



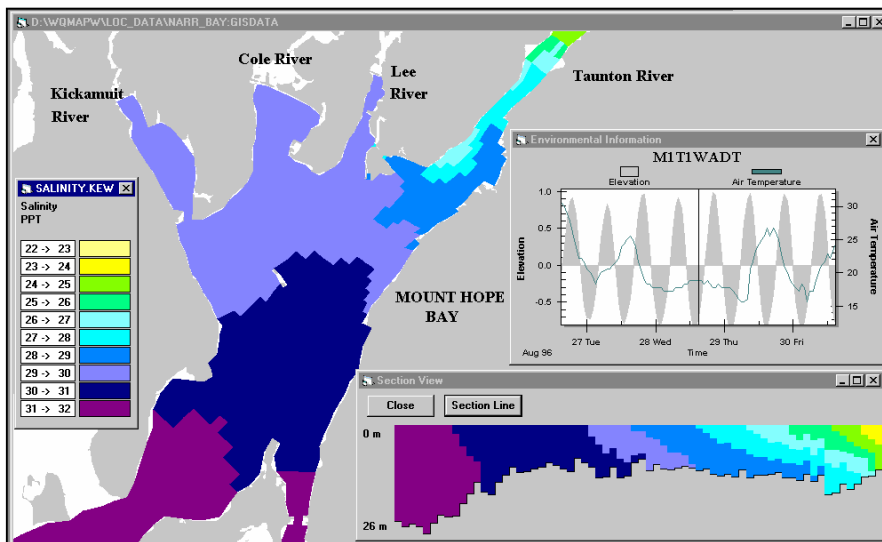
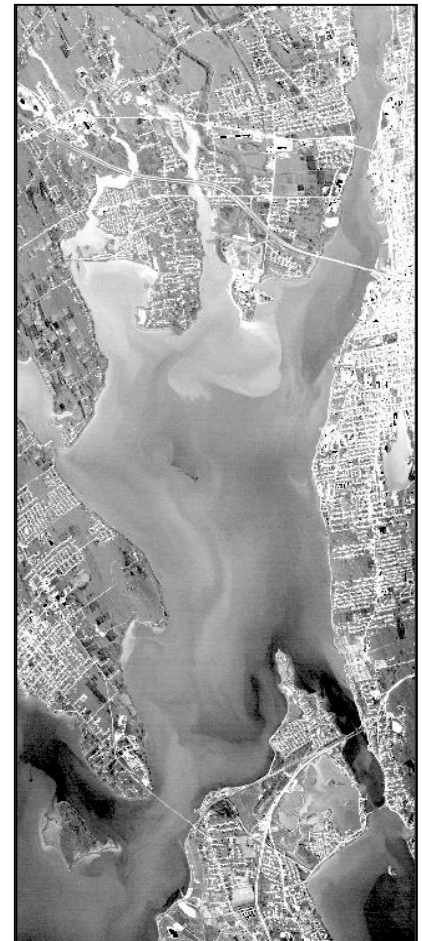
SERVICES FOR THE COASTAL ENVIRONMENT

APPLIED SCIENCE
ASSOCIATES, INC.

Applied Science Associates develops and applies computer tools and field studies to solve a variety of coastal problems. Using computer tools to enhance our understanding of physical, chemical, and biological processes, ASA responds to coastal issues with applied solutions. We assess actual events and predict possible alternatives to address water quality, circulation, and pollutant transport questions throughout the world.

ENVIRONMENTAL ASSESSMENT OF THERMAL EFFLUENT FROM A POWER PLANT

Heated effluent from electrical generation and other industries impact receiving waters, both directly in raising the temperature, and indirectly in its effect on dissolved oxygen. Many times it is difficult to separate man-made impacts from natural variations. ASA uses combined field and modeling studies to identify important processes in the receiving water body and predict thermal effluent impacts on the temperature and dissolved oxygen regimes. Results from this type of analysis can support permitting and assess alternative cooling techniques.



DESIGN OPTIONS FOR EROSION CONTROL

Rapid shoreline erosion is a problem facing many coastal states and countries. ASA assesses the forces responsible for shoreline erosion with field programs and numerical models. Model simulations predict tidal flows, the wave environment and storm surge. This analysis results in better understanding the physical causes of erosion and is used to design appropriate remedies.

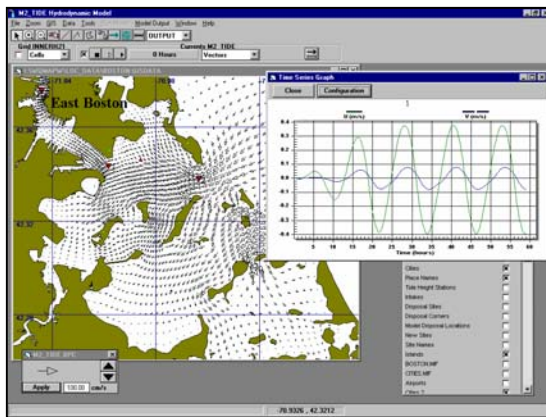
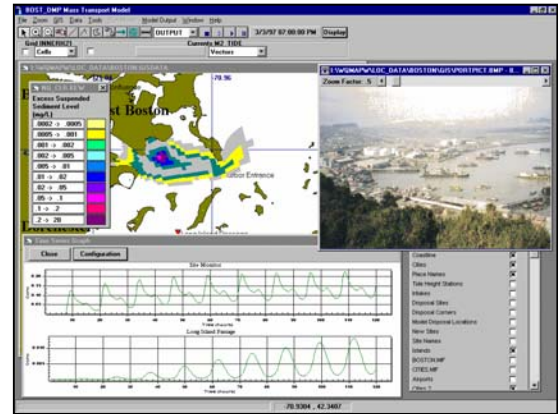


RECEIVING WATER QUALITY OF COMBINED SEWER OVERFLOWS

Raw sewage discharge from combined sanitary and storm sewer overflows (CSO) during storm events is often a major source of water quality pollution. Fecal coliform contamination from CSOs can result in shellfishing area closures causing economic loss. Using a calibrated computer model system, ASA analyzes mitigation alternatives for their ability to reduce pollutant impacts.

WATER QUALITY EVALUATION FOR PROPOSED DEVELOPMENT

Development of ports, marinas, pipeline outfalls, desalinization plants, and other marine construction projects raises questions of water quality impact. ASA evaluates development alternatives and predicts impacts. Concerns related to flushing, sedimentation and salinity are among the questions we commonly address.



URBAN HARBOR DREDGING AND DISPOSAL IMPACTS

Many urban harbors are contaminated with high levels of toxic pollutants. Pollutant impacts on water quality and marine biota must be considered as part of any dredging operation. ASA models predict concentrations of pollutants during dredging and disposal operations. With this information, protocols for dredging operations are developed and sites for polluted dredge disposal can be preferentially ranked.

ASA integrates computer models with field data to answer interdisciplinary questions related to marine and freshwater environments. Our scope of services is broad, reflecting 20 years of experience solving environmental and engineering issues including: water quality management, biological assessment, and oil and hazardous materials modeling.

ASA'S clients include international governments, universities, research institutes and major oil companies. ASA has a proven track record in providing high quality scientific support services to these clients in support of their global operations.

For more information about ASA's services or applications feel free to contact us or visit our website.



Headquarters:
Narragansett, RI
Phone: 401-789-6224
Fax: 401-789-1932
asa@appsci.com
www.appsci.com

Worldwide Offices:
Castetbon, France
St. Andrews, Scotland
São Paulo, Brazil
Gold Coast, Australia
Perth, Australia