Offshore Wind in New York State

Coordination of Efforts

The New York State Energy Research and Development Authority (NYSERDA) is the lead agency coordinating offshore wind opportunities in New York State. NYSERDA is developing the New York Offshore Wind Master Plan, conducting studies and engaging with stakeholders and the public to ensure that offshore wind is developed thoughtfully and responsibly. Other involved New York State agencies include Department of Public Service, Department of Environmental Conservation, and Department of State.

Collectively, efforts aim to:

- Reduce greenhouse gas emissions
- Accelerate economic growth
- Create clean, locally produced power

Clean Energy Standard

50% Electricity

in New York State will come from renewable energy sources by 2030

Bliss Wind Farm
Image courtesy of Ecology and Environment, Inc.

Future Offshore Wind Site
Image courtesy of Deepwater Winds

Long Island Solar Farm
Brookhaven National Laboratory

Robert Moses Niagara Hydroelectric Plant
NY Power Authority

New York Offshore Wind Master Plan

New York State aims to reach 2,400 MW of offshore wind by 2030 – enough to power 1.25 million homes. The New York Offshore Wind Master Plan will provide a comprehensive roadmap to advance offshore wind in New York. The Master Plan will be completed by the end of 2017.

The Master Plan will include:

- Recommendations for offshore wind development sites
- Guidelines for private developers
- Recommendations for the purchase of offshore wind energy, to ensure the lowest cost for New Yorkers

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Offshore Wind 101

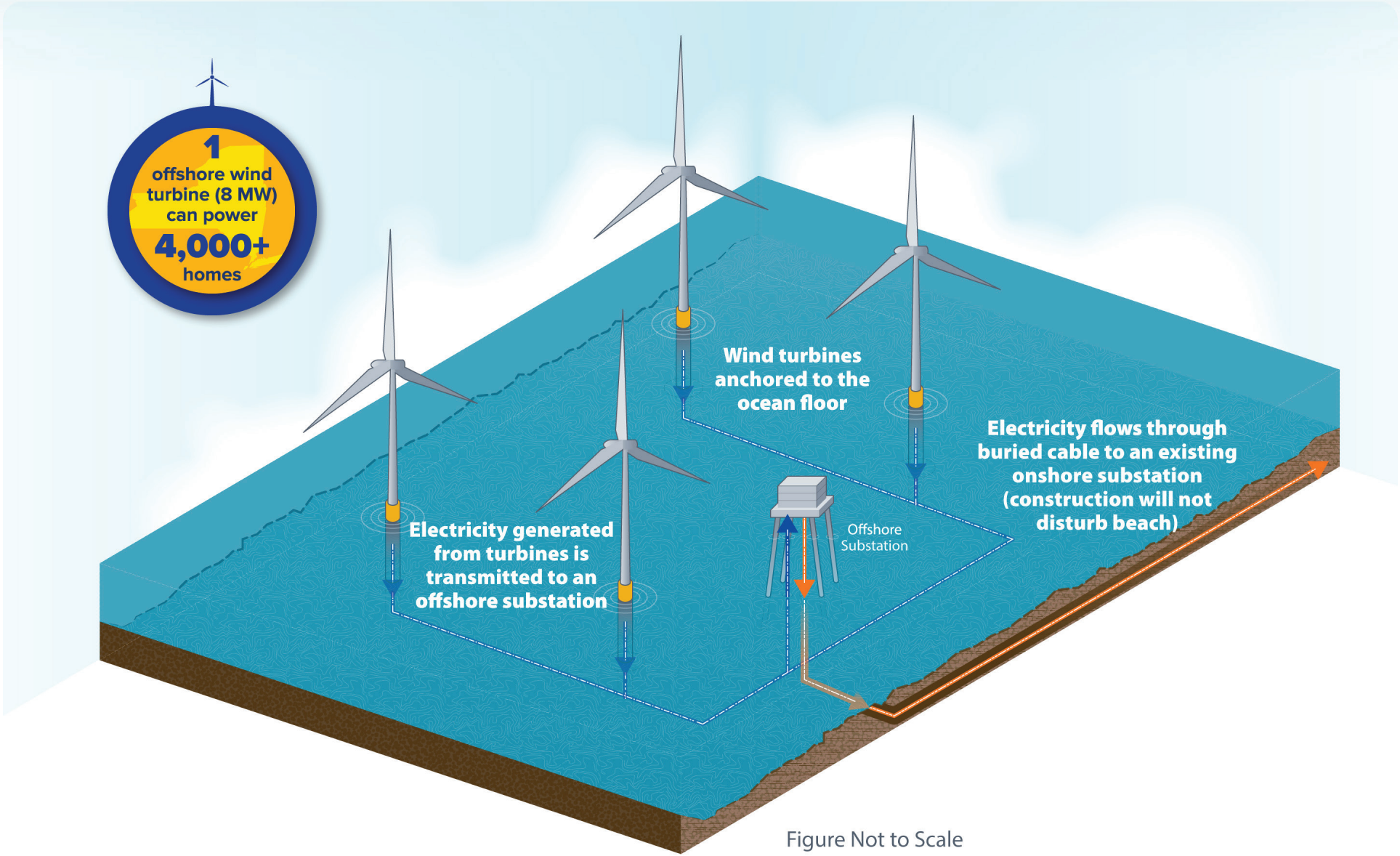

Figure Not to Scale

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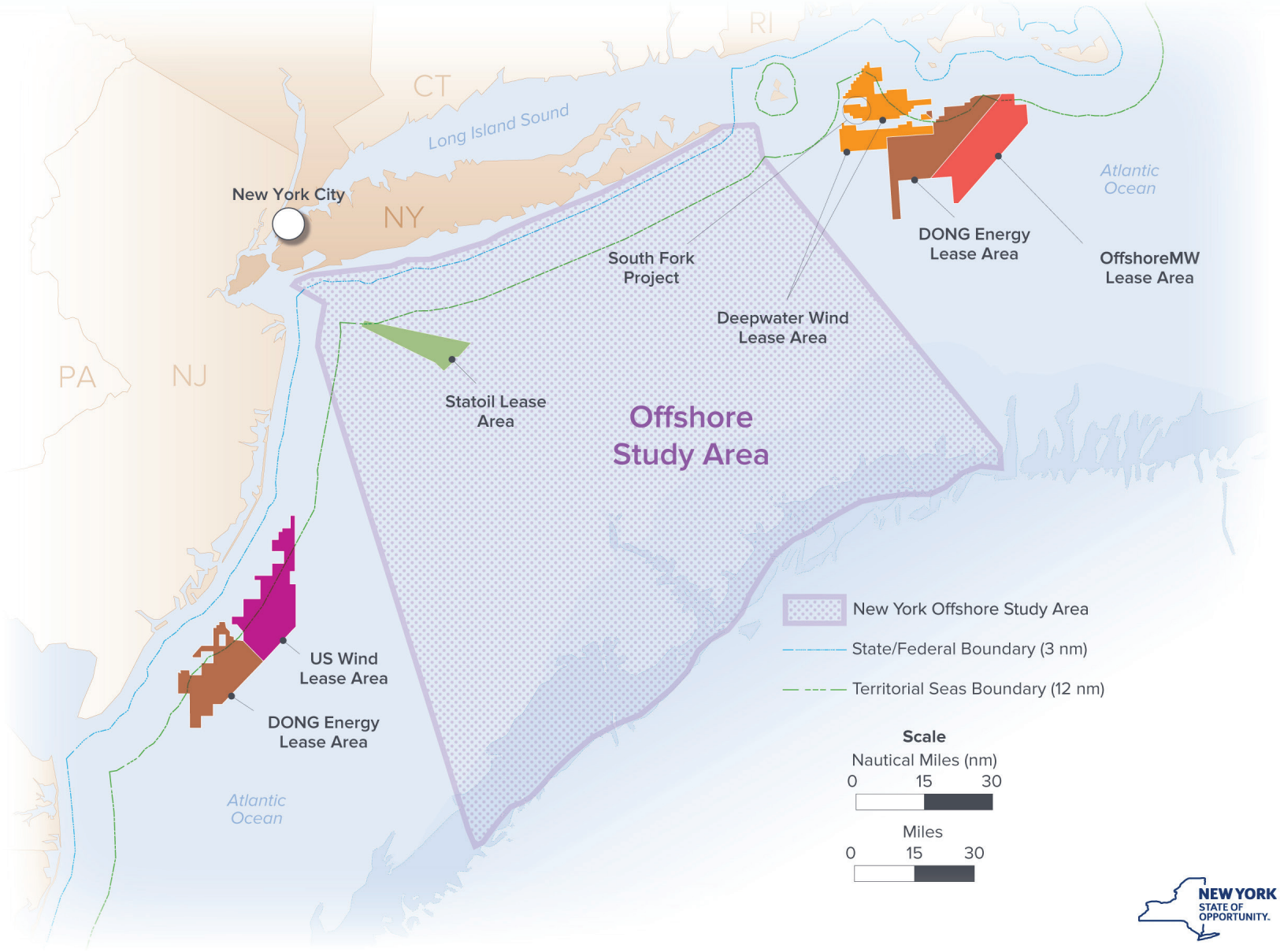
Offshore Study Area

Only 2% of this Offshore Study Area is needed to meet New York State's Offshore Wind goal of 2.4 GW by 2030. Within the Offshore Study Area, more than 20 studies are currently being conducted in order to responsibly identify offshore wind sites.



NEW YORK STATE OF OPPORTUNITY. NYSERDA Department of State

Potential Public Input Opportunities

Below are examples of public input opportunities for offshore wind projects in New York State.

Federal Agency

BOEM
Bureau of Ocean Energy Management

BUREAU OF OCEAN ENERGY MANAGEMENT (BOEM)

Planning and Analysis

- Task Force and Public Information Meetings
- Request for Interest (RFI) and/or Call for Information and Nominations (Call)
- Notice of Intent to Prepare a NEPA Document (NOI)
- Public Scoping Meetings for NEPA Document
- Notice of Availability of a NEPA Document (NOA)
- Public Meetings During Draft NEPA Document Comment Period

Leasing

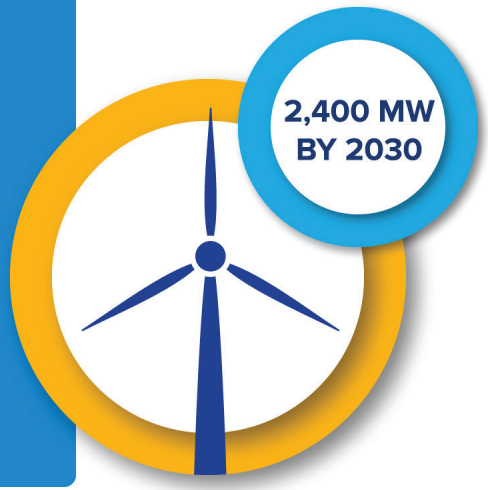
- Task Force and Public Information Meetings
- Proposed Sale Notice (PSN)

Site Assessment and Characterization

- Task Force and Public Information Meetings

Commercial Development

- Task Force and Public Information Meetings
- NOI
- Public Scoping Meetings for NEPA Document
- NOA
- Public Meetings during Draft NEPA Document Comment Period



Project Construction and Development

New York State

Examples of opportunities for public input as part of the state permitting process:

NYSERDA

- Open Houses
- Master Plan

Department of Public Service

- Certificate of Environmental Compatibility and Public Need under Article VII for transmission facilities

Department of State

- Federal Consistency Certification under the Coastal Zone Management Program

Office of General Services

- State Submerged Lands Easement under the NY Public Lands Law

Other potential engagement opportunities may be available for specific offshore wind projects

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Ongoing Studies and Surveys

As part of the New York Offshore Wind Master Plan process, NYSERDA is conducting more than 20 studies and surveys. These include:


Piping Plover
Image courtesy of Gene Nieminen, USFWS


Recreational Fishing
Image courtesy of iStock.com

Long Island
Image courtesy of istockphoto.com

Environmental Studies

- Marine Wildlife Survey
- Sea Floor and Benthic Survey (Mapping and Environmental Assessment)
- Birds and Bats
- Environmental Sensitivity and Permitting Risk Analysis
- Fish and Fisheries
- Marine Mammals and Sea Turtles
- Metocean (Wind, Waves and Currents) Characterization
- Sand and Gravel Resources

Social and Regulatory Studies

- Aviation and Radar
- Grid Interconnection
- Health and Safety
- Shipping and Navigation
- Marine Archeology and Cultural Resources
- Onshore Permitting Constraints
- Recreational Uses
- Visual Simulation

Infrastructure and Economic Studies

- Pipelines, Cable, and Third Party Infrastructure
- Ports and Supply Chain
- Jobs and Economic Benefits
- Vessels
- Project Cost Projections

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Environmental Studies

Commercial Fishing

Image courtesy of Deepwater Wind

Fish and Fisheries

- Utilize information and feedback from stakeholders to develop best management practices for offshore wind in conjunction with the commercial, for-hire, and recreational fishing communities.

Red Knot

Image courtesy Gregory Breese/USFWS

Birds and Bats

- Examine existing bird and bat data, and identify data gaps and uncertainties to better plan and conduct site-specific bird and bat studies and monitoring activities.

Marine Mammals and Sea Turtles

- Examine existing marine mammal and sea turtle data, and expand current data on North Atlantic right whale habitats in and around the Offshore Study Area.

Leatherback Turtle

Image courtesy of USFWS

Other Environmental Studies that NYSERDA is Undertaking:

- Benthic (Ocean Floor Environment)
- Environmental Sensitivity and Permitting Risk
- Metocean (Wind Speed)
- Sand and Gravel

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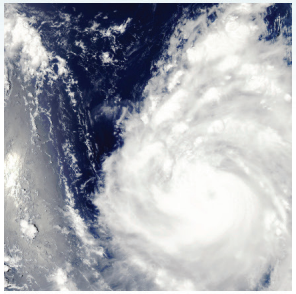
Social and Regulatory Studies

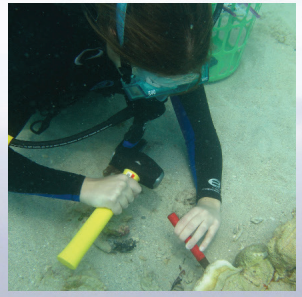


Aviation and Radar

- Identify areas within the Offshore Study Area where wind turbines are compatible with civil and military aviation assets including airports, radar locations, and military routes for training and operational missions.

Shipping and Navigation

- Gather information on existing marine navigation routes in the Offshore Study Area that will help identify potential risks to marine shipping and navigation.



Marine Archeology and Cultural Resources

- Assess the archeological and cultural resources in the offshore study area through desktop and field research, and engage with indigenous nations as to the potential archeological and cultural heritage of the Offshore Study Area.

Visual Simulation

- Determine offshore wind sites that are effectively not visible from the shoreline. Evaluate the potential visual impacts from offshore wind development considering: distance from shore, light, sky, and weather conditions, time of year, prevailing wind direction, and various project sizes and layout.

Other Regulatory, Social, and Economic Studies that NYSERDA is Undertaking:

- Grid Interconnection
- Health and Safety
- Recreational Uses

Infrastructure and Economic Studies

Pipelines, Cable, and Third Party Infrastructure

- Compare and assess constraints of various siting areas considering: pipelines, third party infrastructure, and guidance and standards related to offshore interactions with cables.

Ports and Supply Chain

- Identify and encourage supply chain organizations, illustrate the potential for job creation, and provide objective assessment of facilities for New York's decision makers.

Wind Farm Construction
Image courtesy of Deepwater Wind

- Assess current port characteristics to determine the viability for offshore wind operations and provide probable cost determinations for ports that could be upgraded to support offshore wind construction staging in the future.

Jobs and Economic Development

- Determine approximate number of jobs created in the supply chain, what sort of jobs are created, and which jobs may be created locally.

Vessels

- Examine the required functionality and financial considerations of a Jones Act-compliant wind turbine installation vessel and feeder barge, clarify what kind of installation vessel could work with the local infrastructure, and determine what kind of work pipeline is required to support construction of such a vessel.

Fishing Trawler
Image courtesy of Deepwater Wind

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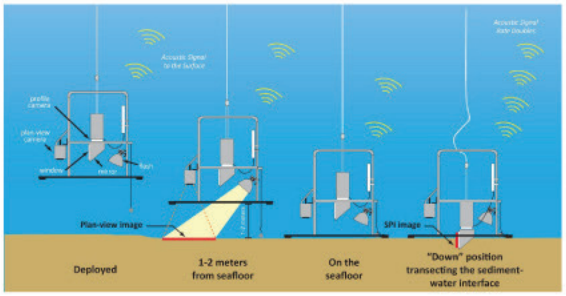
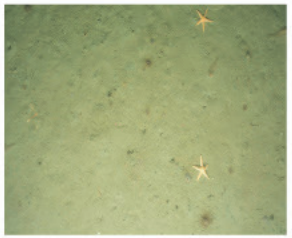
Ongoing Offshore Surveys

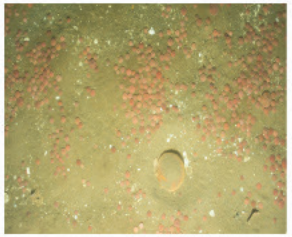
Seafloor Surveys

Sediment Profile Imagery and Plan View Imagery



Plan Views

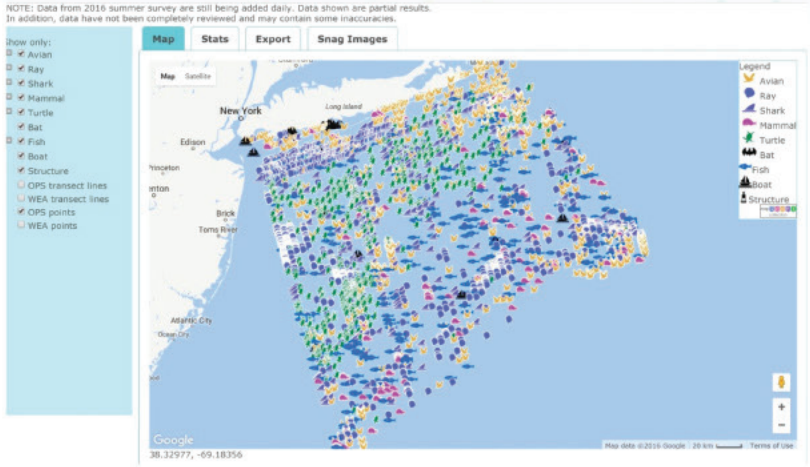




Sediment Profile Views

Collecting data to understand the characteristics of the seafloor environment

Wildlife Surveys



Collecting data to understand what types of wildlife are in the offshore area seasonally

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