INTEGRATED WATER SERVICES

Clean Water. Clear Choice.

CASE STUDY

Death Valley Resort

Project Type: Hospitality, Campground, Sustainability
Location: Furnace Creek, California

HIGHLIGHTS

Successfull delivery of turn-key wastewater solution in a remote, climatically challenging environment.

Commissioned a new "low carbon footprint," energy-efficient system utilizing natural biological processes.

Turn-key construction; civil, mechanical, electrical/ controls, and start-up.

DEATH VALLEY RESORT SECURES SUSTAINABLE WASTEWATER FUTURE

The Furnace Creek region, known as the "Oasis in the Desert," is the critical hub of the Death Valley National Park, hosting the famous Furnace Creek Inn and Ranch, golf course, campgrounds, and visitor center. Given its location within a sensitive National Park and its operation in the world's most extreme temperatures, securing a reliable, low-impact wastewater treatment system was paramount for the operator, Xanterra Corporation.

CHALLENGES FACED

- **Extreme Climate:** The system had to be robust enough to operate reliably under constant, intense heat, with summer temperatures regularly exceeding 125 °F.
- **Remote Logistics:** Remote ocation required meticulous coordination of materials, equipment, and specialty trades (civil, mechanical, electrical) over long distances to meet the construction timeline.
- **Environmental Sensitivity:** Located within a National Park boundary, the system required a very low operational footprint, high energy efficiency, and a guaranteed high quality of treated effluent for subsurface disposal to protect the surrounding fragile ecosystem.
- **Complex Scope:** Required the complete overhaul and integration of new technology while maintaining operations.

SOLUTIONS IMPLEMENTED

- **Treatment Units:** Installation of proven, decentralized biological technology for reliable.
- **Containment and Piping:** Installation of 25K-gallon fiberglass tank, along with all interconnecting piping, valves, and specialized concrete equipment pads.
- **Power and Control:** Delivery of complete electrical and controls package, including conduit, fiber optic cable, wiring, standby generator, and blowers for sludge digesters.
- **Site Remediation:** Sludge removal and re-grading of existing sludge drying beds, alongside installation of associated piping and precast structures. Installation of distribution piping leading to new subsurface disposal (leachfields) located throughout the site.

OUTCOME AND IMPACT

- **Sustainable Operation:** The new system is energy efficient and utilizes a natural biological process, delivering on the client's goal of a "low carbon footprint" solution that minimizes environmental impact in the National Park.
- **Regulatory Compliance:** The system delivers superior effluent quality, which is crucial for managing the subsurface disposal via leachfields and ensuring long-term environmental sustainability.
- **Operational Security:** By providing a reliable, fully modernized infrastructure, IWS secured the sustainable wastewater future for the entire Furnace Creek Resort—from the Inn and Ranch to the campgrounds—allowing the continuation of major tourism operations in this historically significant and challenging location.

IWS provided a full turn-key project execution, ensuring all aspects of the construction and integration were managed internally to guarantee quality and schedule adherence. The project resulted in the successful construction and commissioning of a state-of-the-art wastewater treatment system that meets the highest environmental and operational standards for the region.

"The project is located in an isolated area so it is important that the contractor is well organized and has good visibility for schedule and manpower. IWS did an excellent job and worked cooperatively with the projec team. They replaced the existing treatment system in its entirety while keeping the current system on-line. There was no interruption in service. The new plant looked beautiful and startup proved that the functioning of the plant was as good as the looks. I highly recommend IWS for future projects."

Barbara Bradley, Project Engineer

DOWNLOAD

info@integratedwaterservices.com
(833) 758-3338
integratedwaterservices.com
115 Wild Basin Road S., Suite 107, Austin, TX 78746