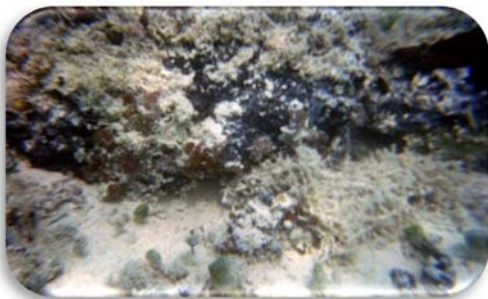


Summary: Erickson Consulting Engineers, Inc. (ECE) provided coastal engineering and environmental services required to conduct maintenance dredging within a 1.5 acre marina basin.

Key Project Elements:

- Hydrographic Survey
- Benthic Habitat Mapping
- Dredge Design
- Regulatory Permitting
- Develop Monitoring and Mitigation Plans
- Hardbottom Resource Avoidance and Relocation Plan
- Assessment of existing operational facilities of the marina
- Maintenance dredging design
- Future development needs of the marina



ECE biologists conducted a benthic resource survey to locate, characterize and quantify hardbottom features within the marina basin. Three transects were established along the existing portion of the marina basin with substrate type and benthic cover documented using a meter quadrant (3 ft²) by marine biologist *in situ* through notation and photographic record.

The dredge plan was developed to avoid impacts to hardbottom to the greatest extent practical. For an unavoidable impact of approximately 46 SF of hard coral (*Porites* sp.) a relocation plan was developed.

