

Odessa South Industrial Wastewater Treatment Facility

Location: Odessa, TX

Process: Activated Sludge with atmospheric aeration

Capacity: 7 million gallons/day

In the late 1990s, Odessa had a problem. Economic development was constrained by the city's inability under environmental regulations to combine municipal wastewater with industrial streams that had not undergone pretreatment. GCA was invited to provide a regional solution—the Odessa South Industrial Wastewater Treatment Facility. GCA rebuilt and refurbished the city's old municipal plant, commencing operations in 1997.



Today, the facility provides treatment services for municipal and industrial wastewater transported by pipeline from the City of Odessa and a number of industries, including electric generating companies and a chemical manufacturing facility. Under its permit, Odessa South also receives trucked-in wastewater from municipal septic systems and portable toilets as well as non-hazardous industrial wastewater.

In 2013, the Odessa South Facility received the necessary approvals to move ahead with supplying 2 million gallons per day of effluent to an oil and gas company for use in its fracking operations. Fracking is an enhanced petroleum recovery technique that has helped significantly expand the nation's oil and gas resource base in recent years. Reuse of effluent from wastewater treatment facilities will help promote conservation during the current drought and into the future. The facility will still maintain a discharge into Monahan's Draw, the receiving stream.

Odessa South is a prime example of how regional wastewater treatment can benefit an entire community.



Gulf Coast Waste Disposal Authority
910 Bay Area Blvd. · Houston, Texas 77058
Phone: 281.488.4115 www.gcwda.com

ODESSA SOUTH INDUSTRIAL WASTEWATER TREATMENT FACILITY



Gulf Coast Waste Disposal Authority

Protecting the waters of the State of Texas through environmentally sound and economically feasible regional waste management practices

Gulf Coast Waste Disposal Authority

The Gulf Coast Waste Disposal Authority (GCA) has successfully fulfilled its mission of protecting the waters of the State of Texas since 1969. GCA continues to play a significant role in improving the water quality of Galveston Bay and the Houston Ship Channel; in promoting economic development in Texas through professional, cost-efficient, environmentally responsible treatment of regional industrial and municipal wastewater streams; in financing solid waste and industrial sewage pollution control equipment for Texas industries and issuing industrial development bonds for manufacturers in Galveston, Harris and Chambers counties.

GCA's operations include: several regional industrial wastewater treatment facilities serving over 80 industrial customers in the Houston - Gulf Coast area and in the City of Odessa; a regional municipal wastewater treatment facility serving the City of Friendswood, a small part of Houston, and two Municipal Utility Districts; a municipal wastewater treatment plant serving the Cedar Bayou Park Utility District; a receiving station for trucked-in non-hazardous wastewater; a landfill for non-hazardous industrial solid waste; and a Central Laboratory accredited by the National Environmental Laboratory Accreditation Program (NELAP) that tests incoming wastewater, treated water before discharge and samples from outside customers.

In 2013, the Texas Legislature expanded GCA's purview to permit the treatment of water that falls outside of industrial wastewater settings. The bill granted the Authority the same powers with regard to the acquisition, construction, and operation of such water systems that it has with regard to disposal systems. Water systems covered by the legislation include pipelines, conduits, canals, pumping stations, force mains, plants, storage, and other water treatment, collection, disposal or distribution facilities.



Odessa South Customer Benefits

- Economies of scale as multiple customers share treatment and permitting costs rather than bearing them individually;
- Regional wastewater treatment promotes economic growth in Odessa;
- Re-use of treated effluent benefits community water conservation and economic development.

Why communities and industries contract with GCA

GCA offers significant advantages for municipal and industrial customers:

Industrial

- Favorable economies of scale save money and improve efficiency;
- Industries avoid the cost of installing and operating extensive treatment systems;
- GCA can provide tax-exempt financing for pipelines and solid waste facilities;
- GCA fees are an operating expense, rather than a capital expense;
- GCA responsible for permits and dealing with regulators;
- GCA staff are experts in wastewater treatment and industrial solid waste management.

Municipal

- Favorable economies of scale save money and improve efficiency;

- Infrastructure financed by GCA preserves municipalities' capacity to issue bonds for other purposes;
- GCA fees are an operating expense, rather than a capital expense;
- GCA responsible for permits and dealing with regulators.

Many of the same advantages of working with GCA to provide regional municipal and industrial wastewater treatment solutions also apply to water treated under the Authority's expanded scope granted by the Texas Legislature in 2013.

Core values

GCA's core values guide every aspect of operations:

- **Stewardship** of the environment and of the health and safety of employees, customers and neighbors;
- **Communication**—open, honest, frequent—with all stakeholders;
- **Reliability**—ensuring that our operations are safe, compliant and cost effective;
- **Integrity** of our staff who operate in a simple, clear, transparent and honest manner;
- **Planning** to ensure continuity of service, innovation, sustainability and financial responsibility; and
- **Teamwork** to foster trust, commitment, enthusiasm and innovation.



What makes GCA function so well are the dedicated employees, managers and board members who do their very best, every day, to protect the waters of the State of Texas and work with our customers and government officials to help foster economic development that is the envy of the nation.