

Palm Jebel Ali Wastewater Outfall Diffuser Design

AECOM and Dubai Municipality

Dubai, United Arab Emirates

Services Rendered

- Design of Ocean Outfall Diffuser to Meet Regulatory Requirements
- Three-Dimensional Hydrodynamic Computer Modeling to Evaluate Dilution of Discharge
- Minimized Environmental Impacts

Project Summary

As a global company, ATM has worked in many locations around the world to help our clients find functional solutions to water resources problems. One example is a diffuser design study for an emergency treated sewage effluent outfall located next to the Palm Jebel Ali in Dubai. The water to be discharged will be highly treated and is planned for irrigation use, but an emergency outfall to the ocean is needed for certain contingencies.

To assist AECOM engineers with the outfall project, ATM completed a three-dimensional hydrodynamic and water quality model study of the Dubai coast on an extremely tight schedule. ATM evaluated alternative locations for the outfall and optimized the design to provide sufficient dilution of the effluent, protect ocean water quality, and to meet regulatory water quality requirements.

This project exemplifies the role ATM often plays in helping other engineering firms and project teams find solutions to complicated water resource problems.

