Long Island Sound Blue Plan – Potential Data Products Review

Map Book Table of Contents:

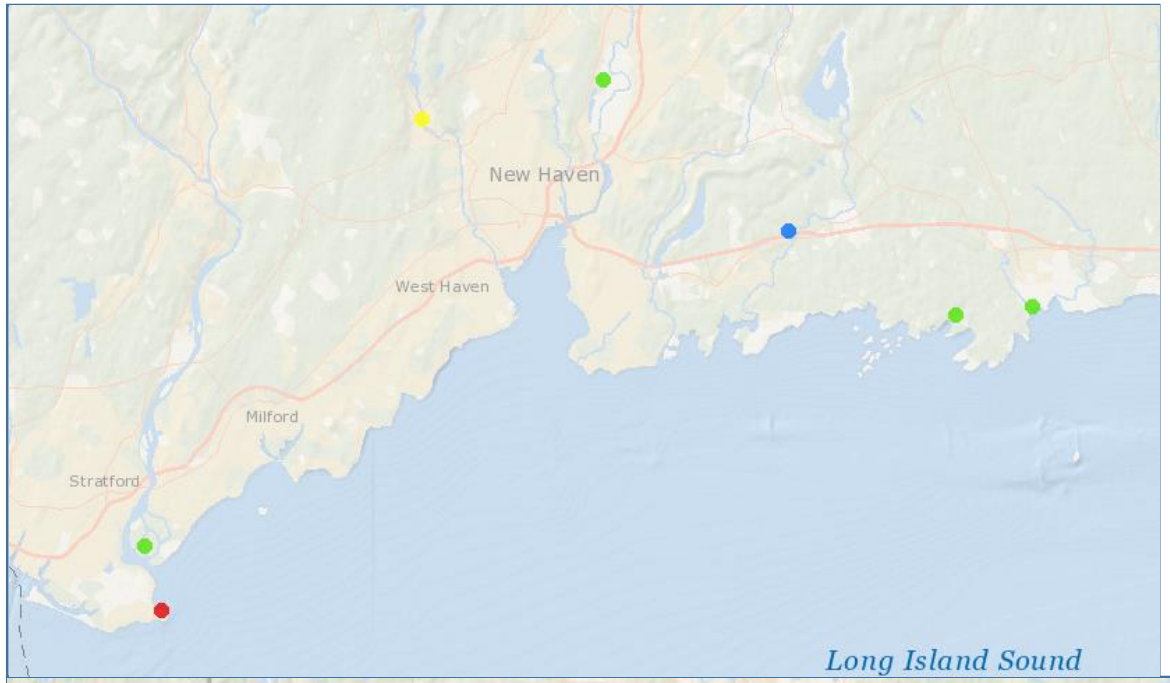
Research and Education

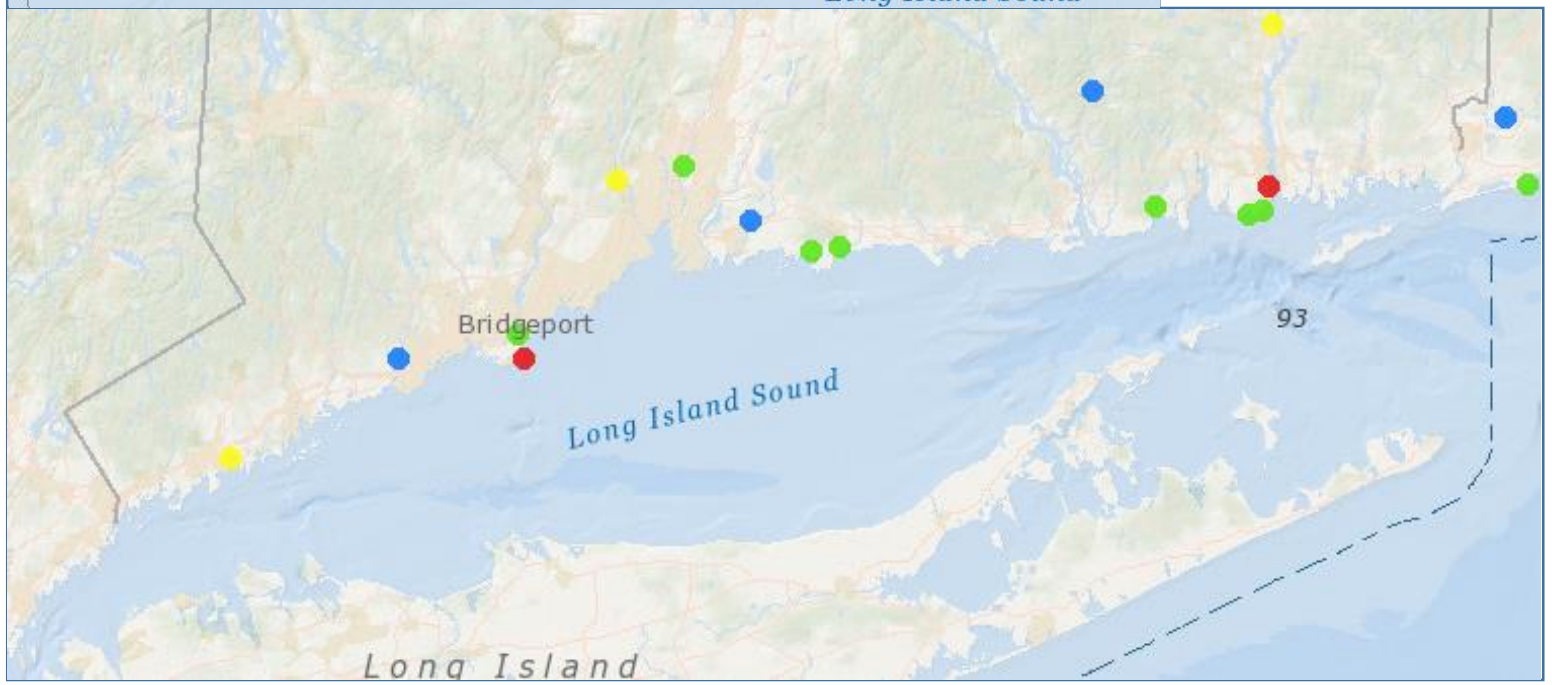
1. Potential Restoration Projects
2. Ocean Observing Buoys and Stations
3. Long Island Sound Sea Boss Sampling Transects – 2012
4. Long Island Sound RV Seawolf Navigation Tracklines 2013
5. Long Island Sound Research and Mapping Collaborative Transects May 2013
6. Long Island Sound Research and Mapping Collaborative Sampling Locations May 2013
7. Long Island Sound Benthic Communities Sample Locations – 1983
8. LIS Cable December 2012 ISIS Transects
9. LIS Cable December 2012 ISIS Sampling Locations
10. High Frequency Radar Locations
11. DEEP Water Quality Monitoring Program Sample Sites
12. LIS Trawl Survey Towpaths 1995 – 2012

Potential Restoration Projects

(Northeast Ocean Data Portal)

Source: SeaPlan, NROC





Potential Restoration Projects

- Dam Removal or Fish Passage
- Eelgrass, Oysters, Other
- Land Conservation
- Watershed and Water Quality
- Wetland

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Potential Restoration Projects

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: This dataset locates regional ecosystem restoration projects that, when implemented, will improve ocean health in New England (Maine, New Hampshire, Massachusetts, Rhode Island and Connecticut). The dataset was developed and is maintained by the Northeast Regional Planning Body Restoration Subcommittee. It only includes those projects that are not fully funded and therefore represent an opportunity to invest in ocean health. A majority of these projects are eligible for federal funding and are seeking the non-federal cost sharing match. A point has been placed at the approximate location of the restoration project. See process steps for more information on how site locations were mapped for each project. Any parties interested in funding the non-federal portion of a project can contact BillHubbard@CoastalAmericaFoundation.org or the appropriate state subcommittee representative for additional information.

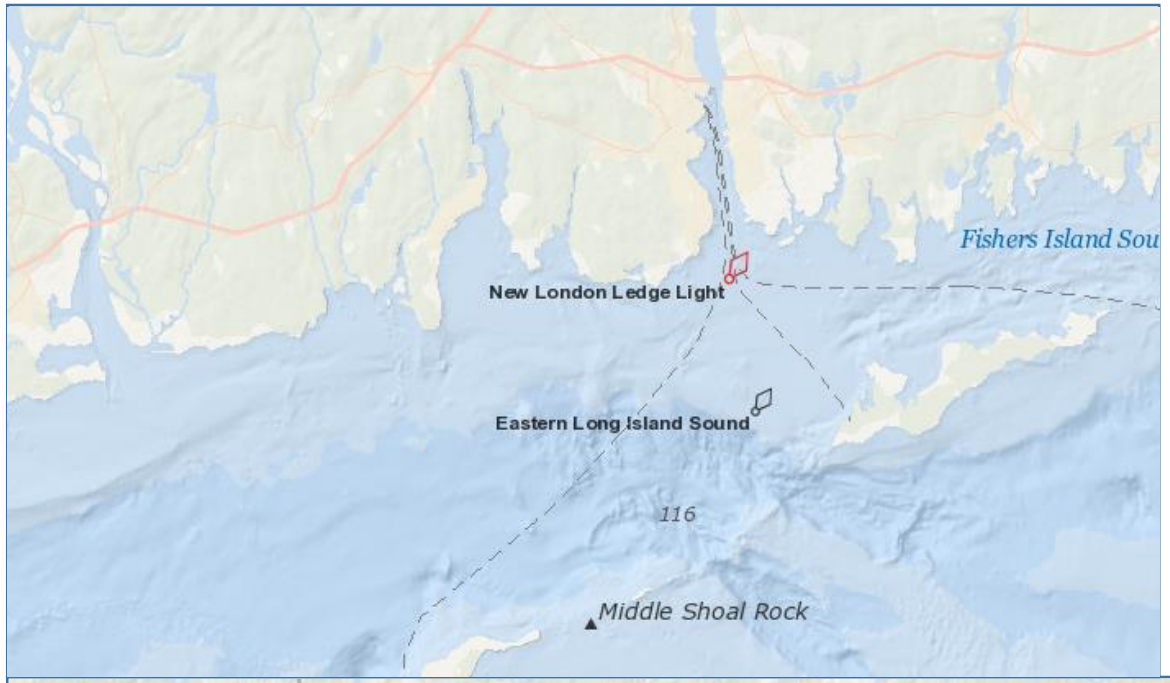
Full Description:
http://www.northeastoceandata.org/files/metadata/Themes/Restoration/PotentialRestorationProjects.pdf

Access Instructions: Go to http://www.northeastoceandata.org/data-explorer/. Go to Restoration > Potential Restoration Projects

Ocean Observing Buoys and Stations

(Northeast Ocean Data Portal)

Source: Northeastern Regional Association of Coastal Ocean Observing Systems



Ocean Observing Buoys and Stations

Active

Inactive

LONG ISLAND SOUND BLUE PLAN

Sustainable Ecosystems - Compatible Uses

Ocean Observing Buoys and Stations

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: This map layer shows the locations of buoys and monitoring stations of the Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS). These instruments monitor oceanographic and meteorological phenomena such as current speeds, wind speeds, and temperature. Bouy location, status, and attribution is current as of June 27, 2017.

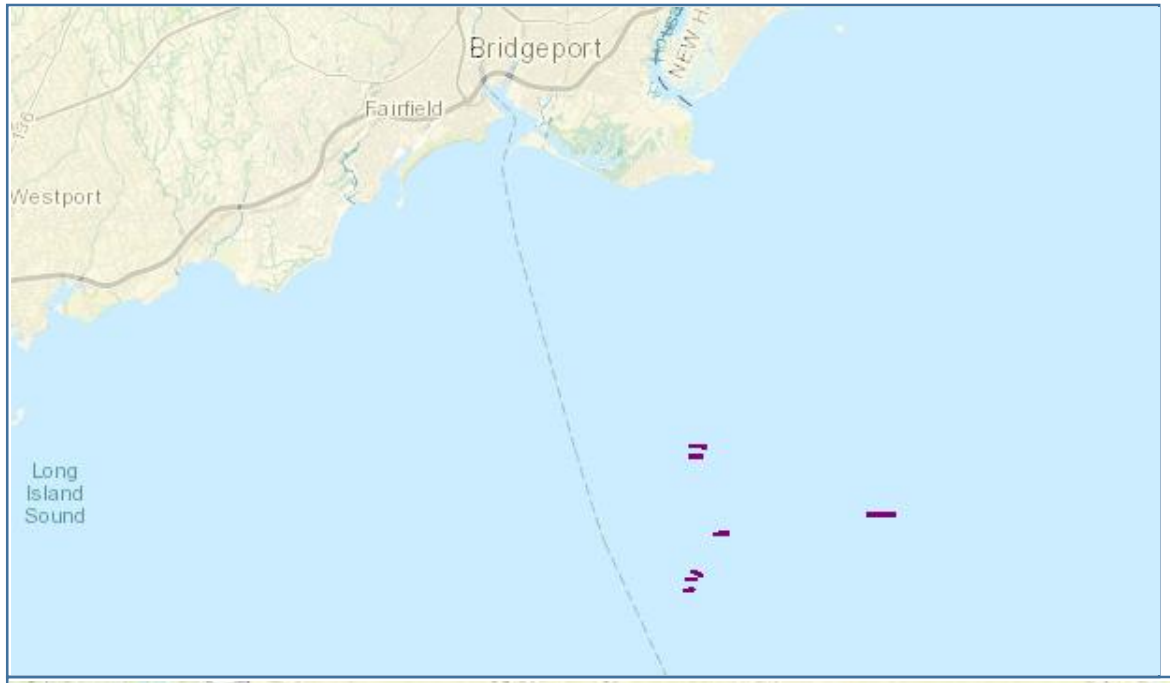
Full Description:
http://www.northeastoceandata.org/files/metadata/Themes/PhysicalOceanography/NERACOOSBuoys

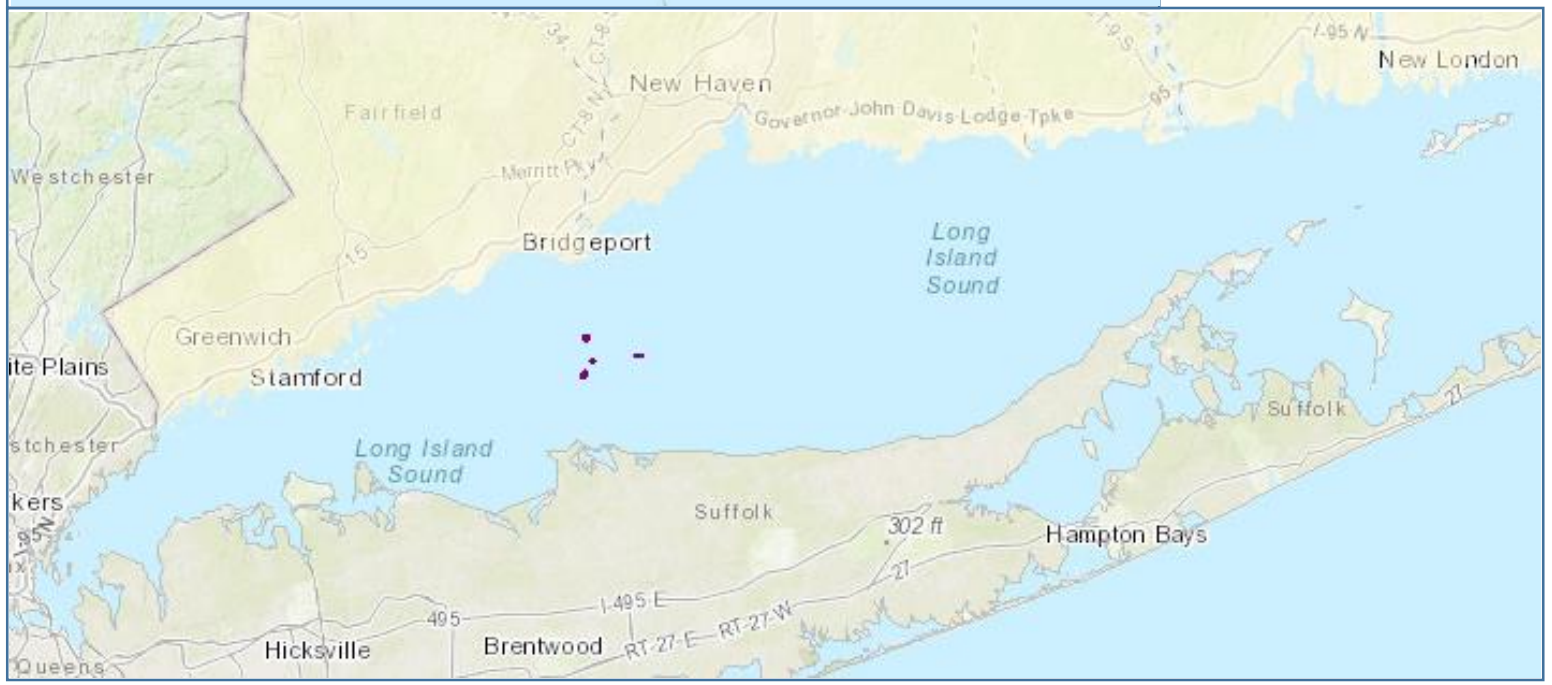
Access Instructions: Go to http://www.northeastoceandata.org/data-explorer/. Go to Physical Oceanography > Ocean Observing Buoys and Stations

Long Island Sound Sea Boss Sampling Transects - 2012

(NY Geographic Information Gateway)

Source: Peter Auster, University of Connecticut Dept of Marine Science, Research Professor





Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Long Island Sound Sea Boss Sampling Transects - 2012

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: Provides the navigation tracks for the USGS SEABOSS sampling cruise. *Purpose*: Identifies the sampling transects used by the USGS SEABOSS ROV during the 2012 sampling cruise in support of the initial (Pilot) Phase of a Seafloor Mapping Effort carried out during 2012-2014 by a teams from NOAA and two academic collaboratives led by the Lamont Doherty Earth Observatory of Columbia University and the University of Connecticut.

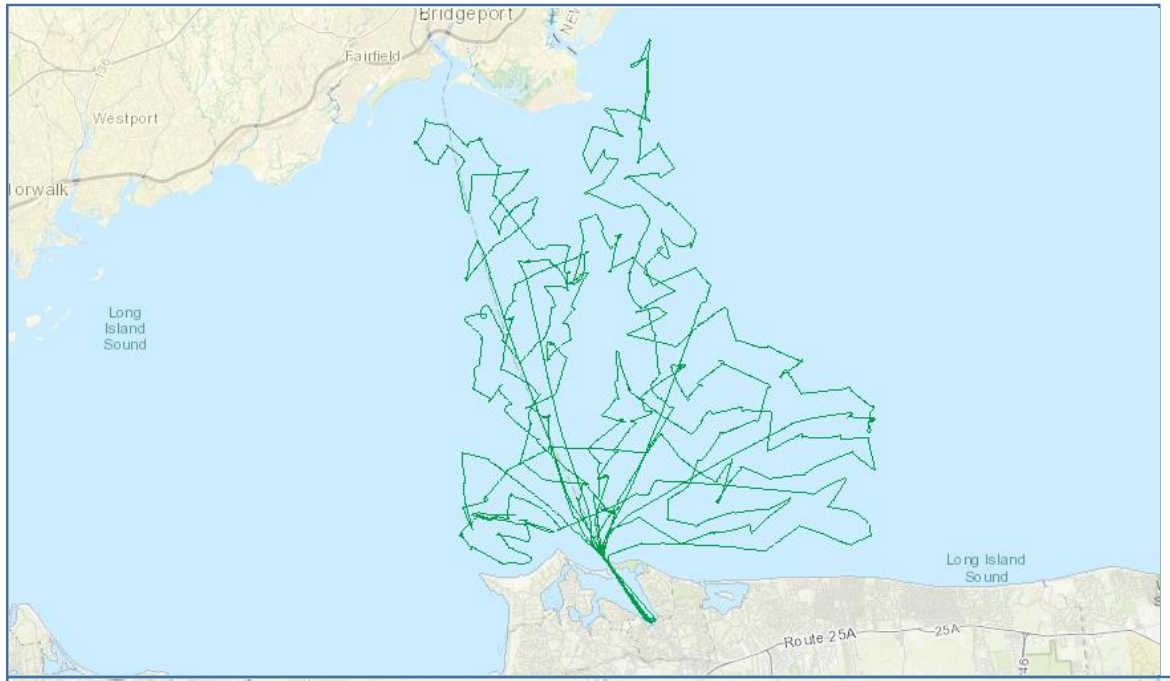
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={5147DD57-955C-4389-AE67-B16A4F88A40E}

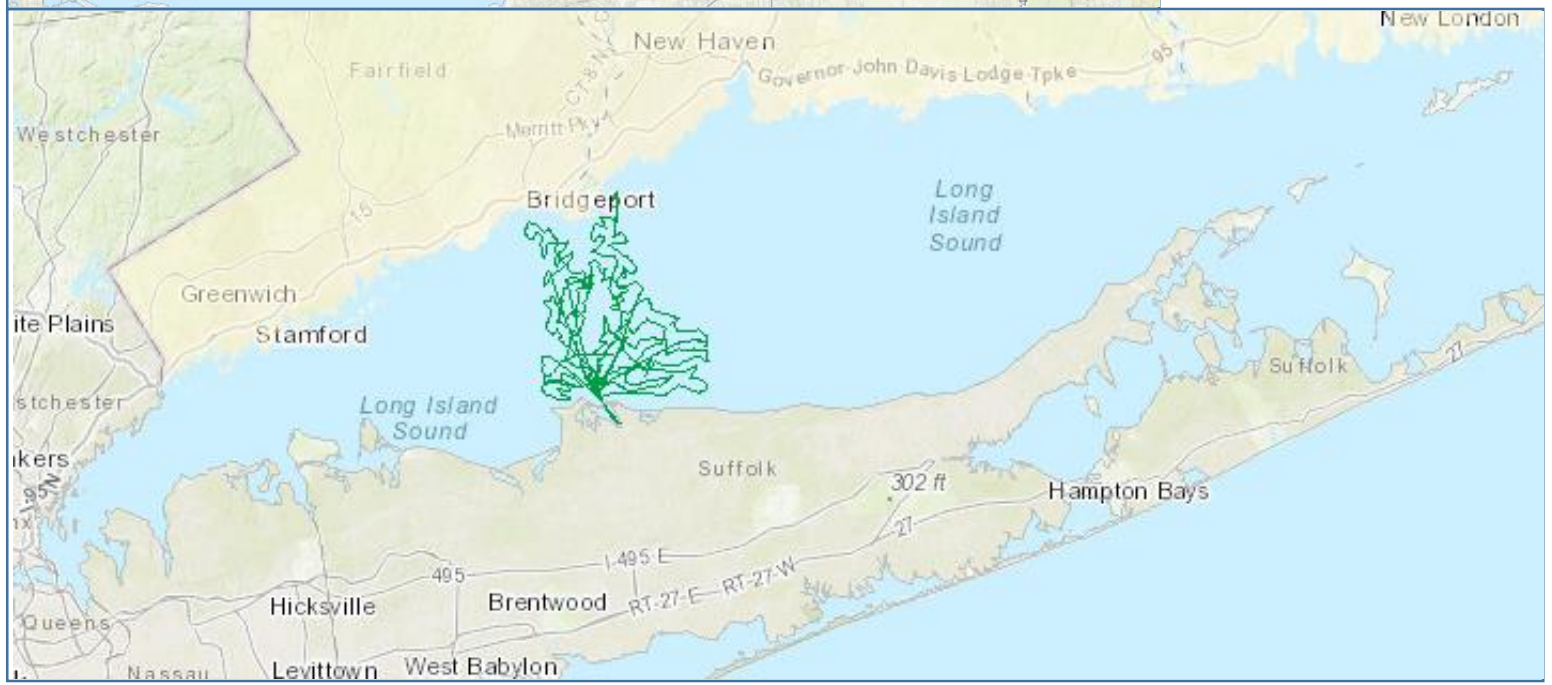
Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Biological > Surveys > Long Island Sound Sea Boss Sampling Transects - 2012

Long Island Sound RV Seawolf Navigation Tracklines 2013

(NY Geographic Information Gateway)

Source: Frank Nitsche





Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Long Island Sound RV Seawolf Navigation Tracklines 2013

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Effort

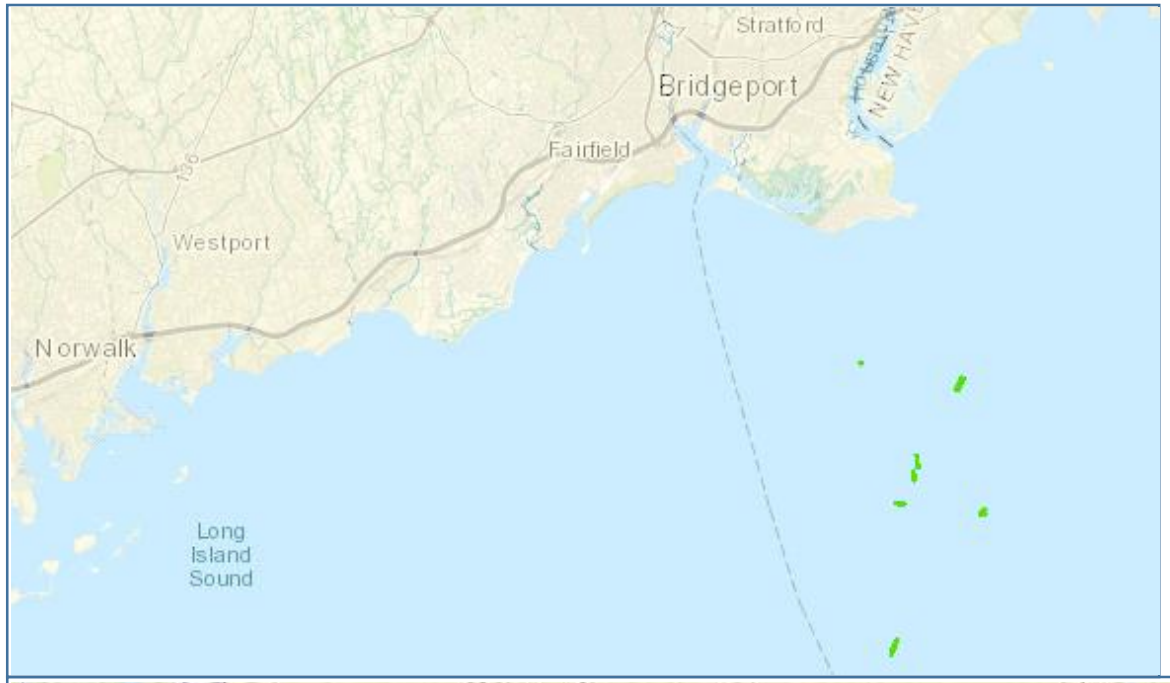
Summary Description: *Abstract*: Displays the location of sediment core samples and sample descriptions as of Summer 2013 within the project pilot area *Purpose*: Identifies the cruise transects used by RV Seawolf during the 2013 sediment sampling cruise in support of the initial (Pilot) Phase of a Seafloor Mapping Effort carried out during 2012-2014 by a teams from NOAA and two academic collaboratives led by the Lamont Doherty Earth Observatory of Columbia University and the University of Connecticut.

Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={51766653-AB66-4970-9747-9B055C747D92}

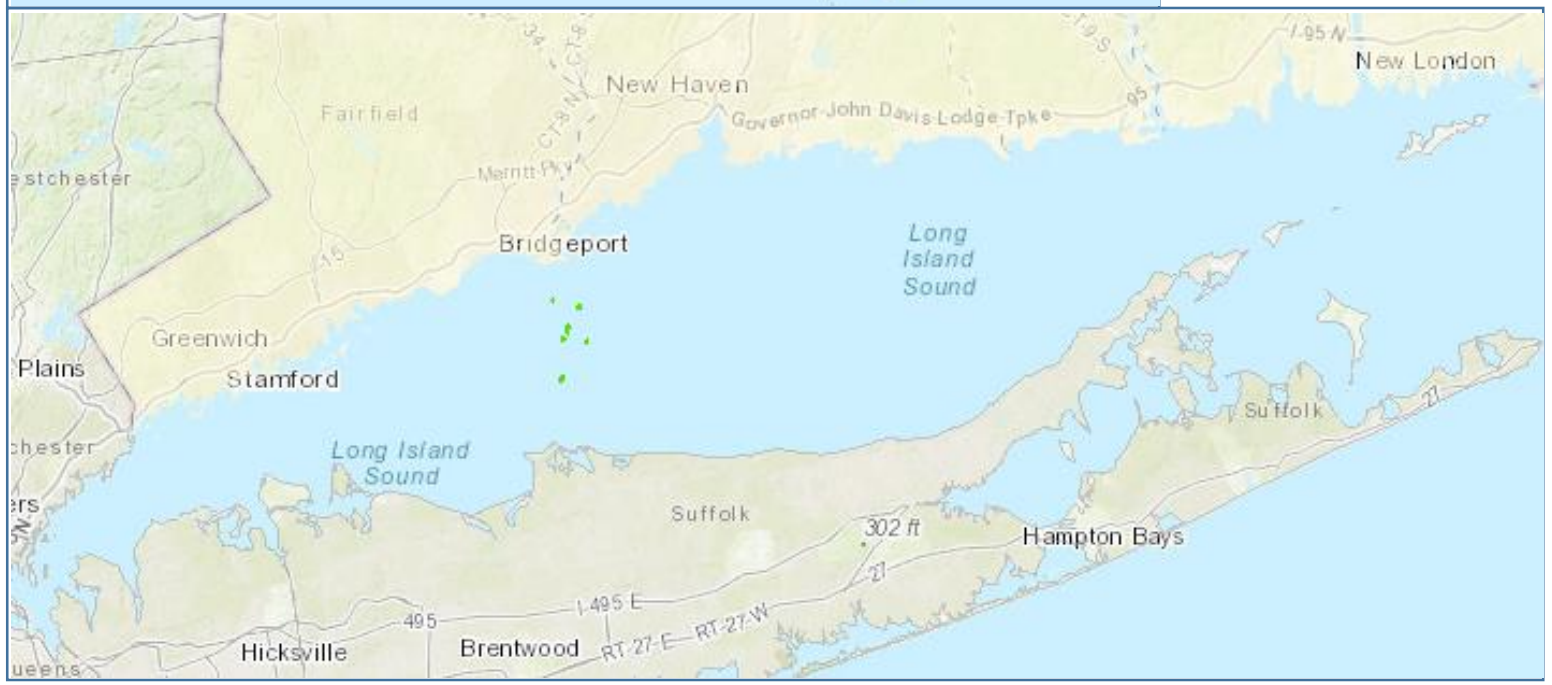
Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Physical Environment > Offshore (oceans) > Long Island Sound RV Seawolf Navigation Tracklines 2013

Long Island Sound Research and Mapping Collaborative Transects May 2013

(NY Geographic Information Gateway)



Source: Peter Auster



Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Long Island Sound Research and Mapping Collaborative Transects May 2013

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: Provides the navigation tracks for the ROV phot o/video sampling cruise in 2013. *Purpose*: Identifies the photo and video sampling transects used by ROVs during the 2013 sampling cruise in support of the initial (Pilot) Phase of a Seafloor Mapping Effort carried out during 2012-2014 by a teams from NOAA and two academic collaboratives led by the Lamont Doherty Earth Observatory of Columbia University and the University of Connecticut.

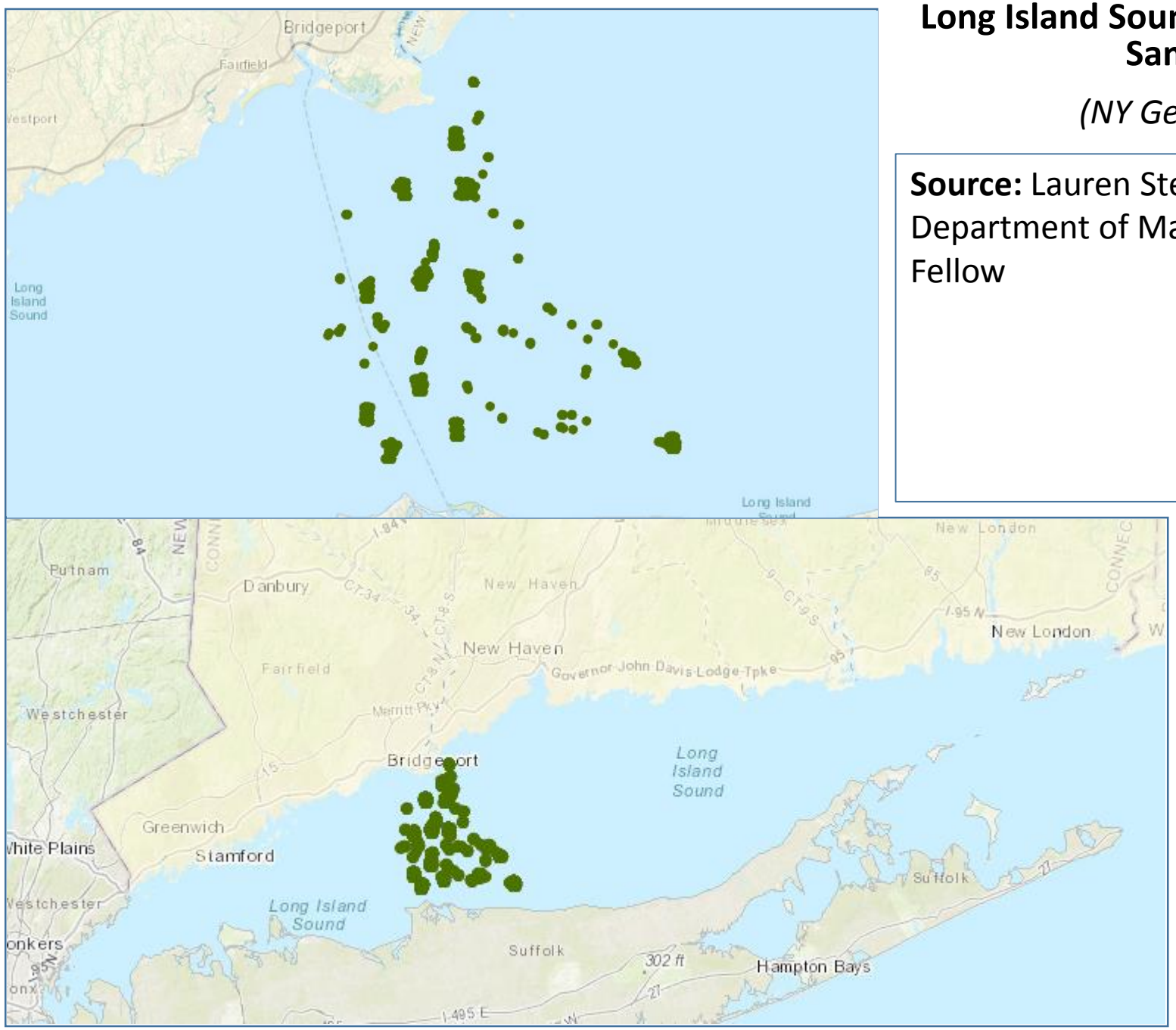
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={23D35D69-B47A-472C-8748-F4C015AFAED8}

Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Physical Environment > Offshore (oceans) > Long Island Sound Research and Mapping Collaborative Transects May 2013

Long Island Sound Research and Mapping Collaborative Sampling Locations May 2013

(NY Geographic Information Gateway)

Source: Lauren Stefaniak, University of Connecticut - Department of Marine Sciences, Postdoctoral Research Fellow



Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Long Island Sound Research and Mapping Collaborative Sampling Locations 2013

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: This shapefile contains the navigation data associated with the transect and station images collected during the May 2013 Long Island Sound Research and Mapping Collaborative cruises: USGS large SEABOSS, May 21-24, 2013; NURTEC K2 ROV, May 13-15, 2013). Number of images: 1923 plus deck shots *Purpose*: To distribute the navigation data associated with the images collected during the May 2013 Long Island Sound Research and Mapping Collaborative cruises.

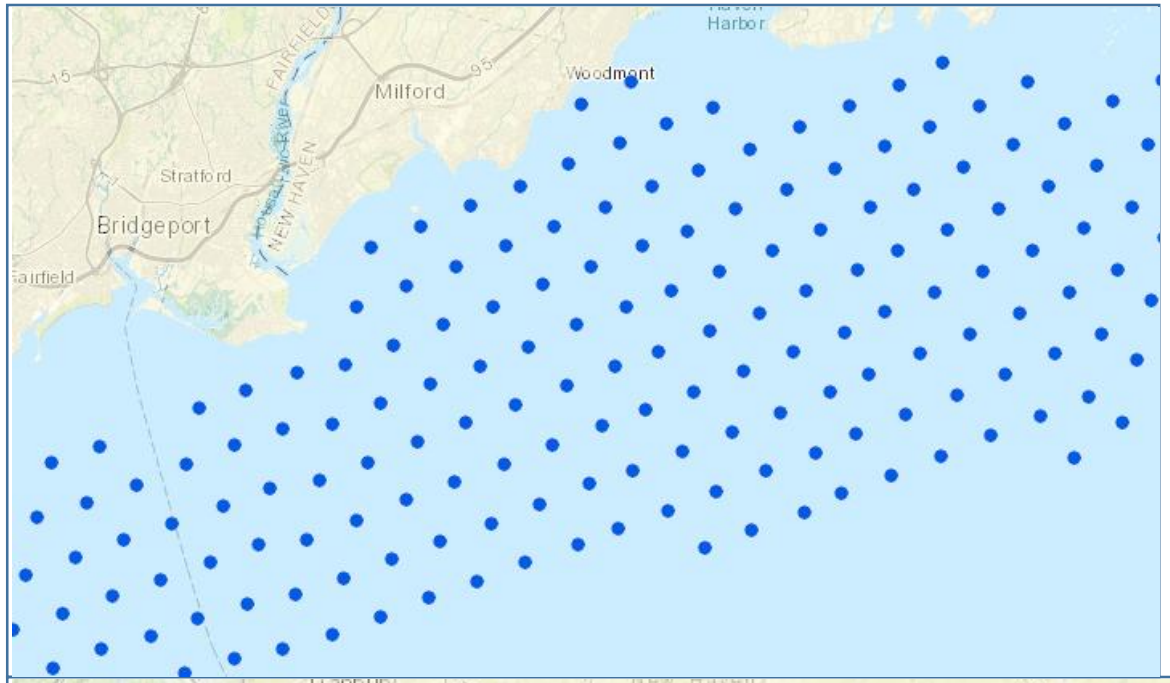
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={453F86DC-2939-4D84-844C-218D6A83D25C}

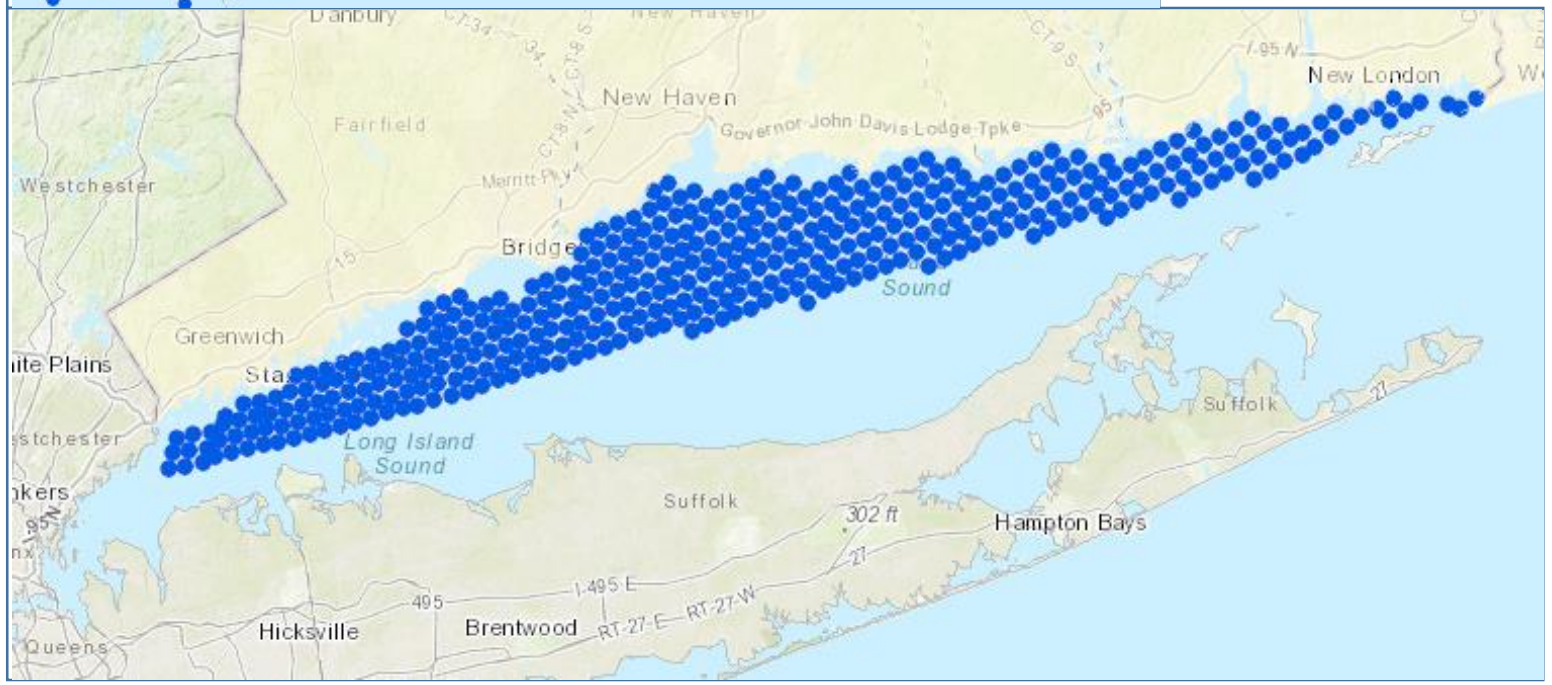
Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Physical Environment > Offshore (oceans) > Long Island Sound Research and Mapping Collaborative Sampling Locations May 2013

Long Island Sound Benthic Communities Sample Locations - 1983

(NY Geographic Information Gateway)

Source: Larry Poppe





Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

Long Island Sound Benthic Communities Sample Locations - 1983

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: This data layer provides the location where samples were taken in a survey conducted by P. Pellegrino and W. Hubbard (1983) *Purpose*: This data layer, which focuses on benthic communities, was developed as part of a cooperative project between the University of New Haven, the Connecticut DEP, and the U.S. Geological Survey. Benthic communities are an integral component of the ecology of LIS. Understanding the role that spatial heterogeneity plays in the dynamic of benthic landscapes may be a key to developing a better understanding of the estuarine ecology and the impacts of human activity. The purpose of providing this data layer is to help establish a regional framework for developing a more extensive GIS for benthic communities in LIS that can be used for education, research, and environmental management.

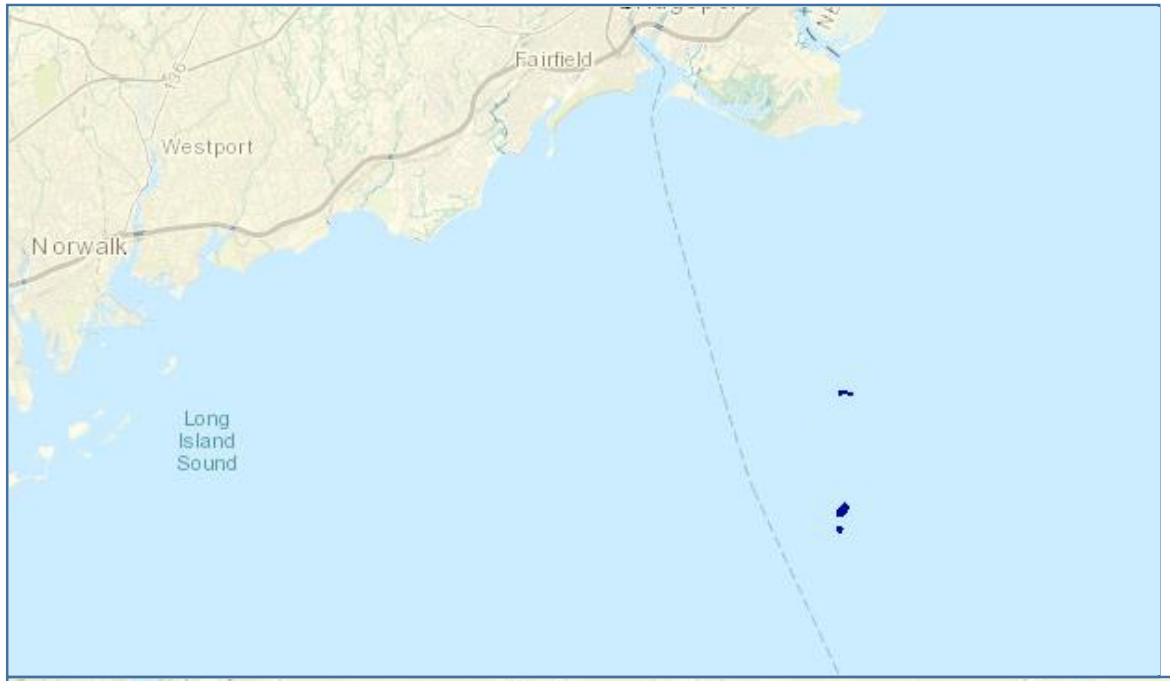
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={41B6C28F-F552-4A9F-8725-A0EC8E8FD495}

Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Physical Environment > Offshore (oceans) > Long Island Sound Benthic Communities Sample Locations - 1983

LIS Cable December 2012 ISIS Transects

(NY Geographic Information Gateway)

Source: Peter Auster, University of Connecticut Dept of Marine Science, Research Professor



Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

LIS Cable December 2012 ISIS Transects

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: Provides the navigation tracks for the UCONN ISIS video sampling cruise. *Purpose*: Identifies the video sampling transects used by the UCONN ISIS ROV during the 2012 sampling cruise in support of the initial (Pilot) Phase of a Seafloor Mapping Effort carried out during 2012-2014 by a teams from NOAA and two academic collaboratives led by the Lamont Doherty Earth Observatory of Columbia University and the University of Connecticut.

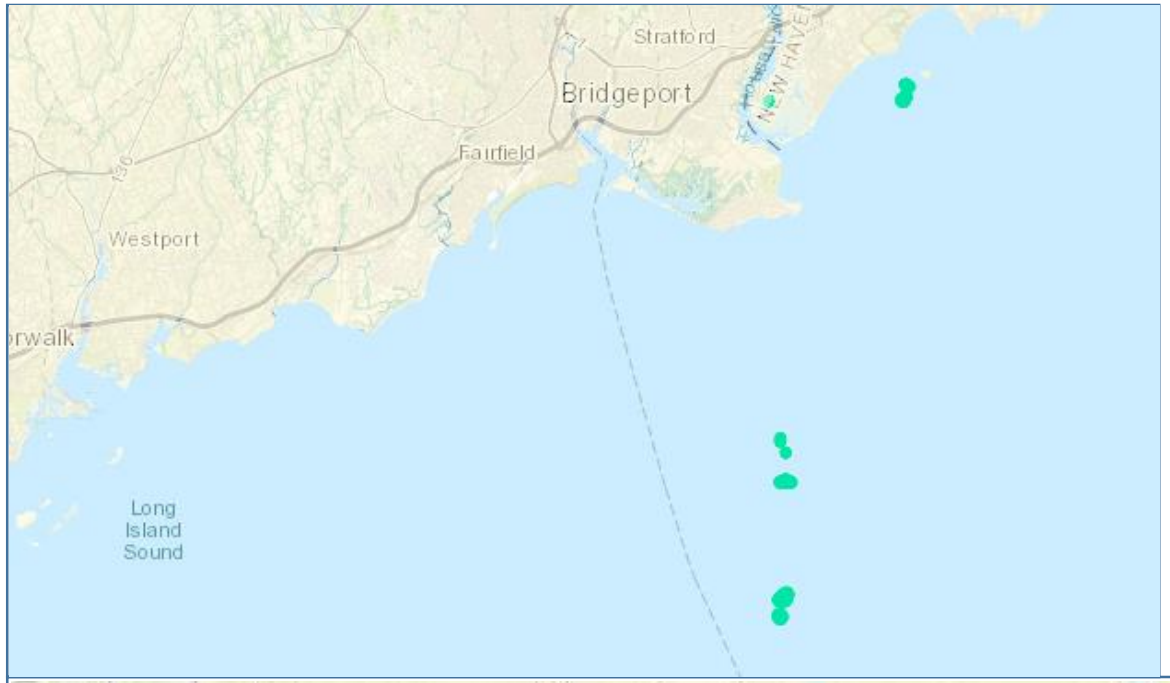
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={20168941-CB4F-4463-99B4-8E26FD4060AF}

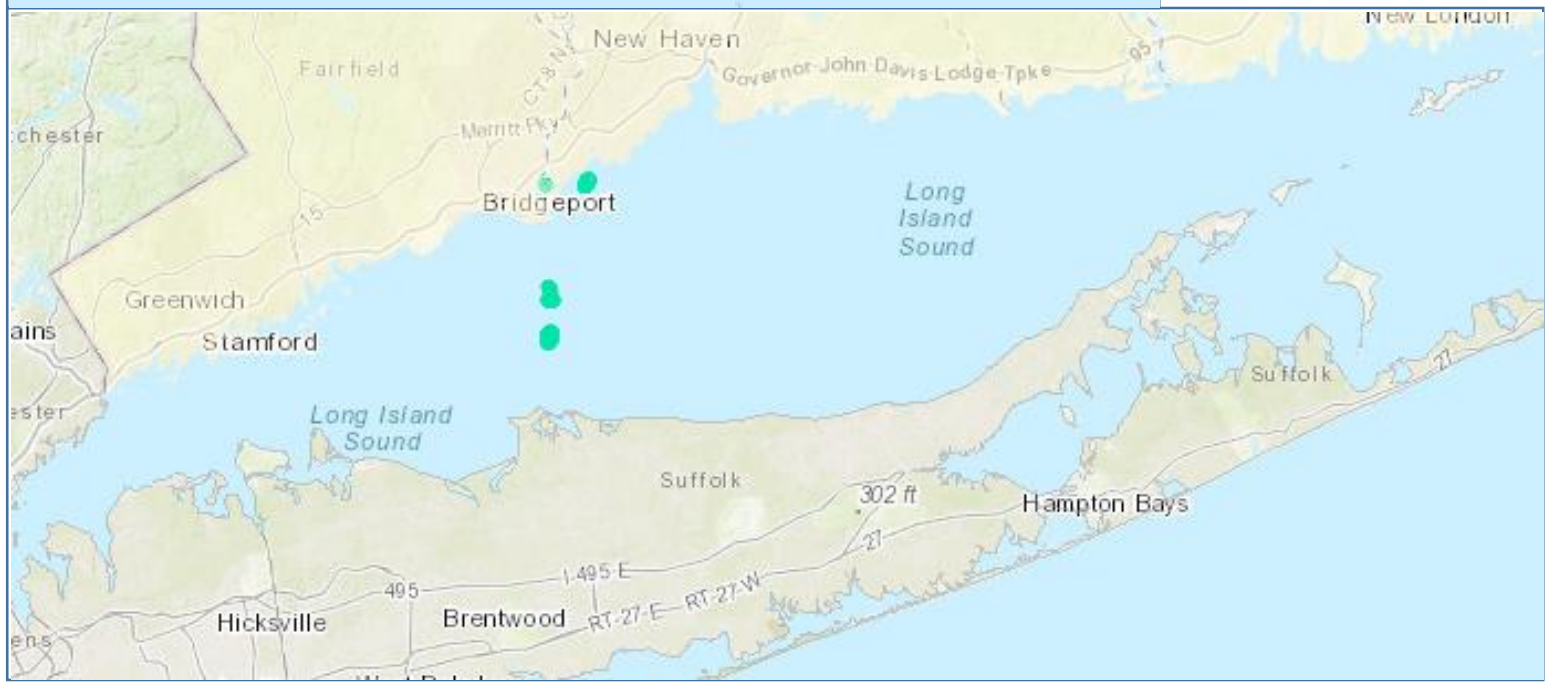
Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Biological > Surveys > LIS Cable December 2012 ISIS Transects

LIS Cable December 2012 ISIS Sampling Locations

(NY Geographic Information Gateway)

Source: Peter Auster, University of Connecticut Dept of Marine Science, Research professor





Legend:

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

LIS Cable December 2012 ISIS Sampling Locations

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: Provides the locations for the UCONN ISIS photo sampling. *Purpose*: Identifies the photo sampling locations used by the UCONN ISIS ROV during the 2012 sampling cruise in support of the initial (Pilot) Phase of a Seafloor Mapping Effort carried out during 2012-2014 by a teams from NOAA and two academic collaboratives led by the Lamont Doherty Earth Observatory of Columbia University and the University of Connecticut.

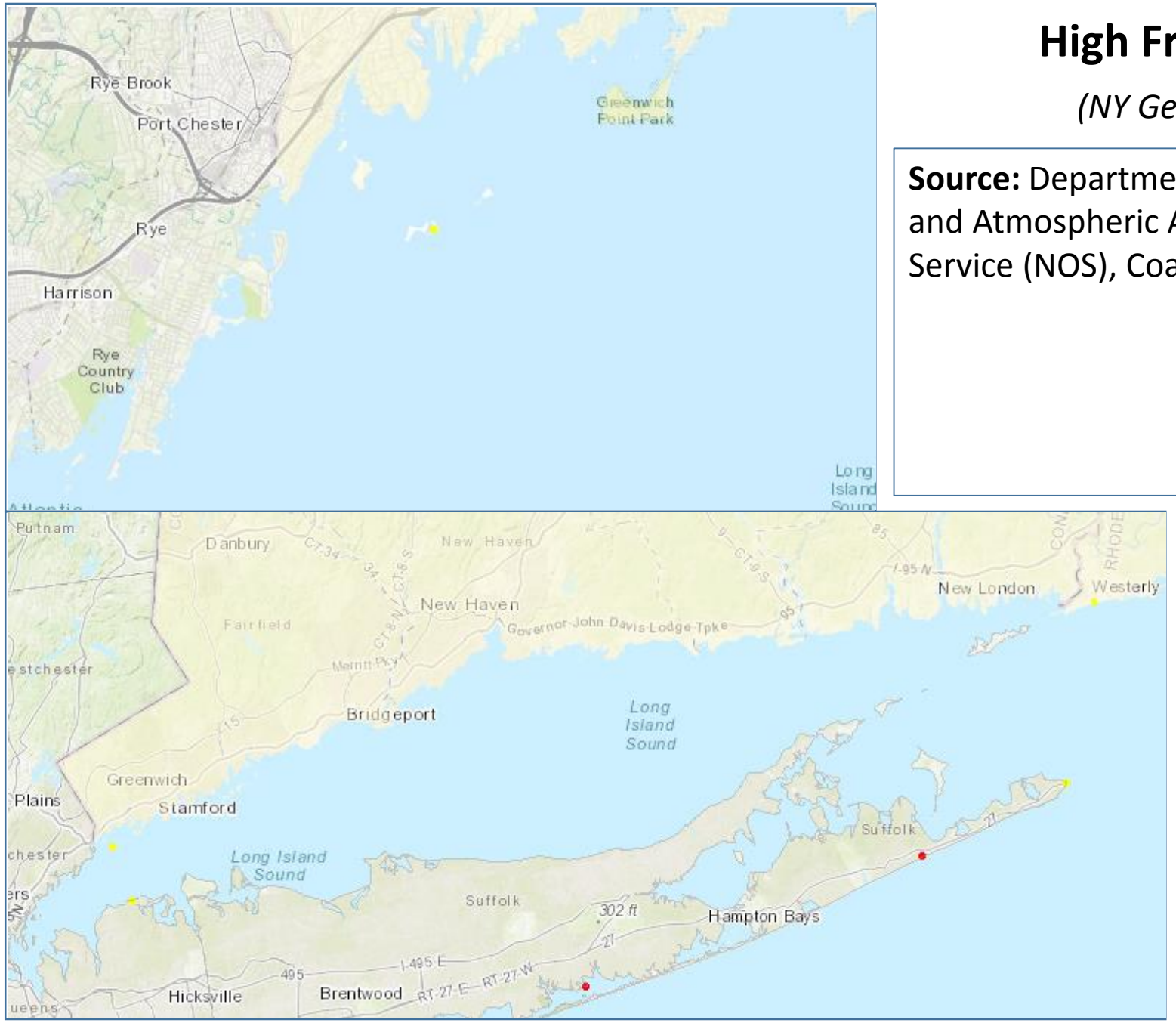
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={FED64601-40CD-4648-B995-FEAF8BF4F073}

Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Biological > Surveys > LIS Cable December 2012 ISIS Sampling Locations

High Frequency Radar Locations

(NY Geographic Information Gateway)

Source: Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Coastal Services Center (CSC)



Legend:

- Long Range
- Medium Range
- Short Range
- Very Short Range

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

High Frequency Radar Locations

Blue Plan Sector(s): Research & Education > Regional Research & Monitoring Efforts

Summary Description: *Abstract*: This dataset show the point locations (as of March 2013), of High Frequency (HF) radar systems across the US. HF radars measure the speed and direction of ocean surface currents in near real time. These radars can measure currents over a large region of the coastal ocean, from a few kilometers offshore up to 200 km, and can operate under any weather conditions. They are located near the water's edge, and need not be situated atop a high point of land. Dozens of institutions own and operate HF radars within the United States, and a majority are coordinated through the US Integrated Ocean Observing System. Ocean surface current data from these radars are shared on national servers -- the National Data Buoy Center and Scripps Institution of Oceanography -- who deliver the data to anyone who needs it.

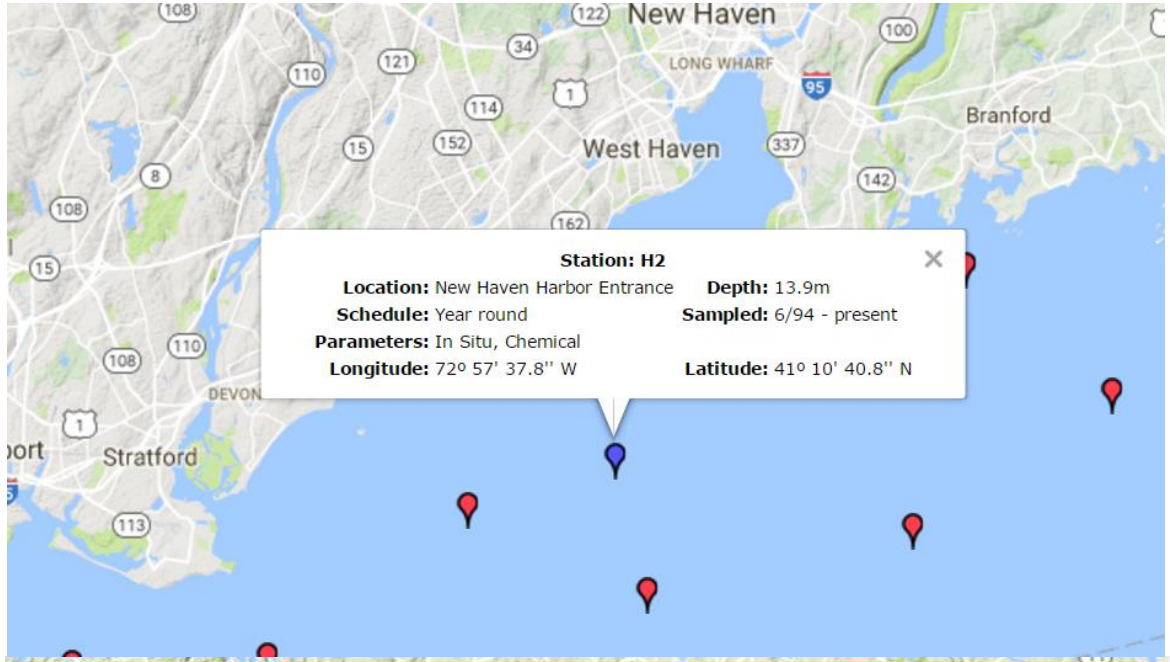
Full Description:
http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={2163FBCB-4FC9-4B03-B764-C77A4AECDB46}

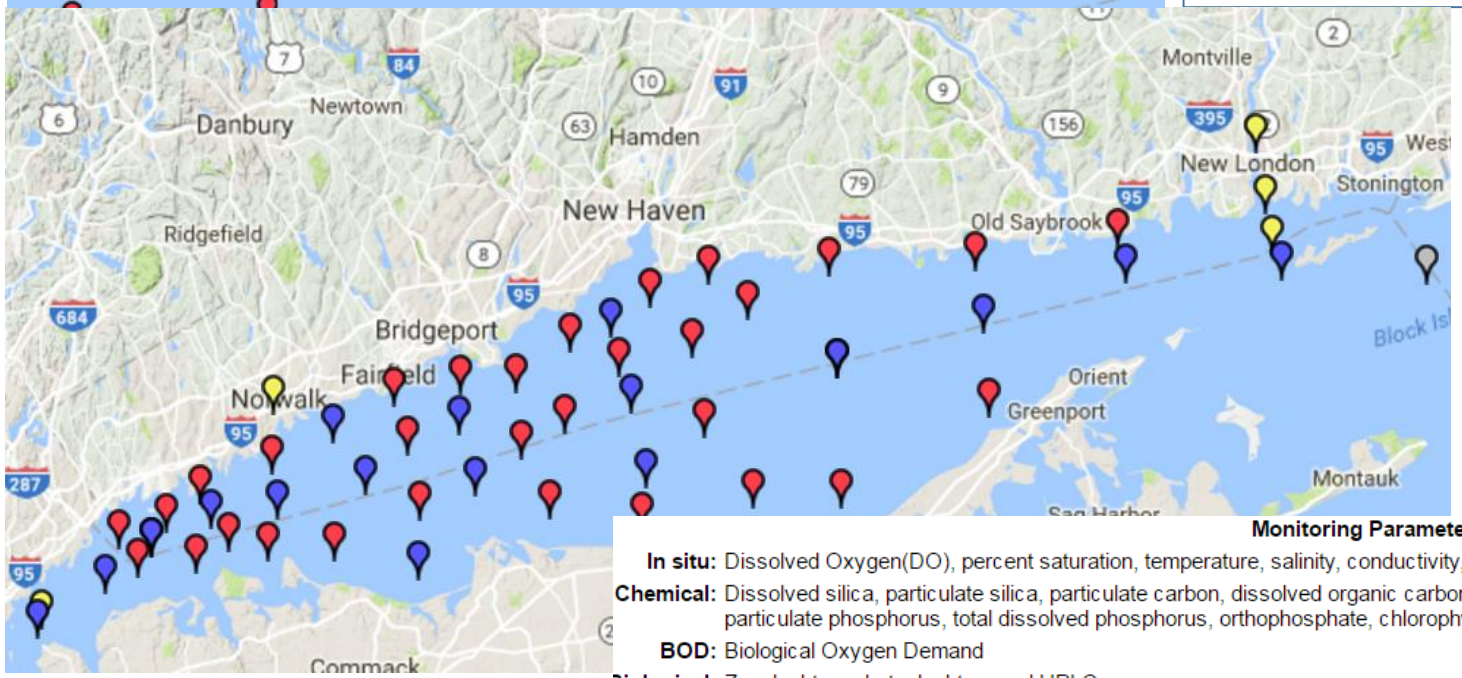
Access Instructions: Go to http://opdgig.dos.ny.gov/#/map. Go to Physical Environment > Offshore (oceans) > High Frequency Radar Locations

DEEP Water Quality Monitoring Program Sample Sites

CT DEEP Website

Source: CT DEEP / Long Island Sound Study LIS Water Quality Monitoring Program





DEP Monitoring Stations

- Year Round Station
- Summer Station (mid-June to mid-September)
- Inactive Station

MYSound Buoys

- MYSound Buoy

Monitoring Parameters

In situ: Dissolved Oxygen(DO), percent saturation, temperature, salinity, conductivity, depth, and Photosynthetically Active Radiation (PAR)

Chemical: Dissolved silica, particulate silica, particulate carbon, dissolved organic carbon, dissolved nitrogen, particulate nitrogen, ammonia, nitrate and nitrite, particulate phosphorus, total dissolved phosphorus, orthophosphate, chlorophyll a, total suspended solids, and Winkler Dissolved Oxygen

BOD: Biological Oxygen Demand

Biological: Zooplankton, phytoplankton, and HPLC

LONG ISLAND SOUND BLUE PLAN
Sustainable Ecosystems - Compatible Uses

DEEP Water Quality Monitoring Program Sample Sites

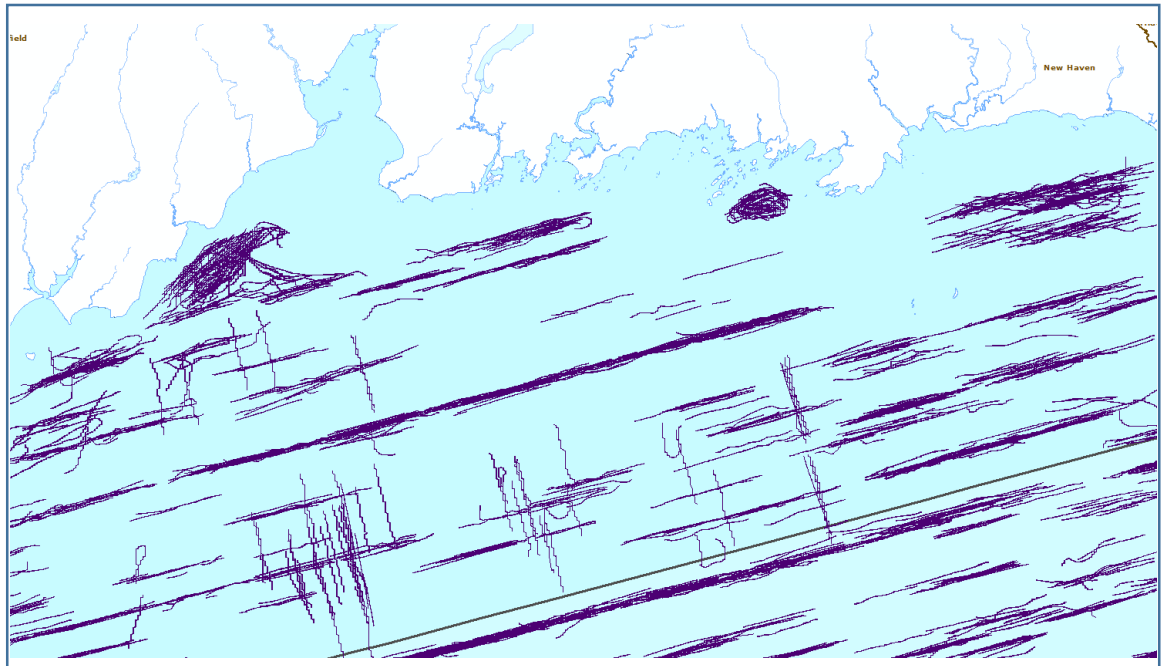
Blue Plan Sector(s): Environmental Characteristics > Water Chemistry/Quality

Summary Description: In 1994 DEP established 48 permanent sampling stations to monitor hypoxia during the summer months of June, July, August, and September. There are currently 47 active stations. Seventeen stations are also sampled year round as part of the monthly water quality monitoring program. Originally sampling was aimed at evaluating the effects of dissolved oxygen concentrations on fish abundance and determining the temporal and spatial extent of hypoxia. Sampling stations were selected randomly with more sites concentrated in the western Sound where hypoxia was generally more severe. The University of Connecticut, Department of Marine Sciences, maintains a network of monitoring buoys to provide comprehensive, real-time water quality, weather and wave data from Long Island Sound, its harbors and estuaries. Additional information is available at the MYSound website.

Full Description: LIS Water Quality Monitoring: http://www.ct.gov/deep/cwp/view.asp?a=2719&q=325534&deepNav_GID=1654

Access Instructions: Long Island Sound Water Quality Monitoring Stations:

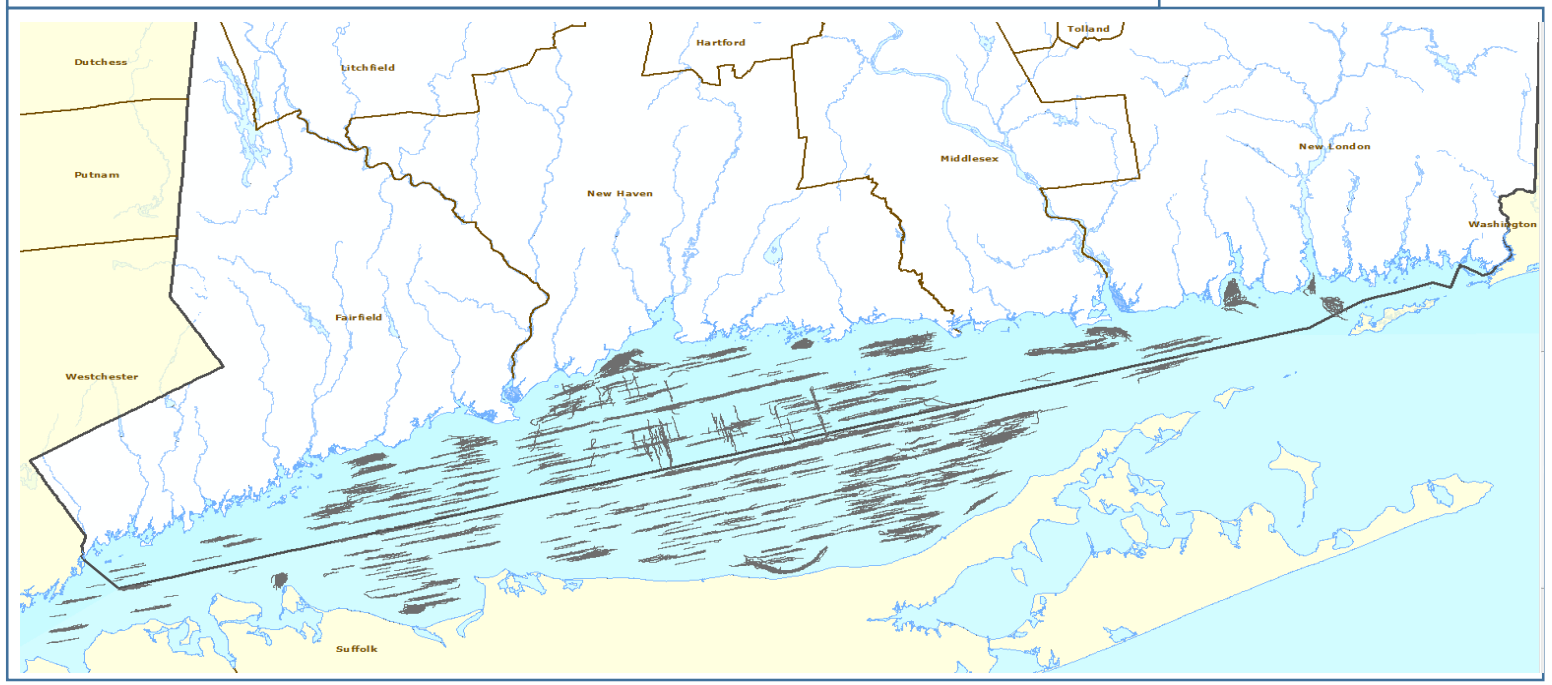
http://www.depdata.ct.gov/maps/lis/liswqmap.htm



LIS Trawl Survey Towpaths 1995-2012

CT DEEP data

Source: CT DEEP LIS Trawl Survey (R/V John Dempsey)



LIS Trawl Survey towpaths (1995-2012)

LONG ISLAND SOUND BLUE PLAN

Sustainable Ecosystems - Compatible Uses

LIS Trawl Survey Towpaths 1995-2012

Blue Plan Sector(s): Living Resources/Animals/Fish

Summary Description: This layer depicts towpaths for bottom fish trawls conducted by the CT DEEP in LIS aboard the R/V John Dempsey, 1995 - 2012. Towpaths were generated from GPS trackline data collected during a tow then buffered to approximate the width of the net as it was towed. Not every tow has a towpath and not every towpath has complete GPS data for the tow (that is, there are some missing and incomplete towpaths). Each towpath has a unique identifier (LINE_FIELD variable).

Full Description: Contact CT DEEP Marine Fisheries for FGDC metadata: deep.marine.fisheries@ct.gov

Access Instructions: Not currently available online.