Los Angeles Sanitation

BACKGROUND

The Donald C. Tillman Water Reclamation Plant began continuous operation in 1985. Its facilities were designed to treat 40 million gallons of wastewater per day and serve the area between Chatsworth and Van Nuys in the San Fernando Valley. The plant was named after Mr. Tillman, who was the City Engineer from 1972 to 1980.

A major construction project that doubled the capacity of DCTWRP was completed in 1991, expanding the plant from 40 million gallons of water per day (MGD) to 80 MGD. The Donald C. Tillman Water Reclamation Plant and the Los Angeles-Glendale Water Reclamation Plant (LAG) are the leading producers of reclaimed water in the San Fernando Valley.

PROCESS

Tertiary Treatment Nitrification/Denitrification (NdeN), tertiary, disinfection, dichlorination



Tillman Reclamation from the Japanese tea garden

Sewage treatment at Tillman

From Wikipedia, the free encyclopedia

Donald C. Tillman Water Reclamation Plant Japanese Garden in Van Nuys, Los Angeles

Tillman Reclamation Plant Sewage Tanks

The **Donald C. Tillman Water Reclamation Plant** is a <u>water reclamation plant</u> located in <u>Van Nuys, Los Angeles, California</u>, United States. The plant was conceived of, designed and constructed by the City of Los Angeles' Bureau of Engineering. The Administration Building was designed by California architect <u>Anthony J. Lumsden</u>. It is home to <u>The Japanese Garden</u>, which has been used as a backdrop in films and television, including <u>Dead Heat, Matlock, Knight Rider, Bio-Dome, Twins</u>, and Starfleet Academy from <u>Star Trek.</u>

The facility treats and reclaims wastewater by removing it from the sewer system and reducing the need for large sewer pipes downstream from the plant. The treated water is discharged to the lake in the adjacent <u>Balboa Park</u> and then flows into the <u>Los Angeles River</u>, where it comprises the majority of the flow. The plant began operation in 1985 and processes 80 million US gallons (300,000 m³) of waste a day, producing 26 million US gallons (98,000 m³) of recycled water. It is named after <u>Donald C. Tillman</u>, the city engineer from 1972 to 1980.^[2]

References[edit]

- 1. <u>^</u> Schnaufer, Jeff (January 25, 1995). "Valley Twins (1988) Newswatch". <u>Los Angeles Times</u>. Next Monday's episode: The crew encounters political protesters on a distant planet-filmed at the Tillman Water Reclamation Plant in Van Nuys.
- 2. ^ <u>"Sewers"</u>.

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External links[edit]

- <u>Tillman Water Reclamation Plant at LA Sanitation</u>
- City of Los Angeles: Japanese Garden

From ENR California:

Work Begins on \$500M Advanced Water Treatment Facility for Los Angeles

By Greg Aragon



The \$500 million Donald C. Tillman Advanced Water Purification Facility in Los Angeles will purify more than 15 million gallons of reclaimed water per day. *Rendering courtesy Jacobs*.

April 19, 2023

Design is underway on the \$500-million Donald C. Tillman Advanced Water Purification Facility, one of the largest potable reuse projects in the country.

Led by LA Sanitation and Environment (LASAN) and the Los Angeles Dept. of Water and Power (LADWP), the facility will be constructed via progressive design-build, with Jacobs serving as the lead contractor.

Los Angeles relies on groundwater supplies for a portion of its drinking water and officials say this project is a major part of the City's long-term water management objective to fully reuse its water supplies.

Jesus Gonzalez, manager of Recycled Water Program at LADWP, says the Advanced Water Purification Facility (AWPF) is needed because before the last couple months of rain, Los Angeles was "on the heels of the driest time in human history and the last three years were the driest to ever hit California. But with this project we now have the ability to recycle wastewater in a safe place so that it can

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become the drinking water supply for the residents of L.A. and this is significant."

The AWPF contract was awarded to Jacobs in February and the project is currently in the design phase, which will last about 18 months. Construction is slated to start in July 2024 and the project is expected to begin producing purified water by mid-2026.

The new AWPF will treat tertiary effluent (water that was once wastewater) from the existing water reclamation plant in Van Nuys neighborhood of L.A. When completed, the facility will produce purified water suitable for groundwater replenishment via the nearby Hansen Spreading Grounds, about 12 miles away.

The project will use advanced treatment processes, including microfiltration, reverse osmosis and ultraviolet and advanced oxidation to purify more than 15 mgd, reducing the amount of imported water and providing a new groundwater supply source for up to 200,000 customers in the San Fernando Valley. It will also help increase the city's resiliency by providing a sustainable local drinking water source in the traditionally drought-stressed region.

The city says it went with progressive designbuild to minimize cost, reduce risk, streamline construction and improve schedule performance.

"For a project of this scale and complexity, the city wants to be involved from start to finish and with progressive design-build we are able to do that," says Ryan Thiha, engineer with LASAN and project manager for the AWPF project. "We also want to be able to see what's happening behind the scenes and make sure that there is a seamless transition from design to construction and there is no knowledge gap or downtime."

As the progressive design-build contractor, Jacobs is responsible for design, permitting, construction, start-up and commissioning.

"Progressive design-build is a highly collaborative contracting vehicle that allows Jacobs to provide clients with design, engineering, and construction services under a single contract and point of accountability," says Greg Fischer, VP operations / director design-build, Jacobs. "In contrast to traditional design-bid-build or 'lump-sum' design-build, the progressive design-build model follows a traditional design and engineering process while concurrently developing an open-book estimate of construction cost."

The most fascinating engineering challenge Jacobs is facing so far on the project is how to maximize every drop of water from the existing plant to maximize flow for groundwater recharge, says Larry Schimmoller, water reuse global technology director, Jacobs. "Our efforts so far on this have focused on increasing flow from the plant influent sewers (raw wastewater entering the treatment facility from the sewer collection system), working extensively with plant staff to reduce the quantity of waste flows, and optimizing the advanced membrane treatment processes to production—thereby increasing what we can ultimately send to replenish the groundwater."

Because of the project's importance to L.A.'s water woes, it received \$224 million in funding through the Environmental Protection Agency's (EPA's) Water Infrastructure Finance and Innovation Act (WIFIA) program. WIFIA fast-tracks investment in U.S. water infrastructure by providing long-term, low-cost loans for regionally and nationally significant water projects. Financing the project with a WIFIA loan will save the city an estimated \$81 million, says project officials.

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(The tour does NOT include the Japanese Garden.)

Scheduled plant tours are given on Friday's mornings (groups: 10 or more people) and generally take approximately 1 hour. For your own safety, hard hats (provided by the Plant) must be worn at all times. Please wear comfortable (not loose-fitting) clothing. Substantial, closed-in walking shoes are required (NO flip-flops, sandals or Crocs). For safety reasons, children attending Plant Tours must be 10 years of age or older.

Carl will lead the plant tour.

Location: 6100 Woodley Ave Van Nuys, 91406 (Admin Building)

Thank you,

Andrea Gartica
Project Assistant
Donald C. Tillman Water Reclamation Plant

April 19: George Leddy, 213-949-6550