

Shellfish Management Areas
Northeast United States
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Prepared for:
Northeast Regional Ocean Council (NROC)
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1. INTRODUCTION

This data layer represents shellfish growing and classification areas for states in the northeastern U.S. including Connecticut, Maine, Massachusetts, New Hampshire, New York, and Rhode Island. Each state has their own method of classifying shellfish areas and these were evaluated in order to create a comprehensive classification system throughout the northeast region. The classification scheme used in this regional dataset is adapted from the [National Shellfish Sanitation Program \(NSSP\) Guide for the Control of Molluscan Shellfish](#). Each feature includes information on the area name, classification type, state, source of the data, layer name from the data source, and the original state classification scheme. Additional fields which contained further information for individual datasets but did not conform to this characterization were not included. The Northeast Ocean Data Portal working group is continuing to work with shellfish coordinators in each state to improve the representation of these management areas and the timeliness of regional datasets. The data user is encouraged to read this and the metadata of each individual states' source data carefully, as attribute details and timeliness are not necessarily consistent among datasets used to develop this layer. Details of each state's data source are described in the data processing section. Data from the state of Maine are displayed from a ESRI REST service hosted by the Maine Department of Marine Resources (MDMR).

2. PURPOSE

The purpose of this dataset is to assist in ocean planning activities in the Northeast by representing the shellfish management and classification areas for the northeastern United States. Data represented here are from the most recent editions up to the dataset publication date.

3. SOURCES AND AUTHORITIES

- Connecticut Department of Agriculture Bureau of Aquaculture (CT DA/BA)
- Connecticut Department of Environmental Protection (CT DEP)
- Massachusetts Division of Marine Fisheries (MA DMF)
- Massachusetts Office of Geographic Information (MassGIS)
- Maine Department of Marine Resources (MEDMR)
- Maine Office of Geographic Information Systems (MEGIS)
- New Hampshire Department of Environmental Services (NHDES)
- New York State Department of Environmental Conservation (NYSDEC) Bureau of Marine Resources
- Rhode Island Department of Environmental Management (RIDEM)
- Rhode Island Geographic Information Database (RIGIS)
- U.S. Food and Drug Administration National Shellfish Sanitation Program (NSSP)
- U.S. Census

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – simple feature class

Feature Types:

Approved: A classification used to identify a growing area where harvest for direct marketing is allowed.

Conditionally Approved: A classification used to identify a growing area which meets the criteria, except under certain conditions described in a management plan.

Restricted: A classification used to identify a growing area where harvesting shall be by special license and the shellstock, following harvest, is subjected to a suitable and effective treatment process through relaying or depuration.

Conditionally Restricted: A classification used to identify a growing area that meets the criteria for the restricted classification except under certain conditions described in a management plan.

Conditionally Restricted for Relay: This classification is specific to data for the state of Maine. This is used to identify areas that are closed to the harvest of clams, quahogs, oysters and mussels under certain conditions. The area is available only for a MDMR

permitted project for male specific coliphage (MSC) hybrid container relay/depuration harvest.

Prohibited: A classification used to identify a growing area where the harvest of shellstock for any purpose, except depletion or gathering of seed for aquaculture, is not permitted.

(Definitions from [National Shellfish Sanitation Program \(NSSP\) Guide for the Control of Molluscan Shellfish.](#))

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Uniquely identifies a feature	OBJECTID	*
2	Shape	Geometric representation of the feature	geometry	*
3	state	State responsible for management area	text	2
4	areaName	Name of shellfish management area	text	150
5	regClass	Classification of shellfish management area based on NSSP	text	30
6	notes	Comments on shellfish area from source dataset, including restriction and approval criteria	text	150
7	stateClass	Classification of management area from original source dataset	text	100
8	source	Source of state dataset	text	50
9	layer	Name of dataset obtained from source	text	50
10	Shape_Length	Length of polygon circumference in spherical coordinates	double	*
11	Shape_Area	Area of polygon in spherical coordinates	double	*

Feature Class Name: Shellfish Management Areas

Total Number of Unique Features: 1750

Dataset Status: In Progress

5. SPATIAL REPRESENTATION

Geometry Type: vector polygon

Reference System: GCS North American 1983

Horizontal Datum: North American Datum

1983 Ellipsoid: Geodetic Reference System

1980

XY Resolution: XY Scale is 0.000000001

Tolerance: 0.000000008983153

Geographic extent: -74.26 to -66.97, 40.48 to 45.02

ISO 19115 Topic Category: environment, oceans, economy, farming, health

Place Names:

Atlantic Ocean, Apponagansett Bay, Barnstable Harbor, Block Island, Blue Hill Harbor, Boston Harbor, Briggs Harbor, Buttermilk Bay, Cape Cod Bay, Cape Cod Canal, Centerport Harbor, Chatham Harbor, Chilmark, Cohasset Harbor, Cold Spring Harbor, Connecticut, Cove Harbor, Cutchogue Harbor, Cuttyhunk Harbor, Dartmouth, Dennis, Dorchester Bay, Duxbury Bay, East Bay, Eastchester Bay, Eastham, Edgartown, Ellisville Harbor, Essex Bay, Guilford Harbor, Fairhaven, Fishers Island, Flanders Bay, Frenchman's Bay, Gardiners Bay, Governors Island, Grape Island, Grass Island, Great Bay, Great South Bay, Greenwich Bay, Hallock Bay, Hempstead Bay, Hingham Bay, Hingham Harbor, Hull Bay, Huntington Harbor, Hyannis Harbor, Island Bay, Jamaica Bay, Jamestown, Jonesport, Judy Island, Katama Bay, Kennebec, Kingston Bay, Lackeys Bay, Lewis Bay, Little Bay, Little Harbor, Little Neck Bay, Loagy Bay, Lower Bay, Lower Jericho Bay, Machias, Maine, Marblehead Harbor, Marshfield, Massachusetts, Massachusetts Bay, Mattapoisett Harbor, Mecox Bay, Meganset Harbor, Menemsha, Monomoy Island, Montauk, Morgans Bay, Moriches Bay, Mount Hope Bay, Nahant Bay, Nantucket, Narragansett Bay, Nasketucket Bay, Nauset Harbor, New Bedford, New Hampshire, New York, Nicoll Bay, North Sea Harbor, Northwest Harbor, Norwalk, Noyac Bay, Oak Bluffs, Old Saybrook, Onset Bay, Orleans, Oyster Bay, Patchogue Bay, Peconic Bay, Penobscot Bay, Pleasant Bay, Plum Island, Plymouth, Pocasset Harbor, Polpis Harbor, Providence, Provincetown, Quantuck Bay, Rhode Island, Rhode Island Sound, Rockport Harbor, Rye Harbor, Sag Harbor, Salem Harbor, Sandwich, Saquatucket Harbor, Scituate, Scorton Harbor, Scudder Bay, Shinnecock Bay, Sippican Harbor, Smithtown Bay, Southold Bay, Squeteague Harbor, Stage Harbor, Stamford Harbor, Stony Brook Harbor, Three Mile Harbor, Truro, Upper Bay, Vineyard Haven, Waquoit Bay, Wellfleet, West Falmouth, Westport, Weymouth, Wickford Harbor, Woods Hole, Yarmouth.

Recommended Cartographic Properties:

(Using ArcGIS ArcMap nomenclature)

Simple Fill Symbol: 0.40 Outline of 0-0-43 (HSV);

Approved: 99-55-100

Conditionally Approved: 214-100-100

Conditionally Restricted: 100-100-66

Conditionally Restricted for Relay: 40-100-90

Prohibited: 0-100-100

Restricted: 0-0-0

Scale range for optimal visualization: 15,000 to 3,000,000

6. DATA PROCESSING

A description of each states' dataset(s) and the subsequent processing and attribute edits are described below.

Maine - Shellfish management area data developed by the MEDMR were obtained from the Maine NSSP bacterial classifications REST endpoint (https://gis2.maine.gov/arcgis/rest/services/dmr/DMR_Public_Health_NSSP_current/MapServer). This REST service contains shellfish harvest area bacterial pollution closure data for the coast of Maine, and is updated on the 1st of every month. The interactive Maine Aquaculture Map can be found here: <http://www.maine.gov/dmr/aquaculture/leases/decisions/index.html>. This dataset contains NSSP classification information. Data from Maine are displayed from the ESRI REST service hosted by MEDMR. This is part of the Northeast Ocean Data Portal working group's effort to work with shellfish coordinators in each state to improve the representation of these management areas and the timeliness of regional datasets.

Contact Information:

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New Hampshire – New Hampshire shellfish management data was obtained from the NH Department of Environmental Services. This layer reflects classification areas as of October 25, 2013. State classification categories conformed to NSSP classification definitions.

Metadata is available from NHDES upon request. Contact

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Massachusetts - Massachusetts features represent designated shellfish growing areas. They were created by the Massachusetts Department of Fish and Game's Division of Marine Fisheries and obtained from [MassGIS](#). A designated shellfish growing area is an area of potential shellfish habitat. There are 758 Designated Shellfish Growing Areas (DSGAs) that make up the territorial waters (tidal zone out to the territorial line) of the Commonwealth. Growing areas are managed with respect to shellfish harvest for direct human consumption, and comprise at least one or more classification areas. The classification areas are the management units, and range from being approved to prohibited with respect to shellfish harvest. For example, one growing area may be composed of four classification areas, all of which are managed separately. This layer reflects classification areas as April 14, 2017. The shellfish classifications in Massachusetts were adopted for the classifications in the regional dataset, with some modifications. State classification categories conformed to NSSP

classification definitions. Metadata for the source data can be found here:
<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/dsga.html>. Contact Massachusetts Division of Marine Fisheries for further information.

Rhode Island - Rhode Island shellfish areas were obtained from the Rhode Island Department of Environmental Management. This dataset denotes shellfish harvest prohibition areas for May, 2017. It represents shellfishing prohibition areas, seasonal, and conditional shellfish closure areas, and areas open to legal shellfish harvesting in RI marine and estuarine waters. The class Seasonal Closure was changed to Conditionally Approved in the regional classification scheme. Conditional closures (BI Club, Harris Point, and Upper Narragansett Bay - A) were also designated as Conditionally Approved. Metadata is available from RIDEM upon request. More information on the Rhode Island shellfish area designations can be found here: <http://www.dem.ri.gov/programs/water/shellfish/>.

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Connecticut - Connecticut shellfish areas were delineated by and obtained from the Department of Agriculture/Bureau of Aquaculture (DA/BA) at a scale of 1:24,000 for growing waters within state shoreline towns. A shellfish growing area is any area which supports or could support the growth and/or propagation of molluscan shellstock (live clams, oysters, mussels and scallops in their shell). DA/BA reassesses pollution sources and shellfish growing areas annually. The digital data is current as of October 14, 2014. This data is subject to change and the DA/BA may have more recent information for some areas. Some attribute descriptions for the CLASS field were modified to conform with the new classification scheme. Restricted-Relay and Restricted-Relay/Depuration areas were redefined as Restricted, with corresponding modifications to the attribute definition. Similarly, Conditionally Restricted-Relay and Conditionally Restricted-Relay/Depuration areas were redefined as Conditionally Restricted. Metadata is available from the Connecticut Bureau of Agriculture upon request.

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New York - Data on areas closed to shellfish harvesting in Long Island were provided by the New York State Department of Environmental Conservation Bureau of Marine Resources. This data layer included year-round, seasonal, and holiday closures. Seasonal and holiday closures were designated as “Conditionally Approved” according to the regional classification scheme. Closure lines were digitized from the most recent orthoimagery available at the time the closure was created or modified. These data are accurate as of September 24, 2014.

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Processing environment: ArcGIS 10.3.1, Windows 7 Professional, Intel Core i7 CPU

	Process Steps Description
1	Available shapefiles were obtained from each state and loaded into ArcGIS, and if necessary, projected into GCS North American 1983 using the PROJECT tool
2	Attribute fields were added to each dataset to match the regional classification scheme (see data dictionary)
3	Using the field calculator, attributes of each states' dataset were modified, as necessary to fit the regional classification scheme; fields that were not relevant to the regional scheme were deleted; supplemental information from the source datasets were included in the "notes" field where applicable
4	All states' datasets were clipped to state boundaries using the US Census TIGER 2012/2013 state shapefile
5	The regional layer was produced using the MERGE tool

7. QUALITY PROCESS

Attribute Accuracy: Original content was acquired from authoritative sources. Attributes strive for consistency across all features. Attribute information are presented as they exist in the source datasets, except the Condition field which unifies the individual classification schemes. Supplemental information either from the source datasets themselves or through communication with source organizations is contained in the field “Notes”.

Logical Consistency: None

Completeness: The completeness of the data reflects the feature content of the data sources. Not all records have complete information for each field due to the differences in database formats among the states.

Positional Accuracy: May vary by state. The user should consult the metadata of each individual state for positional accuracy information.

Timeliness: Based on best available information as of May 1, 2017. Data will be updated as new information becomes available. Please see individual state's metadata for more information on update frequency.

Use restrictions: Data is presented as is. Users are responsible for understanding the metadata prior to use.

Distribution Liability: All parties receiving these data must be informed of all caveats and limitations.