



**WESTERN RIVERSIDE COUNTY
REGIONAL WASTEWATER AUTHORITY**
WRCRWA.ORG

ABOUT US

The Western Riverside County Regional Wastewater Authority (WRCRWA) Treatment Plant recently underwent an Expansion Project to keep pace with growing wastewater treatment demands in the region. The Treatment Plant Expansion Project upgraded wastewater treatment technology and expanded treatment capacity from 8 million gallons per day (MGD) to 14 MGD. The Expansion Project also provided WRCRWA with the ability to produce recycled water for non-drinking (non-potable) reuse and included several odor control enhancements to help minimize odor impacts on the neighboring community. Wastewater treatment is not an odorless operation, however, Plant Operations staff take great care to minimize odors by keeping the treatment processes balanced and adhering to WRCRWA's comprehensive Odor Management Plan, and permitting standards.

WRCRWA is dedicated to being a good neighbor and is committed to continued odor management at the Treatment Plant. Should you ever smell odors coming from the Treatment Plant please let us know so we can investigate.

To submit an Odor Report to WRCRWA go to:
www.wrcrwa.org/odor

Odor Mitigation Project Timeline

Timeline	2019	2020	2021	2022	2023
Odor Mitigation Project		CEQA, Permitting & Design		Construction	

About WRCRWA

WRCRWA is a Joint Powers Authority consisting of 5 member agencies including the City of Corona, the City of Norco, Home Gardens Sanitary District, Jurupa Community Services District, and Western Municipal Water District. The WRCRWA Wastewater Treatment Plant is located North of the Santa Ana River in the City of Eastvale, and is an essential part of the region's infrastructure, providing wastewater services to the community.

To learn more about WRCRWA visit:
WRCRWA.org

**Western Riverside County Regional
Wastewater Authority Treatment Plant
Odor Mitigation Project**

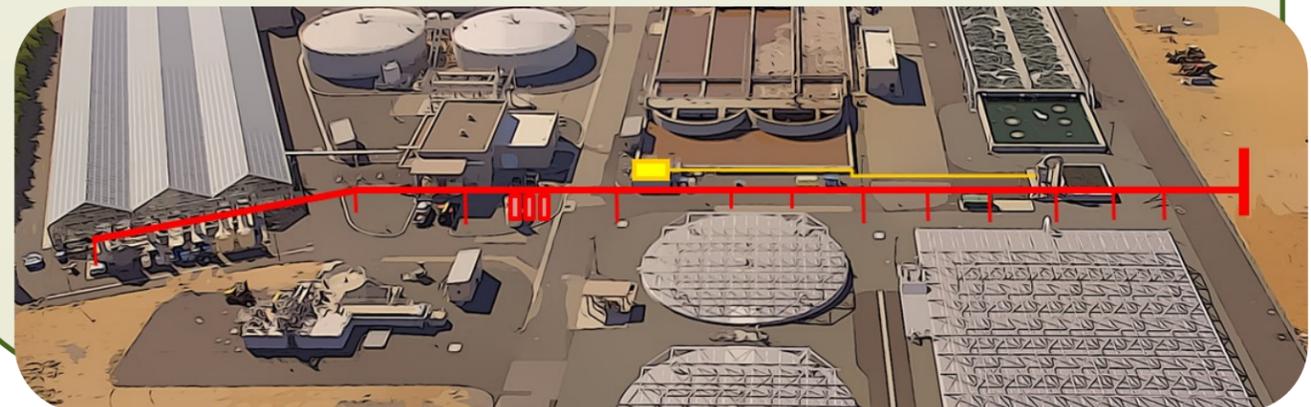
ODOR MANAGEMENT AT WRCRWA

When the WRCRWA Treatment Plant was originally built in the late 1990's, it was surrounded by dairies, farmland, and a compost facility making the need for odor control minimal. During the WRCRWA Treatment Plant 14 MGD Expansion Project, a variety of odor control measures and equipment were installed to help reduce odor impacts on the growing surrounding community. Odorous treatment processes were covered and the captured foul air was routed to new odor control equipment, including a biofilter and chemical scrubbers. A state-of-the-art solar dryer greenhouse and enclosed solids loading building were also installed.

While the Expansion Project helped significantly reduce odor impacts to the surrounding area, it did not eliminate them completely. For the past several years WRCRWA has worked with highly experienced odor control experts to continue to improve odor control at WRCRWA. WRCRWA's Board of Directors also adopted a comprehensive Odor Management Policy that outlines a strategy for WRCRWA to address odors in a proactive and focused manner through assessment and mitigation improvements.

Improvements WRCRWA has implemented include: improving system efficiencies and odor removal in the biofilter and chemical scrubbers, reducing the level of odors coming into the plant through upstream chemical addition, and adding grit washing equipment to reduce odors where raw sewage enters the plant.

Currently, WRCRWA is working on a \$6.4 million dollar Odor Mitigation Project (Project) to help further reduce odors at the Treatment Plant. The Odor Mitigation Project includes combining and moving the existing exhaust stacks at the chemical scrubber odor control system 700 ft. away from the fence line and increasing the relocated exhaust stack height to promote better dilution and dispersion of exiting air. The Project will also capture a previously untreated source of foul air and route it to an existing odor control system for odor removal treatment. While, wastewater treatment is not odorless, and the Project will not completely eliminate odors at all times, the Project should help reduce odors impacts on nearby neighbors.



WRCRWA Treatment Plant: Odor Control Improvements (Existing and Future)

Solar Dryer— State-of-the-art greenhouse where bio-solids are spread thinly on the floor and slowly propelled from one end to the other removing moisture from the material through evaporation. The dried solids are then loaded into containers in a covered building where they are stored until being hauled away for use as fertilizer.

Digesters— The digesters were covered to prevent foul air in this process from escaping. The foul air is composed of methane which is captured and used as an energy source to power the boilers that heat the solar dryer floor.

New Bioreactor Weir Cover— A cover will be placed over the cascading weir in the bioreactor to capture foul air that is generated by the turbulent water. The foul air will be routed via ductwork to the existing biofilter for treatment.

Biofilter— A biological treatment process where foul air is forced through a bed of rock-like material covered with microorganisms that eat and break-down the odorous compounds removing the odors from the air.

Chemical Scrubbers— Foul air from inside the Solar Dryer, Centrifuge Building, and Headworks is pulled into the chemical scrubbers by large fans and treated via a chemical cleaning process that strips out odorous hydrogen sulfide and ammonia compounds before exiting via the 6 exhaust stacks.

Grit Washer— Separates inorganic materials like sand, rocks, and gravel that enter the treatment plant with wastewater. This inorganic material is sifted out and rinsed clean of all organic (odorous) materials before it is collected in bins and disposed.

Primary Clarifiers and Equalization Basin— Aluminum covers were placed on top of these processes, where solids are separated from liquids. The foul air is routed to the biofilter via underground ducting where it is treated before being released.

New Relocated Chemical Scrubber Exhaust Stack— The Odor Mitigation Project will combine all 6 existing chemical scrubber exhaust stacks into a single duct and route the new duct across the treatment plant away from the fence line to a new, taller exhaust stack that will promote better air dispersion and dilution.