources



Green Energy



Recycled Water



Compost



Recycled Materials

2023 FACT SHEET

OUR MISSION

The Sanitation Districts protect public health and the environment through innovative and cost-effective wastewater and solid waste management and, in doing so, convert waste into resources such as recycled water, energy and recycled materials.

ORGANIZATION AND HISTORY

The Sanitation Districts consist of 24 independent special districts serving about 5.5 million people in Los Angeles County. Their collective service area covers approximately 850 square miles and encompasses 78 cities and unincorporated areas in the County.

The Sanitation Districts were created in 1923 to construct, operate and maintain facilities that collect, treat, reuse and dispose of domestic and industrial wastewater (sewage). At that time, a significant number of cities were forming, and it was clear that managing wastewater on a regional scale made sense. The Sanitation Districts operate and maintain the wastewater treatment facilities and the larger, regional wastewater collection systems. Cities and unincorporated areas within each district are responsible for the smaller collection systems.

Cities and unincorporated parts of the County are also responsible for the collection of solid waste. In the 1950s, it became apparent that solid waste management would also benefit from a regional approach, and the Sanitation Districts were tasked with providing solid waste management services. Today, these efforts include disposal and transfer of collected solid waste, recovery of recyclable materials and generation of green energy.

To maximize efficiency and reduce costs, the 24 districts work cooperatively under a Joint Administration Agreement with one administrative staff headquartered near the City of Whittier. Each district has a Board of Directors, usually consisting of the mayor of each city served and the Chair of the County Board of Supervisors for unincorporated territory. Each district pays its proportionate share of joint administrative costs.

FACILITIES

- The Sanitation Districts' wastewater system consists of about 1,400 miles of sewers, 49 pumping plants and 11 wastewater treatment plants. This system conveys and treats about half of the wastewater produced in Los Angeles County.
- The Sanitation Districts' solid waste system includes two active sanitary landfills, two landfill energy recovery facilities, and three materials recovery/transfer facilities. In response to changing market conditions in 2022, the Sanitation Districts leased one materials recovery facility in its entirety and the recyclable sort line at another facility to a third-party operator. The agency is also a partner in a refuse-to-energy facility and maintains four closed landfills. This system accommodates about 5,500 tons of the County's solid waste management needs every day.
- The Sanitation Districts also own and operate a regional composting facility for wastewater biosolids and co-own a second similar facility.

BUDGET

Overall, wastewater and solid waste management budgets for 2022-2023 are \$812 million and \$144 million, respectively. Our 1,700 employees provide these essential public services at some of the most competitive rates in the country.

ABOUT US...

24

Special Districts

5.5

Million People Served

850

Square Miles Served

78

Cities Served

WASTEWATER MANAGEMENT



Groundwater recharge in the San Gabriel Coastal Spreading Grounds



Center-pivot irrigation of fodder crops in the Antelope Valley



Piute Ponds receive recycled water from the Lancaster WRP

JOINT OUTFALL SYSTEM

Seventeen of the Sanitation Districts in the metropolitan Los Angeles area are served by a regional, interconnected system of facilities known as the Joint Outfall System (JOS), which spans from Long Beach to La Cañada-Flintridge and from the City of Los Angeles to Orange County (see map, back page). The JOS serves 5 million people in 73 cities and unincorporated territory, including small areas within the City of Los Angeles, Orange County, and San Bernardino County. This system provides an efficient means to maximize recycled water production and availability on a regional scale. The JOS has seven wastewater treatment plants. Six upstream water reclamation plants (WRPs) capture low-salinity wastewater and produce high-quality recycled water that is safe for human contact, replenishing groundwater and a wide variety of other uses.

JOS = 17 = 5 Million
DISTRICTS PEOPLE SERVED

Downstream, the A.K. Warren Water Resource Facility (Warren Facility), previously known as the Joint Water Pollution Control Plant, treats higher-salinity wastewater along with the solids removed at the six WRPs.

To reuse water from the Warren Facility, salinity must be removed using purification facilities. The Sanitation Districts and the Metropolitan Water District of Southern California are working to develop the Pure Water Southern California Program. This program would purify water to replenish local groundwater supplies and create a new source of water for 1.5 million people.

Treating wastewater for reuse is an important way to maintain Southern Californians' quality of life in an otherwise arid land.

SANTA CLARITA AND ANTELOPE VALLEYS

Separate from the JOS, the Sanitation Districts manage wastewater systems in the Santa Clarita Valley and Antelope Valley. Each of these valleys is home to two WRPs that provide important sources of recycled water for municipal needs, wildlife habitat and, in the Antelope Valley, agricultural irrigation. All recycled water produced in the Antelope Valley is beneficially reused with the assistance of large storage reservoirs that hold excess water in the winter for use in the summer when irrigation needs are highest.

PIONEERING THE USE OF RECYCLED WATER

The Sanitation Districts are pioneers in beneficially using recycled water and remain strong proponents of increased water reuse. The WRPs produce high-quality recycled water that essentially meets drinking water standards. Just over 91,000 acre-feet of recycled water were reused in 2023 (81 million gallons per day). Our recycled water is used at over 950 sites throughout Los Angeles County. Uses of recycled water include irrigation at school yards, parks, golf courses, cemeteries and agricultural sites, as well as construction grading and industrial processes such as cooling towers.

Over the last 60 years, the Sanitation Districts have been the nation's largest producer of recycled water.

POWERING UP THROUGH BIOSOLIDS MANAGEMENT

During the wastewater treatment process, solids are removed, treated and dewatered to produce about 500,000 tons of biosolids per year. These biosolids are rich in nutrients and are beneficially used in several ways, including soil amendment for agriculture. During the treatment of solids by anaerobic digestion, a biogas is produced that is converted into electricity or used for maintaining the temperature of the digestion process. As a result, the Warren Facility, one of the largest wastewater treatment facilities in the nation, has been essentially energy self-sufficient for more than three decades.

In helping our region become more sustainable, the Sanitation Districts participate in the operation of two state-of-the-art regional composting facilities (see map, back page). The Inland Empire Regional Composting Facility in Rancho Cucamonga is a fully enclosed facility developed through a joint venture with the Inland Empire Utilities Agency. Tulare Lake Compost in Kings County is solely owned by the Sanitation Districts and composts Sanitation Districts' biosolids and Central Valley agricultural waste using advanced composting technology.

Applying biosolids to soil improves plant growth by providing important nutrients and improving water-retention capacity.



Warren Facility in the City of Carson



San Jose Creek WRP in the City of Whittier



Tulare Lake Compost facility

IN 2023 . . .

1,400 MILES OF SEWERS OWNED & MAINTAINED

AVERAGE WASTEWATER CLEANED EVERY DAY **390** MILLION GALLONS

91,000 ACRE-FEET RECYCLED WATER BENEFICIALLY REUSED



OVER **950** RECYCLED WATER REUSE SITES

OVER **1.2 TRILLION** GALLONS OF RECYCLED WATER REUSED SINCE 1962

52% BIOSOLIDS CONVERTED INTO COMPOST



SOLID WASTE MANAGEMENT

The Sanitation Districts operate a comprehensive solid waste management system that serves about 5,500 tons of Los Angeles County's needs every day. This system includes sanitary landfills, energy recovery facilities, and three materials recovery/transfer facilities. As mentioned on page 1, some of our facilities were leased to a third party in 2022. The Sanitation Districts do not collect refuse from homes and businesses. Instead, refuse is picked up by cities or private haulers. In all our operations, we strive to be a good neighbor.

WHO'S WHO OF DISPOSAL FACILITIES

The Sanitation Districts pioneered the development of advanced environmental control systems that are now used at modern landfills around the world. These systems protect human health and the environment using extensive landfill gas collection networks as well as groundwater protection and monitoring facilities. The Sanitation Districts currently operate the Calabasas Landfill, located near the City of Calabasas, and the Scholl Canyon Landfill, located in the City of Glendale. In addition, the Sanitation Districts continue to maintain environmental control systems at the following closed landfills: Mission Canyon, Palos Verdes, Puente Hills and Spadra Landfills.

The Sanitation Districts were among the first to produce renewable energy using biogas generated from solid waste.



Overview of MRF

ENERGIZING SOUTHERN CALIFORNIA THROUGH RECOVERY FACILITIES

The Sanitation Districts were among the first to produce renewable energy using biogas (methane or natural gas) generated by solid waste in landfills. The Sanitation Districts' energy recovery facilities at the Puente Hills and Calabasas Landfills provide reliable and economical electricity to help meet Southern California's energy needs.

The Southeast Resource Recovery Facility (SERRF) in Long Beach, a refuse-to-energy facility, uses solid waste as a fuel to produce power, which reduces our reliance on fossil fuels and helps preserve landfill capacity in the region. SERRF is owned by the Sanitation Districts and the City of Long Beach under a Joint Powers Agreement and is operated by a private company.



MRF sorting equipment

RECYCLING & MATERIALS RECOVERY/TRANSFER FACILITIES

The Sanitation Districts own facilities that help our member cities and Los Angeles County meet requirements for diverting waste from landfills and, for waste that is not recycled, we provide cost-effective transfer to landfills. At our Puente Hills Materials Recovery Facility (MRF), a third party recovers recyclable material, such as paper, cardboard, aluminum and plastics using sophisticated technology to maximize recovery. A state-of-the-art material recovery system uses a variety of advanced technologies, such as optical sorters and robots, to triple the throughput of the previous system while providing the higher purity recyclables demanded by the recycling industry. At the Downey Area Recycling and Transfer Facility (leased to a third party) and the South Gate Transfer Station, easily recoverable materials are removed. All three facilities reduce the costs and environmental impacts of solid waste disposal by consolidating residual waste from incoming smaller loads into larger outgoing loads to landfills.

ORGANICS RECYCLING

Food Waste: The Sanitation Districts developed an important program to recycle food waste in Los Angeles County. This program diverts food waste from landfills and converts this waste into renewable energy using existing infrastructure at the Warren Facility. This program helps Los Angeles County and the Sanitation Districts' member cities meet state organic waste recycling requirements while producing renewable energy.

The food waste recycling program includes three major components:

- 1 RECEIVING, CLEANING AND PROCESSING** Up to 165 tons of food waste per day can be received at the MRF. The waste is cleaned and processed into a slurry before being trucked in sealed containers to the Warren Facility.
- 2 CO-TREATMENT TO PRODUCE BIOGAS** Food waste slurry from the MRF and from third-party facilities is treated in anaerobic digesters at the Warren Facility along with the solids removed during the wastewater treatment process. This co-treatment produces biogas and biosolids. The Warren Facility has the capacity to accept up to 600 tons per day of processed food waste.
- 3 CONVERTING BIOGAS INTO ENERGY** Some of the biogas is used to fuel the Warren Facility's existing power plant. Biogas is also purified and used as fuel for clean-burning, natural gas vehicles such as buses and trash collection vehicles. This use reduces the region's need for fossil fuel.



Recovered cardboard



Commodities ready for transport



Food waste accepted at Puente Hills MRF



Food waste processing equipment

The Sanitation Districts have developed an important program to increase organics recycling that converts food waste into renewable energy and nutrient-rich compost.

IN 2023 . . .



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ABOUT **2** MILLION TONS OF SOLID WASTE MANAGED

154,000

TONS OF MATERIALS RECYCLED BY US AND OUR PARTNERS



109,000

TONS



OF FOOD WASTE SLURRY CONVERTED INTO GREEN ENERGY

The Sanitation Districts are leaders in the production of green energy and in energy efficiency.



Here are just a few of our accomplishments:

GREEN ENERGY Approximately 57 megawatts (MW) of electricity are generated by Sanitation Districts' wastewater and solid waste operations. In total, the Sanitation Districts produce power equivalent to the needs of about 57,000 Southern California homes. Some of the electricity is used to power Sanitation Districts' operations. The rest is exported to the local power grid, which reduces the power that utilities must produce and, thereby, reduces greenhouse gas emissions.

ENERGY PROGRAMS IN WASTEWATER The Warren Facility uses biogas to generate 20 MW of electricity, making the facility essentially energy self-sufficient and avoiding approximately \$29 million per year in electrical costs. Excess electricity is sold to the local power grid.

ENERGY EFFICIENCY IN WASTEWATER The Sanitation Districts have been leaders in energy efficiency at wastewater treatment plants for decades. Technologies such as fine bubble diffusion, variable speed drives, high-efficiency motors and automated control systems have allowed the Sanitation Districts to save millions of dollars in electricity costs.

ENERGY PROGRAMS IN SOLID WASTE
Gas-to-Energy Facilities: Biogas from landfills is used to generate electricity. At the Puente Hills Landfill, enough electricity is generated to power about 19,000 Southern California homes. Calabasas Landfill produces enough energy for 4,000 homes. Most of this power is sold to the local power grid.

Refuse-to-Energy Facility: SERRF utilizes controlled combustion to convert refuse into electricity—enough to power up to 14,000 Southern California homes. Sophisticated air pollution control devices make this facility one of the cleanest of its type in the world.



Warren Facility Total Energy Facility

Calabasas Gas-to-Energy Facility

SERRF

Puente Hills Energy Recovery Facility



IN 2023 . . .

57 MW **GREEN ENERGY** PRODUCED

ENOUGH TO POWER **57,000** HOMES

33% OF OUR **GREEN POWER** AVAILABLE TO THE COMMUNITY

\$29 MILLION SAVED IN ENERGY COSTS



FACILITIES



The Sanitation Districts invite you, your school, or your organization to tour one of our facilities in person or virtually. To schedule a tour or for more information, please contact us.