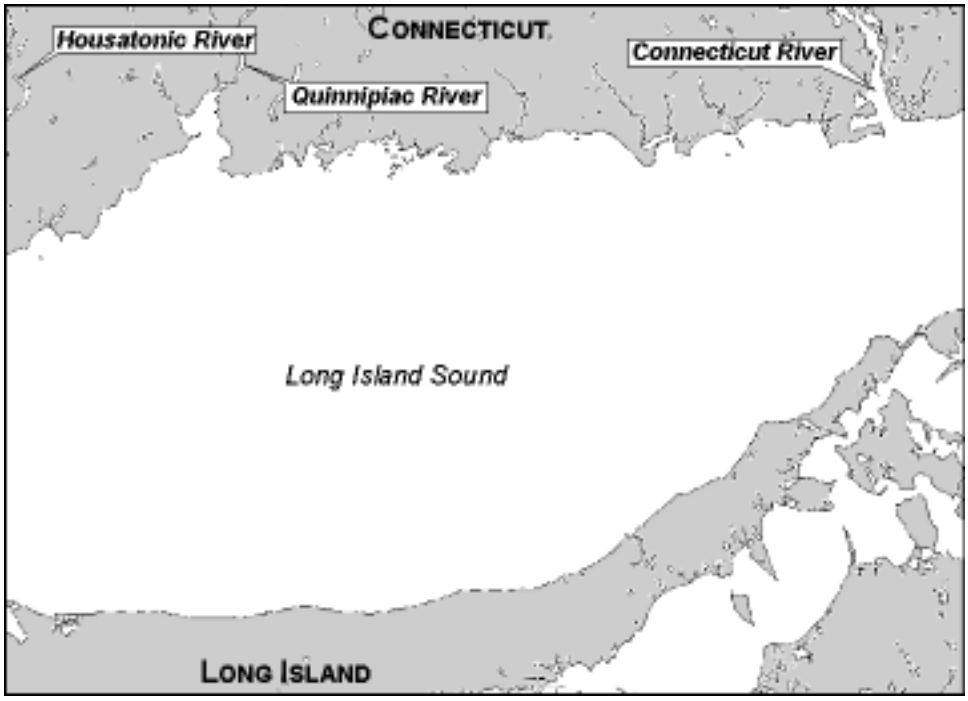
User's Guide

Welcome to the Location File for the Central Long Island Sound! The sound, located in the northeastern U.S., is bounded by Connecticut and by Long Island, New York.



NOAA created Location Files for different U.S. coastal regions to help you use the General NOAA Oil Modeling Environment, GNOME. Each Location File contains information about local oceanographic conditions that GNOME uses to model oil spills in the area covered by that Location File. Each Location File also contains references (both print publications and Internet sites) to help you learn more about the location you are simulating.

As you work with the Location File for Central Long Island Sound, GNOME will prompt you to:

1. Choose the model settings (start date and time, and run duration).
2. Input the wind conditions.

GNOME will guide you through choosing the model settings and entering the wind conditions. Click the Help button anytime you need help setting up the model. Check the "Finding Wind Data" Help topic to see a list of web sites that publish wind data for this region.

More information about GNOME and Location Files is available at http://response.restoration.noaa.gov/software/gnome/gnome.html .

Technical Documentation

Background

Long Island Sound is connected to the ocean by the East River to the west and by three passes to the east. Its major source of fresh water is the Connecticut River, toward the eastern end of the sound. Despite this unusual configuration, it possesses a longitudinal salinity gradient. The sound has a distinct transport of less-saline water flowing eastward at the surface, and an opposing flow of saltier water along the bottom (Gordon, 1980). The East River serves as a conduit for a net export of salt at 1.2 x 104 kilograms/second (Bowman, 1975).

Current Patterns

The model uses a single current pattern scaled to the tides 1 mile SSE of Sachem Head (41° 13'N, 72° 42'W).

References

You can get more information about Long Island Sound from these publications and web sites.

Oceanographic

Bokuniewicz, H.J. and R.B. Gordon. Form and Tidal Energy in Long Island Sound. In: Saltzman, B., ed. Estuarine Physics and Chemistry: Studies in Long Island Sound. Advances in Geophysics, Vol. 22. New York: Academic Press, 1980: 41-67.

EPA Long Island Sound Study Online
http://www.epa.gov/region01/eco/lis
A source of general information on the state of Long Island Sound. Provides current information on efforts to restore and protect the Sound and on specific Long Island Sound initiatives.

Wind and Weather

NOAA National Weather Service (NWS) coastal forecast for Long Island Sound
http://weather.noaa.gov/pub/data/forecasts/marine/coastal/an/anz330.txt
Daily coastal marine forecast.

The Weather Underground Marine Forecast
http://www.wunderground.com/MAR/AN/330.html
Daily marine forecast for Long Island waters.

NOAA NWS
http://www.nws.noaa.gov
Current weather observations, forecasts, and warnings for the entire U.S.

NOAA NWS graphical version
http://iwin.nws.noaa.gov/iwin/graphicsversion/bigmain.html
National and world weather, live weather images, weather videos.

Oil Spill Response

NOAA Hazardous Materials Response Division (HAZMAT)
http://response.restoration.noaa.gov
Tools and information for emergency responders and planners, and others concerned about the effects of oil and hazardous chemicals in our waters and along our coasts.