



ORANGE COUNTY GOVERNMENT

ORANGE COUNTY WILDWOOD EXTENSION – DEWATERING PERMITTING
Orlando, Florida

PROJECT HIGHLIGHTS

CLIENT PROFILE

Located in Central Florida, Orange County includes the city of Orlando and a dozen other incorporated municipalities. Orange County Government has many divisions responsible for infrastructure improvements and planning for local communities. Roadway projects are supported by the County's Transportation Planning Division and managed by the Public Works Division.

PROJECT OVERVIEW

The firm was contracted by the construction contractor, SEMA Construction, to provide dewatering permitting and monitoring services for the Wildwood Extension project. Groundwater data collected by others during the roadway design phase indicated the presence of elevated concentrations of organic and inorganic chemical constituents above surface water action criteria, which would require pre-treatment of dewatering effluent prior to discharging to designated waters of the state. Upon review of the previous data, the firm project team developed an assessment plan to verify the information and develop alternate permitting and construction strategies to eliminate the need for pre-treatment and reduce construction costs.

The project team realized a cost savings of over \$150,000 by eliminating the pre-treatment process.

CHALLENGES

- Surface water discharge exceedances.
- Dewatering and discharge design constraints.
- Stakeholder outreach and education on the requirements and acceptable practices that allow dewatering and discharge of potentially impacted groundwater.

THE MSE GROUP APPROACH

The firm has supported numerous roadway construction and dewatering projects that are subject to Florida Department of Environmental Protection's (FDEP) *Generic Permit for Discharges of Produced Ground Water from any Non-Contaminated Site Activity* requirements and erosion control plans. Routinely, elevated chemical constituents may be attributed to elevated levels of turbidity in samples collected from temporary monitoring wells and, in almost every case, project managers have successfully identified actual conditions and eliminated treatment requirements. With this knowledge, the project team implemented a groundwater sampling program to verify previous data and comply with FDEP's Generic Permit requirements.

Subsequently, the team submitted the notice of intent and generated a dewatering discharge plan that did not include pre-treatment.

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ACCOMPLISHMENTS

- Thorough research and evaluation determined that previous results were not representative of actual conditions.
- Development of a phased dewatering program for discharging to groundwater eliminated pre-treatment entirely.
- Elimination of treatment processes resulted in a cost savings of over \$150,000.
- Reduced project implementation schedule by more than 2 months.

AREAS OF EXPERTISE

- Clean Water Act requirements
- Environmental permitting
- Contamination assessment planning, implementation, and reporting