

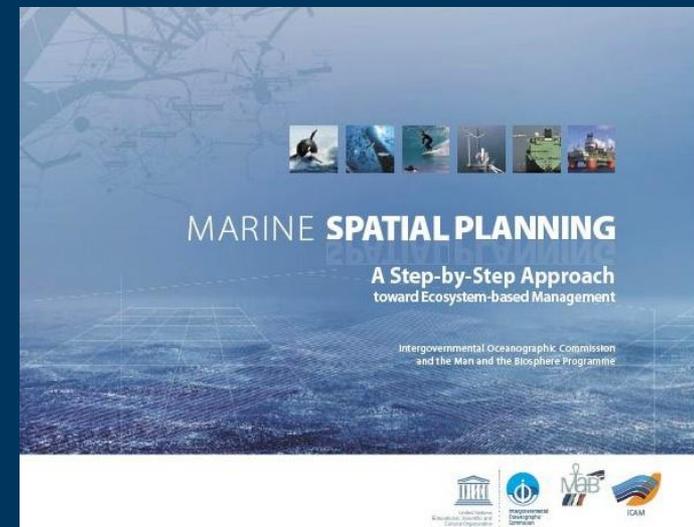
Marine Spatial Planning



Washington Forum on MSP
October 20, 2009

UNESCO Initiative on Marine Spatial Planning

- International Efforts – Australia, Canada, China, Europe (Belgium, Germany, Norway, Sweden, The Netherlands, United Kingdom)
- Good Practices
- Definition
- Step by Step Approach to MSP
- Workshop Proceedings



<http://www.unesco-ioc-marinesp.be/>

UNESCO: MSP Definition

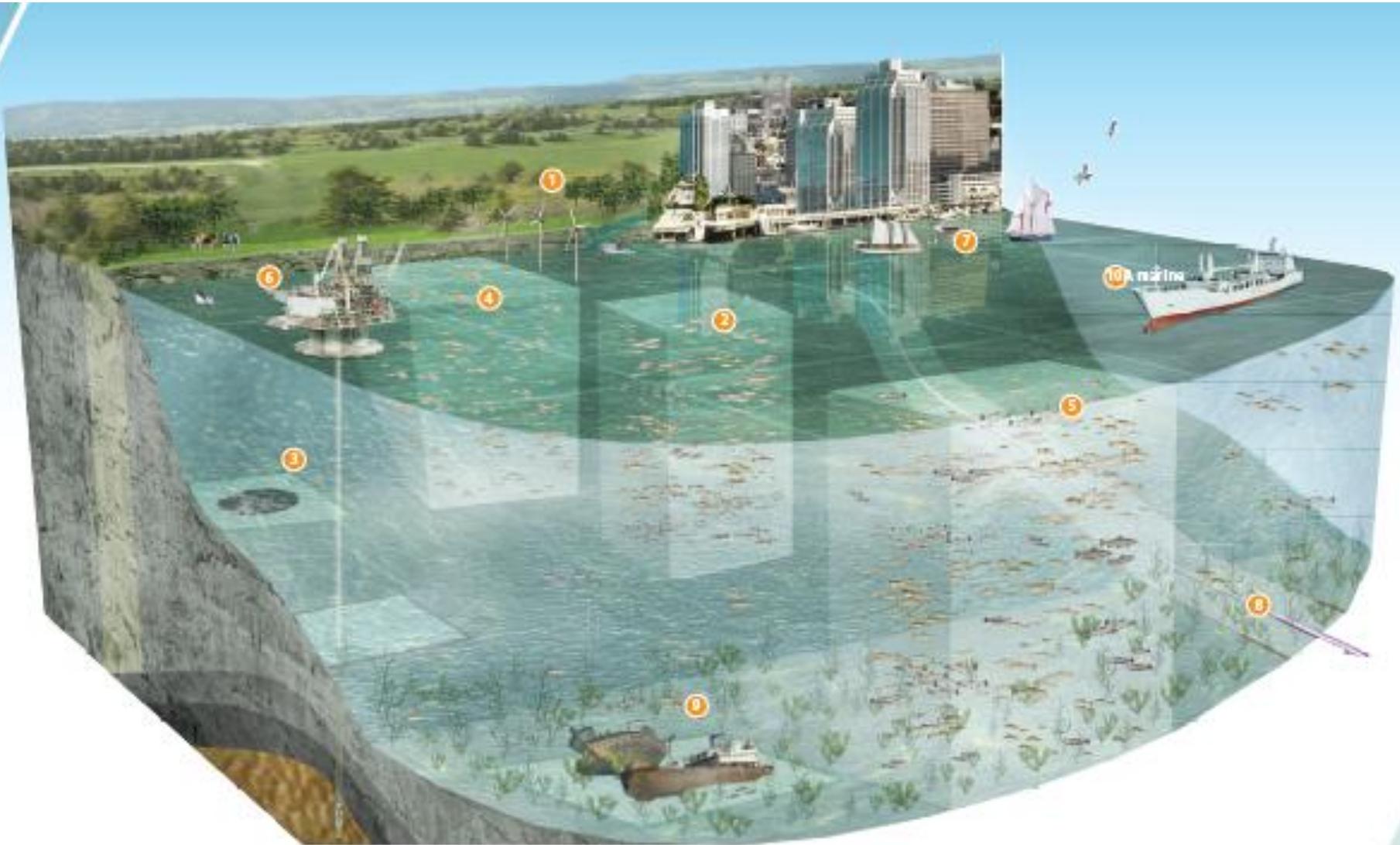
Marine Spatial Planning is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually set through a political process.

UNESCO: MSP Definition

Marine Spatial Planning is a public process of analyzing and allocating the **spatial and temporal distribution of human activities** in marine areas to achieve ecological, economic, and social objectives that are usually set through a political process.



Many Uses of our Oceans



UNESCO: MSP Definition

Marine Spatial Planning is a **public process** of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually set through a political process.

Spatial Planning Steps

- Authority and goals
- Design a Public Process
- Stakeholder Participation
- Science-based
- Anticipating future conditions
- Spatial Management Plan
- Implementation and Enforcement of Plan
- Monitoring and Evaluation
- Adaptive Management
- Financing

UNESCO: MSP Definition

Marine Spatial Planning is a public process of **analyzing and allocating** the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually set through a political process.

UNESCO: MSP Definition

Marine Spatial Planning is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to **achieve ecological, economic, and social objectives that are usually set through a political process.**



Rhode Island
OCEAN
samp

Ocean SAMP

Goal: Define use zones for RI offshore waters through research and planning process that integrates best available science with open public input and involvement

Duration: August 2008 to August 2010

Funding: \$3.2 M (RI Renewable Energy Fund, reimbursed by DeepWater Wind (state selected developer))

Project Team: Lead by RI Coastal Resources Management Council(CRMC); Planning, Science, and Engineering Support by University of Rhode Island, Coastal Resources Center and faculty from selected colleges and departments.

Coordination: US Army Corp, MMS, Developer, USCG, USFWS, Adjacent State CZ Managers, and FERC

<http://seagrant.gso.uri.edu/oceansamp/>

**CRMC (Michael Tikoian, Chair) Ocean Special Area Management Plan (Ocean SAMP)
INSTITUTIONAL PROGRAM MANAGEMENT STRUCTURE**

OSAMP Management Team

Grover Fugate, Executive Director, RI CRMC
Jennifer McCann, URI-CRC
Sam DeBow, URI GSO
Malcolm Spaulding, URI Ocean Engineering
Kathryn Moran, URI GSO

OSAMP Outreach Team

Laura Ricketson-Dwyer, CRMC
Monica Allard Cox, URI-RI Sea Grant
Sue Kennedy, URI-CRC
Chip Young, URI-CRC

OSAMP Data Acquisition & Policy Team Leads

Malcolm Spaulding, Engineering
Sau-Lon James Hu, Structures & Foundations
Christopher Baxter, Structures & Foundations
James Miller, Acoustics & Electromagnetics
Peter August, Geospatial Data
Robert Kenney, Marine Mammals & Turtles
John Merrill, Air Quality & Meteorology
John King, Siting Study & Geology
Peter Paton, Marine & Coastal Birds
Scott Nixon, Ecology
David Beutel, Commercial & Recreational Fisheries
Laura Skrobe, Commercial & Recreational Fisheries
Kenneth Payne, State Policy
Susan Farady, Roger Williams University, Legal
Megan Higgins, Roger Williams University, Legal
Teresa Crean, Data Synthesis & Policy
Tiffany Smythe, Data Synthesis & Policy
Stephen Olsen, Comparative Policy Assessment
Barry Costa-Pierce, Comparative Policy Assessment

Federal Agency Advisory Committee

Dan Goulet, CRMC Liaison
Army Corps of Engineers
US DOI Minerals Management Service
US Environmental Protection Agency
US Fish & Wildlife Service
NOAA National Marine Fisheries Service
US Coast Guard
US Navy

State Agency Advisory Committee

Dan Goulet, CRMC Liaison
RI Department of Environmental Management
RI Economic Development Corporation
RI Statewide Planning Program
Ad Hoc:
Massachusetts CZM
Connecticut CZM
New York CZM

Science Advisory Task Force

Co-Chair: Scott Nixon, URI GSO
Co-Chair: Carlton Hunt, Battelle
Carlton Hunt, Battelle Ocean Sciences, Duxbury, MA
Robert Beardsley, WHOI, emeritus
Roman Zajac, Biology Dept., University of New Haven
Robert Buchsbaum, Massachusetts Audubon
Carolyn Shumway, The Nature Conservancy, RI Office
Jon Boothroyd, Geology, URI; RI State Geologist
Jonathan Garber, Director, US EPA Atlantic Ecology Laboratory
Jeremy Colle, Oceanography, URI
Candace Oviatt, Oceanography, URI
Jim Yoder, WHOI
Osvaldo Sala, Brown University

Legal Advisory Task Force

Chair: Brian Goldman, CRMC
Susan Farady, Roger Williams University
Dennis Esposito, RWU/Adler Pollack & Sheehan
Cynthia Giles, Director, Conservation Law Foundation, Rhode Island Advocacy Center
Jerry Elmer, Staff Attorney, Conservation Law Foundation, Rhode Island Advocacy Center
Wendy Waller, Save the Bay
Michael Rubin, Special Assistant Attorney General, Unit Chief, State of RI
Paul Roberti, Assistant Attorney General, Unit Chief, State of RI
Terrance Tierney, Assistant Attorney, State of RI Attorney General Office

Stakeholder Group

Kenneth Payne, URI, Chair
Aquidneck Island Planning Commission
Atlantic Offshore Lobster Association
Audubon Society of Rhode Island
Charlestown Town Council
City of Newport
Conservation Law Foundation
Greater Providence Chamber of Commerce
Jamestown Chamber of Commerce
Jamestown Town Council
Narragansett Chamber of Commerce
Narragansett Indian Tribal Historic Preservation Office
Narragansett Indian Tribe
National Grid
Newport County Chamber of Commerce
Newport County Convention and Visitors Bureau
Northeast Marine Pilots
Ocean State Aquaculture Association
Ocean State Fishermen's Association
People's Power & Light
R.I. Chapter/Surfriders' Association
Rhode Island Commercial Fishermen's Association
Rhode Island Fishermen's Alliance
Rhode Island Historical Society
Rhode Island League of Cities and Towns
Rhode Island Lobstermen's Association
Rhode Island Marine Trades Association
Rhode Island Monkfishermen's Association
Rhode Island Party & Charter Boat Association
Rhode Island Saltwater Anglers Association
Rhode Island School of Design
Rhode Island Wind Alliance
Save the Bay
Sierra Club
South County Tourism
Town of Little Compton
Town of Middletown
Town of Narragansett
Town of New Shoreham (Block Island)
Town of South Kingstown
Washington County Regional Planning Council
Westerly Town Council
Wind Power RI Project, Roger Williams University

With participation of members of the public and interested parties.

- Ecology
- Cultural and Historical
- Fisheries Resources
- Recreation and Tourism
- Marine Transportation
- Infrastructure
- Renewable Energy
- Future Uses
- Federal Process and Federal Consistency



Rhode Island Ocean Special Area Management Plan (SAMP)

71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

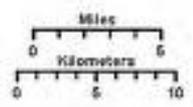
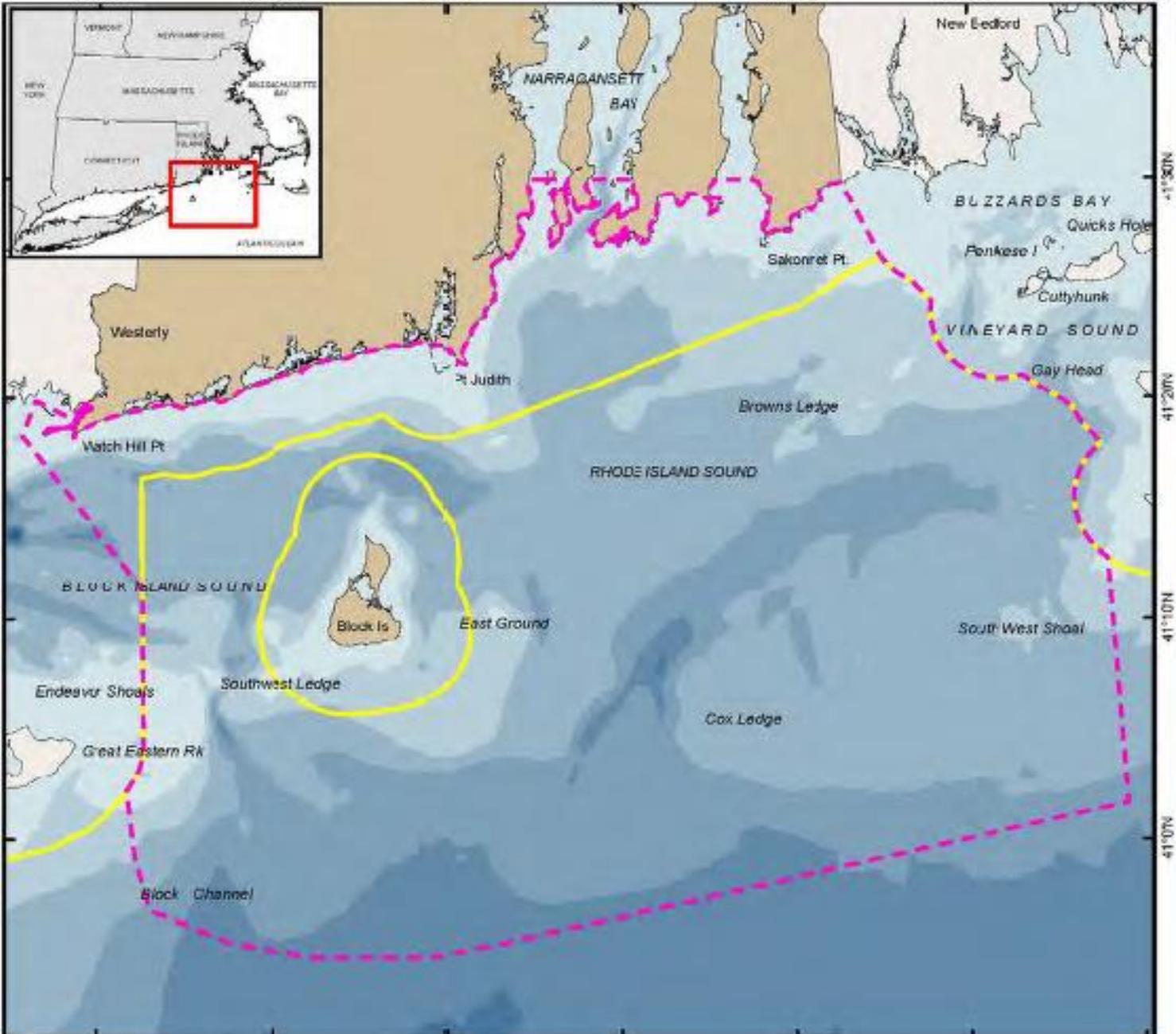
Map Key

 Proposed Ocean Study Area

 State/Federal Waters Separation

Bathymetry (m)

-  -20
-  -30
-  -40
-  -50
-  -60
-  -70
-  -80



Coordinates System:
 Projection: RI Stateplane
 Units: Feet
 FIPS Zone: 3000
 Datum: NAD83

For Project Map and Data Products:
http://www.narbay.org/d_projects/ocmansamp



41°30'N
41°20'N
41°10'N
41°0'N

Wind Resource

- Adequate Wind Resources (greater than 7 m/sec at 80 m, hub height)

Exclusions

- Navigation Areas -Regulated (shipping lanes, preferred routes, precautionary areas)
- Vessel tracks (AIS data)
- Ferry Routes
- Regulated areas (disposal site, military areas, unexploded ordnance, marine protected areas)
- Airport buffer zones
- Coastal buffer zone (1 km)
- Cable Areas (?)

Estimates of 80 m wind speeds

Rhode Island Ocean Special Area Management Plan (SAMP)

Map Key

- Proposed Ocean Study Area
- State/Federal Waters Separation

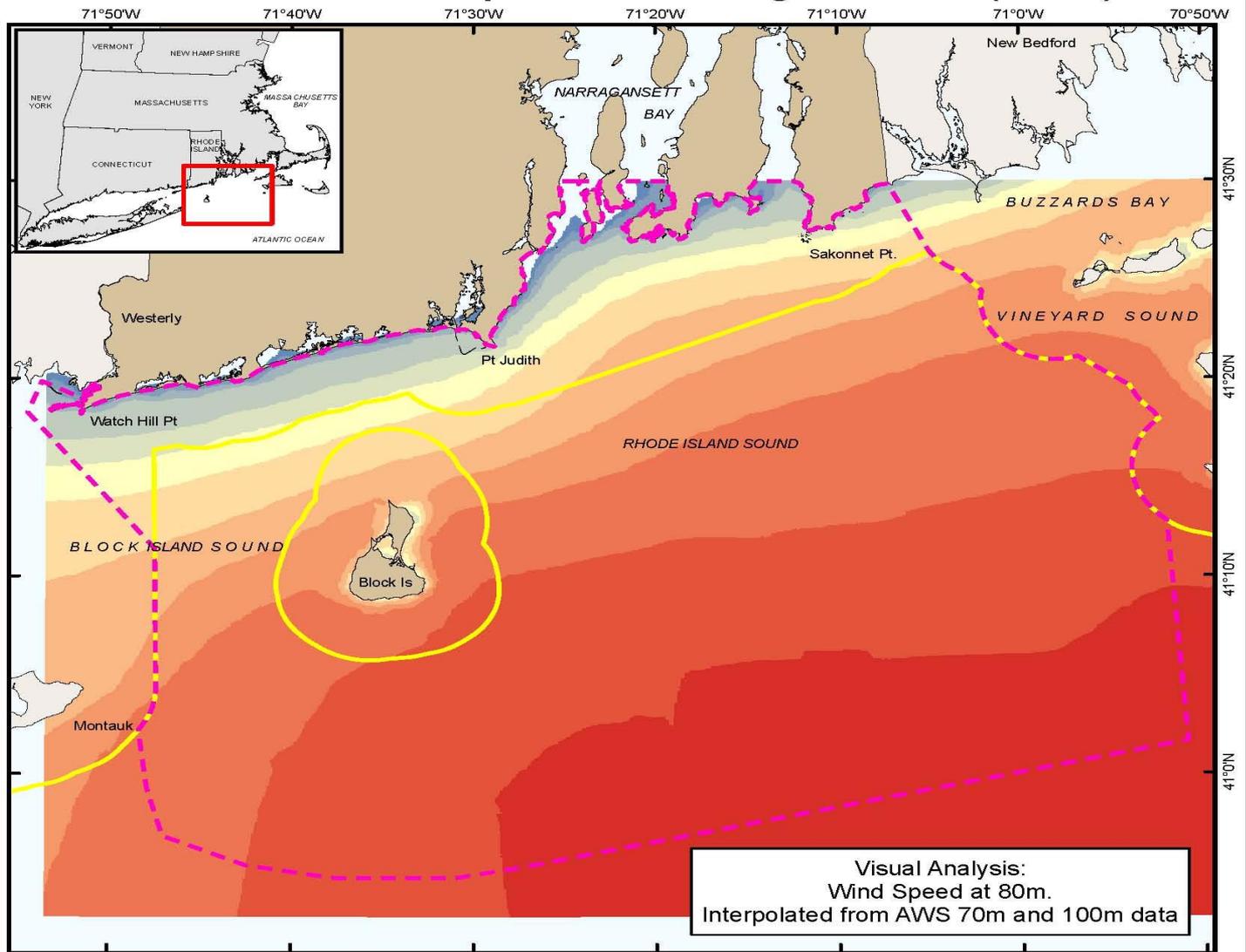
Wind at 80m Interpolated

7.0
7.2
7.4
7.6
8.0
8.2
8.4
8.6
8.8
9.0
9.2
9.4
9.6

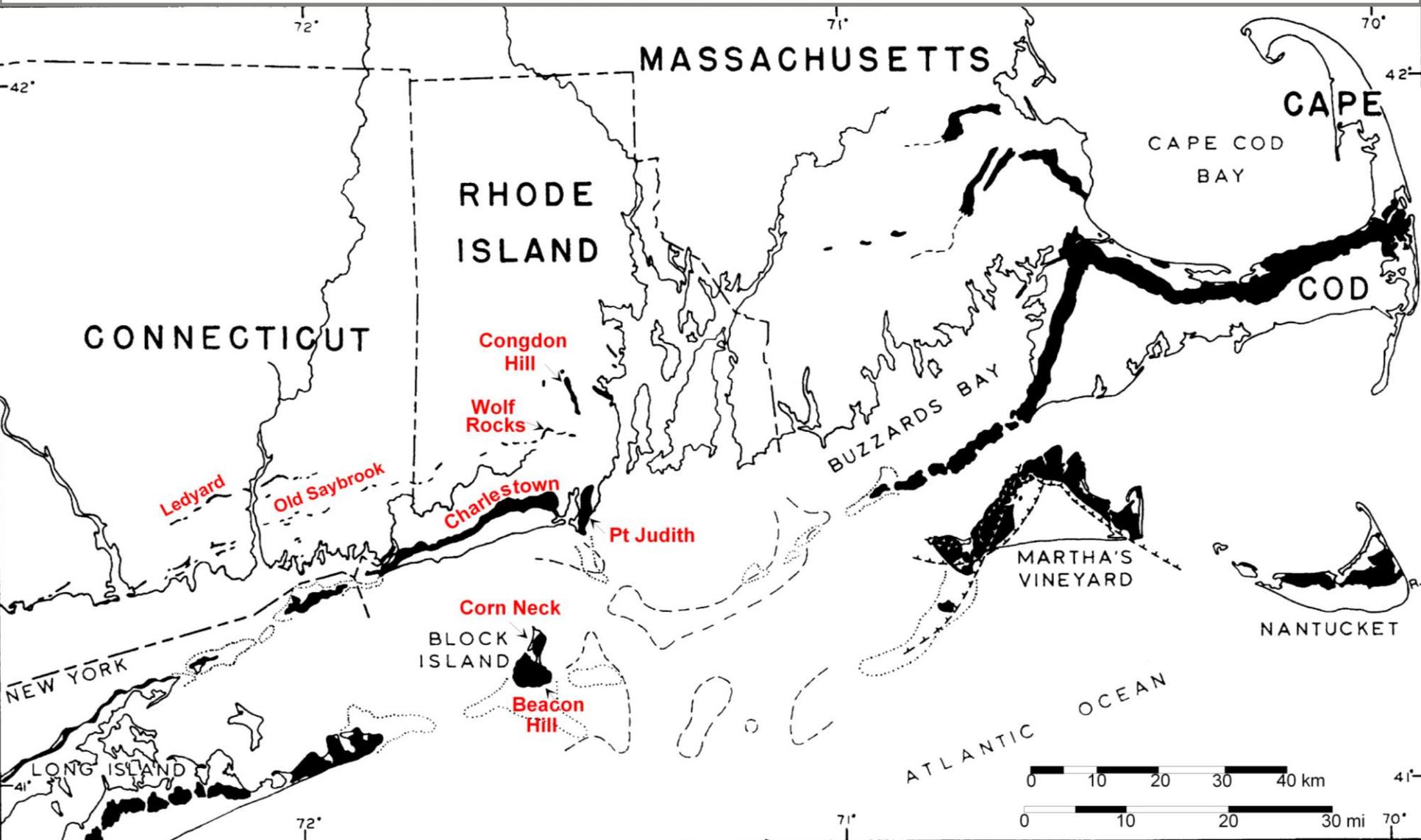
Coordinate System:
Projection: RI Stateplane
Units: Feet
FIPS Zone: 3800
Datum: NAD83

For Project Background Information:
<http://seagrant.gso.uri.edu/oceansamp>

For Project Map and Data Products:
http://www.narrbay.org/d_projects/oceansamp



End Moraines of Southeastern New England



Schafer and Hartshorn, 1965; Sirkin, 1982

Rhode Island Ocean Special Area Management Plan (SAMP)

71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

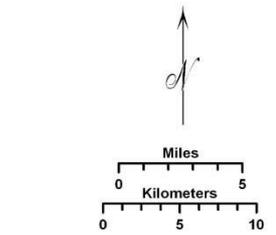
Map Key

 Proposed Ocean Study Area

 State/Federal Waters Separation

Construction Effort

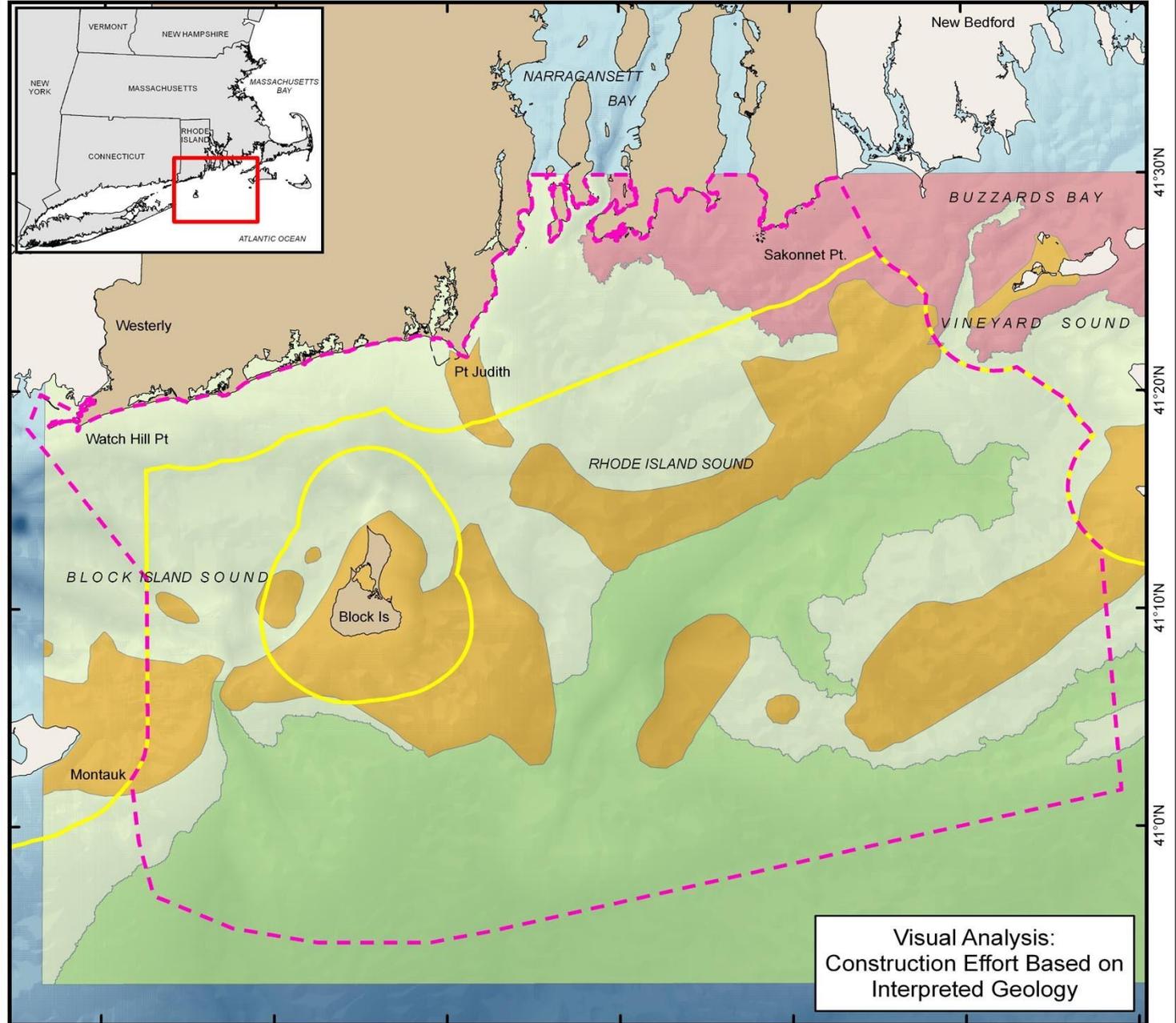
-  1 - 2
-  3
-  4 - 5
-  5



Coordinate System:
 Projection: RI Stateplane
 Units: Feet
 FIPS Zone: 3800
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For Project Map and Data Products:
http://www.narrbay.org/d_projects/oceansamp

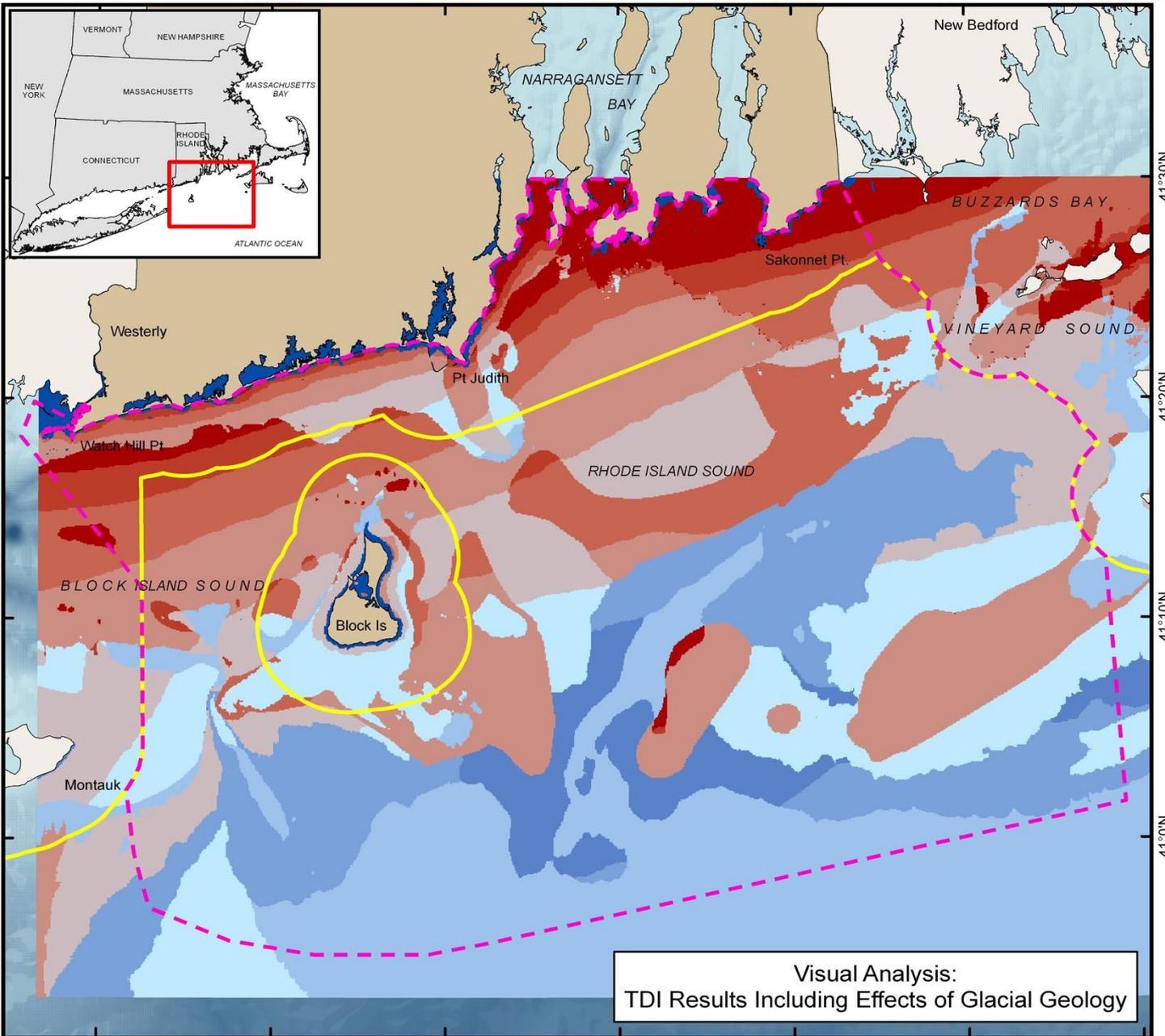


41°30'N
41°20'N
41°10'N
41°0'N

Visual Analysis:
 Construction Effort Based on
 Interpreted Geology

Rhode Island Ocean Special Area Management Plan (SAMP)

71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

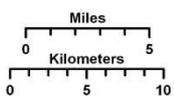


Map Key

- Proposed Ocean Study Area
- State/Federal Waters Separation

TDI - With Geology

- 1.00
- 1.25
- 1.50
- 1.75
- 2.00
- 2.25
- 2.50
- 2.75
- 3.00
- 3.25
- 3.50



Coordinate System:
 Projection: RI Stateplane
 Units: Feet
 FIPS Zone: 3800
 Datum: NAD83

For Project Background Information:
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For Project Map and Data Products:
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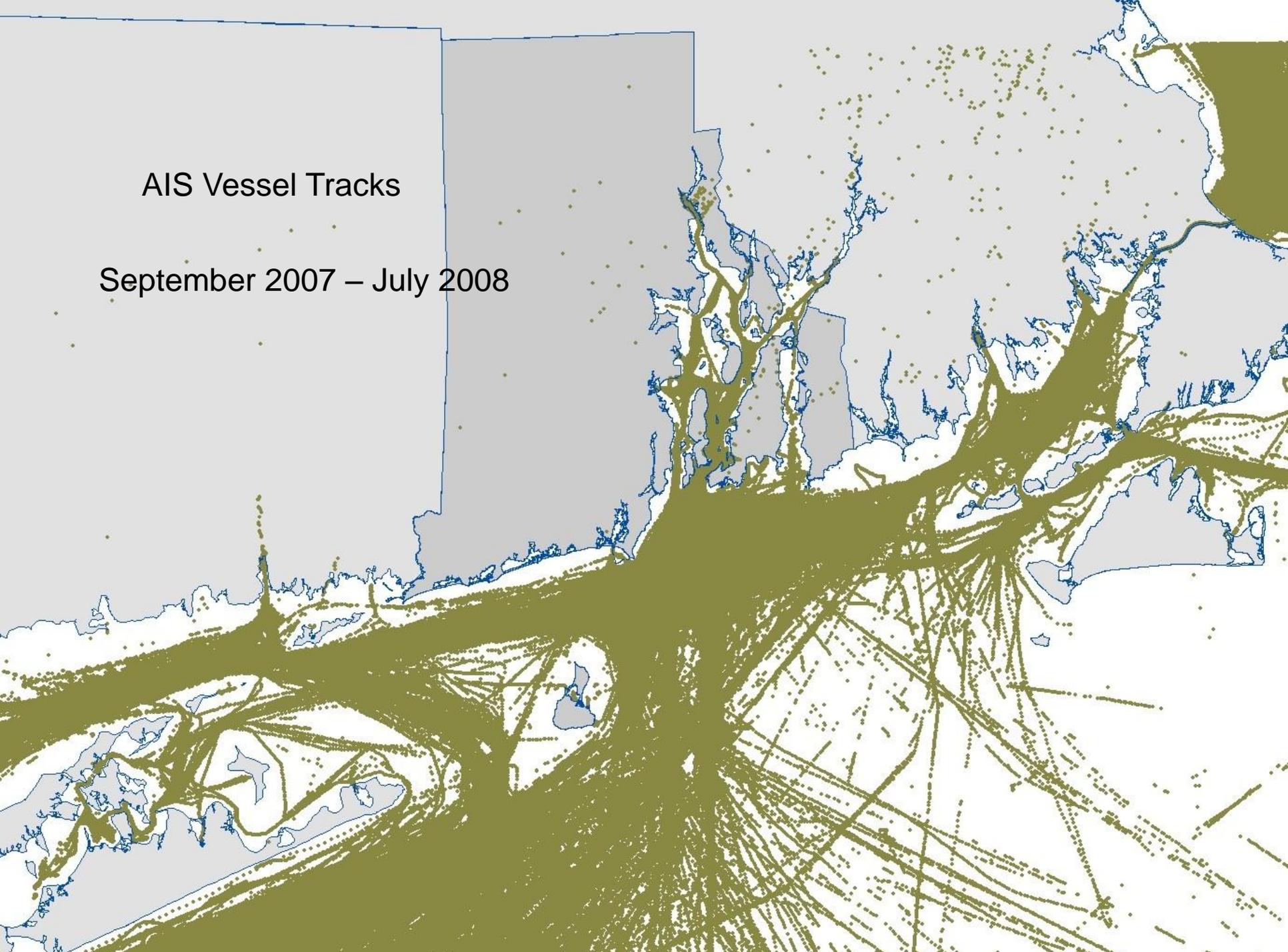


Visual Analysis:
 TDI Results Including Effects of Glacial Geology

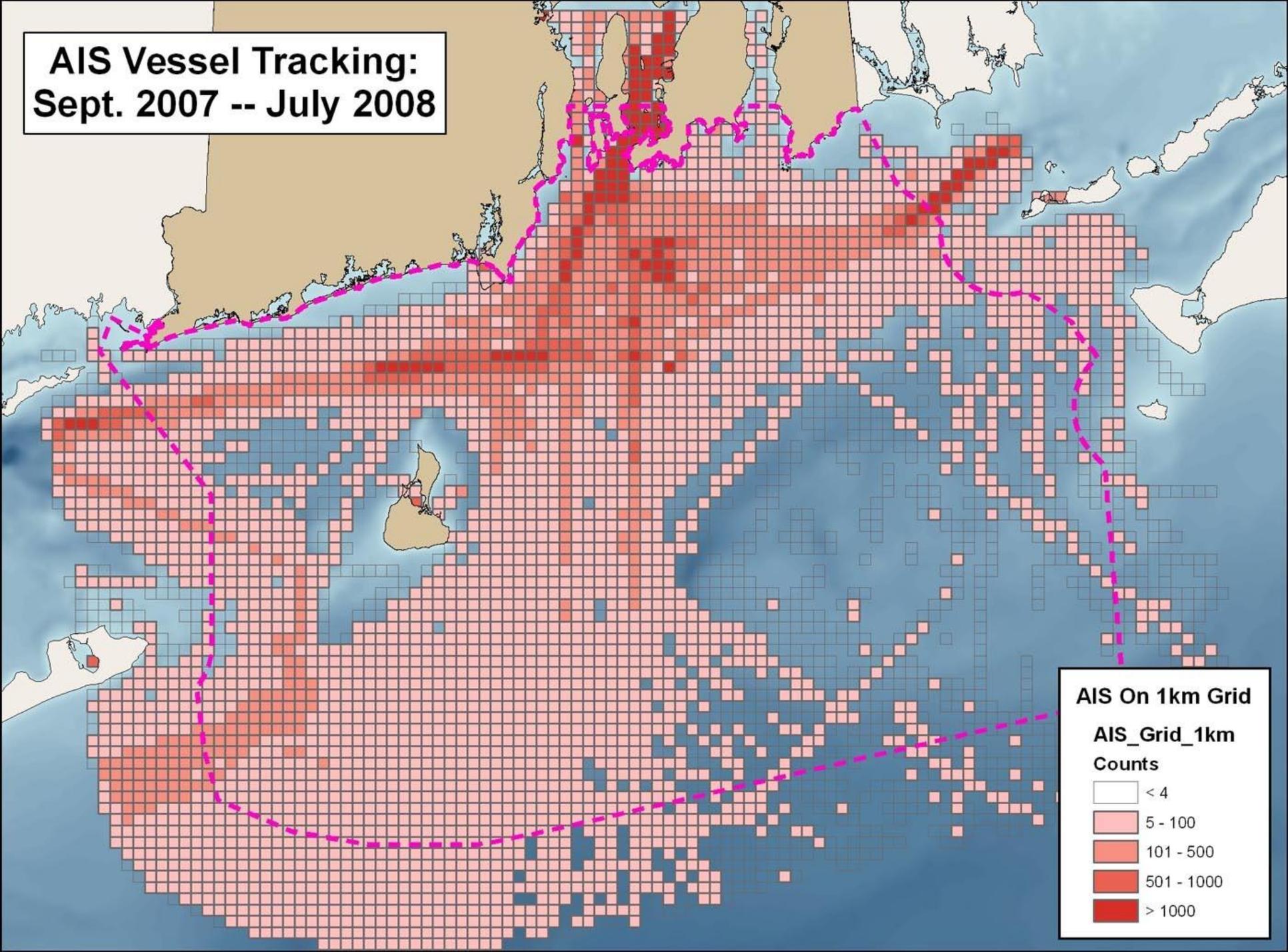
41°30'N
41°20'N
41°10'N
41°0'N

AIS Vessel Tracks

September 2007 – July 2008



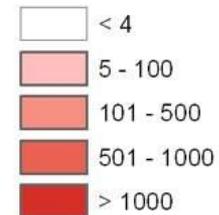
AIS Vessel Tracking: Sept. 2007 -- July 2008



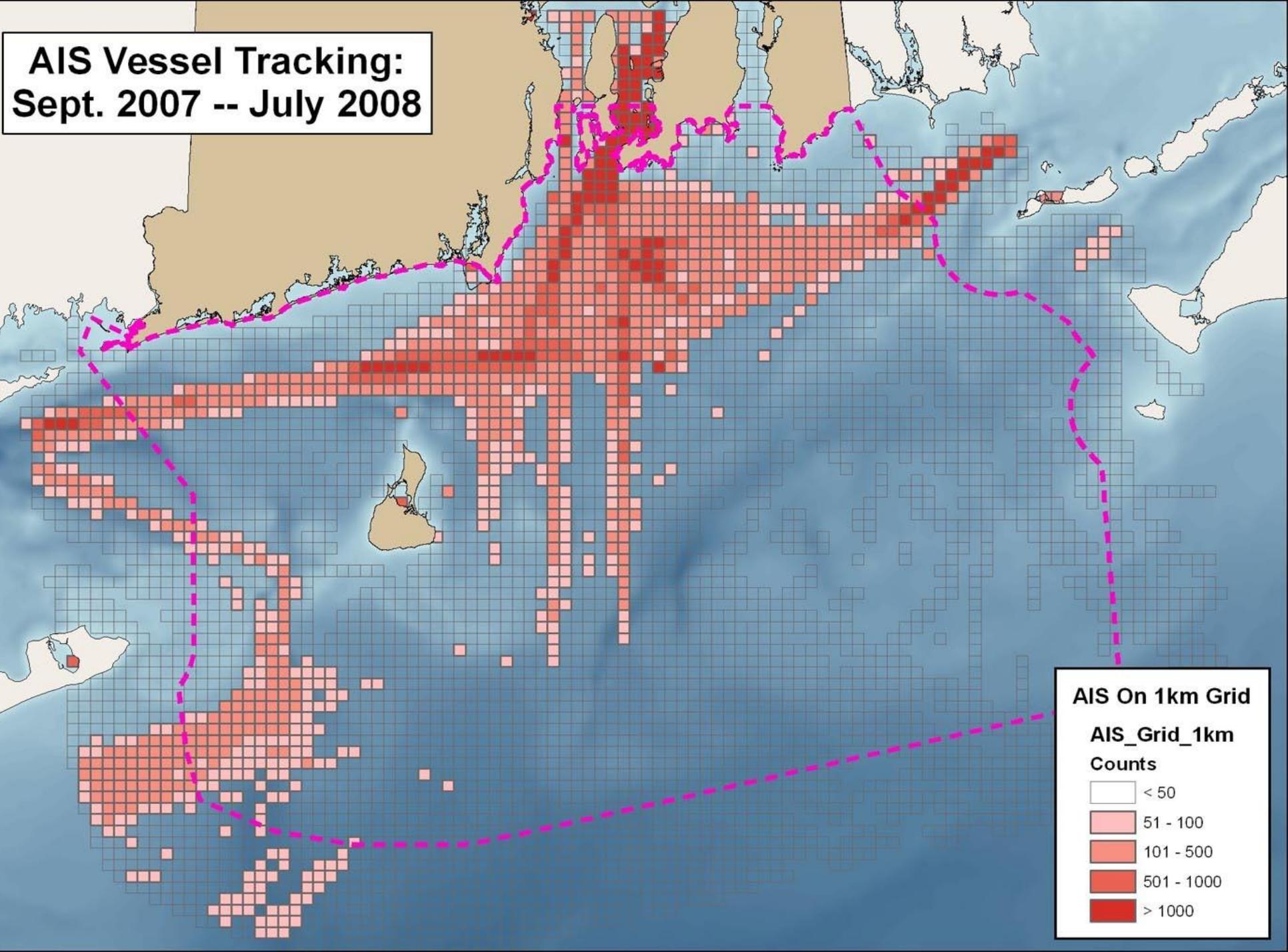
AIS On 1km Grid

AIS_Grid_1km

Counts



AIS Vessel Tracking: Sept. 2007 -- July 2008

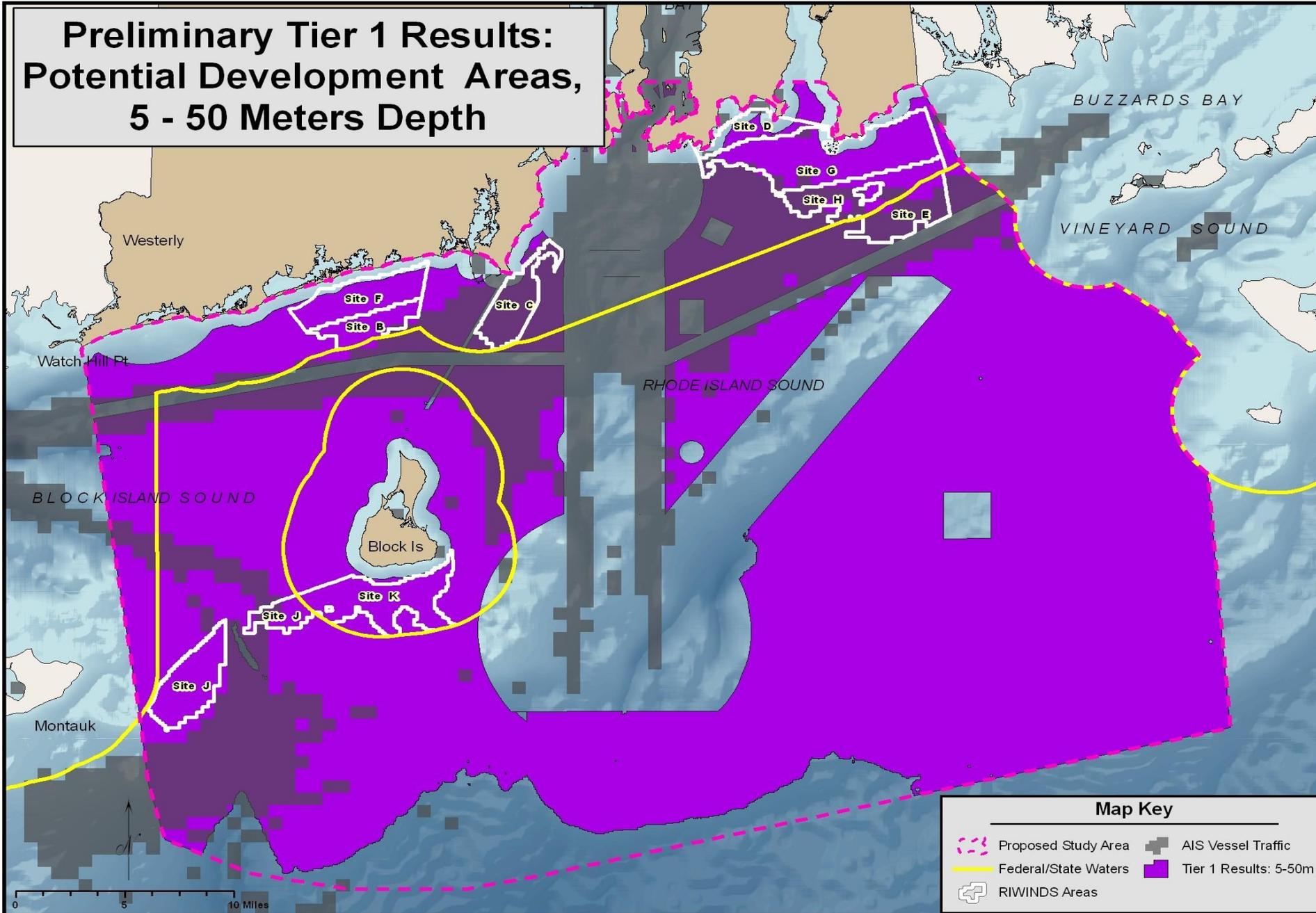


AIS On 1km Grid

AIS_Grid_1km
Counts

- < 50
- 51 - 100
- 101 - 500
- 501 - 1000
- > 1000

Preliminary Tier 1 Results: Potential Development Areas, 5 - 50 Meters Depth



0 5 10 Miles

Map Key

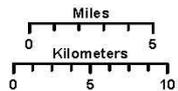
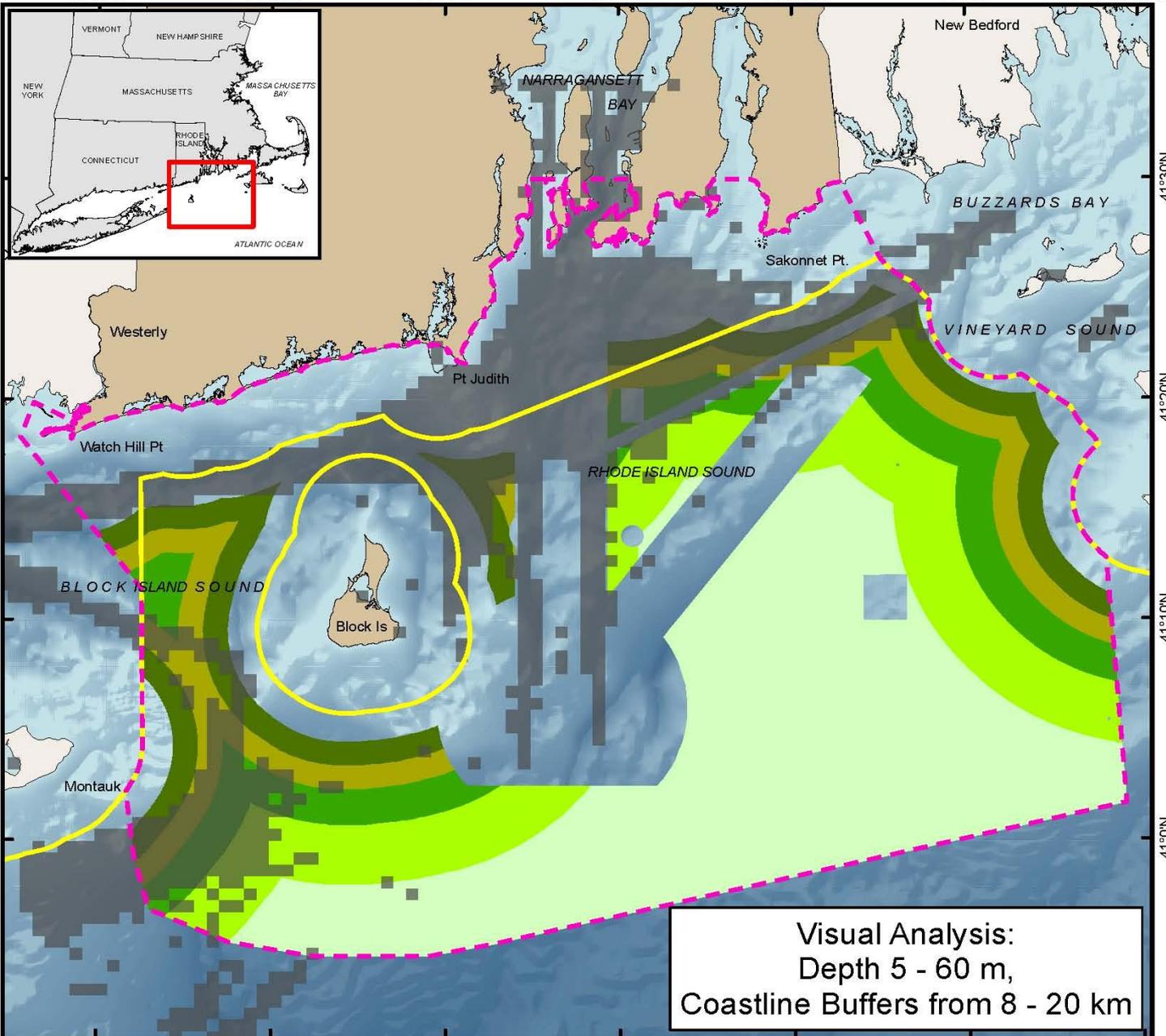
- Proposed Study Area
- Federal/State Waters
- RIWINDS Areas
- AIS Vessel Traffic
- Tier 1 Results: 5-50m

Rhode Island Ocean Special Area Management Plan (SAMP)

71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

Map Key

-  Proposed Ocean Study Area
-  State/Federal Waters Separation
-  AIS Vessel Traffic
-  20 Kilometer Buffer
-  15 Kilometer Buffer
-  12 Kilometer Buffer
-  10 Kilometer Buffer
-  8 Kilometer Buffer



Coordinate System:
 Projection: RI Stateplane
 Units: Feet
 FIPS Zone: 3800
 Datum: NAD83

For Project Background Information:
<http://seagrant.gso.un.edu/oceansamp>

For Project Map and Data Products:
http://www.narrbay.org/d_projects/oceansamp



Visual Analysis:
 Depth 5 - 60 m,
 Coastline Buffers from 8 - 20 km

41°30'N
41°20'N
41°10'N
41°0'N

Tier Two - Existing Uses

Use Mapping

- Commercial and recreational fishing
- Recreational boating
- Existing Infrastructure
- Conservation
- Aquaculture

Resource Mapping

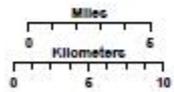
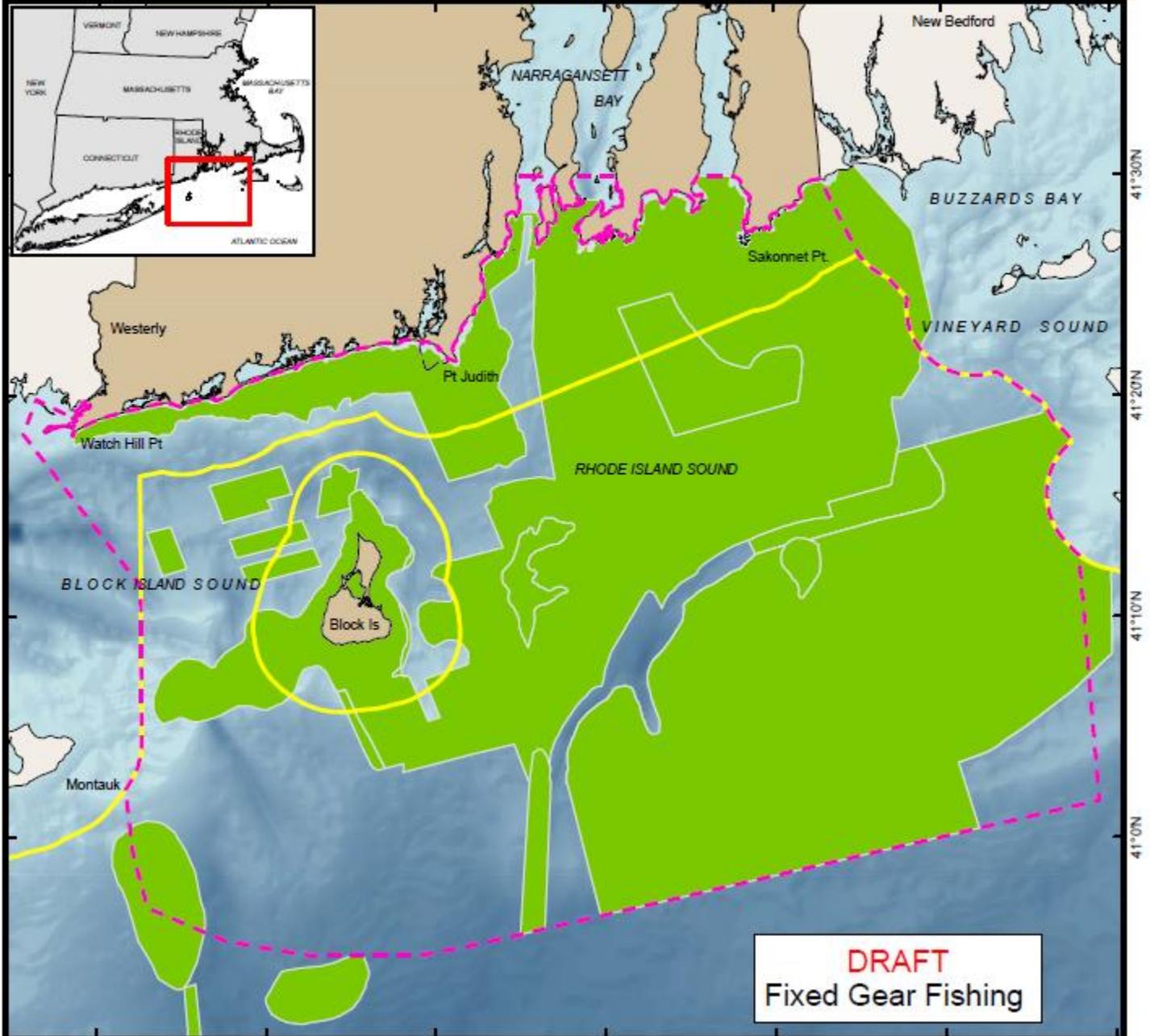
- Avian and Bats
- Fish and fish habitat
- Marine mammals and turtles
- Water and air quality
- Historical and cultural resources
- Endangered Species

Rhode Island Ocean Special Area Management Plan (SAMP)

71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

Map Key

- Proposed Ocean Study Area
- State/Federal Waters Separation
- Fixed Gear Fishing



Coordinate System:
Projection: RI Stateplane
Units: Feet
FIPS Zone: 3800
Datum: NAD83

For Project Background Information:
<http://seagrant.gso.uri.edu/oceansamp>

For Project Map and Data Products:
http://www.namabay.org/id_projects/oceansamp



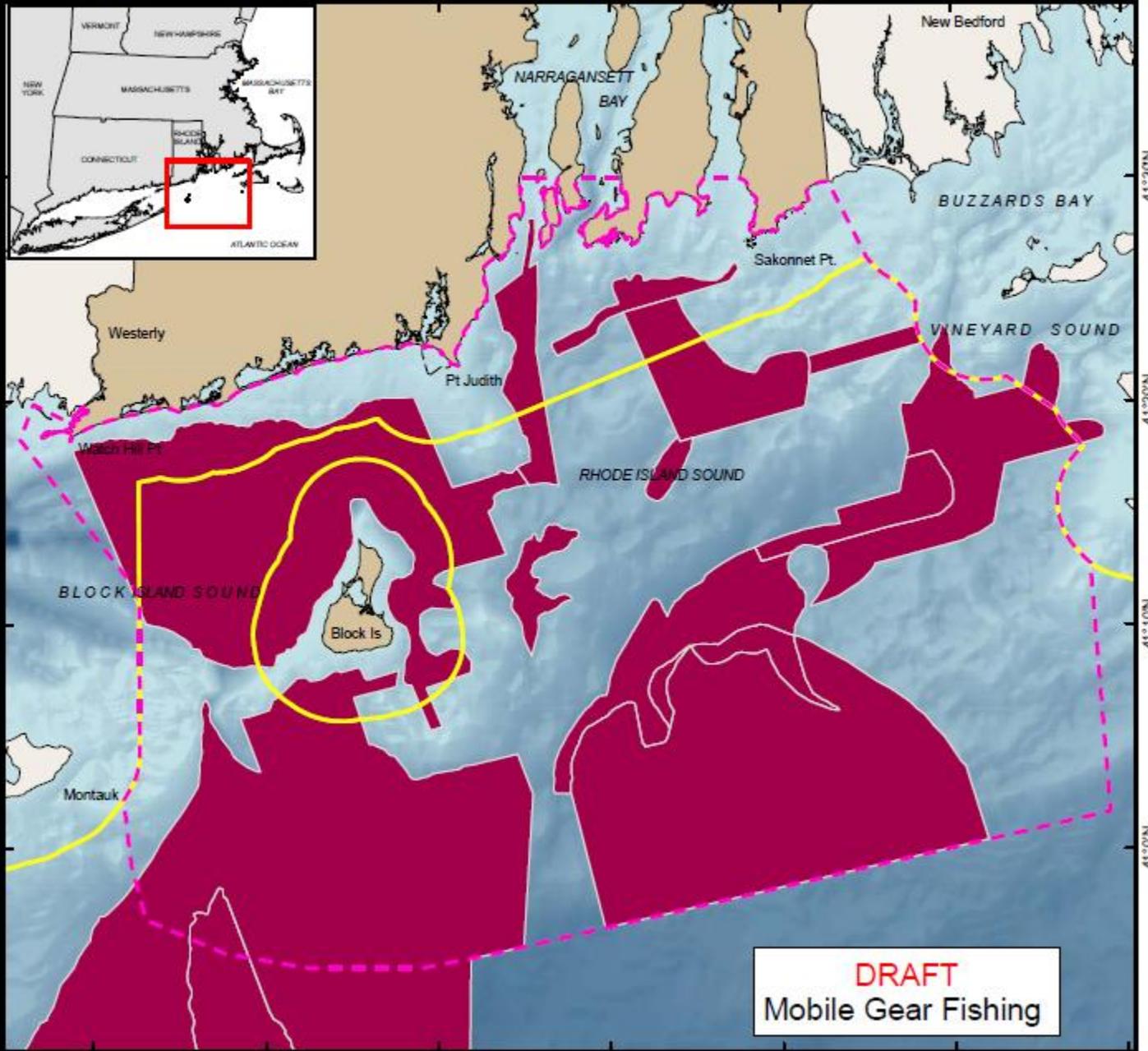
DRAFT
Fixed Gear Fishing

Rhode Island Ocean Special Area Management Plan (SAMP)

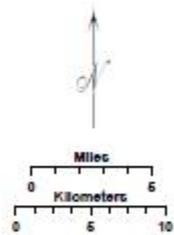
71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

Map Key

-  Proposed Ocean Study Area
-  State/Federal Waters Separation
-  Mobile Gear Fishing



41°30'N
41°20'N
41°10'N
41°0'N



Coordinate System:
Projection: RI Stateplane
Units: Feet
FIPS Zone: 3800
Datum: NAD83

For Project Background Information:
<http://seagrant.gso.uri.edu/oceansamp>

For Project Map and Data Products:
http://www.narrbay.org/id_projects/oceansamp



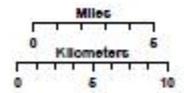
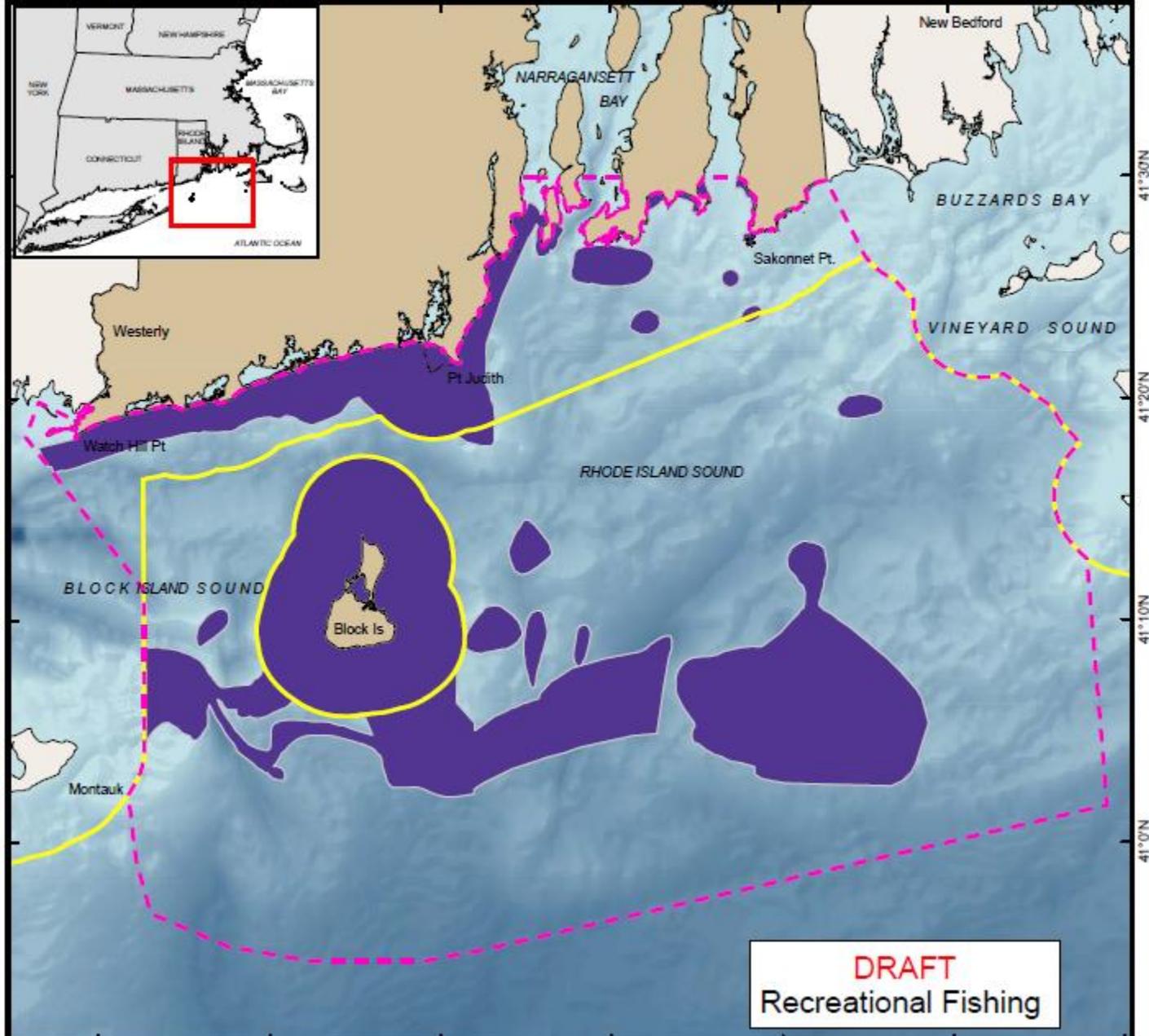
DRAFT
Mobile Gear Fishing

Rhode Island Ocean Special Area Management Plan (SAMP)

71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

Map Key

- Proposed Ocean Study Area
- State/Federal Waters Separation
- Recreational Fishing



Coordinate System:
Projection: RI Stateplane
Units: Feet
FIPS Zone: 3800
Datum: NAD83

For Project Background Information:
<http://seagrant.gso.uri.edu/oceansamp>

For Project Map and Data Products:
http://www.narrbay.org/rd_projects/oceansamp



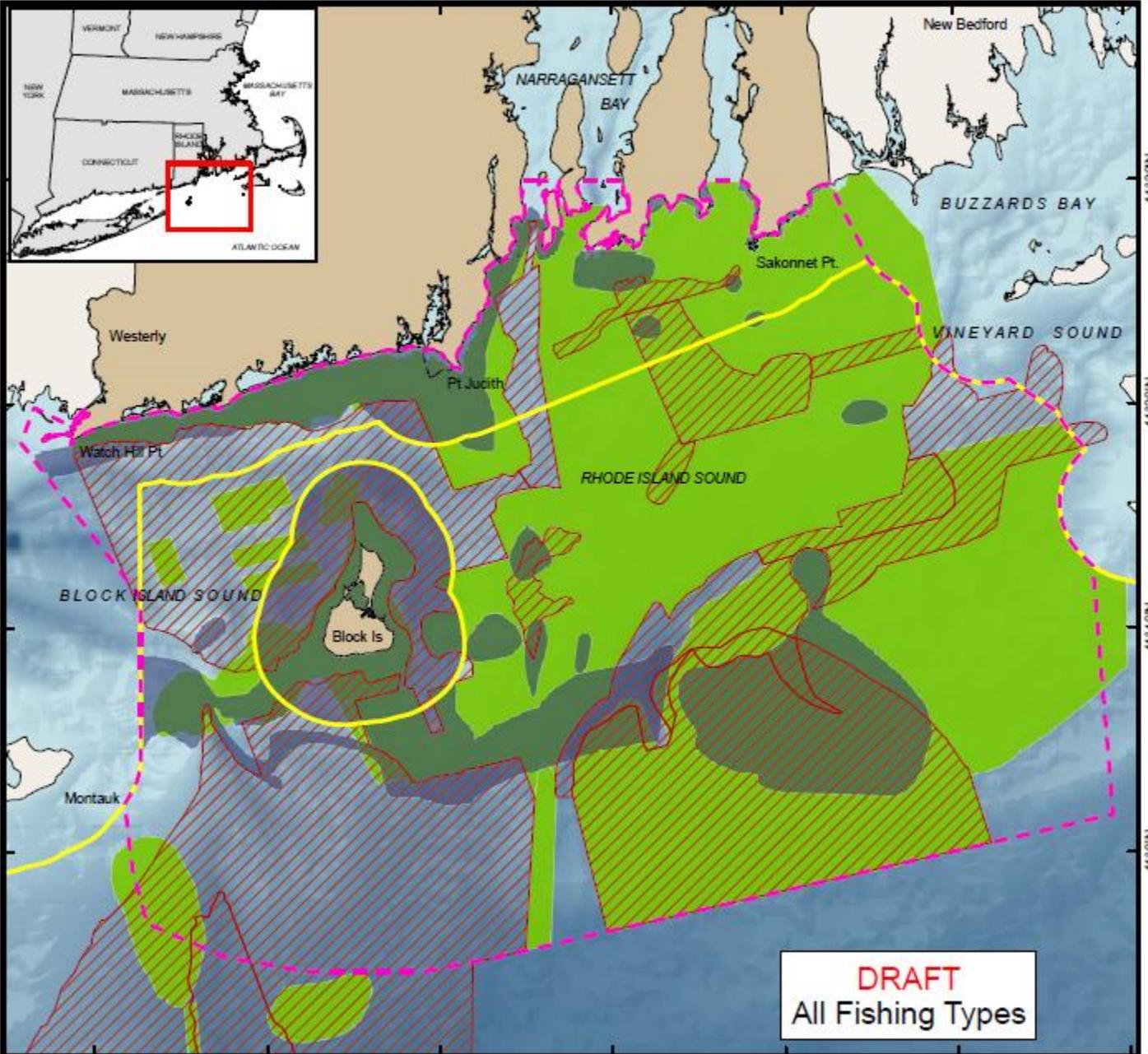
DRAFT
Recreational Fishing

Rhode Island Ocean Special Area Management Plan (SAMP)

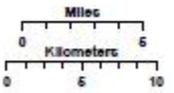
71°50'W 71°40'W 71°30'W 71°20'W 71°10'W 71°0'W 70°50'W

Map Key

-  Proposed Ocean Study Area
-  State/Federal Waters Separation
-  Mobile Gear Fishing
-  Recreational Fishing
-  Fixed Gear Fishing



41°30'N
41°20'N
41°10'N
41°0'N



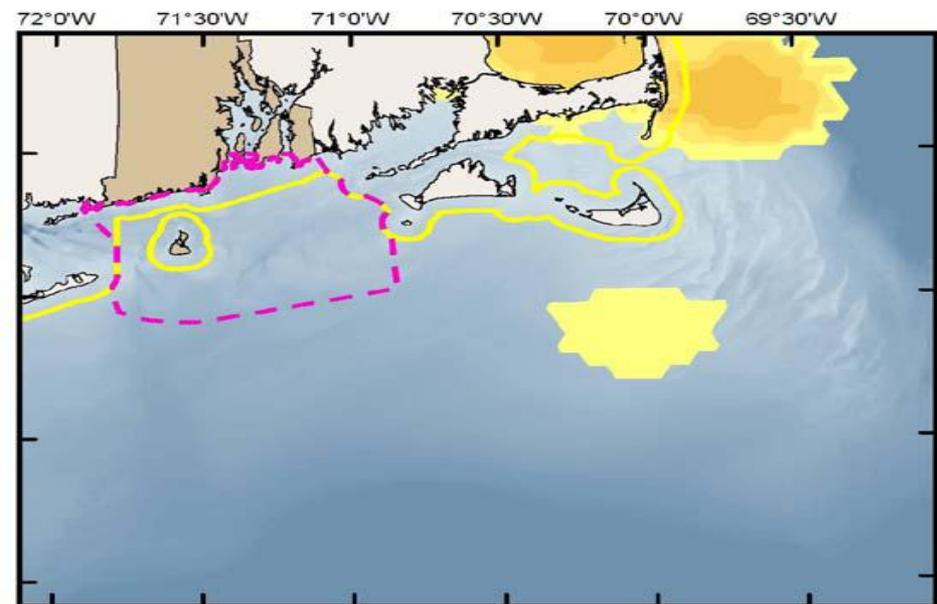
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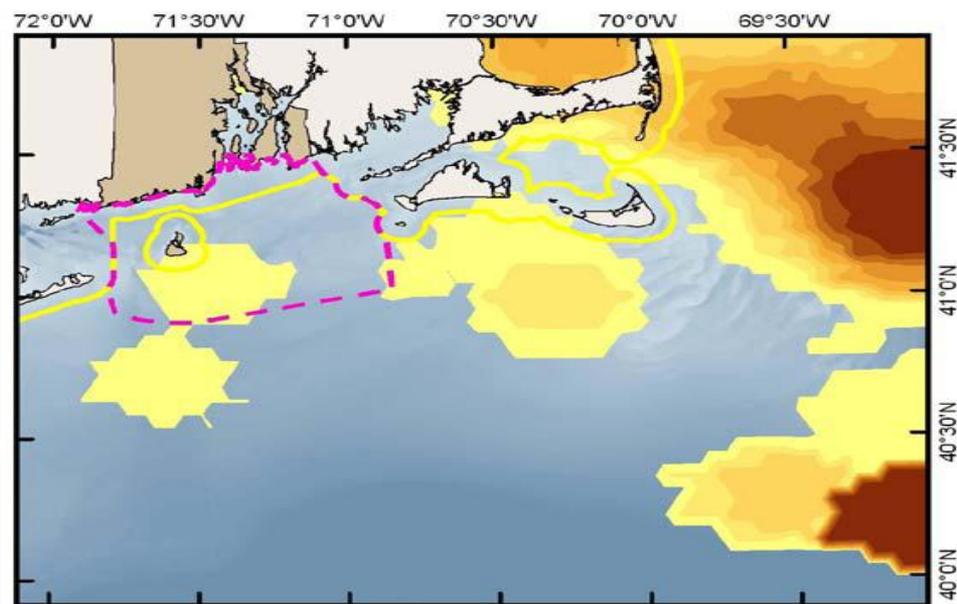
For Project Map and Data Products:
http://www.narrbay.org/id_projects/oceansamp

DRAFT
 All Fishing Types

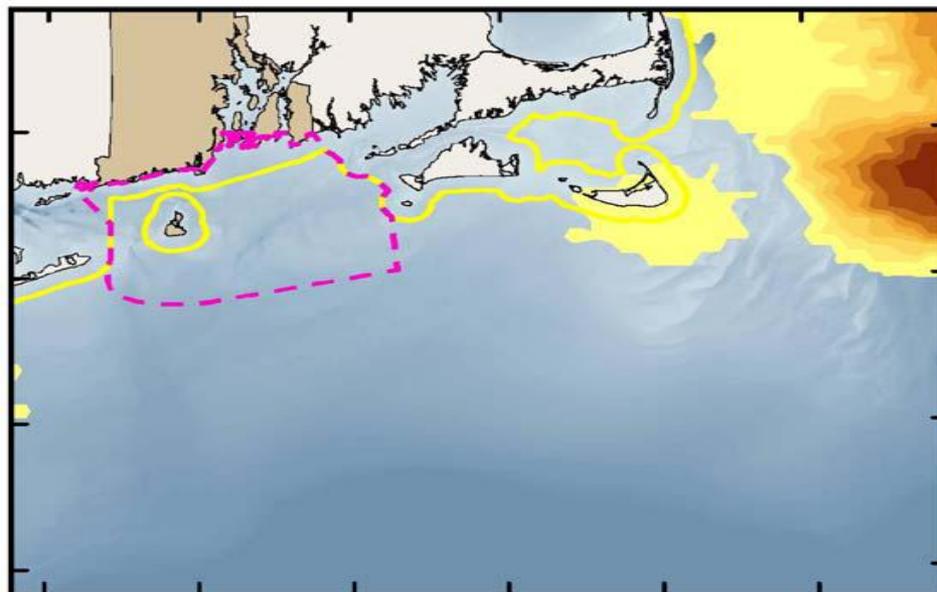




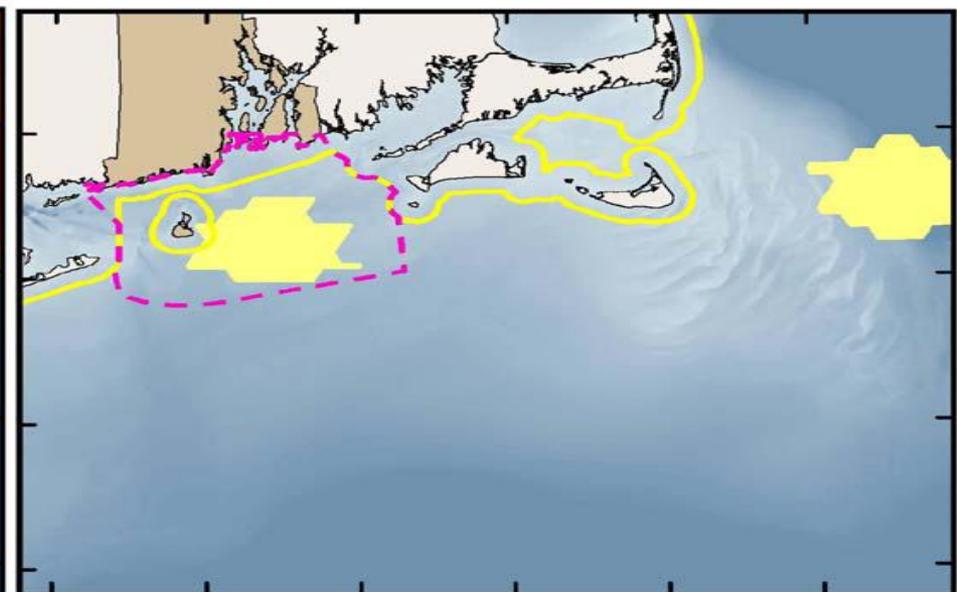
Winter



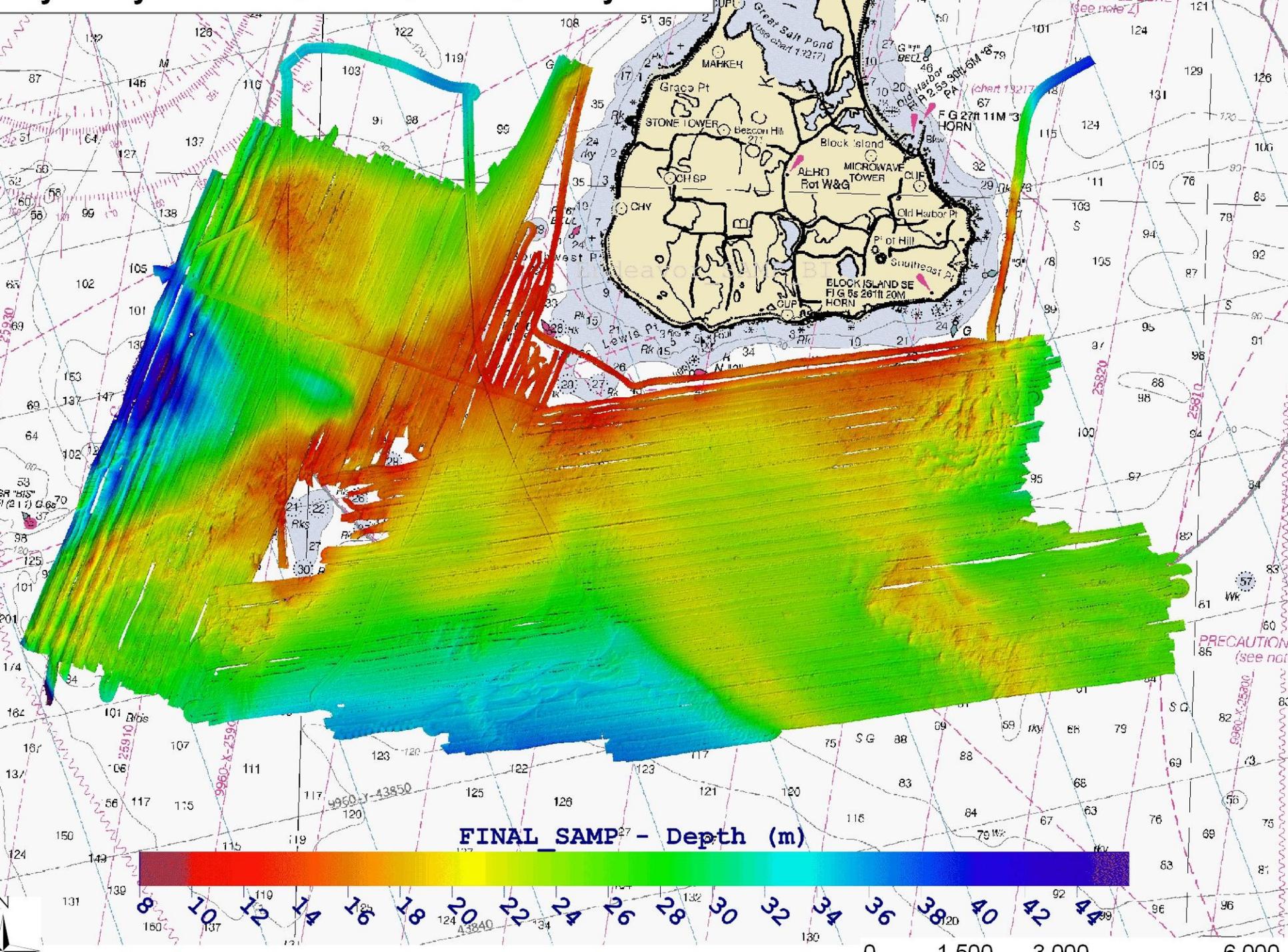
Spring

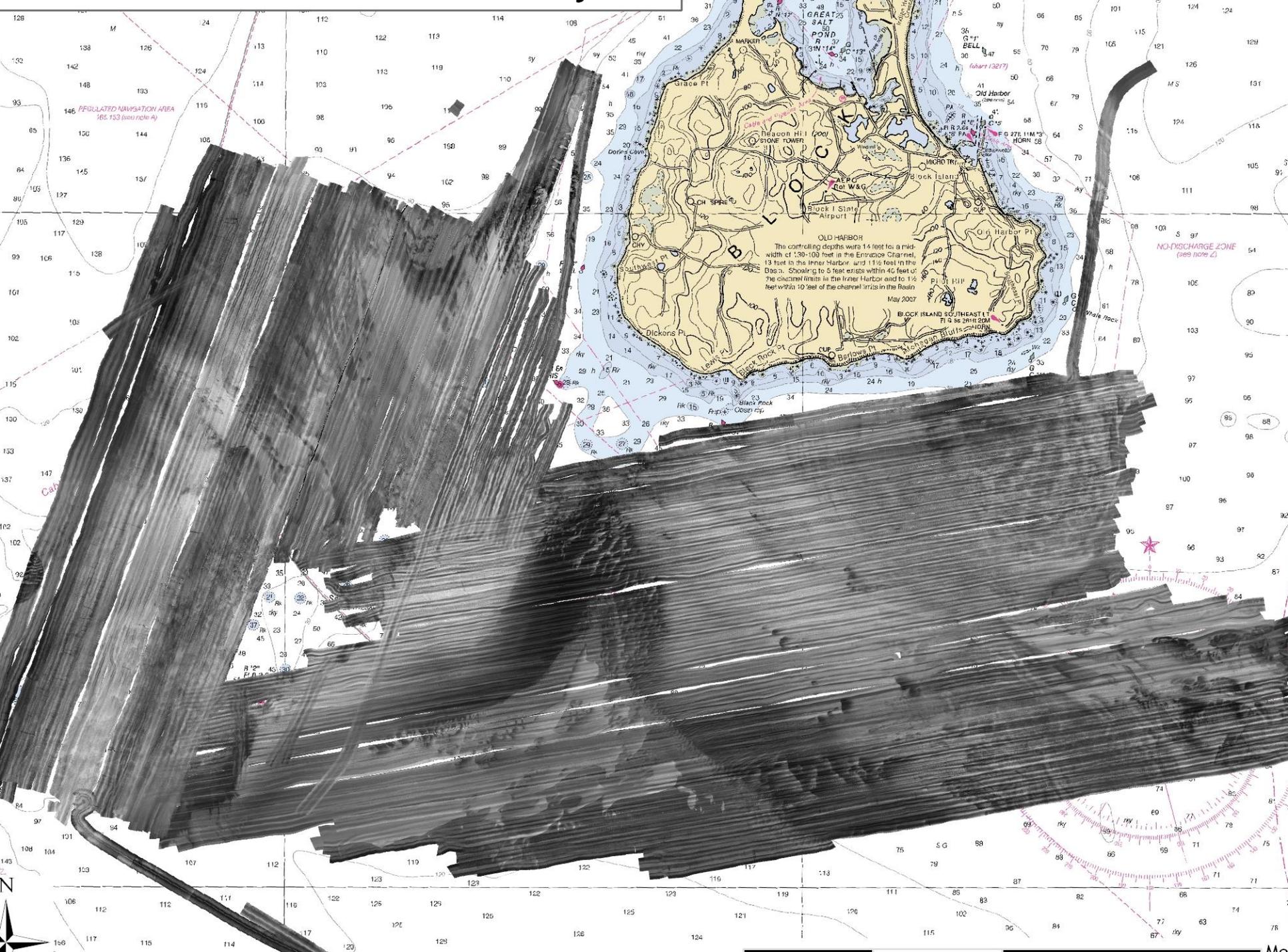


Summer



Fall



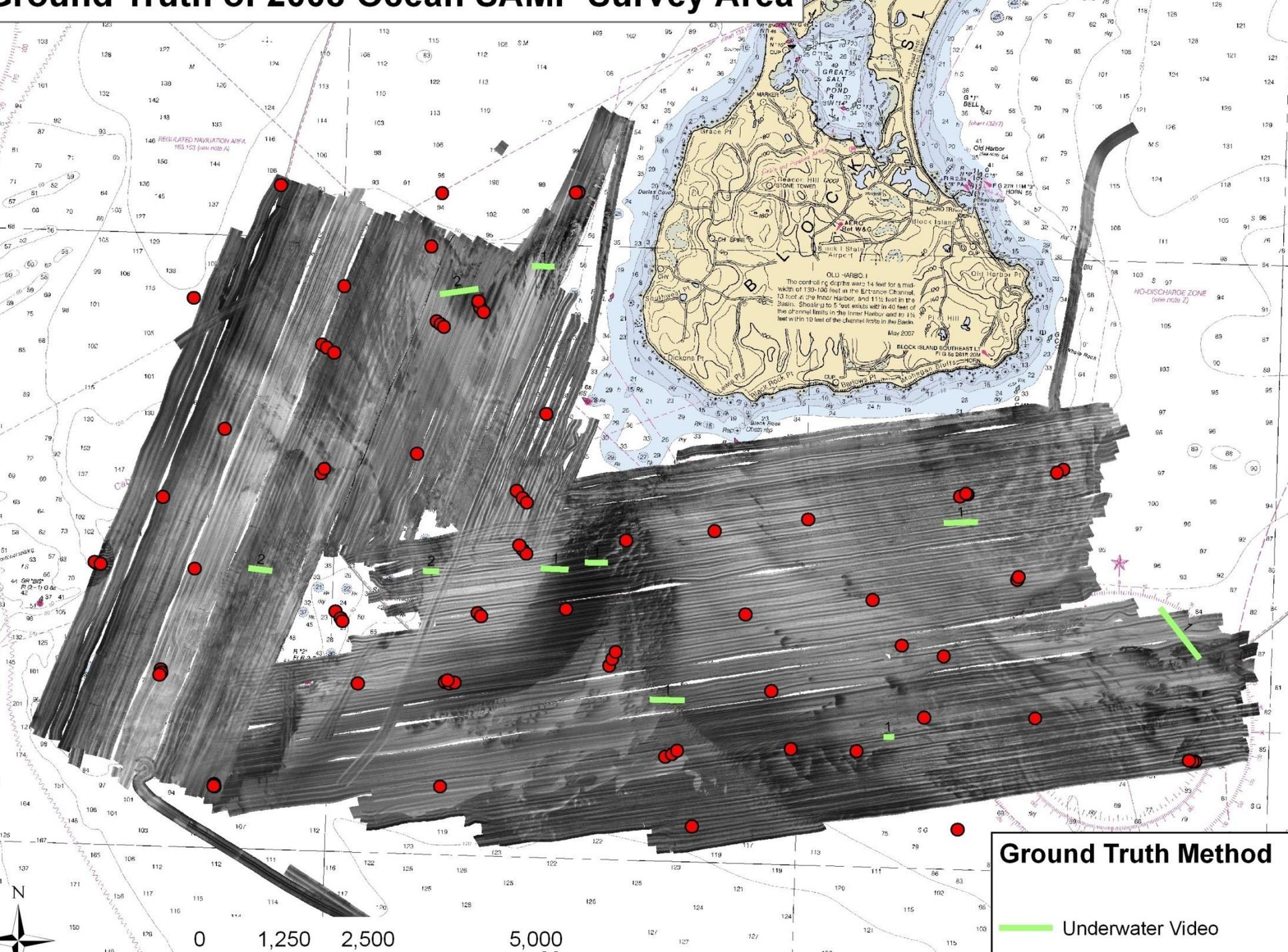


146 REGULATED NAVIGATION AREA
165 153 (see note A)

OLD HARBOR
The controlling depths were 14 feet for a width of 100-100 feet in the Entrance Channel, 13 feet in the Inner Harbor, and 1 1/2 feet in the Basin. Shoaling to 5 feet exists within 40 feet of the channel limits in the Inner Harbor and to 1 1/2 feet within 10 feet of the channel limits in the Basin.
May 2007

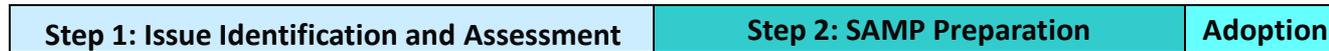
NO-DISCHARGE ZONE
(see note Z)





Existing CRMC Ocean SAMP Process*

August 1, 2008 – July 31, 2010



July 2008

July 2009

July 2010

Step 1: Issue Identification/ Assessment
(Aug 2008-July 2009)

- Define boundaries, goals and principles
- Design public process
- Research ecosystem features and uses
- Identify issues/concerns, opportunities
- Prepare draft ecosystem and use zone maps

Step 2: SAMP Preparation (Aug 2009 - April 2010)

- Review boundaries and goals
- Develop the objectives and policies for each zone and SAMP component
- Draft SAMP chapters
- Identify research gaps

Step 3: Formal Adoption (May 2010 - July 2010)

- Formal hearings and reviews of the draft SAMP
- Adoption of the SAMP by CRMC
- Submit to federal agencies for approval

* This timeline is based on current knowledge.

Oregon Territorial Sea Plan

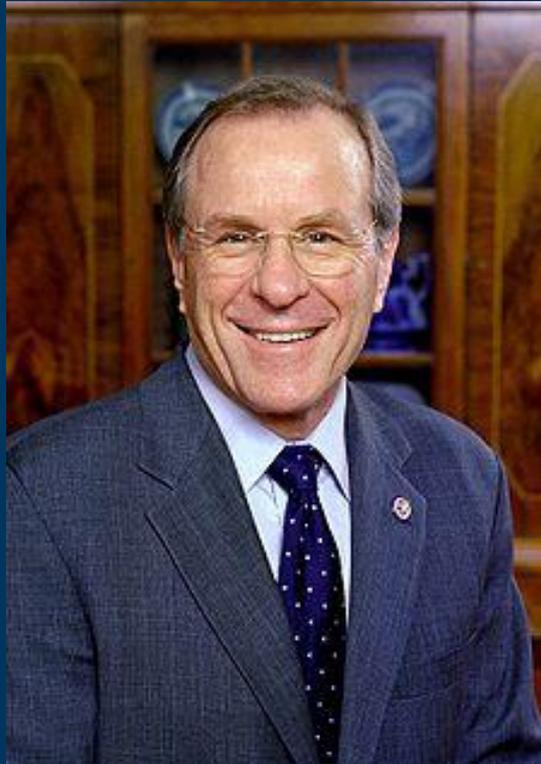


Executive Order No. 08-07

- Amend TSP - comprehensive plan provisions on wave energy projects
- CZMA Enforceable policies
- Provide outreach and education

MOU between State of Oregon
and Federal Energy Regulatory
Commission

West Coast Governors Agreement



An Engaged Administration



“One of my goals at NOAA is to bring a more holistic understanding of these interactions across different sectors, and to think about Marine Spatial Planning in a comprehensive sense with all appropriate parties”.

*- Dr. Jane Lubchenco
Senate Confirmation Hearing
February 13, 2009*

An Engaged Administration



Scott Olson / Getty Images

“These activities will include multifaceted spatial planning effort. ... It is anticipated that the Council on Environmental Quality will help coordinate this interagency effort.”

- Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf; Final Rule, April 29, 2009



THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release

June 12, 2009

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: NATIONAL POLICY FOR THE OCEANS, OUR COASTS, AND THE GREAT LAKES

The oceans, our coasts, and the Great Lakes provide jobs, food, energy resources, ecological services, recreation, and tourism opportunities, and play critical roles in our Nation's transportation, economy, and trade, as well as the global mobility of our Armed Forces and the maintenance of international peace and security. We have a stewardship responsibility to maintain healthy, resilient, and sustainable oceans, coasts, and Great Lakes resources for the benefit of this and future generations.

MSP Concerns

- Many audiences don't know what MSP is
- Industry groups: additional bureaucracy
- Legislators: cautious of reforms could impact jurisdiction and cost
- Ocean users: MSP will impose additional constraints on where they can operate
- Science and Models



A scenic view of a coastline with waves crashing against a rocky shore. In the background, a town is visible on a hillside. The text "To Be Continued..." is overlaid in the center of the image.

To Be Continued...

EBM vs. MSP

EBM = maintain an ecosystem in a healthy, productive and resilient condition so it can provide the services humans want and need.

MSP = a process to achieve certain goals of ecosystem-based management. It focuses on the spatially explicit nature of many ocean activities and resources. It can also be used to inform management decisions by evaluating tradeoffs between different spatial management scenarios.