

Long Island Sound Blue Plan – Potential Data Products Review

Map Book Table of Contents:

Marine Transportation, Navigation, and Infrastructure

Marine Transportation & Navigation

- All Transportation
 1. 2013 All Vessel Density

- Marine Passenger/Ferries
 2. 2013 Passenger Vessel Density

- Shipping & Shipping Corridors
 3. 2013 Cargo Vessel Density
 4. 2013 Tanker Vessel Density
 5. Pilot Boarding Areas
 6. Ports Cargo Volumes 2013
 7. Shipping Lanes and Zones
 8. Anchorage Areas

- Towing
 9. 2013 Tug-Tow Vessel Density

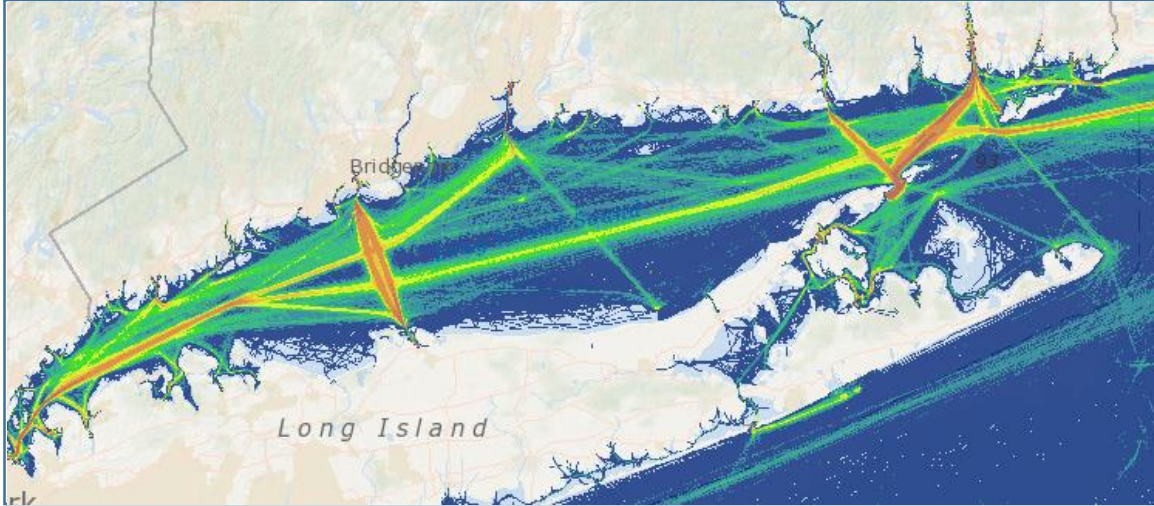
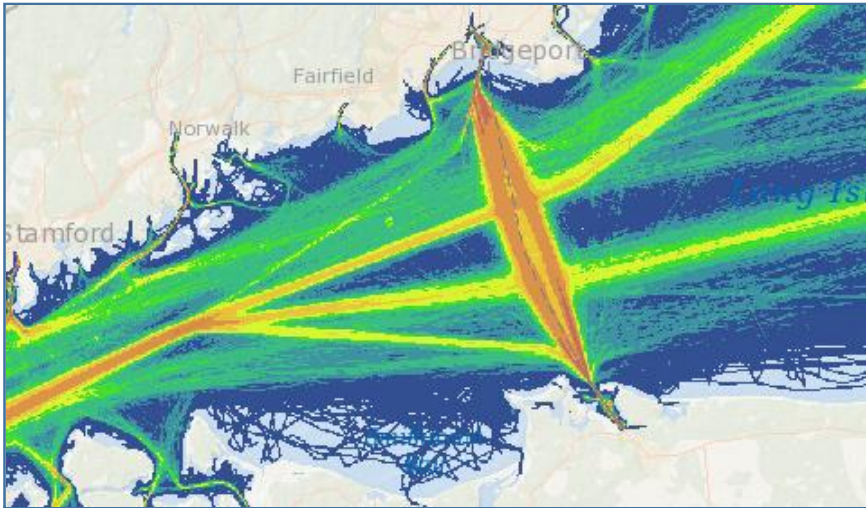
- Dredging
 10. Maintained Channels
 11. Ocean Disposal Sites

Marine & Coastal Infrastructure

12. Marinas by County, 2013
13. Type – Infrastructure Data
14. Type – Physical Infrastructure Data

Recreation & Tourism

15. Recreational Boating Density



2013 All Vessel Density

(Northeast Ocean Data Portal)

Source: Automatic Identification Systems, U.S. Coast Guard

2013 All Vessel Density



2013 Vessel Density



Blue Plan Sector(s): Marine Transportation - All

Summary Description: This layer shows the density of vessel traffic in 2013 for all vessels that carry Automatic Identification System (AIS) transponders. AIS are a navigation safety device that transmits and monitors the location and characteristics of many vessels in U.S. and international waters in real-time. The data represent density in 100 meter grid cells and are best interpreted using a high to low density scale. This dataset was created using vessel density products from the National Oceanographic and Atmospheric Administration (NOAA) Office for Coastal Management (OCM). NOAA created the density grids from trackline features, which were generated from NOAA's TrackBuilder tool in ArcGIS using AIS data from 2013. These data products were informed and reviewed by the port and shipping sectors and the US Coast Guard during outreach conducted from New York to Maine in 2015.

Full Description:

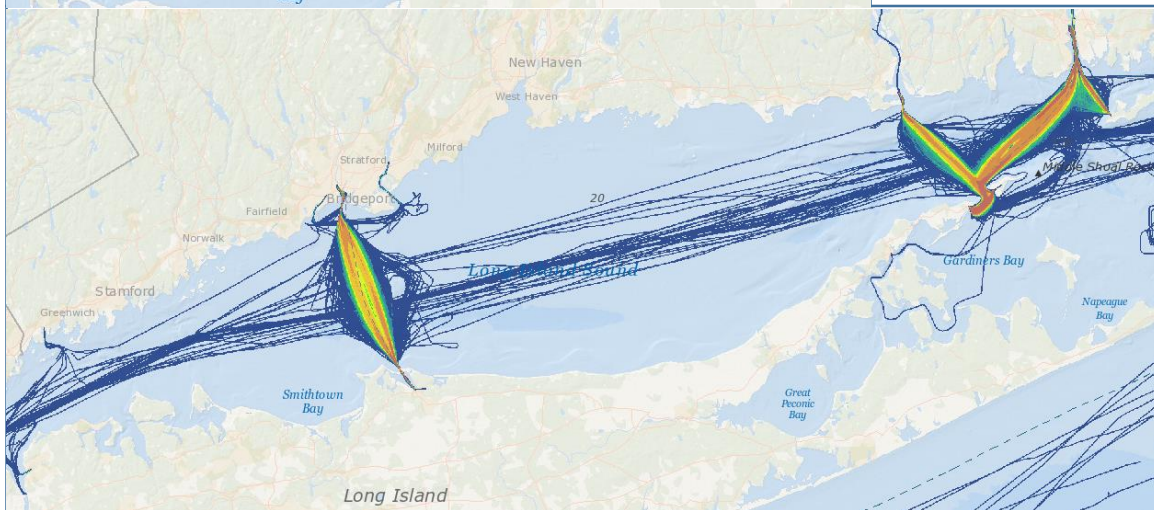
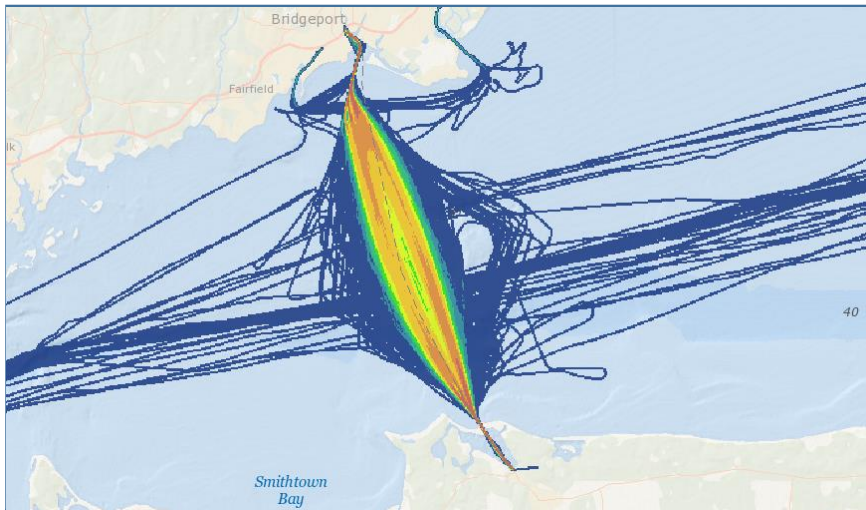
<http://www.northeastoceandata.org/files/metadata/Themes/AIS/NorthAtlanticTotalAISVesselDensity2013.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Commercial Traffic > 2013 Vessel Density

2013 Passenger Vessel Density

(Northeast Ocean Data Portal)

Source: Automatic Identification Systems, U.S. Coast Guard



2013 Passenger Vessel Density



2013 Passenger Vessel Density



Blue Plan Sector(s): Marine Transportation & Navigation > Marine Passenger/Ferries

Summary Description: This layer shows the density of vessel traffic in 2013 for passenger vessels that carry Automatic Identification System (AIS) transponders. AIS are a navigation safety device that transmits and monitors the location and characteristics of many vessels in U.S. and international waters in real-time. The data represent density in 100 meter grid cells and are best interpreted using a high to low density scale. This dataset was created using vessel density products from the National Oceanographic and Atmospheric Administration (NOAA) Office for Coastal Management (OCM). NOAA created the density grids from trackline features, which were generated from NOAA's TrackBuilder tool in ArcGIS using AIS data from 2013. These data products were informed and reviewed by the port and shipping sectors and the US Coast Guard during outreach conducted from New York to Maine in early 2015.

Full Description:

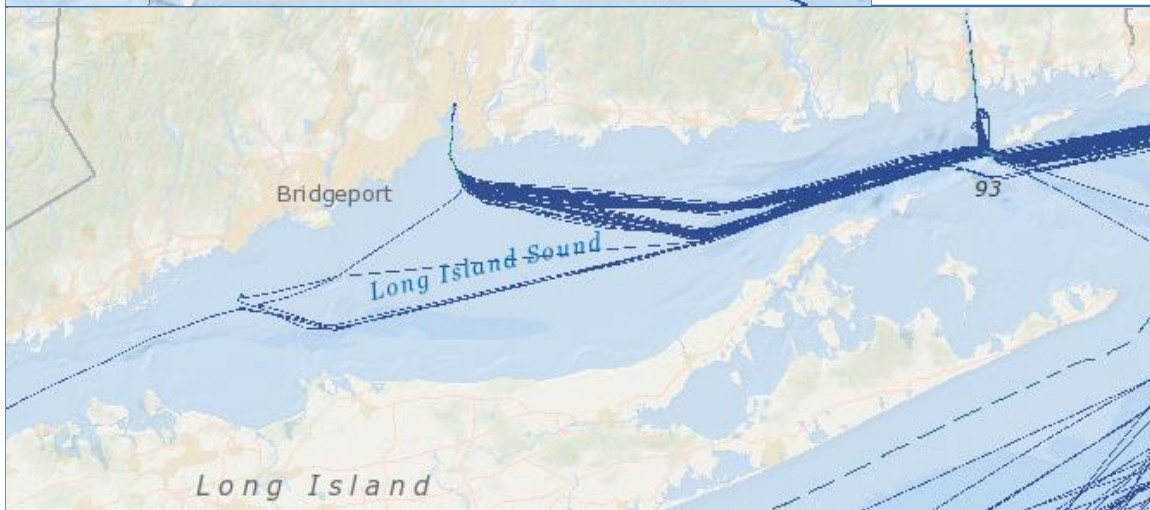
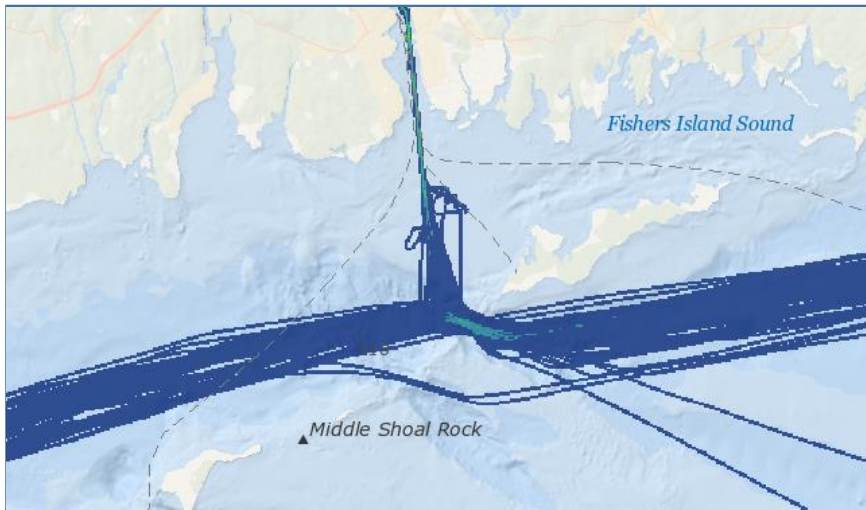
<http://www.northeastoceandata.org/files/metadata/Themes/AIS/NorthAtlanticPassengerAISVesselDensity2013.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Commercial Traffic > 2013 Passenger Vessel Density

2013 Cargo Vessel Density

(Northeast Ocean Data Portal)

Source: Automatic Identification Systems, U.S. Coast Guard



2013 Cargo Vessel Density



2013 Cargo Vessel Density



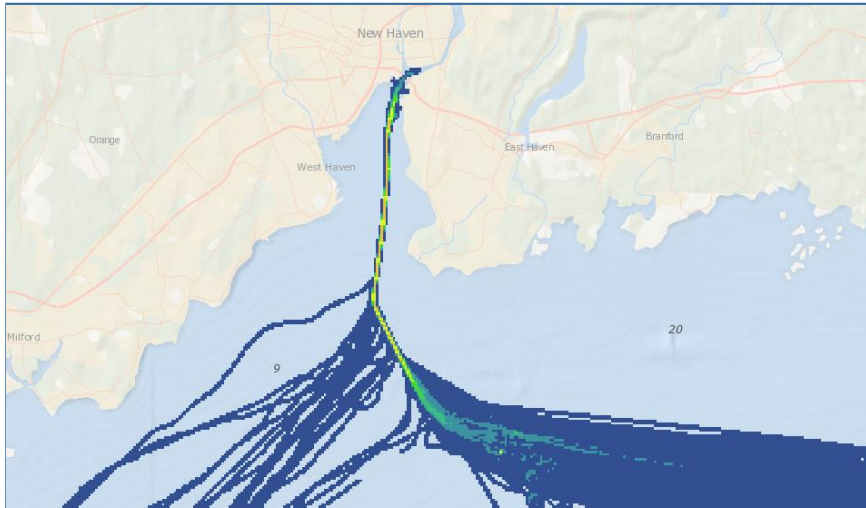
Blue Plan Sector(s): Marine Transportation & Navigation > Shipping and Shipping Corridors

Summary Description: This layer shows the density of vessel traffic in 2013 for cargo vessels that carry Automatic Identification System (AIS) transponders. AIS are a navigation safety device that transmits and monitors the location and characteristics of many vessels in U.S. and international waters in real-time. The data represent density in 100 meter grid cells and are best interpreted using a high to low density scale. This dataset was created using vessel density products from the National Oceanographic and Atmospheric Administration (NOAA) Office for Coastal Management (OCM). NOAA created the density grids from trackline features, which were generated from NOAA's TrackBuilder tool in ArcGIS using AIS data from 2013. These data products were informed and reviewed by the port and shipping sectors and the US Coast Guard during outreach conducted from New York to Maine in early 2015.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/AIS/NorthAtlanticCargoAISVesselDensity2013.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Commercial Traffic > 2013 Cargo Vessel Density



2013 Tanker Vessel Density

(Northeast Ocean Data Portal)

Source: Automatic Identification Systems, U.S. Coast Guard



2013 Tanker Vessel Density



2013 Tanker Vessel Density



Blue Plan Sector(s): Marine Transportation & Navigation > Shipping & Shipping Corridors

Summary Description: This layer shows the density of vessel traffic in 2013 for tanker vessels that carry Automatic Identification System (AIS) transponders. AIS are a navigation safety device that transmits and monitors the location and characteristics of many vessels in U.S. and international waters in real-time. The data represent density in 100 meter grid cells and are best interpreted using a high to low density scale. This dataset was created using vessel density products from the National Oceanographic and Atmospheric Administration (NOAA) Office for Coastal Management (OCM). NOAA created the density grids from trackline features, which were generated from NOAA's TrackBuilder tool in ArcGIS using AIS data from 2013. These data products were informed and reviewed by the port and shipping sectors and the US Coast Guard during outreach conducted from New York to Maine in early 2015.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/AIS/NorthAtlanticTankerAISVesselDensity2013.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Commercial Traffic > 2013 Tanker Vessel Density



Pilot Boarding Areas

(Northeast Ocean Data Portal)

Source: U.S. Coast Pilot, Massachusetts Office of Coastal Zone Management



Pilot Boarding Areas

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Pilot Boarding Areas



Blue Plan Sector(s): Marine Transportation & Navigation > Shipping & Shipping Corridors

Summary Description: This layer shows locations where harbor pilots meet and board arriving ships to navigate their passage to and from a destination port. Most pilot boarding areas are represented by circle with a radius of 0.5 nautical miles, unless source material indicated otherwise. The primary source material is the United States Coast Pilot. Additional information was derived from the Office of Massachusetts Coastal Zone Management's pilot boarding area dataset, which consists of information acquired from pilot associations in 2009.

Full Description:

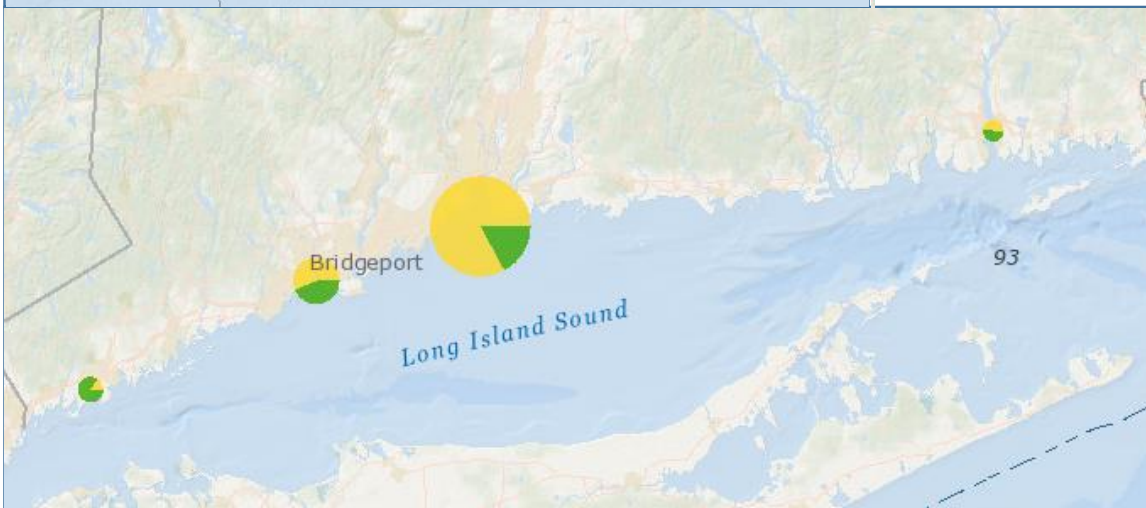
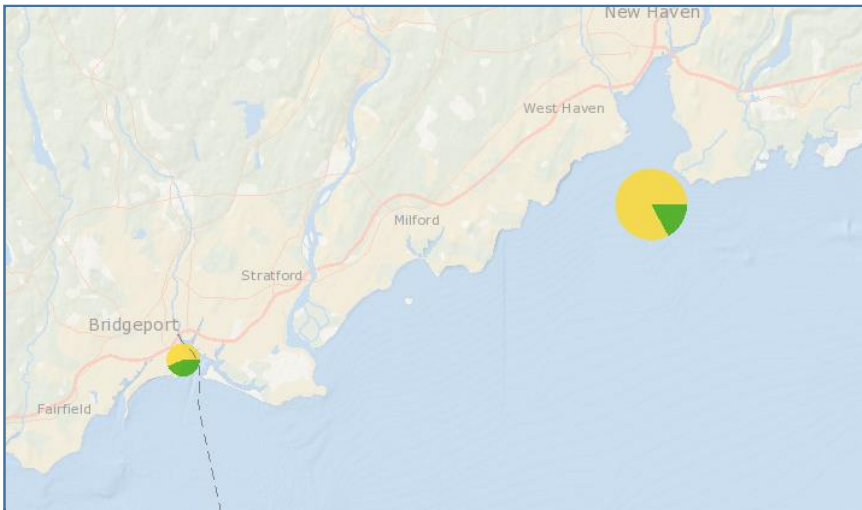
<http://www.northeastoceandata.org/files/metadata/Themes/MarineTransportation/PilotBoardingAreas.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Navigation > Pilot Boarding Areas

Ports Cargo Volumes 2013

(Northeast Ocean Data Portal)

Source: National Geospatial-Intelligence Agency (NGA)
World Port Index



Ports Cargo Volumes 2013

Total Cargo Volume indicated by relative circle size



Yellow: Petroleum and Petroleum Products

Green: Other

Ports Cargo Volume 2013



Blue Plan Sector(s): Marine Transportation & Navigation > Shipping & Shipping Corridors

Summary Description: This data represents the cargo volume (metric tons/year) by port in the northeast United States and was created for the Northeast Ocean Planning Baseline Assessment. Cargo volume data was acquired from the US Army Corps of Engineers, 2013 Waterborne Commerce Statistics of the United States and categorized by 'Petroleum and Petroleum Products' and 'Other'. Port location data was acquired from National Geospatial-Intelligence Agency (NGA) World Port Index.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/MarineTransportation/PortsCargoVolumes.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Commercial Traffic

Shipping Lanes and Zones

(New York Geographic Information Gateway)

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



Shipping Lanes and Zones



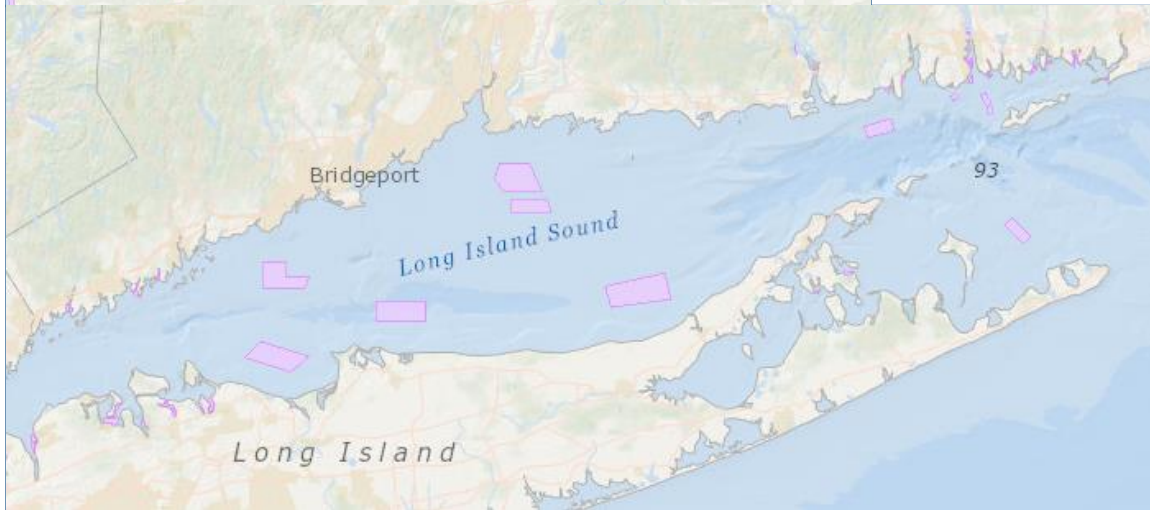
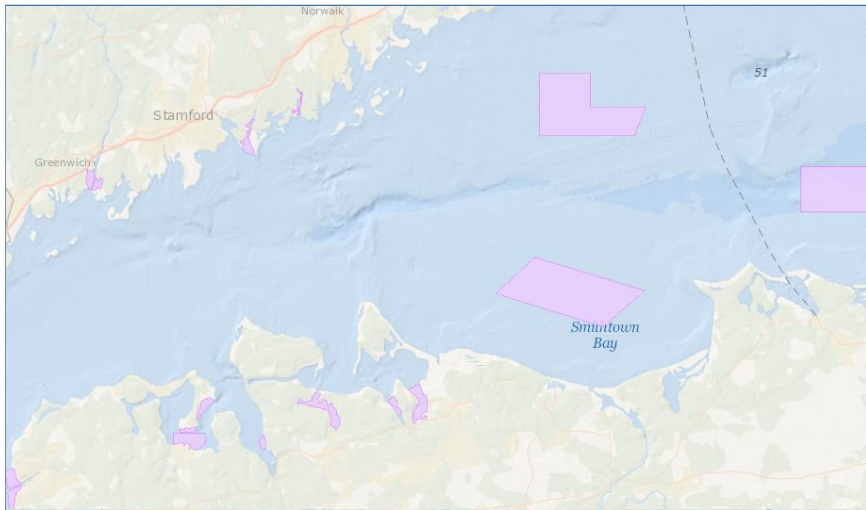
Blue Plan Sector(s): Marine Transportation & Navigation > Shipping & Shipping Corridors

Summary Description: *Abstract:* Various shipping zones delineate activities and regulations for marine vessel traffic. Traffic lanes define specific traffic flow, while traffic separation zones assist opposing streams of marine traffic. Precautionary areas represent areas where ships must navigate with caution, and shipping safety fairways designate where artificial structures are prohibited. Recommended Routes are predetermined routes for shipping adopted for reasons of safety. Along certain zones of the East Coast of the United States, ships are also required to report vessel location within designated endangered species areas, such as the North Atlantic right whale. Particularly Sensitive Sea Areas need special protection because of their vulnerability to damage by international maritime activities. Areas to be Avoided are within defined limits where navigation is particularly hazardous or it is exceptionally important to avoid casualties and should be avoided by all ships or certain classes of ships.

Full Description:

<http://opdgig.dos.ny.gov/geoportal/catalog/search/resource/detailsnoheader.page?uuid={6EECC804-1173-417C-8AA2-C568B6C47F8A}>

Access Instructions: Go to <http://opdgig.dos.ny.gov/#/map>. Go to Transportation > Water Based > Shipping Lanes and Zones



Anchorage Areas

(Mid-Atlantic Ocean Data Portal)

Source: Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office for Coastal Management (OCM)

Anchorage Areas

 Anchorage Grounds

Anchorage Areas



Blue Plan Sector(s): National Security > Coast Guard

Summary Description: *Abstract*: An anchorage area is a place where boats and ships can safely drop anchor. These areas are created in navigable waterways when ships and vessels require them for safe and responsible navigation. A variety of designations refer to types of anchorage areas or restrictions, or even to alerts of potential dangers within an anchorage area. Every boater and captain should be aware of the various types of anchorage areas. These data are intended for coastal and ocean planning. Not for navigation.

Full Description:

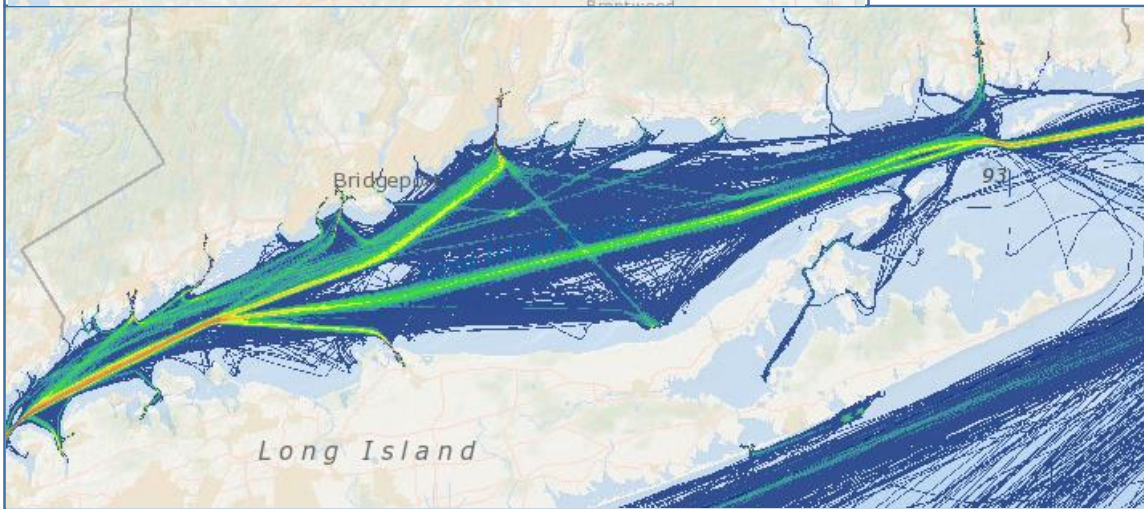
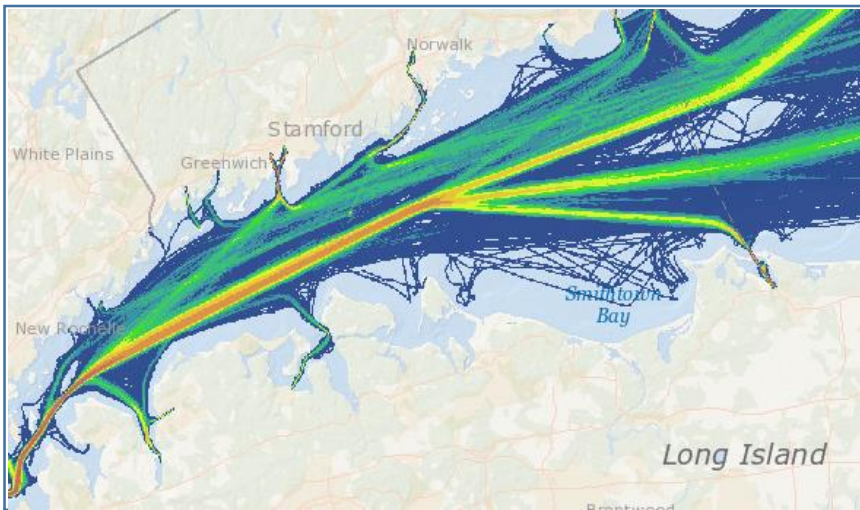
<https://coast.noaa.gov/dataservices/Metadata/TransformMetadata?u=http://coast.noaa.gov/data/Documents/Metadata/harvest/MarineCadastre/AnchorageAreas.xml&f=html>

Access Instructions: Go to <http://midatlanticocean.org/visualize>. Go to Maritime > Anchorage Areas

2013 Tug-Tow Vessel Density

(Northeast Ocean Data Portal)

Source: Automatic Identification Systems, U.S. Coast Guard



2013 Tug-Tow Vessel Density



2013 Tug Tow Vessel Density



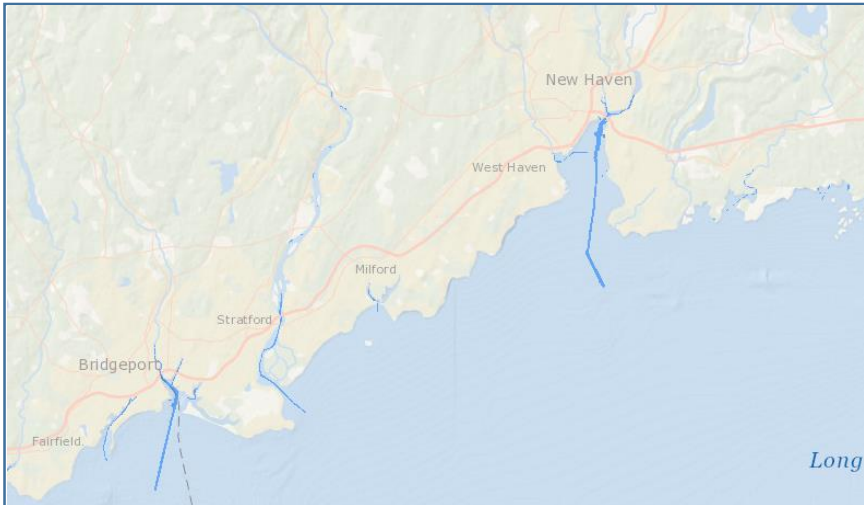
Blue Plan Sector(s): Marine Transportation & Navigation > Towing

Summary Description: This layer shows the density of vessel traffic in 2013 for tug-tow vessels that carry Automatic Identification System (AIS) transponders. AIS are a navigation safety device that transmits and monitors the location and characteristics of many vessels in U.S. and international waters in real-time. The data represent density in 100 meter grid cells and are best interpreted using a high to low density scale. This dataset was created using vessel density products from the National Oceanographic and Atmospheric Administration (NOAA) Office for Coastal Management (OCM). NOAA created the density grids from trackline features, which were generated from NOAA's TrackBuilder tool in ArcGIS using AIS data from 2013. These data products were informed and reviewed by the port and shipping sectors and the US Coast Guard during outreach conducted from New York to Maine in early 2015.

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/AIS/NorthAtlanticTugTowAISVesselDensity2013.pdf>

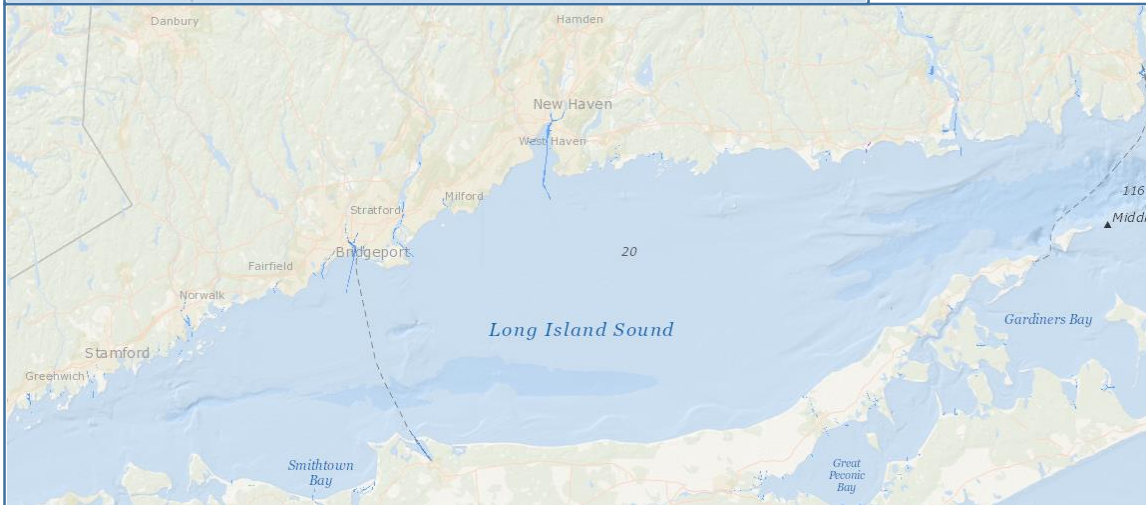
Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Commercial Traffic



Maintained Channels

(Mid-Atlantic Ocean Data Portal)

Source: Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Coast Survey (OCS)



Maintained Channels

- Less than 35 ft
- 35 - 45 ft
- More than 45 ft

Maintained Channels

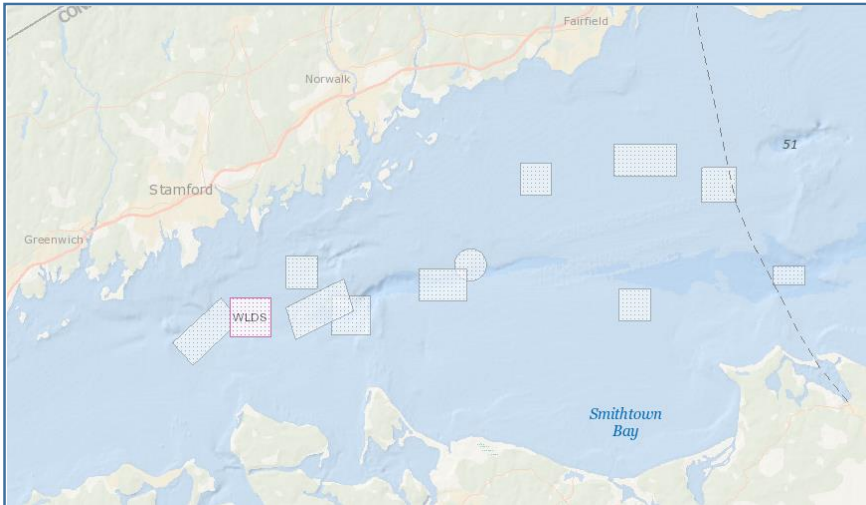


Blue Plan Sector(s): Marine Transportation & Navigation > Navigational Dredging

Summary Description: *Abstract:* This layer shows coastal channels and waterways that are maintained and surveyed by the U.S. Army Corps of Engineers (USACE). These channels are necessary transportation systems that serve economic and national security interests. The possibility of silting is always present. Local authorities should be consulted for the controlling depth. NOS Charts frequently show controlling depths in a table, which is kept current by the US Coast Guard Local Notice to Mariners. *Supplemental Information:* The condition of navigation channels is reported to NOAA by USACE on a regular basis. As the USACE performs hydrographic surveys of the maintained channels they provide NOAA with the results of these surveys. The survey results are provided on survey sheets and/or channel condition reports. Hydrographic survey sheets depict the hydrography within the maintained channel as well as the channel limits. The surveys are either a condition or after dredge survey. A condition survey, among other things, depicts hydrography prior to dredging operations and the after dredge survey shows the results of dredging operations. Channel condition reports are a tabulated format of the results of a hydrographic survey. The channel condition reports contain the names of all the reaches in a particular channel. Along with each reach name the project dimensions are listed and they include the reach's width, project depth and length. Additionally for each reach controlling depths are listed for the separate quarters of that reach and the date of the survey from which those controlling depths were taken. The controlling depths are determined by USACE and are the shoalest depths for that quarter of the reach. A channel condition report will also contain more detailed information concerning the location of extreme shoaling or obstructions that may be located in the channel. (Coastal Channel Data: Cooperative Production of a NOAA/USACE Data Framework, Libeau and Morrison 2005)

Full Description: https://www.ncddc.noaa.gov/approved_recs/nos_de/ocs/ocs/ocs/enc_coastal_maint_chnls.html

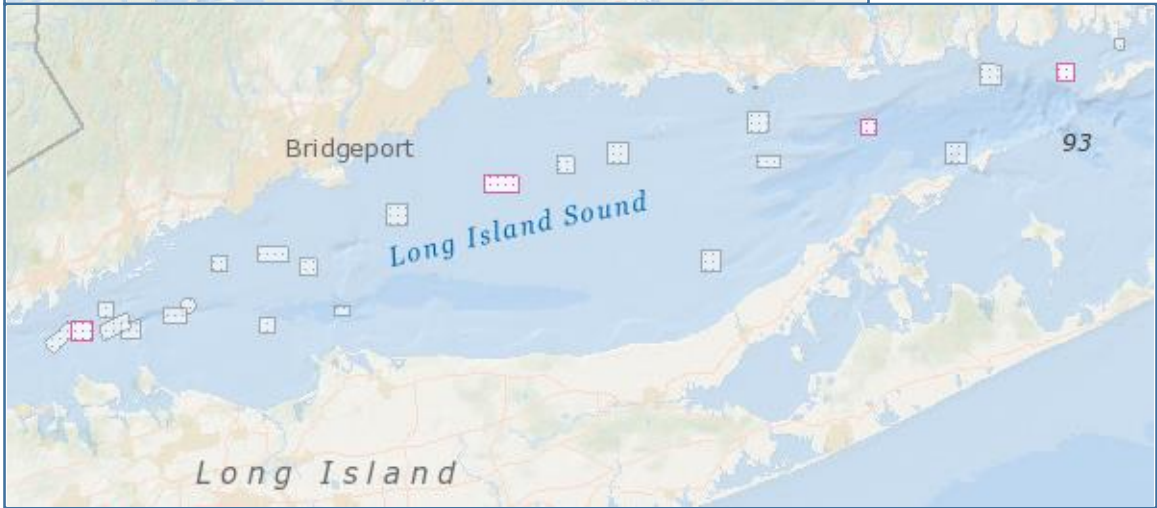
Access Instructions: Go to <http://portal.midatlanticocean.org/visualize>. Go to Maritime > Maintained Channels





Ocean Disposal Sites

(Northeast Ocean Data Portal)

Source: NOAA Office for Coastal Management (OCM)



Ocean Disposal Sites

-  Available for Use
-  Discontinued

Ocean Disposal Sites



Blue Plan Sector(s): Marine & Coastal Infrastructure > Dredged Material Disposal Sites

Summary Description: This layer shows active and inactive disposal sites, which are finally approved and precise geographical areas within which ocean dumping of wastes is permitted under conditions specified in permits issued under sections 102 and 103 of the Marine Protection, Research, and Sanctuaries Act, also known as the Ocean Dumping Act. Such sites are identified by boundaries established by coordinates of latitude and longitude for each corner, or by coordinates of latitude and longitude for the center point and a radius in nautical miles from that point. Boundary coordinates shall be identified as precisely as is warranted by the accuracy with which the site can be located with existing navigational aids or by the implantation of transponders, buoys or other means of marking the site.

Full Description:

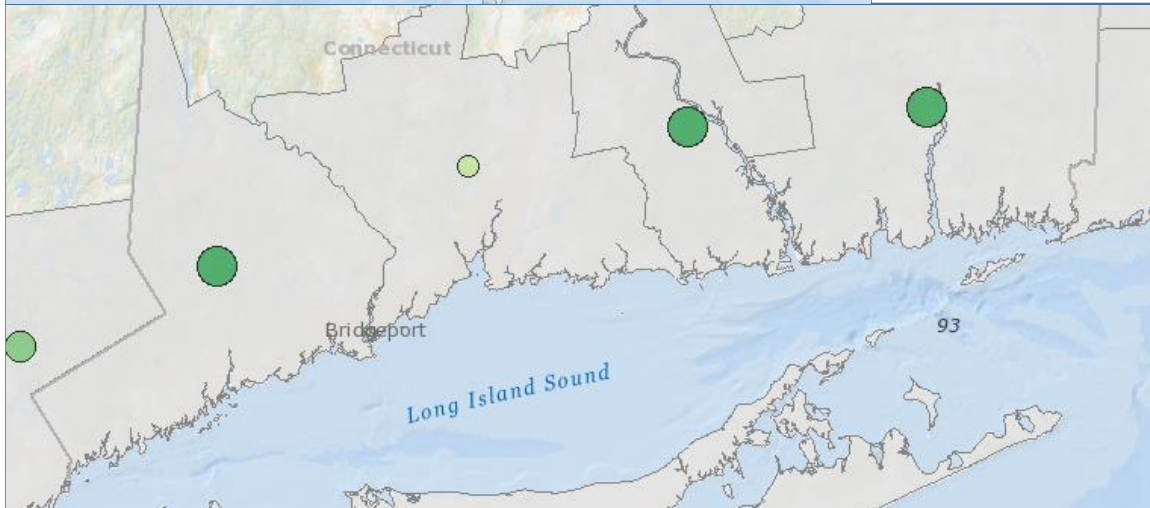
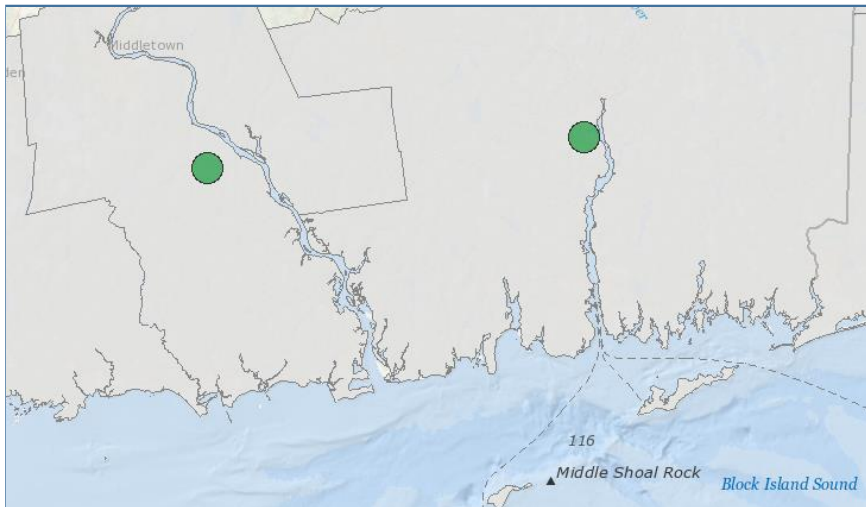
<http://www.northeastoceandata.org/files/metadata/Themes/DemographyAndEconomy/CoastalCountiesOceanEconomy.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Marine Transportation > Navigation > Ocean Disposal Sites

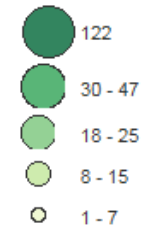
Marinas by County, 2013

(Northeast Ocean Data Portal)

Source: Economics: National Ocean Watch



Marinas by County, 2013



Marinas by County, 2013



Blue Plan Sector(s): Marine & Coastal Infrastructure > Harbors & Marinas

Summary Description: This layer depicts the estimated number of marinas serving the Northeast's recreational boating community in coastal counties from New York to Maine. Results are based on research from the Center for the Blue Economy and the National Oceanic and Atmospheric Administration's 2013 Economics: National Ocean Watch (ENOW) database. ENOW provides time-series data on the coastal and ocean economy from 2005 to 2013 derived from national accounts of the Bureau of Labor Statistics and the Bureau of Economic Analysis. ENOW's four economic indicators are the number of business establishments, number of people employed, wages paid to employees, and contribution to gross domestic product.

Full Description:

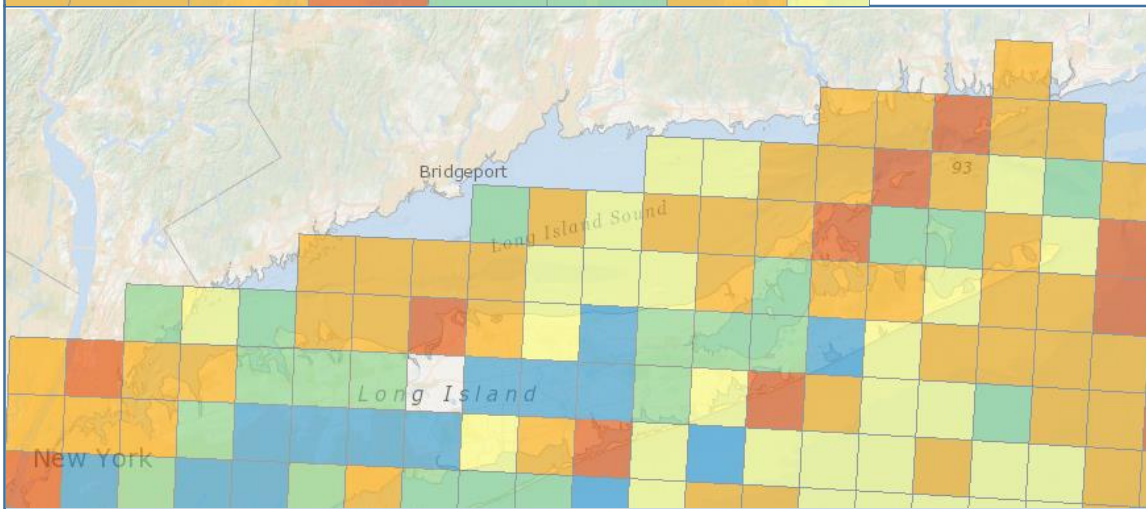
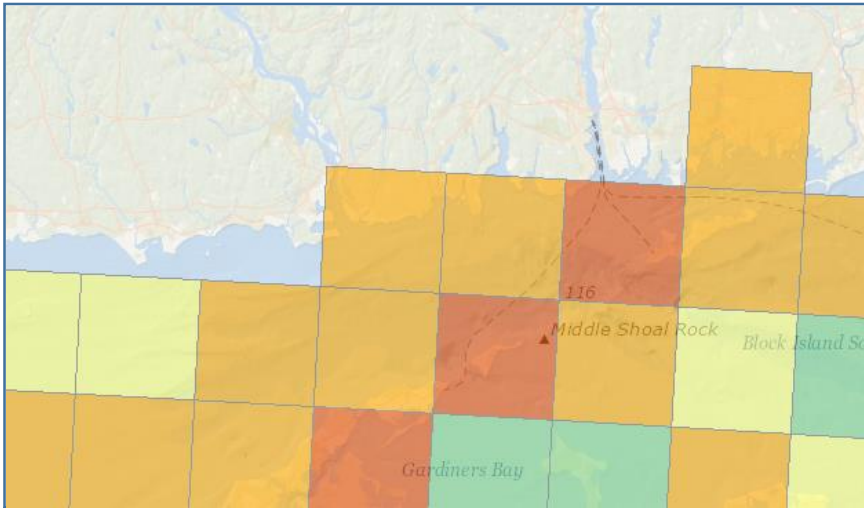
<http://www.northeastoceandata.org/files/metadata/Themes/DemographyAndEconomy/CoastalCountiesOceanEconomy.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Demography and Economy > Marinas by County 2013

Type – Infrastructure Data

(Mid-Atlantic Ocean Data Portal)

Source: Mid-Atlantic Ocean Data Portal project team organization and partners



HUDS Type - Infrastructure Data

Total



Type – Infrastructure Data



Blue Plan Sector(s): Marine Infrastructure (Marine Transportation, Wrecks, Reefs, Energy, National Security)

Summary Description: *Abstract:* The Mid-Atlantic Regional Council on the Ocean (MARCO) contracted with RPS Applied Science Associates (dba RPS ASA) in partnership with SeaPlan to develop synthesized spatial products characterizing human use in the Mid-Atlantic (Mid-A) region using existing data products. This project was referred to as the Human Use Data Synthesis (HUDS) in order to promote ocean planning priorities and goals as laid out in the draft Regional Ocean Action Plan (ROAP) Framework for the Mid-A region, defined as New York to Virginia from the coast out to the Exclusive Economic Zone. RPS ASA and SeaPlan developed a human use mapping approach that borrows from existing efforts while honoring the goals of MARCO and constraints inherent to the available data. The MARCO web portal was the primary source of data throughout the project, however additional data was incorporated from other sources including the Marine Cadastre, U.S. Navy, and from the Northeast Regional Ocean Council's (NROC) parallel ocean planning efforts. All available data were mapped to a 10 km grid within the region. This product contains a set of six informative attributes for each of the 64 source datasets included in the analysis. These attributes seek to answer whether data is present in a cell, what kind of data is present, and how much of the data occurs within one cell compared to another. The fields denote on a per-cell basis: 1) data presence; 2) pertinent descriptive information; 3) spatial or quantitative statistics such as areal, linear, or point coverage; 4) count of features; 5) a numerical use intensity field that scales the statistical data from 0 to 1; and 6) a qualitative use intensity field which assigns categorical classifications of use intensity to aid in interpretation.

There is a set of summary fields which sums the total number of data layers present in each grid cell, and the number of layers present for a set of human use themes to better identify regional human use trends. Additional summary fields contain similar information for the use intensity metrics, whereby the scaled use intensity values (from 0 to 1) for all layers are summed together, and then assigned categorical classifications. There are five main themes: maritime, fishing, recreation, energy, and security. Each source layer is included in only one of these themes. Four additional themes break out the data by all activities, all infrastructure, physical infrastructure only, and regulatory infrastructure only. The sum of the physical-infrastructure and regulatory-infrastructure fields should equal the number for all-infrastructure.

Two summarized companion products 'HUDS_Summary_Data_Presence' and 'HUDS_Summary_Data_Use_Intensity' contain only the attributes that relate specifically to data presence and use intensity, respectively.

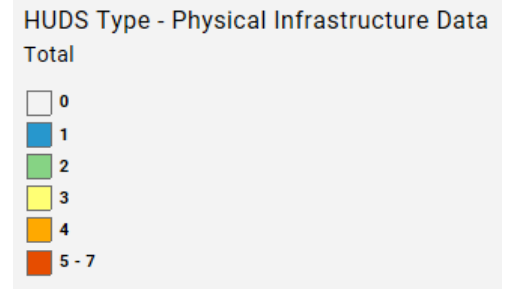
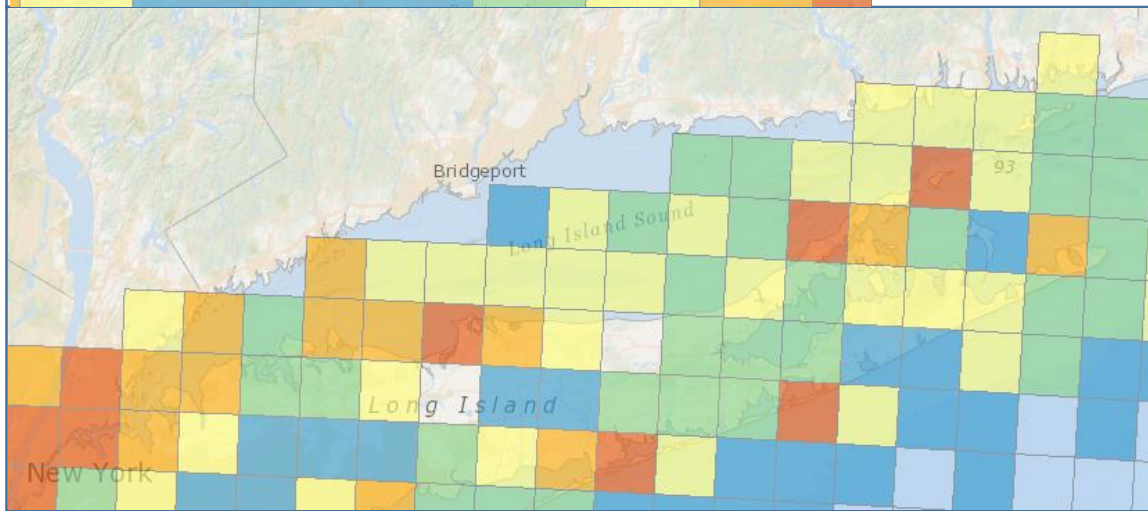
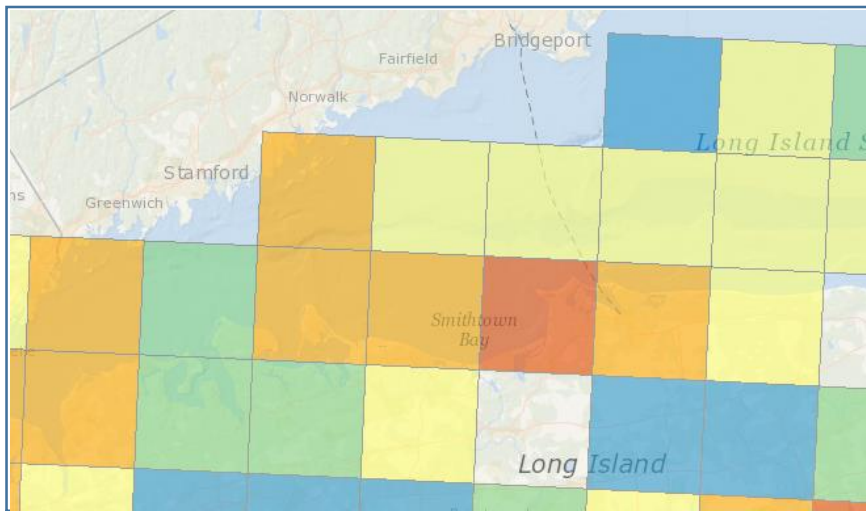
Full Description: http://portal.midatlanticocean.org/static/data_manager/metadata/html/HUDS_All_Data_Synthesis.html

Access Instructions: Go to <http://portal.midatlanticocean.org/visualize>. Go to Human Use Data Synthesis > Type – Infrastructure Data

Type – Physical Infrastructure Data

(Mid-Atlantic Ocean Data Portal)

Source: Mid-Atlantic Ocean Data Portal project team organization and partners



Type – Physical Infrastructure Data



Blue Plan Sector(s): Marine Infrastructure (Marine Transportation, Wrecks, Reefs, Energy, National Security)

Summary Description: *Abstract:* The Mid-Atlantic Regional Council on the Ocean (MARCO) contracted with RPS Applied Science Associates (dba RPS ASA) in partnership with SeaPlan to develop synthesized spatial products characterizing human use in the Mid-Atlantic (Mid-A) region using existing data products. This project was referred to as the Human Use Data Synthesis (HUDS) in order to promote ocean planning priorities and goals as laid out in the draft Regional Ocean Action Plan (ROAP) Framework for the Mid-A region, defined as New York to Virginia from the coast out to the Exclusive Economic Zone. RPS ASA and SeaPlan developed a human use mapping approach that borrows from existing efforts while honoring the goals of MARCO and constraints inherent to the available data. The MARCO web portal was the primary source of data throughout the project, however additional data was incorporated from other sources including the Marine Cadastre, U.S. Navy, and from the Northeast Regional Ocean Council's (NROC) parallel ocean planning efforts. All available data were mapped to a 10 km grid within the region. This product contains a set of six informative attributes for each of the 64 source datasets included in the analysis. These attributes seek to answer whether data is present in a cell, what kind of data is present, and how much of the data occurs within one cell compared to another. The fields denote on a per-cell basis: 1) data presence; 2) pertinent descriptive information; 3) spatial or quantitative statistics such as areal, linear, or point coverage; 4) count of features; 5) a numerical use intensity field that scales the statistical data from 0 to 1; and 6) a qualitative use intensity field which assigns categorical classifications of use intensity to aid in interpretation.

There is a set of summary fields which sums the total number of data layers present in each grid cell, and the number of layers present for a set of human use themes to better identify regional human use trends. Additional summary fields contain similar information for the use intensity metrics, whereby the scaled use intensity values (from 0 to 1) for all layers are summed together, and then assigned categorical classifications. There are five main themes: maritime, fishing, recreation, energy, and security. Each source layer is included in only one of these themes. Four additional themes break out the data by all activities, all infrastructure, physical infrastructure only, and regulatory infrastructure only. The sum of the physical-infrastructure and regulatory-infrastructure fields should equal the number for all-infrastructure.

Two summarized companion products 'HUDS_Summary_Data_Presence' and 'HUDS_Summary_Data_Use_Intensity' contain only the attributes that relate specifically to data presence and use intensity, respectively.

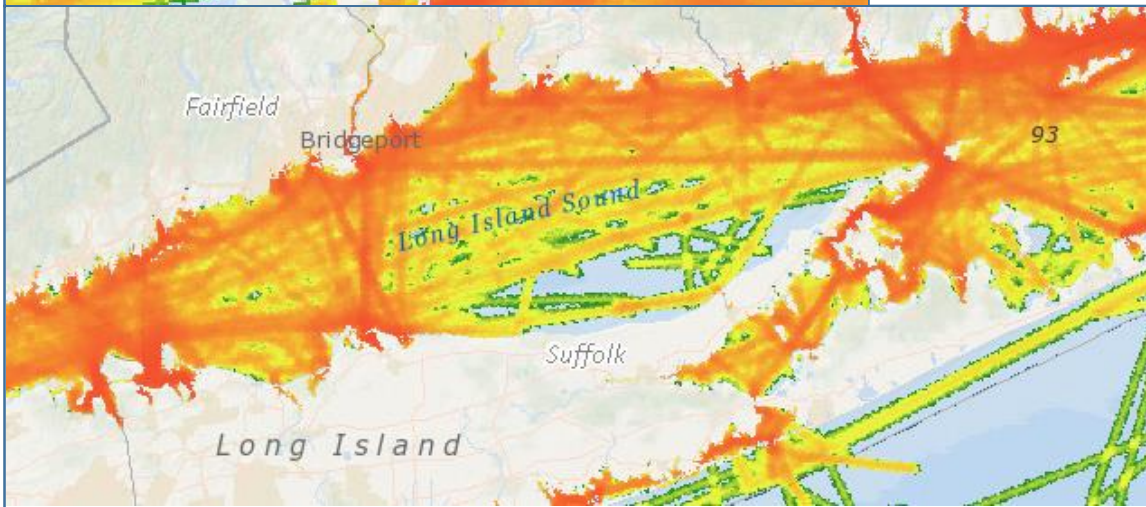
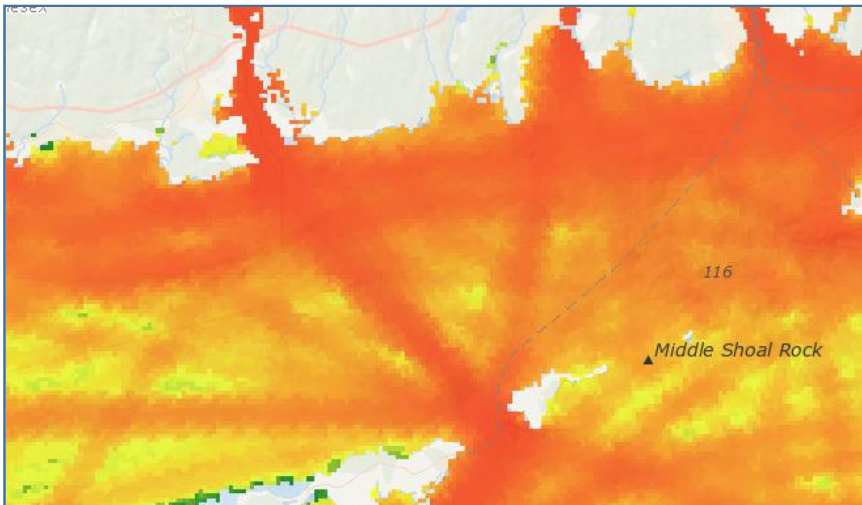
Full Description: http://portal.midatlanticocean.org/static/data_manager/metadata/html/HUDS_All_Data_Synthesis.html

Access Instructions: Go to <http://portal.midatlanticocean.org/visualize>. Go to Human Use Data Synthesis > Type – Physical Infrastructure Data

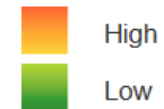
Recreational Boating Density

(Northeast Ocean Data Portal)

Source: SeaPlan 2012 Northeast Recreational Boater Survey



Recreational Boating Density



Recreational Boating Density



Blue Plan Sector(s): Recreation & Tourism > Recreational Sailing/Boating/Kayaking

Summary Description: Both a random and supplemental sample of Northeast boaters plotted their boating routes through the 2012 boating season using an online mapping application. The density map is derived using only the random sample of survey participants and is intended to show the relative density of boating activity throughout the region using a scale from high (red) to low (green). Areas showing low or no activity does not necessarily mean they are not used for recreational purposes. According to the results of the survey, these areas are likely less trafficked than others. Survey methodology consists of surveying a random sample of selected boat owners throughout the Northeast through a series of monthly online surveys. The surveying period lasted throughout the 2012 boating season (May 1 through October 31, 2012).

Full Description:

<http://www.northeastoceandata.org/files/metadata/Themes/Recreation/RecreationalBoaterRouteDensity.pdf>

Access Instructions: Go to <http://www.northeastoceandata.org/data-explorer/>. Go to Recreation > Recreational Boating Density