PISCES II

(Potential Incident Simulation Control and Evaluation System)

Protection Strategy Simulation Modeling

R. Lewis, and OSPR ES Field Responders

Dr. Phil Arms, and Mr. Mike Noonan, Calif. Maritime Academy

PISCES II Model and Model Parameters

- PISCES Model developed in late 1990's
- Recently used in OSPR drills, and Navy drills
- Models oil movement on the water surface and compensates for deflection and removal estimates
- Oil type, oceanographic, weather, boom and skimmer placement parameters set by modeler

Objectives vs. Outcomes

- Model oil motion of complex spill protection strategies. Defined parameters for each site.
- Five strategies modeled this contract. (plus San Diego Bay Entrance.)

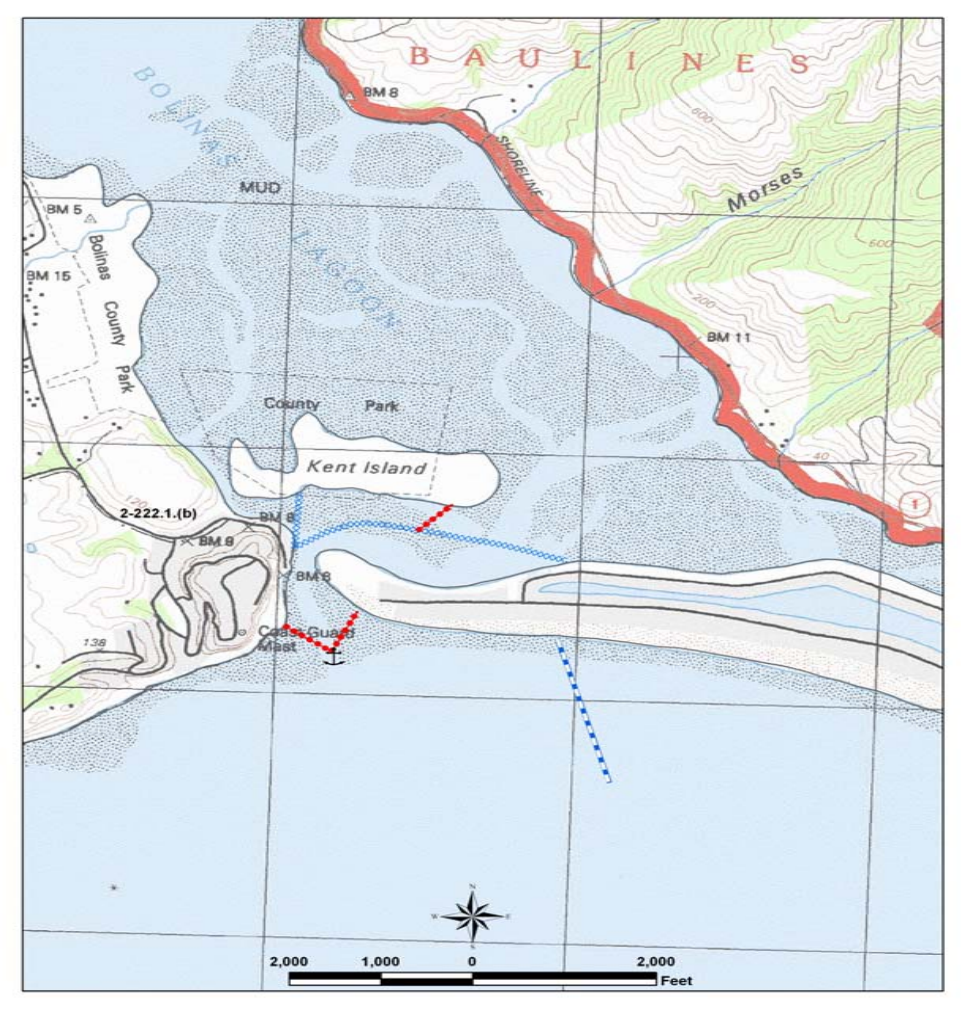
- Select single strategies from five of six ACPs.
- Three ACPs utilized.

- Evaluate effectiveness of booming and skimming strategy absent oil on the water.
- Some success. Some limitations.

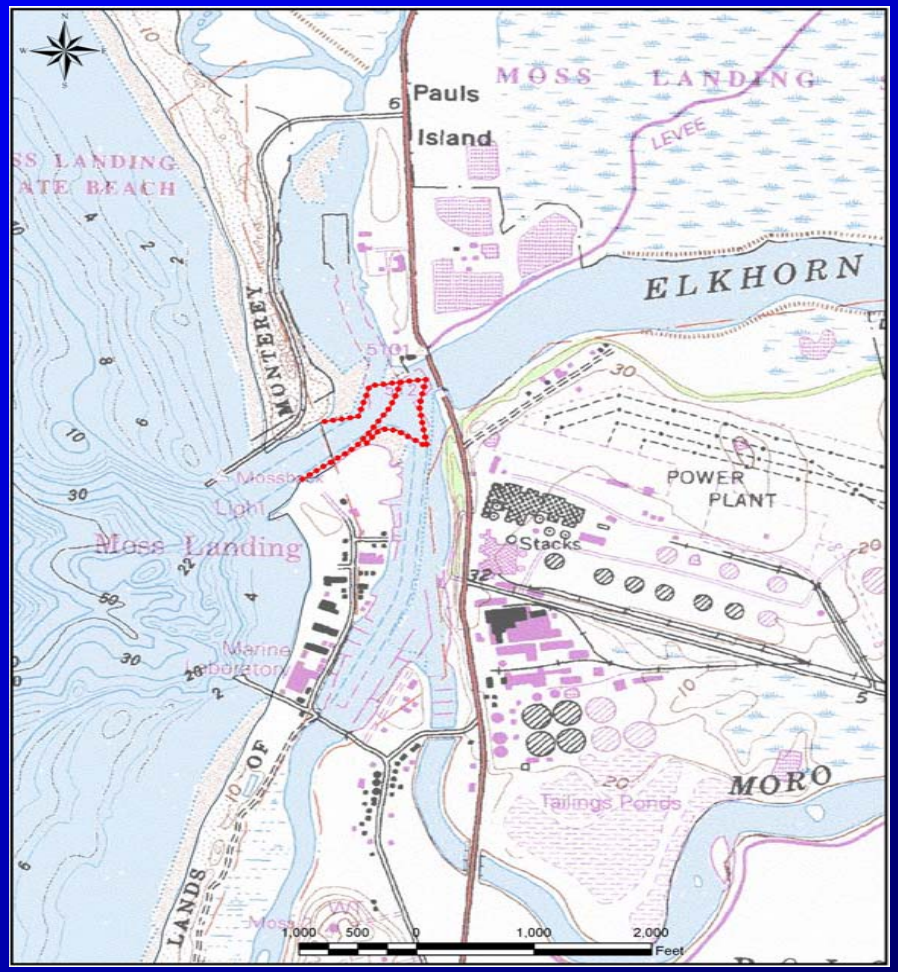
- Make adjustments to the strategy based on model outcome.
- Not in this undertaking – more about that.

Strategy Model Simulation
Humboldt Bay

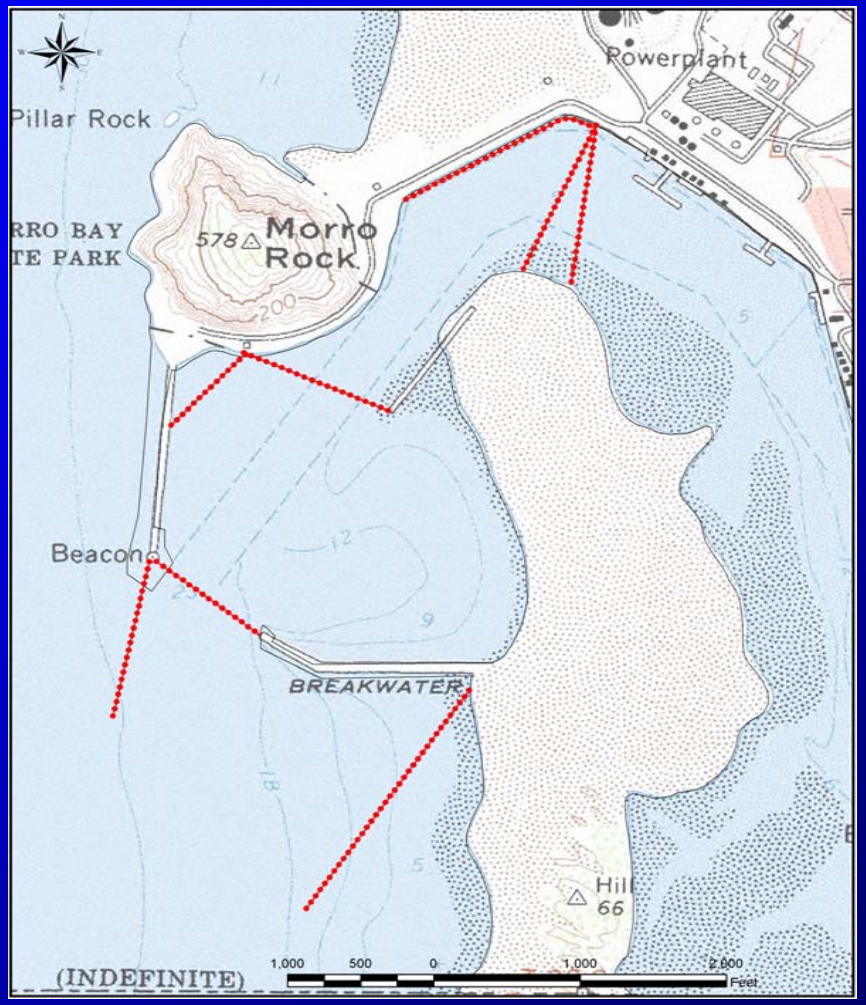
Strategy Model Simulation
Bolinas Lagoon



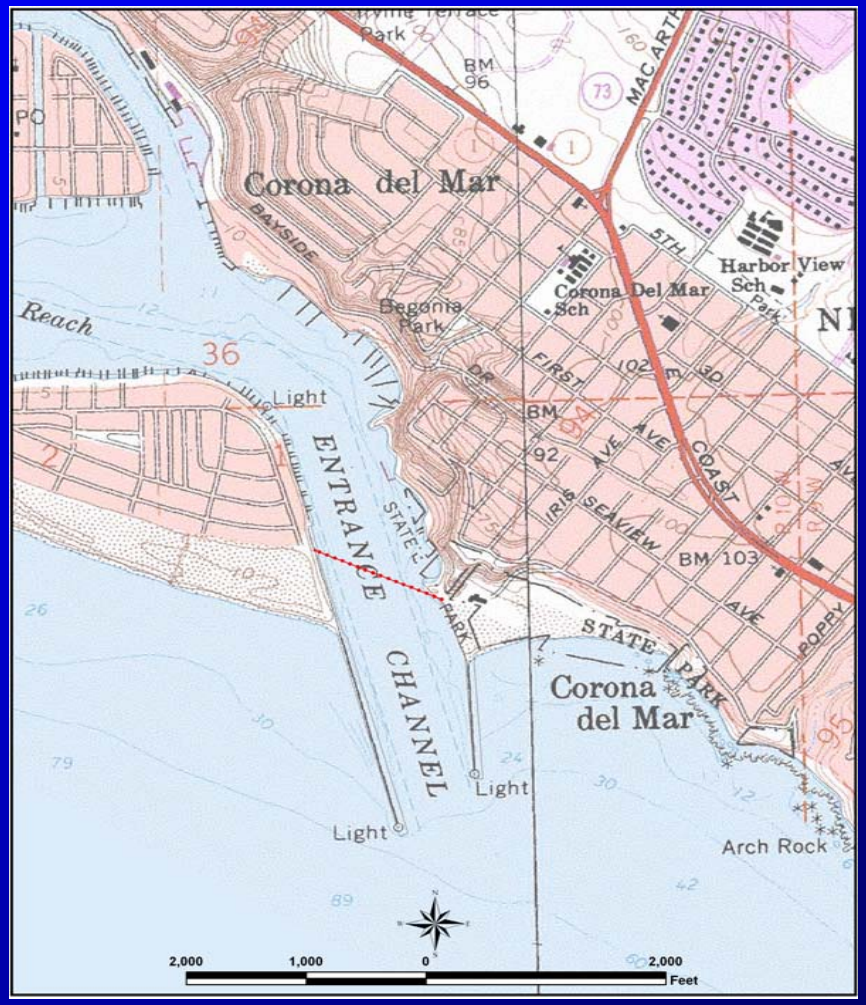
Strategy Model Simulation
Elkhorn Slough



Strategy Model Simulation
Morro Bay



Strategy Model Simulation
Newport Harbor



Results & Findings

- **Summary DVD of the original strategy effectiveness**
- **Share strategy models with respective Area Committee's**
- **Increased interest following *Cosco Busan***
- **Continue building "library" of sites**
- **Expand strategy testing for individual sites – build on developed models – skimmers/boom placement**
- **Need to improve water current/circulation databases – contractors to collect**

Thank You.

Questions?