

# **Department of Ocean and Resources Engineering**

*Seminar*

## **ORE 783 Capstone Design Project: Feasibility Study for Cyprus Peace Water Supply Project**

by

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### **Abstract**

The Cyprus Peace Water Supply Project intends to supply fresh water from Turkey to Cyprus through a pipeline under the Mediterranean Sea. The ocean channel is approximately 70km long with an average depth of around 1000 meters which creates a challenging engineering design. The feasibility study for the project includes:

- Collection of basic design data, such as design wave height and current, tide range and tidal current, bathymetry, seabed condition etc.
- Conceptual Design of pipeline layout. Two designs are proposed to span the channel. One configuration runs along the ocean floor and another design is suspended across the channel by mooring lines.
- Preliminary design of pipeline, construction method, and cost estimation
- Risk analysis, economic study and comparison with alternative desalination plant.