

MASSACHUSETTS
ENVIRONMENTAL SENSITIVITY
INDEX METADATA

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Prepared By:

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National Ocean Service

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FILE DESCRIBES: Digital data for 1999 Massachusetts Environmental Sensitivity Index. Data were compiled and digitized at Research Planning, Inc., Columbia, South Carolina.

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COMMENTS: Information was developed using the U.S. Federal Geographic Data Committee's Content Standards for Digital Geospatial Metadata, June 8, 1994. The numbering scheme matches the Metadata Standard in order to facilitate referencing definitions of the elements. The items in **bold** are required elements and the others are optional elements. The Spatial Data Transfer Standard (SDTS), ver. 03/92, was referenced to properly identify the geographic entities.

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1.0. IDENTIFICATION INFORMATION

1.1. CITATION

1.1.1. ORIGINATOR:

National Oceanic and Atmospheric Administration (NOAA),
National Ocean Service, Office of Response and Restoration,
Hazardous Materials Response Division, Seattle, Washington 98115-
0070; Coastal Services Center, 1990 Hobson Drive, Charleston, South
Carolina 29405; and Research Planning, Inc. (RPI), 1121 Park Street,
Post Office Box 328, Columbia, South Carolina 29202

1.1.2. PUBLICATION DATE:

199904

1.1.4. TITLE:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil:
Massachusetts

1.1.5. EDITION:

First

1.1.6. GEOSPATIAL DATA PRESENTATION FORM:

Atlas

1.1.7. SERIES INFORMATION

1.1.7.1. SERIES NAME:

None

1.1.7.2. ISSUE IDENTIFICATION:

Massachusetts

1.1.8. PUBLICATION INFORMATION

1.1.8.1. PUBLICATION PLACE:

Seattle, Washington

1.1.8.2. PUBLISHER:

National Oceanic and Atmospheric Administration (NOAA),
National Ocean Service, Office of Response and Restoration,
Hazardous Materials Response Division, Seattle, Washington
98115-0070

1.1.9. OTHER CITATION DETAILS:

Prepared by Research Planning, Inc., Columbia, South Carolina for
the National Oceanic and Atmospheric Administration (NOAA),
National Ocean Service, Office of Response and Restoration,

Hazardous Materials Response Division, Seattle, Washington 98115-0070, and the Coastal Services Center, 1990 Hobson Drive, Charleston, South Carolina 29405

1.1.11. LARGER WORK CITATION:

None

1.2. DESCRIPTION

1.2.1. ABSTRACT:

This data set comprises the Environmental Sensitivity Index (ESI) maps for the shoreline of Massachusetts. ESI data characterize marine and estuarine environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats; sensitive biological resources; and human-use resources

1.2.2. PURPOSE:

The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources

1.3. TIME PERIOD OF CONTENT

1.3.1. TIME PERIOD INFORMATION

1.3.1.3. RANGE OF DATES/TIMES:

The intertidal habitats of Massachusetts were originally mapped during overflights conducted in the spring of 1980. They were updated onto 1:25,000 U.S. Geological Survey (USGS) topographic maps by an experienced coastal geologist in September 1997 using 1:48,000 color vertical aerial photography produced in 1994 by NOAA, Remote Sensing Division and National Geodetic Survey (to view these photographs and associated metadata on-line, go to "<http://coast.mit.edu/>"). A series of overflights were conducted on 22-25 September to verify the shoreline classification, using fixed-wing aircraft flown at elevations of 500-1,000 feet and slow air speed. Air support was provided

by the U.S. Coast Guard (USCG). All biological resource data were obtained from a variety of data sources (detailed in this metadata report) and subsequently reviewed by local and regional experts in 1998.

1.4. STATUS

1.4.1. PROGRESS:

Complete

1.4.2. MAINTENANCE AND UPDATE FREQUENCY:

None planned

1.5. SPATIAL DOMAIN

1.5.1. BOUNDING COORDINATES

1.5.1.1. WEST BOUNDING COORDINATE:

-71.25

1.5.1.2. EAST BOUNDING COORDINATE:

-69.875

1.5.1.3. NORTH BOUNDING COORDINATE:

42.875

1.5.1.4. SOUTH BOUNDING COORDINATE:

41.2083

1.6. KEYWORDS

1.6.1. THEME

1.6.1.1. THEME KEYWORD THESAURUS:

None

1.6.1.2. THEME KEYWORD:

Sensitivity maps; ESI; coastal resources; oil spill planning; and coastal zone management

1.6.2. PLACE

1.6.2.1. THESAURUS:

None

1.6.2.2. PLACE KEYWORD:

Massachusetts

1.7. ACCESS CONSTRAINTS:

None

1.8. USE CONSTRAINTS:

DO NOT USE ESI MAPS FOR NAVIGATIONAL PURPOSES.

Besides the above warning, there are no use constraints on this data.

Acknowledgment of NOAA, RPI, and other contributing sources listed in 1.11. would be appreciated in products derived from these data

1.11. DATA SET CREDIT:

This project was supported by NOAA, National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington 98115-0070, the State of Massachusetts, Executive Office of Environmental Affairs, and NOAA's Coastal Services Center (CSC) in Charleston, South Carolina

1.13. NATIVE DATA SET ENVIRONMENT:

The software packages used to develop the atlas are Environmental Systems Research Institute's ARC/INFO® (version 7.2.1) and ORACLE® RDBMS (version 6.0.36.1.1). The hardware configuration is Hewlett Packard workstations (models 715/50 and 712/80i with 4 X-terminals) with UNIX operating system (HP-UX Release A.09.01). The following files are included in the data set:

anadfish.e00	birds.e00	biores.e00
breed.e00	esi.e00	fish.e00
habitats.e00	hydro.e00	index.e00
invert.e00	mgt.e00	m_mammal.e00
nests.e00	pnts_lut.e00	poly_lut.e00
reptiles.e00	salinity.e00	seasonal.e00
soc_data.e00	soc_lut.e00	socecon.e00
sources.e00	species.e00	status.e00

The entire data set is approximately 55 megabytes.

2.0. DATA QUALITY INFORMATION

2.1. ATTRIBUTE ACCURACY

2.1.1. ATTRIBUTE ACCURACY REPORT:

The attribute accuracy is estimated to be “good” given the years of ESI experience, the data input methodology, the quality control review sessions, and the digital logical consistency checks.

2.2. LOGICAL CONSISTENCY REPORT:

The digitization of shoreline types, biological resources, and human-use resources is a complex and highly quality-controlled process. Existing digital shoreline data are integrated into a study-wide basemap. In order to facilitate digitizing, the entire study area is split into individual quadrangles using the INDEX data layer. The first layer of information digitized is the ESI shoreline classification. The ESI habitat ranking is compiled onto 1:25,000 USGS topographic quadrangles by a geomorphologist. The hardcopy maps are then digitized and checked using both on-screen and hardcopy reviews. The edited maps are updated, checked once again for completeness and topological and logical consistency. Any errors in the shoreline classification are updated prior to digitization of the biological and human-use layers. All layers use the shoreline as the geographic reference so that there are no slivers in the geographic coordinates.

The hardcopy biological information is compiled onto 1:25,000 USGS topographic quadrangles by a biological expert using data from regional specialists in the form of maps, tables, charts, written descriptions of wildlife distributions, and personal interviews. Concurrently, digital data sources are imported, projected, checked for quality control, and integrated into the data structure. The hardcopy data are digitized, checked using both digital and on-screen procedures, integrated with existing data, plotted, and sent out for review by the regional specialists. The edited maps are updated, checked once again, and the final product plotted (at approximately 1:50,000 scale). A team of specialists review the entire series of maps, check all data, and make final edits. The data are then merged to form the study-wide layers. The data merging includes a final quality control check where labels, chains, and polygons are checked for attribute accuracy.

To finalize the data checking process, each coverage is checked using a standardized form by two GIS personnel (a technician and the GIS manager), and each attribute database is checked using several programs that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and ORACLE® to ARC/INFO® consistencies. A final review is made by the GIS manager, where data is written to tape and metadata is written.

2.3. COMPLETENESS REPORT:

Shoreline Habitat Mapping:

The intertidal habitats of Massachusetts were originally mapped during overflights conducted in the spring of 1980. They were updated onto 1:25,000 USGS topographic maps by an experienced coastal geologist in September 1997 using 1:48,000 color vertical aerial photography produced in 1994 by NOAA, Remote Sensing Division and National Geodetic Survey (to view these photographs and associated metadata on-line, go to "<http://coast.mit.edu/>"). A series of overflights were conducted on 22-25 September to verify the shoreline classification, using fixed-wing aircraft flown at elevations of 500-1,000 feet and slow air speed. Air support was provided by the U.S. Coast Guard.

Prediction of the behavior and persistence of oil on intertidal habitats is based on an understanding of the dynamics of the coastal environments, not just the substrate type and grain size. The sensitivity of a particular intertidal habitat is an integration of the following factors:

- 1) Shoreline type (substrate, grain size, tidal elevation, origin)
- 2) Exposure to wave and tidal energy
- 3) Biological productivity and sensitivity
- 4) Ease of cleanup

All of these factors are used to determine the relative sensitivity of intertidal habitats. Key to the sensitivity ranking is an understanding of the relationships between: physical processes; substrate; shoreline type; product type; fate and effect; and sediment transport patterns. The intensity of energy expended upon a shoreline by wave action, tidal currents, and river currents

directly affects the persistence of stranded oil. The need for shoreline cleanup activities is determined, in part, by the slowness of natural processes in removal of oil stranded on the shoreline.

These concepts have been used in the development of the ESI, which ranks shoreline environments as to their relative sensitivity to oil spills, potential biological injury, and ease of cleanup. Generally speaking, areas exposed to high levels of physical energy, such as wave action and tidal currents, and low biological activity rank low on the scale, whereas sheltered areas with associated high biological activity have the highest ranking.

Sensitive Biological Resources:

Biological information presented in this atlas was collected and compiled with the assistance of biologists from the Massachusetts Department of Fisheries, Wildlife, and Environmental Law Enforcement (DFWELE) and various other agencies, organizations, and groups. Information collected and depicted on the maps denotes the key biological resources that are most likely at risk in the event of an oil spill. Six major categories of biological resources are included in this atlas: birds; fish; habitats; invertebrates; marine mammals; and reptiles.

The ELEMENTs generally correspond to the coverage or geographic data layer names. There are also six attributes, or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, that are used to store the complex biological data (Fig. 1). Each biological polygon coverage (BIRDS, FISH, HABITATS, INVERT, M_MAMMAL, and REPTILES) is linked to the biological resources table (BIORES) using the lookup table POLY_LUT. The point coverages (ANADFISH and NESTS) are linked to the BIORES table using the lookup table PNTS_LUT. The items in BIORES are: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, ELEMENT, EL_SPE, and EL_SPE_SEA. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species and can be descriptive (LOW, MEDIUM, HIGH, etc.) or an actual count of the number of individuals or nests associated with a polygon or point. SEASON_ID contains a numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

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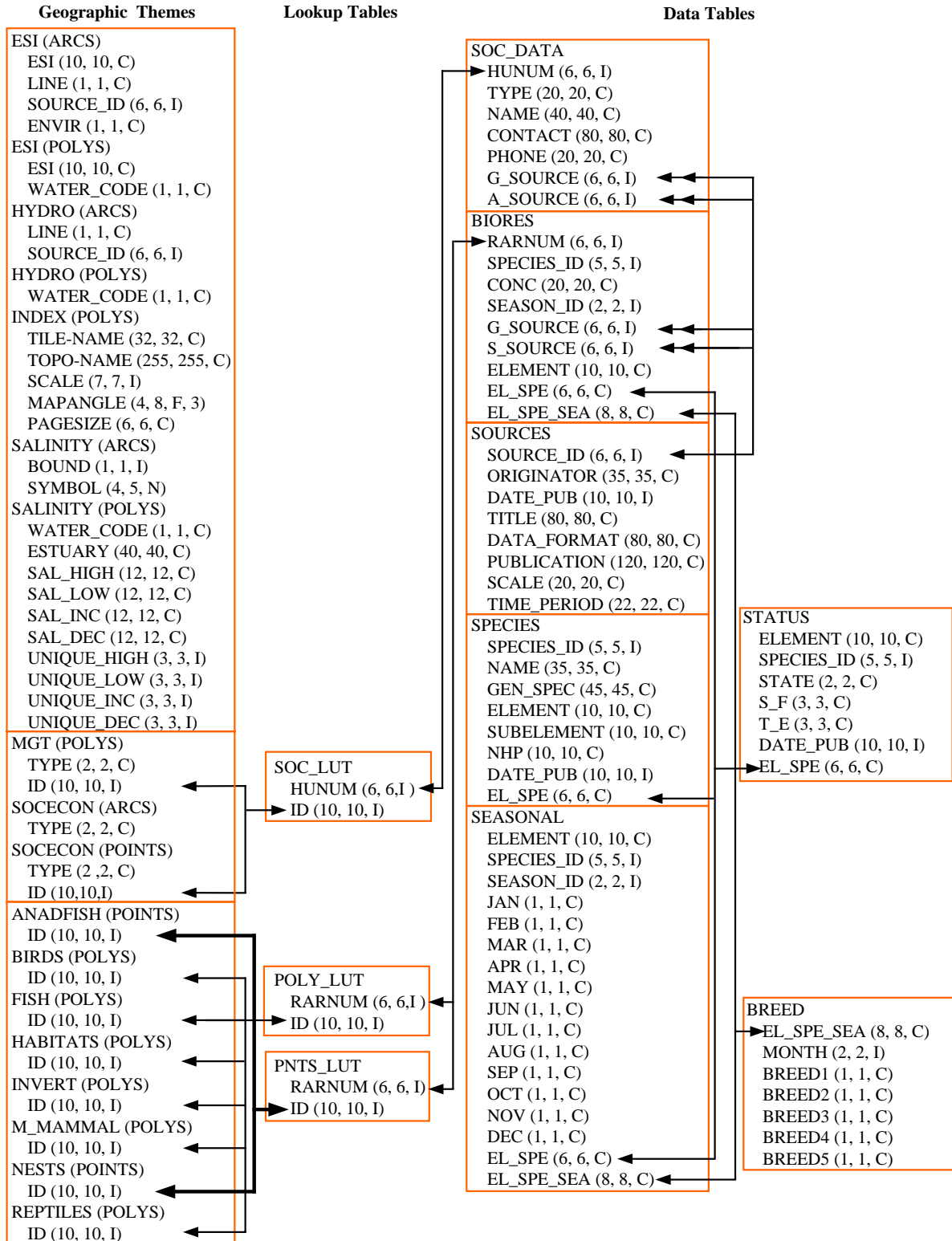


FIGURE 1. Relationship between biology coverages and attribute files.

There can be one seasonality record per species, or the same species can have different monthly presence or breeding activities at different sites. When this occurs, a new record with a different SEASON_ID is referenced.

G_SOURCE contains the SOURCE_ID for geographic information and S_SOURCE contains the SOURCE_ID for seasonality information. Both items link to the SOURCES data table. EL_SPE is a concatenation of ELEMENT and SPECIES_ID and links to other data tables (primarily the SPECIES table) and EL_SPE_SEA is a concatenation of ELEMENT, SPECIES_ID, and SEASON_ID and links to the SEASONAL and BREED data tables.

The SPECIES data table contains the SPECIES_ID (described above), common name (NAME), scientific name (GEN_SPEC), date the list of Natural Heritage Program (NHP) ranks was published (DATE_PUB), biological element (ELEMENT), biological subelement (SUBELEMENT), and the NHP global conservation status rank. The item SUBELEMENT refers to the grouping of the species:

ELEMENT	SUBELEMENT
BIRD	bird
	diving
	gull_tern
	pelagic
	raptor
	shorebird
	wading
	waterfowl
FISH	diadromous
	e_nursery
	e_resident
	freshwater
	m_benthic
	m_pelagic
HABITAT	sav
INVERTEBRATE	bivalve
	crab
	echinoderm
	insect
	lobster
	shrimp

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ELEMENT	SUBELEMENT
MARINE MAMMAL	dolphin
	pinniped
	whale
REPTILE	turtle

The STATUS data table contains records for each species that is threatened or endangered on state or federal lists. The items include: ELEMENT, SPECIES_ID, STATE (two-letter state abbreviations), S_F (state or federal status), T_E (threatened or endangered status), DATE_PUB, and EL_SPE.

The SEASONAL data table stores the monthly presence of each species where each species is defined as three-character monthly abbreviations. The BIORES table is linked to the SEASONAL table using either the combination of SPECIES_ID, ELEMENT, and SEASON_ID items, or the item EL_SPE_SEA, which contains the concatenation of these items.

The BREED data table contains the life stage or life history data for each unique combination of ELEMENT, SPECIES_ID, and SEASON_ID (or EL_SPE_SEA), and up to 12 records (corresponding to each month of the year) can have different attributes and therefore separate records. The categories for each element of the items BREED1 through BREED5 are:

ELEMENT	BREED 1	BREED 2	BREED 3	BREED 4	BREED 5
BIRD	nesting	laying	hatching	fledging	
FISH	spawning	eggs	larvae	juveniles	adults
INVERT	spawning	eggs	larvae	juveniles	adults
M_MAMMAL	mating	calving	pupping	molting	
REPTILE	nesting	hatching	internesting	juveniles	adults

NOTE: There are no BREED variables for HABITATS.

The SOURCES data table contains metadata for each biological and human-use source listed in the ESI atlas. The items in SOURCES are: SOURCE_ID; ORIGINATOR (author); DATE_PUB (date of publication); TITLE (title of the data set); DATA_FORMAT (digital type, hardcopy maps, etc.); PUBLICATION (additional citation); SCALE (source scale denominator); and TIME_PERIOD (beginning and ending dates of original data collection). The SOURCES data

table is linked to all biological data at the feature plus species-level and human-use data at the feature-level.

Human-Use Resources:

Several human-use, or socio-economic, features are included in ESI atlases. Entity points and complete chains (arcs) are digitized into the coverage SOCECON and managed area polygonal data are stored in the MGT coverage. Both data sets are linked to the data table SOC_DATA using the SOC_LUT lookup table and the items HUNUM and ID. ID is a concatenation of atlas number (45), element number (SOCECON = 10 and MGT = 11), and unique record number.

All features are attributed using the item SOCECON and identify the type of feature:

Entity Points		Polygons	
Feature	TYPE	Feature	TYPE
Access	A2	Marine Sanctuary/Reserve	MS
Airport	A	National Park	NP
Aquaculture	AQ	State Park/Forest	P
Boat Ramp	BR	Wildlife Refuge/WMA	WR
Coast Guard	CG		
Commercial Fishing	CF		
Ferry	F		
Historical Site	HS		
Lock or Dam	LD		
Marina/Anchorage	M		
Recreational Beach	B		
Recreational Fishing	RF		
State Park/Forest	P		
Management Area (ACEC)	MA		
Washover	WO		
Water Intake	WI		
Complete Chains			
Feature	TYPE		
Bridge	R		

The table SOC_DATA contains the human-use number (HUNUM), feature type (TYPE), name of the facility (NAME), owner/manager or contact person (CONTACT), telephone number (PHONE), geographic source (G_SOURCE), and attribute source (A_SOURCE). Detailed contact information is only included for select management features, where available. Source information is included for all features.

2.4. POSITIONAL ACCURACY

2.4.1. HORIZONTAL POSITIONAL ACCURACY

2.4.1.1. HORIZONTAL POSITIONAL ACCURACY REPORT:

The ESI data uses USGS 1:25,000 topographic quadrangles as the base map. It is estimated that the ESI shoreline classification has a minimum mapping unit of 50 feet. The biological data sets are developed primarily using regional experts who estimate concentration areas. Unlike shorelines, which maintain relative spatial stability through time, the biological data by nature vary in distribution across the landscape. Therefore, the 1:25,000 USGS quadrangles are used as a base map in gathering the data but the data have “fuzzy” boundaries which must be understood when utilizing this information.

2.5. LINEAGE

2.5.1. SOURCE INFORMATION:

Coverage or theme name: ANADFISH

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
MASSGIS, EOE, Boston, MA	1997	Massachusetts Anadromous Fish Datalayer	Digital Points	MASSGIS, 20 Somerset Street, Boston, MA 02108, (617) 727-5229	25000	1997
Bergan, J., DFWELE (Westboro)	1998	Sea Run Brook and Brown Trout Steams and Seasonality	Expert Knowledge	N/A	N/A	1998
Brady, P., DMF (Pocasset)	1998	Anadromous Fish Seasonality for the South Shore (Cape Cod to Rhode Island)	Expert Knowledge	N/A	N/A	1998

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Iwanowicz, R., DMF (Newburyport)	1998	Anadromous Fish Seasonality for the North Shore (New Hampshire to Boston)	Expert Knowledge	N/A	N/A	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: BIRDS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Massachusetts Natural Heritage and Endangered Species Program	1993	Coastal Rare Species Habitats Sensitive to Oil Spills	Hardcopy Maps	DFWELE GIS, Contact (617) 727-1614	100000	1993
Harrington, B. and E. Perry	1995	Important Shorebird Staging Sites Meeting Western Hemisphere Shorebird Reserve Network Criteria in the U.S.	Text Document	U.S. Department of the Interior, Fish and Wildlife Service, 121 pp.	N/A	Unknown
Blodgett, B., DFWELE/DFW	1997	Bird Updates to NHESP Coastal Rare Species Habitats Sensitive to Oil Spills Map	Expert Knowledge	N/A	N/A	1997

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2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Burrell, D., DFWELE/DFW	1997	Potential Waterfowl Concentration Areas for Cape Cod Bay, Nantucket Sound, and Vicinity	Expert Knowledge	N/A	N/A	1997
Gault, C., Waquoit Bay NEER	1997	Miscellaneous Resources for Waquoit Bay National Estuarine Research Reserve	Expert Knowledge	N/A	N/A	1997
Harrington, B., Manomet Observatory	1997	Shorebird Concentration Areas of Major Importance for Coastal Massachusetts	Expert Knowledge	N/A	N/A	1997
Heusmann, H., DFWELE/DFW	1997	Potential Waterfowl Concentration Areas and Other Resources for Coastal Massachusetts	Expert Knowledge	N/A	N/A	1997
Packard, R. and J. Hutchinson, DEP-ER	1998	Various Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Parsons, K. , Manomet Observatory	1998	Wading Bird Forging Site Locations for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: ESI

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
NOAA	1994	Color Vertical Aerial Photography	Aerial Photography	NOAA	48000	1994
Research Planning, Inc. Overflight	1998	Overflight/ Photointerpreted Maps	Hardcopy Maps	NOAA	25000	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: FISH

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Jury, S.H., J.D. Field, S.L. Stone, D.M. Nelson, and M.E. Monaco	1994	Distribution and Abundance of Fishes and Invertebrates in North Atlantic Estuaries	Text Document	ELMR Report No. 13, NOAA/NOS Strategic Environmental Assessments Division, Silver Spring, MD 221 pp.	N/A	1994
NOAA, SEA Division and Massachusetts DMF, DFWELE	1998	Estuarine Living Marine Resources Database	Digital Polygons	Database Contact: Mark Monaco and D.M. Nelson	Varies	1996-1998
Howe, A., DMF, DFWELE	1998	Black Sea Bass Distribution for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Janik, D. and B. Gass, MCZM, NERO	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

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2.5.1. SOURCE INFORMATION:

Coverage or theme name: HABITATS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Massachusetts Department of Environmental Protection and NOAA Coastal Services Center	1998	Eelgrass and Associated Data for Massachusetts	Digital Polygons	NOAA Coastal Services Center, 2234 S. Hobson Avenue, Charleston, SC 29405	25000	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: HYDRO

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
NOAA	1994	Color Vertical Aerial Photography	Hardcopy Maps	NOAA	48000	1994
MASSGIS, EOEA, Boston, MA	1997	Coastline	Digital Polygons	MASSGIS, 20 Somerset Street, Boston, MA 02108, (617) 727-5229	25000	1997
Research Planning, Inc. Overflight	1998	Overflight/ Photointerpreted Maps	Hardcopy Maps	NOAA	25000	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: INDEX

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Research Planning, Inc.	1998	Map Index	Complex Polygons	NOAA	24000	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: INVERT

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Division of Marine Fisheries, DFWELE	1978	Shellfish Resources of the Massachusetts Coast 1978	Hardcopy Map	Massachusetts Coastal Zone Management, Boston, MA	250000	1978
Massachusetts Natural Heritage and Endangered Species program	1993	Coastal Rare Species Habitats Sensitive to Oil Spills	Hardcopy Maps	DFWELE GIS, Contact (617) 727-1614	100000	1993
Jury, S.H., J.D. Field, S.L. Stone, D.M. Nelson, and M.E. Monaco	1994	Distribution and Abundance of Fishes and Invertebrates in North Atlantic Estuaries	Text Document	ELMR Report No. 13, NOAA/NOS Strategic Environmental Assessments Division, Silver Spring, MD 221 pp.	N/A	1994
Stone, S.L., T.A. Lowery, J.D. Field, S.H. Jury, D.M. Nelson, and M.E. Monaco	1994	Distribution and Abundance of Fishes and Invertebrates in Mid-Atlantic Estuaries	Text Document	ELMR Report No. 12, NOAA/NOS Strategic Environmental Assessments Division, Silver Spring, MD 280 pp.	N/A	1994

MASSACHUSETTS METADATA

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
NOAA, SEA Division and Massachusetts DMF, DFWELE	1998	Estuarine Living Marine Resources Database	Digital Polygons	Database Contact: Mark Monaco and D.M. Nelson	Varies	1996-1998
Metropolitan Area Planning Commission	1997	Various Resources for Massachusetts Coastal Zone	Expert Knowledge	N/A	N/A	1998
South Shore Shellfish Program, DFWELE, DMF	1997	Shellfish Beds, Harvest Areas, and Lease Sites for the S. Shore of Massachusetts	Expert Knowledge	Program Contacts: M. Hickey and F. Germano	N/A	1997
Goldstein, P., American Museum of Natural History	1998	Seasonality and Life-history of the Northeastern Beach Tiger Beetle	Expert Knowledge	N/A	N/A	1998
McKenna, S., MCZM, Barnstable	1998	Various Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Roach, D., DFWELE	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: MGT

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi- nator	2.5.1.4 Source Time Period
Stellwagen Bank National Marine Sanctuary	1995	Boundary for Stellwagen Bank National Marine Sanctuary	Digital Polygon	U.S. Geological Service, Woods Hole Field Center, 384 Woods Hole Road, Quissett Campus, Woods Hole, MA 02543	25000	1995
Geist, M.A. (ed.)	1996	Waquoit Bay National Estuarine Research Reserve	Hardcopy Maps, Text Document	MDEM, Division of Forests and Parks-Region 1, Waquoit, MA 113 pp.	N/A	1996
MASSGIS, EOEA, Boston, MA	1997	Protected and Recreational Open Space Datalayer	Digital Polygons	MASSGIS, 20 Somerset Street, Boston, MA 02108, (617) 727-5229	25000	1988-1997
U.S. Fish and Wildlife Service, Real Estate Division	1997	National Wildlife Refuge Boundaries for Region 5	Digital Polygons	U.S. Fish and Wildlife Service, Regional Office, Hadley, MA	Unknown	Unknown

MASSACHUSETTS METADATA

2.5.1. SOURCE INFORMATION:

Coverage or theme name: M_MAMMAL

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Payne, P.M. and L.A. Selzer	1989	The Distribution, Abundance, and Selected Prey of the Harbor Seal, <i>Phoca vitulina concolor</i> in southern New England	Hardcopy Maps, Text Document	Marine Mammal Science 5(2), pp. 173-192	Unknown	1983-1986
Hain, J.H.W., et al.	1992	The Fin Whale, <i>Balaenoptera physalus</i> , in Waters of the NE US Continental Shelf	Hardcopy Maps, Text Document	Rep. International Whaling Commission, 42:653-669	Unknown	1966-1989
Massachusetts Natural Heritage and Endangered Species Program	1993	Coastal Rare Species Habitats Sensitive to Oil Spills	Hardcopy Maps	DFWELE GIS, Contact (617) 727-1614	100000	1993
Rough, V.	1995	Gray Seals in Nantucket Sound, Massachusetts, Winter and Spring 1994	Hardcopy Maps, Text Document	Final Report to the Marine Mammal Commission, Contract #T10155615, 28 pp.	Unknown	1994
Hain, J., NMFS/NEFSC (Principal Contact)	1996	Whale Sightings Distribution for Large-Whale TRT and CETAP Projects	Hardcopy Maps	National Marine Fisheries Service, Northeast Fisheries Science Center, Woods Hole, MA	Unknown	1978-1982, 1996

MASSACHUSETTS METADATA

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Heusmann, H., DFWELE/DFW	1997	Potential Waterfowl Concentration Areas a Other Resources for Coastal Massachusetts	Expert Knowledge	N/A	N/A	1997
Waring, G., NMFS/NEFSC	1997	Seal Haul-out Sites for Various Coastal Locations	Expert Knowledge	N/A	N/A	1997
Waring, G.T., D.L. Palka, K.D. Mullin, J.H.W. Hain, L.J. Hansen, and K.D. Bisack	1997	U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments–1996	Hardcopy Maps, Text Document	NOAA Technical Memorandum NMFS–Northeast Fisheries Science Center, 114 US Dept. of Commerce, NOAA, NEFSC, Woods Hole, MA 250 pp.	Unknown	1996
Early, G., New England Aquarium	1998	Distribution and Abundance of Seal Haul-outs in Massachusetts	Expert Knowledge	N/A	N/A	1977-1997
Janik, D. and B. Gass, MCZM, NERO	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Reynolds, M. and M. Adams, NPS, CCNSS	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

MASSACHUSETTS METADATA

2.5.1. SOURCE INFORMATION:

Coverage or theme name: NESTS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
DFWELE, DFW	1995	Massachusetts Coastal Colonial Waterbird Inventory	Hardcopy Table	DFWELE, DFW, Westboro, MA	N/A	1994-1995
Blodgett, B., DFWELE/DFW	1997	Bird Updates to NHESP Coastal Rare Species Habitats Sensitive to Oil Spills Map	Expert Knowledge	N/A	N/A	1997

2.5.1. SOURCE INFORMATION:

Coverage or theme name: REPTILES

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Massachusetts Natural Heritage and Endangered Species Program	1993	Coastal Rare Species Habitats Sensitive to Oil Spills	Hardcopy Maps	DFWELE GIS, Contact (617) 727-1614	100000	1993
Reynolds, M. and M. Adams, NPS, CCNSS	199	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: SALINITY

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
NOAA, SEA Division and Massachusetts DMF, DFWELE	1998	Estuarine Living Marine Resources Database	Digital Polygons	Database Contacts: Mark Monaco and D.M. Nelson	Varies	1996-1998

2.5.1. SOURCE INFORMATION:

Coverage or theme name: SOCECON

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Rand McNally and Company	1992	Rand McNally Business Traveler's Road Atlas and Guide to Major Cities	Hardcopy Maps	Rand McNally and Company, Post Office Box 7600, Chicago, IL 60680, 128 pp.	1 inch = 10 miles	1992
MASSGIS, EOEA, Boston, MA	1997	Areas of Critical Environmental Concern	Digital Polygons	MASSGIS, 20 Somerset Street, Boston, MA 02108, (617) 727-5229	Various	1978-1995
Metropolitan Area Planning Commission	1997	Various Resources for Massachusetts Coastal Zone	Expert Knowledge	N/A	N/A	1998
Public Access Board, DFWELE	1997	Public Access Board Sites Data Layer	Digital Point	MASSGIS, 20 Somerset Street, Boston, MA 02108 (617/727-5227	25000	Unknown
Research Planning, Inc.	1997	Overflight/ Photointerpreted Maps	Hardcopy Maps	NOAA	24000	1997

MASSACHUSETTS METADATA

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Resource Management Project at UMass	1997	Land Use Data Layer	Digital Polygons	MASSGIS, 20 Somerset Street, Boston, MA 02108 (617) 727-5227	25000	1971-1992
Rhode Island-Southeastern Massachusetts Area Committee	1997	Rhode Island and Southeastern Massachusetts Area Contingency Plan (ACP)	Hardcopy Table	U.S. Coast Guard, Marine Safety Office, Providence, RI	N/A	1997
South Shore Shellfish Program, DFWELE	1997	Shellfish Beds, Harvest Areas, and Lease Sites for the S. Shore of Massachusetts	Expert Knowledge	Program Contacts: M. Hickey and F. Germano	N/A	1997
U.S. Geological Survey	Varies	USGS Topographic Quadrangles	Hardcopy Map	U.S. Geological Survey, Reston, VA	25000	Varies
Begley, M., MDEP, Providence	1998	Various Socioeconomic Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Cooper, A. and H. Clish, MCZM	1998	Additional Access Locations for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Janik, D. and B. Gass, MCZM, NERO	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
McKenna, S., MCZM, Barnstable	1998	Various Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

MASSACHUSETTS METADATA

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Packard, R. and J. Hutchinson, DEP-ER	1998	Various Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Perkins, R., et al., MDEP-NERO	1998	Additional Socioeconomic Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Plough, J. DMF, DFWELE	1998	Various Socioeconomic Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Plymouth-Salisbury, Massachusetts Area Committee	1998	Draft Updates to the Plymouth to Salisbury, Massachusetts Area Contingency Plan (ACP)	Hardcopy Table	U.S. Coast Guard, Marine Safety Office, Boston, MA	N/A	1997-1998
Reynolds, M. and M. Adams, NPS, CCNSS	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998
Roach, D., DFWELE	1998	Various Socioeconomic and Biological Resources for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

MASSACHUSETTS METADATA

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Steinitz, M., Massachusetts Historical Commission	1998	State Register of Historic Places Datalayer	Digital Points	Massachusetts Historical Commission, Office of the Secretary of the Commonwealth	24000 & 25000	Unknown
Zeroka, R., MCZM	1998	Additional Boat Ramp Locations for Massachusetts Coastal Area	Expert Knowledge	N/A	N/A	1998

2.5.2. PROCESS STEP

2.5.2.1. PROCESS DESCRIPTION:

The digitization of ESI, biological resources, and human-use resources is a complex and highly quality controlled process. In order to facilitate digitizing, the entire study area was split into individual quadrangles using the map index coverage. The first layer of information digitized was the shoreline with ESI classification. The digital shoreline was attributed with the ESI classification during field work, checked for completeness, topological and logical consistency, and edited for any errors using the original overflight maps. Any errors in the shoreline classification were updated prior to digitization of the biological and human-use layers. All data use the shoreline as the geographic reference so that there are no slivers in the geographic layers. The biological information was compiled onto 1:25,000 USGS topographic quadrangles using the data from regional specialists in the form of verbal discussions, maps, tables, charts, reports, and publications of resource distributions and seasonality. Concurrently, all digital data was imported, merged into the spatial data structure, and checked for completeness. The hardcopy data were digitized, merged with existing digital

data, checked using both digital and on-screen procedures, plotted, checked by the biological expert, edited to remove any errors, and plotted for review by the regional specialists. The reviewed maps were updated on the computer, checked once again, and plotted at final map scale. A team of specialists reviewed the entire series of maps, checked all data, and made final edits. The data were merged to form the study-wide layers that are described in this document. The data merging included a final quality control check where topological consistency, rules for geography, and database to geography were checked and validated for all relationships.

2.5.2.3. PROCESS DATE:

199702-199902

2.5.2.6. PROCESS CONTACT

2.5.2.6.1. CONTACT PERSON PRIMARY

2.5.2.6.1.1. CONTACT PERSON:

Jill Petersen

2.5.2.6.1.2. CONTACT ORGANIZATION:

NOAA HAZMAT

2.5.2.6.3. CONTACT POSITION:

GIS Manager

2.5.2.6.4. CONTACT ADDRESS

2.5.2.6.4.1. ADDRESS TYPE:

Physical Address

2.5.2.6.4.2. ADDRESS:

7600 Sand Point Way, N.E.

Bin C15700

2.5.2.6.4.3. CITY:

Seattle

2.5.2.6.4.4. STATE OR PROVINCE:

W A

2.5.2.6.4.5. POSTAL CODE:

98115-0070

2.5.2.6.5. CONTACT VOICE TELEPHONE:

(206) 526-6944

MASSACHUSETTS METADATA

2.5.2.6.7. CONTACT FACSIMILE TELEPHONE:

(206) 526-6329

2.5.2.6.8. CONTACT ELECTRONIC MAIL ADDRESS:

jill_petersen@hazmat.noaa.gov.us

3.0. SPATIAL DATA ORGANIZATION INFORMATION

3.2. DIRECT SPATIAL REFERENCE METHOD:

Vector

3.3. POINT AND VECTOR OBJECT INFORMATION

3.3.1. SDTS TERMS DESCRIPTION:

3.3.1.1. SDTS POINT AND VECTOR OBJECT TYPE, and

3.3.1.2. POINT AND VECTOR OBJECT COUNT:

Theme	Universe Polygon	GT-Polygons	Area Points	Complete Chains	Line Segments	Label Points	Entity Points	Nodes
ANADFISH							96	
BIRDS	1	1,097	1,097	2,232	403,848			1,833
ESI	1	1,870	1,873	9,123	481,975			8,360
FISH	1	774	774	1,366	204,712			1,255
HABITATS	1	1,648	1,648	1,779	170,233			1,779
HYDRO	1	983	983	2,119	257,463	620		8,524
INDEX	1	66	66	245	5,224			343
INVERT	1	1,635	1,635	3,744	601,154			3,026
MGT	1	402	402	530	39,730			445
M_MAMMAL	1	80	80	231	69,643			211
NESTS							104	
REPTILES	1	74	74	156	37,810			144
SALINITY	1	1,138	1,138	1,951	251,401			1,702
SOCECON				92	131		3,325	1,057

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4.0. SPATIAL REFERENCE INFORMATION

4.1. HORIZONTAL COORDINATE SYSTEM DEFINITION

4.1.2. PLANAR

4.1.2.1. MAP PROJECTION

4.1.2.1.1. MAP PROJECTION NAME:

STATEPLANE

4.1.2.1.2.1. MAP PROJECTION PARAMETERS :

4.1.2.1.2.1 ZONE:

2001

4.1.2.1.2.2 UNITS:

Meters

4.1.4. GEODETIC MODEL

4.1.4.1. HORIZONTAL DATUM NAME:

North American Datum of 1983

4.1.4.2. ELLIPSOID NAME:

GRS1980

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5.0. ENTITY AND ATTRIBUTE INFORMATION

5.1. DETAILED DESCRIPTION: ANADFISH

The data layer ANADROMOUS FISH contains the beginning points of anadromous fish runs in the Massachusetts coastal zone.

The beginning points of anadromous fish streams were mapped using a digital data set provided by MASSGIS and originally developed by DFWELE. For some locations, additional runs and species (sea-run brook and brown trout) were added to the digital records based on expert opinion. All sea-run brook trout locations were not depicted on the maps, due to the sensitivity of some small populations to over-harvest. At least 20 small sea-run brook trout streams along the Massachusetts coast were not mapped for this reason.

It is emphasized that only the beginning points of coastal anadromous runs are depicted in this atlas, indicating runs starting at the point shown and continuing upstream along the stream system in which the point occurs. Note that the sampling program from which the digital data set was generated focused on river herring (alewife and blueback herring) and not the other species included in the coverage. It is also cautioned that although this dataset is the best current representation of anadromous streams, it should not be considered definitive in determining the presence or absence of fish runs. Absence of anadromous run beginning points on the maps for any particular location does not necessarily suggest that anadromous runs do not occur there.

Finally, it should be noted that the seasonality and life-history information associated with the anadromous run starting points was not integrated with the ELMR fisheries data (described under the FISH data layer), and so information from the two data sets (ELMR and anadromous runs) may not always exactly correspond. Definitions for the various fish life-stages also differ slightly between the two data sets. Seasonality and lifestage time-periods for the anadromous runs were based on information provided by anadromous fish biologists from DFWELE. For the anadromous stream seasonality data: the lifestage “adult” refers to the overall time-period when adults are running upstream (ascending), spawning, and then descending the stream after spawning; the lifestage “spawning” refers to the actual spawning

period, even though spawning may occur upstream of the ESI study area for some species and streams; “juvenile” refers to the time-period when juvenile fish are descending the stream during the pulsed “out-migration” period. If no pulsed out-migration occurs for a species, then juveniles are generally listed year round. The ELMR data life-stages refer to the time-period when any particular stage is present in the estuary and salinity zone indicated. As an example, the time-period when a “juvenile” fish is present in a portion of an estuary (based on ELMR data) may differ from the time-period when large numbers of juvenile fish are descending and exiting an anadromous stream or “out-migrating”.

Expert contacts for anadromous fish include the DFWELE Division of Marine Fisheries (978/282-0308–North Shore; 617/727-0394–South Shore) and the DFWELE Division of Fisheries and Wildlife (DFW) (508/792-7270–Inland). DFW should also be contacted for sea-run brook and brown trout information, including information for brook trout runs not depicted in this atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
GT-Polygons	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the PNTS_LUT table. ID is a concatenation of atlas number (45), element number (2), and record number. ID values of zero are holes in polygons and do not contain information.

The following ANADROMOUS FISH species (points) are found in the Massachusetts ESI atlas (although included in this data layer, note that American eel are actually catadromous):

SPECIES ID	NAME
84	Rainbow smelt
85	Alewife
86	Blueback herring
87	American shad
98	American eel
101	Shortnose sturgeon
102	Atlantic sturgeon
144	Atlantic salmon
145	White perch
500	Sea lamprey
501	Brown trout (sea run)
502	Brook trout (sea run)

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: BIORES

The data table BIORES contains the attributes necessary for linking to several spatial data layers and other data tables.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	
	RARNUM integer
	SPECIES_ID integer
	CONC character
	SEASON_ID integer
	G_SOURCE integer
	S_SOURCE integer
	ELEMENT character
	EL_SPE character
	EL_SPE_SEA character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links to the POLY_LUT and PNTS_LUT lookup tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for each species and is unique within each element and refers to a nationwide ESI species list maintained at RPI and NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

CONC

5.1.2.2. ATTRIBUTE DEFINITION:

Relative or actual count of a species concentration at a specific location. Field is blank if no data is available or if listing a concentration value or number was not appropriate. "Potential" was used in a few cases (13) where bird concentrations are suspected to occur, but have not been confirmed. "Historic" is also used for colonial waterbird colonies where no nesting birds were recorded during 1994-1995 surveys. "Historic" colonies were shown on the maps because they could be used in the future by nesting birds. For other colonial waterbird nesting points, the numbers of nests recorded during 1994-1995 surveys were not listed at the request of state wildlife biologists. Nesting concentrations at any particular site may fluctuate seasonally and annually based on local or regional conditions, or other factors.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

POTENTIAL	Potential
LOW	Low
LOW-MODERATE	Low-moderate
MODERATE	Moderate
MODERATE-HIGH	Moderate-high
HIGH	High
VERY HIGH	Very high
HISTORIC	Historic
1-N	Number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SEASON_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location.

There can be one seasonality record per species, or the same species can have different monthly presence or breeding activities at different sites. When this occurs, a new record with a different SEASON_ID is referenced

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-33	Unique number
------	---------------

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

G_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:

Geographic source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

1-N

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

S_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:

Seasonality source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

1-N

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

BIRD	Birds
FISH	Fish
HABITAT	Habitats
INVERT	Invertebrates
M_MAMMAL	Marine Mammals
REPTILE	Reptiles

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT and SPECIES_ID

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

MASSACHUSETTS METADATA

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE_SEA

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT,
SPECIES_ID, and SEASON_ID

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: BIRDS

Birds are divided into several species subgroups based on taxonomy, morphology, behavior, and oil spill vulnerability and sensitivity. These selected species were included either because of their likelihood of impact by an oil spill, or their special protection status as threatened or endangered. The major types of bird areas depicted in this atlas include: resident and migratory waterfowl concentration areas; migratory shorebird concentration areas; coastal nesting areas for threatened, endangered, and special concern species; and colonial waterbird nesting sites (for seabirds and wading birds). For certain species, such as the endangered roseate tern, other concentration areas (in addition to nesting sites) were depicted when known, such as major feeding areas and migratory staging sites.

Although birds are a major component of the Massachusetts ESI, large widespread or dispersed distributions of offshore birds are not mapped. In general, major coastal embayments such as Nantucket Sound, the entire offshore area within three to four miles of land, and all offshore shoals and banks beyond can be important areas for large numbers of seabirds and certain waterfowl. Similarly, waterfowl can also be abundant in the small bays and coastal ponds during November through February, although the numbers of birds using particular areas may be highly variable.

Expert contacts for coastal and marine birds in Massachusetts include the DFWELE State Ornithologist (508/792-7270, ext. 152); the DFWELE Waterfowl Office (508/792-7270); and the Manomet Observatory for Conservation Sciences (508/224-6521).

For birds, concentration is indicated as “Very High”, “High”, “Moderate”, or “Low”, or as a numerical value representing the number of individuals or breeding pairs occurring in a polygon. “Potential” have been used in a few cases (13) where bird concentrations are suspected to occur, but have not been confirmed. Nesting concentrations at any particular site may fluctuate seasonally and annually based on local or regional conditions, or other factors. Numerical concentration values are mainly used for some waterfowl concentrations (number of individuals) and for piping plover nest sites (≥ 5 or < 5 breeding pairs).

For birds, note that nesting refers to the entire nesting period, including laying, hatching, and fledging.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the POLY_LUT table. ID is a concatenation of atlas number (45), element number (1), and record number. ID values of zero are holes in polygons and do not contain information.

The following BIRDS species are found in the Massachusetts ESI data set:

SPECIES ID	NAME
8	Double-crested cormorant
12	Canada goose
13	Brant
16	Mallard
21	Canvasback
27	Oldsquaw
28	Harlequin duck
33	Red-breasted merganser
38	Herring gull
45	Common tern
59	Lesser yellowlegs
60	Red knot
63	Dunlin
64	Short-billed dowitcher
67	Sanderling
71	Black-bellied plover
76	Bald eagle
77	Osprey
80	Arctic tern
86	Least tern

SPECIES ID	NAME
87	Little blue heron
88	Great egret
89	Snowy egret
90	Black-crowned night-heron
92	Great black-backed gull
95	Roseate tern
98	Laughing gull
133	Black skimmer
153	Piping plover
156	Semipalmated sandpiper
178	Least bittern
179	Pied-billed grebe
184	King rail
185	American bittern
186	American black duck
192	Common moorhen
289	Hudsonian godwit
299	Scaup
302	Scoters
1002	Shorebirds
1003	Waterfowl
1004	Wading birds
1014	Diving ducks
1020	Eiders

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: BREED

The data table BREED identifies the life stages and abundances, by month, for each species (There are no breed activities used for HABITAT).

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	EL_SPE_SEA
	MONTH
	BREED1
	BREED2
	BREED3
	BREED4
	BREED5

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE_SEA

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT, SPECIES_ID, and SEASON_ID. Links to BIORES and SEASONAL data tables. If a species has any different monthly presence or breeding activity, a new seasonality record is used to accommodate the variable nature of the species across the study area

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

1-N

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MONTH

5.1.2.2. ATTRIBUTE DEFINITION:

Two-digit calendar month where each species for a particular seasonality. Can have up to 12 records to account for each month of the year

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED1

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
 if EL_SPE_SEA contains "B" then BREED1 = nesting;
 if EL_SPE_SEA contains "F" then BREED1 = spawning;
 if EL_SPE_SEA contains "I" then BREED1 = spawning;
 if EL_SPE_SEA contains "R" then BREED1 = nesting;
 if EL_SPE_SEA contains "M" then BREED1 = mating

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

N	Not occurring
Y	Occurring

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED2

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
 if EL_SPE_SEA contains "B" then BREED2 = laying;
 if EL_SPE_SEA contains "F" then BREED2 = eggs;
 if EL_SPE_SEA contains "I" then BREED2 = eggs;
 if EL_SPE_SEA contains "R" then BREED2 = hatching;
 if EL_SPE_SEA contains "M" then BREED2 = calving

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

N	Not occurring
Y	Occurring

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED3

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
 if EL_SPE_SEA contains "B" then BREED3 = hatching;
 if EL_SPE_SEA contains "F" then BREED3 = larvae;
 if EL_SPE_SEA contains "I" then BREED3 = larvae;
 if EL_SPE_SEA contains "R" then BREED3 = interesting;
 if EL_SPE_SEA contains "M" then BREED3 = pupping

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

N	Not occurring
Y	Occurring

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED4

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
 if EL_SPE_SEA contains "B" then BREED4 = fledging;
 if EL_SPE_SEA contains "F" then BREED4 = juveniles;
 if EL_SPE_SEA contains "I" then BREED4 = juveniles;
 if EL_SPE_SEA contains "R" then BREED4 = juveniles;
 if EL_SPE_SEA contains "M" then BREED4 = molting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N Y	Not occurring Occurring

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
BREED5

5.1.2.2. ATTRIBUTE DEFINITION:
Species' breeding or life stage information where:
if EL_SPE_SEA contains "F" then BREED5 = adults;
if EL_SPE_SEA contains "I" then BREED5 = adults;
if EL_SPE_SEA contains "R" then BREED5 = adults

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N Y	Not occurring Occurring

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

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5.1. DETAILED DESCRIPTION: ESI

The data layer ESI contains arc (Complete Chains) and polygonal (GT-Polygons) features for the ESI shoreline classification and is based on *Environmental Sensitivity Index Guidelines, Version 2.0* (Halls, J., J. Michel, S. Zengel, J. Dahlin, and J. Petersen, 1997, Hazardous Materials Response and Assessment Division, NOAA). The ESI classification was performed in February 1997.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Complete Chain</u>	ESI character LINE character SOURCE_ID integer ENVIR character
<u>GT-Polygons</u>	ESI character WATER_CODE character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ESI

5.1.2.2. ATTRIBUTE DEFINITION:

The intertidal habitats of Massachusetts were originally mapped during overflights conducted in the spring of 1980. They were updated onto 1:25,000 USGS topographic maps by an experienced coastal geologist in September 1997 using 1:48,000 color vertical aerial photography produced in 1994 by NOAA, Remote Sensing Division and National Geodetic Survey (to view these photographs and associated metadata on-line, go to "<http://coast.mit.edu/>"). A series of overflights were conducted on 22-25 September to verify the shoreline classification, using fixed-wing aircraft flown at elevations of 500-1,000 feet and slow air speed. Air support was provided by the USCG.

Prediction of the behavior and persistence of oil on intertidal habitats is based on an understanding of the dynamics of the coastal environments, not just the substrate type and grain size. The sensitivity of a particular intertidal habitat is an integration of the following factors:

- 1) Shoreline type (substrate, grain size, tidal elevation, origin)
- 2) Exposure to wave and tidal energy
- 3) Biological productivity and sensitivity
- 4) Ease of cleanup

All of these factors are used to determine the relative sensitivity of intertidal habitats. Key to the sensitivity ranking is an understanding of the relationships between: physical processes; substrate; shoreline type; product type; fate and effect; and sediment transport patterns. The intensity of energy expended upon a shoreline by wave action, tidal currents, and river currents directly affects the persistence of stranded oil. The need for shoreline cleanup activities is determined, in part, by the slowness of natural processes in removal of oil stranded on the shoreline.

These concepts have been used in the development of the ESI, which ranks shoreline environments as to their relative sensitivity to oil spills, potential biological injury, and ease of cleanup. Generally speaking, areas exposed to high levels of physical energy, such as wave action and tidal currents, and low biological activity rank low on the scale, whereas sheltered areas with associated high biological activity have the highest ranking. A comprehensive shoreline habitat ranking system has been developed for the entire United States. The shoreline habitats delineated in Massachusetts are listed below in order of increasing sensitivity to spilled oil.

- 1A) Exposed Rocky Shores
- 1B) Exposed, Solid Man-made Structures
- 2A) Exposed Wave-cut Platforms in Bedrock
- 3A) Fine-to Medium-grained Sand Beaches
- 3B) Scarps and Steep Slopes in Sand
- 4) Coarse-grained Sand Beaches
- 5) Mixed Sand and Gravel Beaches
- 6A) Gravel Beaches
- 6B) Riprap
- 7) Exposed Tidal Flats
- 8A) Sheltered Rocky Shores
- 8B) Sheltered, Solid Man-made Structures
- 8C) Sheltered Riprap
- 9A) Sheltered Tidal Flats
- 9B) Vegetated Low Banks
- 10A) Salt- and Brackish-water Marshes
- 10B) Freshwater Marshes
- 10C) Swamps

The item ESI contains values according to the ESI ranking of the shorelines and polygons. The ESI rankings progress from low to high susceptibility to oil spills. In many cases, the shorelines are also ranked with multiple codes such as 10/7. The first number is the most landward shoreline type, salt marsh, with exposed tidal flats being the shoreline type closest to the water.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

MASSACHUSETTS METADATA

<p>5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:</p>	<p>5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:</p>
1A	Exposed Rocky Shores
1A/2A	Exposed Rocky Shores/Exposed Wave-cut Platforms in Bedrock
1A/2A/5	Exposed Rocky Shores/Exposed Wave-cut Platforms in Bedrock/Mixed Sand and Gravel Beaches
1A/2A/7	Exposed Rocky Shores/Exposed Wave-cut Platforms in Bedrock/Exposed Tidal Flats
1A/2A/9A	Exposed Rocky Shores/Exposed Wave-cut Platforms in Bedrock/Sheltered Tidal Flats
1A/4	Exposed Rocky Shores/Coarse-grained Sand Beaches
1A/5	Exposed Rocky Shores/Mixed Sand and Gravel Beaches
1A/6A	Exposed Rocky Shores/Gravel Beaches
1A/7	Exposed Rocky Shores/Exposed Tidal Flats
1A/9A	Exposed Rocky Shores/Sheltered Tidal Flats
1A/10A/7	Exposed Rocky Shores/Salt- and Brackish-water Marshes/Exposed Tidal Flats
1B	Exposed, Solid Man-made Structures
1B/2A	Exposed, Solid Man-made Structures/Exposed Wave-cut Platforms in Bedrock
1B/2A/5	Exposed, Solid Man-made Structures/Exposed Wave-cut Platforms in Bedrock/Mixed Sand and Gravel Beaches
1B/2A/7	Exposed, Solid Man-made Structures/Exposed Wave-cut Platforms in Bedrock/Exposed Tidal Flats
1B/4	Exposed, Solid Man-made Structures/Coarse-grained Sand Beaches
1B/4/2A	Exposed, Solid Man-made Structures/Coarse-grained Sand Beaches/Exposed Wave-cut Platforms in Bedrock
1B/4/7	Exposed, Solid Man-made Structures/Coarse-grained Sand Beaches/Exposed Tidal Flats
1B/4/9A	Exposed, Solid Man-made Structures/Coarse-grained Sand Beaches/Sheltered Tidal Flats
1B/5	Exposed, Solid Man-made Structures/Mixed Sand and Gravel Beaches
1B/5/7	Exposed, Solid Man-made Structures/Mixed Sand and Gravel Beaches/Exposed Tidal Flats
1B/6A	Exposed, Solid Man-made Structures/Gravel Beaches
1B/6B	Exposed, Solid Man-made Structures/Riprap
1B/6B/2A	Exposed, Solid Man-made Structures/Riprap/Exposed Wave-cut Platforms in Bedrock

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1B/6B/4	Exposed, Solid Man-made Structures/Riprap/Coarse-grained Sand Beaches
1B/6B/5	Exposed, Solid Man-made Structures/Riprap/Mixed Sand and Gravel Beaches
1B/6B/7	Exposed, Solid Man-made Structures/Riprap/Exposed Tidal Flats
1B/6B/9A	Exposed, Solid Man-made Structures/Riprap/Sheltered Tidal Flats
1B/7	Exposed, Solid Man-made Structures/Exposed Tidal Flats
1B/9A	Exposed, Solid Man-made Structures/Sheltered Tidal Flats
1B/10A	Exposed, Solid Man-made Structures/Salt- and Brackish-water Marshes
1B/10A/9A	Exposed, Solid Man-made Structures/Salt- and Brackish-water Marshes/Sheltered Tidal Flats
2A	Exposed Wave-cut Platforms in Bedrock
2A/5	Exposed Wave-cut Platforms in Bedrock/Mixed Sand and Gravel Beaches
2A/7	Exposed Wave-cut Platforms in Bedrock/Exposed Tidal Flats
2A/9A	Exposed Wave-cut Platforms in Bedrock/Sheltered Tidal Flats
3A	Fine-to Medium-grained Sand Beaches
3A/2A	Fine-to Medium-grained Sand Beaches/Exposed Wave-cut Platforms in Bedrock
3A/7	Fine-to Medium-grained Sand Beaches/Exposed Tidal Flats
3A/9A	Fine-to Medium-grained Sand Beaches/Sheltered Tidal Flats
3B	Scarps and Steep Slopes in Sand
3B/4	Scarps and Steep Slopes in Sand/Coarse-grained Sand Beaches
3B/4/7	Scarps and Steep Slopes in Sand/Coarse-grained Sand Beaches/Exposed Tidal Flats
3B/5	Scarps and Steep Slopes in Sand/Mixed Sand and Gravel Beaches
3B/5/2A	Scarps and Steep Slopes in Sand/Mixed Sand and Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
3B/5/7	Scarps and Steep Slopes in Sand/Mixed Sand and Gravel Beaches/Exposed Tidal Flats

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
3B/5/9A	Scarps and Steep Slopes in Sand/Mixed Sand and Gravel Beaches/Sheltered Tidal Flats
3B/6A	Scarps and Steep Slopes in Sand/Gravel Beaches
3B/6A/2A	Scarps and Steep Slopes in Sand/Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
3B/6A/7	Scarps and Steep Slopes in Sand/Gravel Beaches/Exposed Tidal Flats
3B/6B/5	Scarps and Steep Slopes in Sand/Riprap/Mixed Sand and Gravel Beaches
3B/6B/6A	Scarps and Steep Slopes in Sand/Riprap/Gravel Beaches
3B/6B/7	Scarps and Steep Slopes in Sand/Riprap/Exposed Tidal Flats
3B/7	Scarps and Steep Slopes in Sand/Exposed Tidal Flats
3B/9A	Scarps and Steep Slopes in Sand/Sheltered Tidal Flats
3B/10A	Scarps and Steep Slopes in Sand/Salt- and Brackish-water Marshes
3B/10A/9A	Scarps and Steep Slopes in Sand/Salt- and Brackish-water Marshes/Sheltered Tidal Flats
4	Coarse-grained Sand Beaches
4/2A	Coarse-grained Sand Beaches/Exposed Wave-cut Platforms in Bedrock
4/7	Coarse-grained Sand Beaches/Exposed Tidal Flats
4/9A	Coarse-grained Sand Beaches/Sheltered Tidal Flats
4/10A/7	Coarse-grained Sand Beaches/Salt- and Brackish-water Marshes/Exposed Tidal Flats
5	Mixed Sand and Gravel Beaches
5/2A	Mixed Sand and Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
5/7	Mixed Sand and Gravel Beaches/Exposed Tidal Flats
5/9A	Mixed Sand and Gravel Beaches/Sheltered Tidal Flats
5/10A	Mixed Sand and Gravel Beaches/Salt- and Brackish-water Marshes
6A	Gravel Beaches
6A/2A	Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
6A/7	Gravel Beaches/Exposed Tidal Flats
6A/9A	Gravel Beaches/Sheltered Tidal Flats
6B	Riprap
6B/2A	Riprap/Exposed Wave-cut Platforms in Bedrock

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
6B/3A	Riprap/Fine-to Medium-grained Sand Beaches
6B/3A/9A	Riprap/Fine-to Medium-grained Sand Beaches/Sheltered Tidal Flats
6B/4	Riprap/Coarse-grained Sand Beaches
6B/4/2A	Riprap/Coarse-grained Sand Beaches/Exposed Wave-cut Platforms in Bedrock
6B/4/7	Riprap/Coarse-grained Sand Beaches/Exposed Tidal Flats
6B/5	Riprap/Mixed Sand and Gravel Beaches
6B/5/2A	Riprap/Mixed Sand and Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
6B/5/7	Riprap/Mixed Sand and Gravel Beaches/Exposed Tidal Flats
6B/6A	Riprap/Gravel Beaches
6B/6A/2A	Riprap/Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
6B/6A/7	Riprap/Gravel Beaches/Exposed Tidal Flats
6B/7	Riprap/Exposed Tidal Flats
6B/9A	Riprap/Sheltered Tidal Flats
6B/10A	Riprap/Salt- and Brackish-water Marshes
6B/10A/9A	Riprap/Salt- and Brackish-water Marshes/Sheltered Tidal Flats
8A	Sheltered Rocky Shores
8A/5	Sheltered Rocky Shores/Mixed Sand and Gravel Beaches
8A/5/9A	Sheltered Rocky Shores/Mixed Sand and Gravel Beaches/Sheltered Tidal Flats
8A/7	Sheltered Rocky Shores/Exposed Tidal Flats
8A/9A	Sheltered Rocky Shores/Sheltered Tidal Flats
8B	Sheltered, Solid Man-made Structures
8B/4	Sheltered, Solid Man-made Structures/Coarse-grained Sand Beaches
8B/6B/9A	Sheltered, Solid Man-made Structures/Riprap/Sheltered Tidal Flats
8B/7	Sheltered, Solid Man-made Structures/Exposed Tidal Flats
8B/8A	Sheltered, Solid Man-made Structures/Sheltered Rocky Shores
8B/8C	Sheltered, Solid Man-made Structures/Sheltered Riprap
8B/8C/7	Sheltered, Solid Man-made Structures/Sheltered Riprap/Exposed Tidal Flats

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
8B/8C/9A	Sheltered, Solid Man-made Structures/Sheltered Riprap/ Sheltered Tidal Flats
8B/9A	Sheltered, Solid Man-made Structures/Sheltered Tidal Flats
8B/9B	Sheltered, Solid Man-made Structures/Vegetated Low Banks
8B/10A	Sheltered, Solid Man-made Structures/Salt- and Brackish- water Marshes
8B/10A/7	Sheltered, Solid Man-made Structures/Salt- and Brackish- water Marshes/Exposed Tidal Flats
8B/10A/9A	Sheltered, Solid Man-made Structures/Salt- and Brackish- water Marshes/Sheltered Tidal Flats
8C	Sheltered Riprap
8C/7	Sheltered Riprap/Exposed Tidal Flats
8C/9A	Sheltered Riprap/Sheltered Tidal Flats
9A	Sheltered Tidal Flats
9B	Vegetated Low Banks
9B/2A	Vegetated Low Banks/Exposed Wave-cut Platforms in Bedrock
9B/4	Vegetated Low Banks/Coarse-grained Sand Beaches
9B/4/9A	Vegetated Low Banks/Coarse-grained Sand Beaches/ Sheltered Tidal Flats
9B/5	Vegetated Low Banks/Mixed Sand and Gravel Beaches
9B/7	Vegetated Low Banks/Exposed Tidal Flats
9B/9A	Vegetated Low Banks/Sheltered Tidal Flats
9B/10A	Vegetated Low Banks/Salt- and Brackish-water Marshes
9B/10A/7	Vegetated Low Banks/Salt- and Brackish-water Marshes/ Exposed Tidal Flats
9B/10/9A	Vegetated Low Banks/Salt- and Brackish-water Marshes/ Sheltered Tidal Flats
10A	Salt- and Brackish-water Marshes
10A/3B	Salt- and Brackish-water Marshes/Scarps and Steep Slopes in Sand
10A/4	Salt- and Brackish-water Marshes/Coarse-grained Sand Beaches
10A/4/7	Salt- and Brackish-water Marshes/Coarse-grained Sand Beaches/Exposed Tidal Flats
10A/4/9A	Salt- and Brackish-water Marshes/Coarse-grained Sand Beaches/Sheltered Tidal Flats

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
10A/5	Salt- and Brackish-water Marshes/Mixed Sand and Gravel Beaches
10A/5/2A	Salt- and Brackish-water Marshes/Mixed Sand and Gravel Beaches/Exposed Wave-cut Platforms in Bedrock
10A/5/7	Salt- and Brackish-water Marshes/Mixed Sand and Gravel Beaches/Exposed Tidal Flats
10A/5/9A	Salt- and Brackish-water Marshes/Mixed Sand and Gravel Beaches/Sheltered Tidal Flats
10A/6A	Salt- and Brackish-water Marshes/Gravel Beaches
10A/7	Salt- and Brackish-water Marshes/Exposed Tidal Flats
10A/8A	Salt- and Brackish-water Marshes/Sheltered Rocky Shores
10A/9A	Salt- and Brackish-water Marshes/Sheltered Tidal Flats
10A/9B	Salt- and Brackish-water Marshes/Vegetated Low Banks
10B	Freshwater Marshes
10C	Swamps
10C/10A	Swamps/Salt- and Brackish-water Marshes
U	Unranked

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordered

5.1.2.1. ATTRIBUTE LABEL:

LINE

5.1.2.2. ATTRIBUTE DEFINITION:

Type of geographic feature

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
B	Breakwater
E	Study area extent
F	Flat
H	Hydrography or stream features

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

I	Index
P	Pier
S	Shoreline

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SOURCE_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Data source for the ESI

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

1	Digital
2	Overflight
3	Aerial photography
5	Digitized from scanned USGS quadrangles
7	Research Planning, Inc. (index)
8	Digitized from scanned NOAA navigational chart
9	Digital arcs for Stellwagen Bank NMS

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ENVIR

5.1.2.2. ATTRIBUTE DEFINITION:

Regional environment

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

E
U

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

Estuarine
Unranked

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

WATER_CODE

5.1.2.2. ATTRIBUTE DEFINITION:

Specifies a polygon as either water or land

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

L
W

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

Land
Water

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: FISH

The data layer FISH contains polygons for fish species.

The fish species depicted in the Massachusetts ESI atlas include selected estuarine-dependent, diadromous, and marine species. Species of commercial, recreational, ecological, or conservation interest are included. The ESI data show the general distribution of fish by seasonal salinity zones in selected estuaries and coastal embayments. The data for fish distribution were collected and compiled by NOAA's Strategic Environmental Assessments Division with the assistance of Massachusetts DFWELE, under the Estuarine Living Marine Resources (ELMR) program. Fish distributions by estuary and salinity zone are referred to below as "ELMR data." A description of ELMR methodology for Massachusetts follows under a separate heading. Expert contacts for marine and estuarine fisheries include the DFWELE Division of Marine Fisheries (978/282-0308–North Shore; 508/563-1779–South Shore) and the NMFS (508/495-2000).

Note that ELMR fish distributions were not mapped for offshore marine waters. Likewise, certain estuaries and bays were not included in the ELMR data. Therefore, absence of ELMR data in various water bodies does not mean that important fish resources do not occur there.

General concentration information is left blank for the ELMR data because relative abundances are listed by month in the BREED data table. Each month where an ELMR species is present, a number code indicates the species abundance (1 = no information, 2 = rare, 3 = common, 4 = abundant, 5 = highly abundant). The ELMR abundance codes usually refer to juvenile life stages, even though other life stages may be present. If juveniles are not present, the abundances refer to adults, or larvae if adults and juveniles are not present.

Various life-history stages or activities associated with the ELMR fish data include: spawning (parturition for sharks); eggs; larvae; juveniles; and adults.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:

GT-Polygons

5.1.1.2. ENTITY TYPE DEFINITION:

ID

integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the POLY_LUT table. ID is a concatenation of atlas number (45), element number (2), and record number. ID values of zero are holes in polygons and do not contain information.

The following FISH species (polygons) are found in the Massachusetts ESI atlas:

SPECIES ID	NAME
65	Bluefish
81	Spiny dogfish
84	Rainbow smelt
85	Alewife
86	Blueback herring
87	American shad
88	Winter flounder
89	Cunner
90	White hake
91	Threespine stickleback
92	Fourspine stickleback
95	Mummichog
97	Tautog
98	American eel
99	Atlantic tomcod
101	Shortnose sturgeon
102	Atlantic sturgeon
104	Striped bass
108	Summer flounder
110	Black sea bass
113	Bay anchovy
115	Atlantic menhaden
117	Pinfish
121	Spot

SPECIES ID	NAME
122	Black drum
138	Weakfish
144	Atlantic salmon
145	White perch
146	Atlantic herring
147	Atlantic mackerel
148	Silver hake
149	Atlantic cod
150	Scup (porgy)
152	Yellow perch
153	Northern kingfish
154	Pollock
155	Red hake
156	American sand lance
158	Butterfish
160	Windowpane flounder
199	Rock gunnel
201	Channel catfish
233	Ninespine stickleback
274	Sheepshead minnow
282	Mullet
335	Silversides
366	Hogchocker
467	American plaice
477	Cownose ray
478	Goby
479	Grubby
480	Haddock
481	Longhorn sculpin
482	Northern pipefish
483	Northern searobin
484	Ocean pout
485	Oyster toadfish
486	Shorthorn sculpin
487	Skates
488	Smooth flounder
489	Yellowtail flounder

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: HABITATS

Eelgrass distribution included in this atlas is based on recent digital coverages provided by the Massachusetts Department of Environmental Protection and NOAA’s Coastal Services Center in Charleston, SC.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the POLY_LUT table. ID is a concatenation of atlas number (45), element number (3), and record number. ID values of zero are holes in polygons and do not contain information.

The following HABITATS species are found in the Massachusetts ESI atlas:

SPECIES ID	NAME
1	Eelgrass

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: HYDRO

The data layer HYDRO contains polygonal water and land features as well as linear features for rivers and streams.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	WATER_CODE character
<u>Complete Chains</u>	LINE character
	SOURCE_ID integer

The LINE, SOURCE_ID, and WATER_CODE attributes are the same as in the ESI data layer. The HYDRO data layer contains all annotation used in producing the atlas. The annotation features are categorized into three subclasses in order to simplify the mapping and quality control procedures: geog or geographic features, soc or socio-economic features, and hydro or water features.

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

WATER_CODE

5.1.2.2. ATTRIBUTE DEFINITION:

Specifies a polygon as either water or land

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

L	Land
U	Unranked
W	Water

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

MASSACHUSETTS METADATA

5.1.2.1. ATTRIBUTE LABEL:

LINE

5.1.2.2. ATTRIBUTE DEFINITION:

Type of geographic feature

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

B	Breakwater
E	Study area extent
F	Flat
H	Hydrography or stream features
I	Index
P	Pier
S	Shoreline

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SOURCE_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Data source for the ESI

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1	Digital
2	Overflight
3	Aerial photography
5	Digitized from scanned USGS quadangles
7	Research Planning, Inc. (index)
8	Digitized from scanned NOAA navigational chart
9	Digital arcs for Stellwagen Bank NMS

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: INDEX

The data layer INDEX contains the map or polygon boundaries for each map in the atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	TILE-NAME character TOPO-NAME character SCALE integer MAPANGLE floating point PAGESIZE character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TILE-NAME

5.1.2.2. ATTRIBUTE DEFINITION:

The TILE-NAME contains the map number according to the specified layout of the atlas. During the map production process, the value of TILE-NAME is plotted on the map product to order the maps in a coherent manner. The values for each polygon are unique and range from 1 through 56

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

TOPO-NAME

5.1.2.2. ATTRIBUTE DEFINITION:

USGS 1:25,000 topographic map name. Some polygons straddle two or more maps and all map names are included in this attribute. The date (latest/revised) of the USGS maps are also included in this field

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

BOSTON NORTH, MA. (1985)
BOSTON SOUTH, MA. (1987)
CHATHAM, MA. (1974)
COTUIT, MA. (1974)
CUTTYHUNK, MA. (1972)
DENNIS, MA. (1974)
DUXBURY, MA. (1974)
EDGARTOWN, MA. (1979)
FALL RIVER, MA.-RI (1985)
FALMOUTH, MA. (1979)
GLOUCESTER, MA. (1984); ROCKPORT, MA. (1984)
GREAT POINT, MA. (1977)
HARWICH, MA. (1974)
HULL, MA. (1984)
HYANNIS, MA. (1979)
IPSWICH, MA. (1985)
LYNN, MA. (1985)
MANOMET, MA. (1977)
MARION, MA. (1977)
MONOMOY POINT, MA. (1977)
NANTUCKET, MA. (1977)
NAUSHON ISLAND, MA. (1977)
NEW BEDFORD NORTH, MA. (1979)
NEW BEDFORD SOUTH, MA. (1977)
NEWBURYPORT, MA.-NH (1987)
NORTH TRURO, MA. (1977)
ONSET, MA. (1967)
ORLEANS, MA. (1977)
PLYMOUTH, MA. (1977)
POCASSET, MA. (1979)
PROVINCETOWN, MA. (1972)
SAGAMORE, MA. (1979)
SALEM, MA. (1985)
SANDWICH, MA. (1972)

SCITUATE, MA. (1984)
 SCONTICUT NECK, MA. (1975)
 SIASCONSET, MA. (1977)
 SNIPATUIT POND, MA. (1977)
 SOMERSET, MA. (1985)
 SQUIBNOCKET, MA. (1977)
 TISBURY GREAT POND, MA. (1977)
 TUCKERNUCK ISLAND, MA. (1977)
 VINEYARD HAVEN, MA. (1972)
 WAREHAM, MA. (1972)
 WELLFLEET, MA. (1972)
 WESTPORT, RI-MA. (1984); SAKONNET POINT, RI-MA. (1984)
 WEYMOUTH, MA. (1984)
 WOODS HOLE, MA. (1967)

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SCALE

5.1.2.2. ATTRIBUTE DEFINITION:

SCALE contains the value of the denominator of the scale at which the map is plotted in the final map product

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

45,000

50,000

60,000

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MAPANGLE

5.1.2.2. ATTRIBUTE DEFINITION:

MAPANGLE contains a value to rotate the final map product so that it is situated straight up and down

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

0.000

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

PAGESIZE

5.1.2.2. ATTRIBUTE DEFINITION:

PAGESIZE contains the value of the width and height of the map in the final map product

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

11,17

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: INVERT

The invertebrate species depicted in the Massachusetts ESI atlas include selected estuarine, marine, and terrestrial species. Species of commercial, recreational, ecological, or conservation interest are included. The data show the general distribution of estuarine and marine invertebrates by seasonal salinity zones in selected estuaries and coastal embayments. The data for general estuarine and marine invertebrate distribution were collected and compiled by NOAA's Strategic Environmental Assessments Division with the assistance of Massachusetts DFWELE, under the ELMR program. Invertebrate distributions by estuary and salinity zone are referred to below as "ELMR data." Expert contacts for marine and estuarine fisheries include the DFWELE Division of Marine Fisheries (978/282-0308–North Shore; 617/727-0394–South Shore).

In addition to the ELMR invertebrate data, the actual locations of bivalve shellfish beds (clams, oysters, mussels, scallops, etc.) were mapped using expert information provided by DFWELE biologists and resource managers. Note that bivalve shellfish are not included in the ELMR data. The shellfish areas depicted represent the major known locations of shellfish beds, particularly beds that are harvested for recreational or commercial purposes. Shellfish beds in some areas may be closed to harvest. Bivalve shellfish are a major component of this data set, due to their commercial and recreational importance as harvested species, and their importance as habitat or prey for many other species. Expert contacts for bivalve shellfish include, the DFWELE Division of Marine Fisheries (978/282-0308–North Shore; 617/727-0394–South Shore). Note that ELMR invertebrate distributions were not mapped for offshore marine waters. Likewise, certain estuaries and bays were not included in the ELMR data. Therefore, absence of ELMR data in various water bodies does not mean that important invertebrate resources do not occur there. In the related BREED data table, the monthly presence indicates the species abundance (1 = no information, 2 = rare, 3 = common, 4 = abundant, 5 = highly abundant). The ELMR abundance codes usually refer to juvenile life stages, even though other life stages may be present. If juveniles are not present, the abundances refer to adults, or larvae if adults and juveniles are not present.

For invertebrates, locations for the threatened and endangered Northeastern beach tiger beetle were also mapped using information provided by the DFWELE Natural Heritage and Endangered Species Program. Both larval and adult beach tiger beetles use intertidal portions of exposed sand beaches during a two year life-cycle dominated by the larval stage, which is present all year (the adult winged stage is present only during summer). Larvae construct and live in burrows that are inundated regularly by the tides. Adults and larvae actively prey on amphipods and other small invertebrates, and the adults may also scavenge dead fish, crabs, etc. The larvae are directly at risk to oiling, and a single localized event could likely extirpate an entire population. Both larvae and adults could be impacted by loss of prey items such as amphipods during or following a spill (similar to risks associated with shorebirds such as the listed piping plover). Also, larval areas are highly at risk from increased foot and vehicular traffic that could be associated with beach cleanup activities. An expert contact for Northeastern beach tiger beetles and other rare and endangered species is the DFWELE Natural Heritage and Endangered Species Program (508/792-7270).

For non-ELMR invertebrate data, concentration is generally listed as “High,” “Moderate,” or “Low.”

Various life-history stages or activities used for the invertebrate data are: spawning/mating; eggs; larvae; juveniles; and adults.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the POLY_LUT table. ID is a concatenation of atlas number (45), element number (7), and record number. ID values of zero are holes in polygons and do not contain information.

The following INVERT species are found in the Massachusetts ESI atlas:

SPECIES ID	NAME
6	Northern shrimp
19	Blue mussel
25	Softshell clam
34	Sea scallop
41	Bay scallop
42	Northern quahog (hard clam)
43	Eastern oyster
45	American lobster
49	Blue crab
77	Atlantic jackknife clam
219	Green urchin
276	Sevenspine bay shrimp
285	Northeastern beach tiger beetle
286	Ocean quahog
287	Atlantic surfclam
289	Daggerblade grass shrimp
303	Atlantic rock crab
304	Green crab
305	Jonah crab

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: MGT

The data layer MGT contains the managed lands polygons.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	TYPE ID character integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TYPE

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies polygons with a socio-economic, or human-use, feature. This attribute allows direct access to the type of feature instead of linking to the more detailed SOC_DATA table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
NP	National Park
P	State Park/Forest
W R	Wildlife Refuge/ Wildlife Management Area

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the SOC_LUT table. ID is a concatenation of atlas number (45), element number (11), and record number

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: M_MAMMAL

Marine mammals depicted in the Massachusetts atlas include dolphins, whales, and pinnipeds (seals). For pinnipeds, major haul-out sites for harbor seals and pupping and haul-out sites for gray seals are depicted. Though only haul-out and pupping sites are mapped, seals can occur throughout the nearshore waters of Massachusetts. High concentration areas for whales and dolphins are also depicted in the atlas, particularly for areas such as Massachusetts Bay, Cape Cod Bay, and Stellwagen Bank which are heavily utilized by northern right whales and other species. Though only certain high concentration areas are depicted, whales and dolphins are highly mobile species and can occur throughout most of the coastal and marine waters of Massachusetts. Dolphins, porpoises, and large whales such as fin whales, minke whales, humpback whales, and right whales occur frequently in nearshore coastal waters, while sei whales and sperm whales are more restricted to offshore waters near the continental shelf edge. Some dolphins and small whales may also occur in the estuaries and smaller bays. In addition to wide spatial distributions, typical seasonal occurrences and movements of marine mammals indicated in this atlas can also vary substantially from year to year.

Many of the whales included in this atlas are protected as threatened or endangered species, and all marine mammals are protected under the Marine Mammal Protection Act of 1972. Of particular concern, the northern right whale has a very small population size and is at risk from ship strikes, entanglement in fishing gear, and perhaps habitat degradation in important feeding grounds such as Massachusetts and Cape Cod Bays. Under the U.S. Endangered Species Act, designated critical habitat has been defined for right whales in Massachusetts and nearby federal waters. NMFS has also defined additional special consideration areas for right whales and other species that must be considered during spill planning and response activities (see the Oil Spill Planning map). Vessel operators and personnel involved with spill response should be made aware of the potential presence of right whales and other species so that vessel strikes and gear entanglements can be avoided. Alternative response strategies such as the use of chemical oil dispersants or *in situ* burning also require NMFS and other agency consultations in the special consideration areas and any other areas where right whales or other

threatened and/or endangered species are observed. For up-to-date information on right whale sightings, a “Right Whale Sighting Advisory System” has been established by NOAA and the Massachusetts Division of Marine Fisheries. Maps and information on right whale sightings by date can be viewed at “http://whale.wheelock.edu/whalenet-stuff/reportsRW_NE/”. This site can also be found via the NMFS Northeast Regional Office web site at “<http://www.nero.nmfs.gov/>”.

Expert contacts for marine mammals in Massachusetts are the NMFS Northeast Fisheries Science Center in Woods Hole (508/495-2000); the NMFS Northeast Regional Office in Gloucester (978/281-9300); and the New England Aquarium in Boston (617/973-5200).

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the POLY_LUT table. ID is a concatenation of atlas number (45), element number (4), and record number. ID values of zero are holes in polygons and do not contain information.

The following M_MAMMAL species are found in the Massachusetts ESI atlas:

SPECIES ID	NAME
2	Harbor seal
6	Harbor porpoise
11	Fin whale
12	Minke whale
13	Humpback whale
14	Gray seal
60	Saddle-backed dolphin
81	Northern right whale

SPECIES ID	NAME
83	Long-finned pilot whale
86	Atlantic white-sided dolphin

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: NESTS

Birds are divided into several species subgroups based on taxonomy, morphology, behavior, and oil spill vulnerability and sensitivity. These species were included either because of their likelihood of impact by an oil spill or their special protection status as threatened or endangered.

Although birds are a major component of the Massachusetts ESI, large widespread or dispersed distributions of offshore birds were not mapped. In general, major coastal embayments such as Nantucket Sound, the entire offshore area within three to four miles of land, and all offshore shoals and banks beyond can be important areas for large numbers of seabirds and certain waterfowl.

Colonial coastal waterbird nesting site data from 1994-1995 surveys were included in the data as point locations. If polygonal and point nesting data overlapped for a species, the polygonal data was retained and the point data for that species omitted (see BIRDS data layer for polygonal data).

For most colonial waterbird nesting points, the numbers of nests recorded during 1994-1995 surveys were not listed at the request of state wildlife biologists. Nesting concentrations at any particular site may fluctuate seasonally and annually based on local or regional conditions, or other factors. Concentration was listed as “Historic” for colonial waterbird colonies where no nesting birds were recorded during 1994-1995 surveys. “Historic” colonies were shown on the maps because they could be used in the future by nesting birds.

Expert contacts for coastal and marine nesting birds in Massachusetts include the DFWELE State Ornithologist (508/792-7270, ext. 152) and the Manomet Observatory for Conservation Sciences (508/224-6521).

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Entity Points</u>	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the PNTS_LUT table. ID is a concatenation of atlas number (45), element number (5), and record number.

The following species are found in the NESTS coverage of the Massachusetts ESI atlas:

SPECIES ID	NAME
8	Double-crested cormorant
12	Canada goose
16	Mallard
38	Herring gull
45	Common tern
80	Arctic tern
86	Least tern
87	Little blue heron
88	Great egret
89	Snowy egret
90	Black-crowned night-heron
91	Glossy ibis
92	Great black-backed gull
93	Cattle egret
95	Roseate tern
96	Leach's storm-petrel
98	Laughing gull
103	Common eider
120	Yellow-crowned night-heron
133	Black skimmer
152	American oystercatcher
186	American black duck
1007	Colonial waterbirds

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: PNTS_LUT

Lookup table to link NESTS to BIORES data table.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	RARNUM integer
	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links to BIORES and PNTS_LUT

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links PNTS_LUT to the NESTS and ANADFISH data layers

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: POLY_LUT

Lookup table to link biology polygon data layers to BIORES data table.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	RARNUM integer
	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links BIORES and POLY_LUT

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links POLY_LUT to the biology polygon data layers

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: REPTILES

Reptiles depicted in the Massachusetts atlas are limited to diamondback terrapin and sea turtles. Terrapins occur in estuarine habitats such as salt and brackish marshes and tidal creeks. Sea turtles are only mapped in a few locations where in-water concentrations were reported by data providers (sea turtles do not nest in Massachusetts). The more widespread or dispersed distributions of sea turtles in the study area are not depicted in the data. In general, sea turtles can be found in the major coastal embayments and in nearshore and offshore waters of the study area. In particular, loggerhead, Kemp’s ridley, and green turtles can be found in Cape Cod Bay, and leatherback turtles can occur sporadically throughout nearshore and offshore waters, especially from July-September. It should be noted that the diamondback terrapin is state protected and all sea turtles are protected as threatened or endangered species at the state and federal levels.

An expert contact for diamondback terrapins and other protected reptiles is the DFWELE Natural Heritage and Endangered Species Program (508/792-7270). Expert contacts for sea turtles include the NMFS Northeast Regional Office in Gloucester (978/281-9300) and the New England Aquarium in Boston (617/973-5200).

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>GT-Polygons</u>	ID integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the POLYS_LUT table. ID is a concatenation of atlas number (45), element number (6), and record number. ID values of zero are holes in polygons and do not contain information.

The following REPTILES species are found in the Massachusetts ESI atlas:

MASSACHUSETTS METADATA

SPECIES ID	NAME
2	Green sea turtle
4	Kemp's ridley sea turtle
6	Loggerhead sea turtle
7	Diamondback terrapin

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: SALINITY

The data layer SALINITY contains the complete chains and complex polygons for salinity boundaries by Massachusetts estuaries. Fish distributions are based on data compiled by NOAA’s SEA Division under the ELMR Program.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Complete Chain</u>	BOUND character SYMBOL number
<u>GT-Polygons</u>	WATER_CODE character ESTUARY character SAL_HIGH character SAL_INC character SAL_LOW character SAL_DEC character UNIQUE_HIGH integer UNIQUE_LOW integer UNIQUE_INC integer UNIQUE_DEC integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

BOUND

5.1.2.2. ATTRIBUTE DEFINITION:

Specifies a line as high, low, or transitional salinity boundary

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA’s SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
---------------------------------------	--

0	Estuary boundary
1	Shoreline
2	Transitional
3	High salinity time period
4	Low salinity time period
5	Transitional
8	Study area boundary
9	Estuary offshore extent

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SYMBOL

5.1.2.2. ATTRIBUTE DEFINITION:

Map symbol used to portray high and low salinity time periods

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

0	No symbol
55	Low salinity time period/decreasing salinity
69	Low salinity time period/increasing salinity
190	High salinity time period/decreasing salinity
204	High salinity time period/increasing salinity

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

WATER_CODE

5.1.2.2. ATTRIBUTE DEFINITION:

Specifies a polygon as either land or water

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

L	Land
W	Water

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:
NOAA's SEA Division**

**5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal**

**5.1.2.1. ATTRIBUTE LABEL:
ESTUARY**

**5.1.2.2. ATTRIBUTE DEFINITION:
Name of estuary**

**5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA's SEA Division**

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

-
- Boston Harbor
 - Buzzards Bay
 - Cape Cod Bay
 - Coastal Embayments
 - Massachusetts Bay
 - Merrimack River
 - Nantucket Sound
 - Narragansett Bay
 - Offshore
 - Plum Island Sound
 - Vineyard Sound
 - Waquoit Bay
-

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:
NOAA's SEA Division**

**5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal**

5.1.2.1. ATTRIBUTE LABEL:

SAL_HIGH

5.1.2.2. ATTRIBUTE DEFINITION:

Salinity type during high time period

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Mixing

Seawater

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

SAL_LOW

5.1.2.2. ATTRIBUTE DEFINITION:

Salinity type during low time period

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Mixing

Seawater

Tidal fresh

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

SAL_INC

5.1.2.2. ATTRIBUTE DEFINITION:

Salinity type during increasing salinity time periods

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Mixing
Seawater
Tidal fresh

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

SAL_DEC

5.1.2.2. ATTRIBUTE DEFINITION:

Salinity type during decreasing salinity time periods

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Mixing
Seawater
Tidal fresh

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

UNIQUE_HIGH

5.1.2.2. ATTRIBUTE DEFINITION:

Identification number linking to SEA database (not included)
that was transformed to the SEASONAL and BREED tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

0
92
93
112
123
133
143
153
163
172
173
183
193

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

UNIQUE_LOW

5.1.2.2. ATTRIBUTE DEFINITION:

Identification number linking to SEA database (not included)
that was transformed to the SEASONAL and BREED tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

0
92
93
111
112
123
132
133
142
143

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

152
 153
 162
 163
 171
 172
 173
 183
 193

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
 DEFINITION SOURCE:**

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

UNIQUE_INC

5.1.2.2. ATTRIBUTE DEFINITION:

Identification number linking to SEA database (not included)
 that was transformed to the SEASONAL and BREED tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

0
 92
 93
 111
 112
 123
 133
 142
 143
 153
 162
 163
 172
 173

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

183

193

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

UNIQUE_DEC

5.1.2.2. ATTRIBUTE DEFINITION:

Identification number linking to SEA database (not included)
that was transformed to the SEASONAL and BREED tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

0

92

93

111

112

123

132

133

142

143

152

153

162

163

172

173

183

193

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

NOAA's SEA Division

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: SEASONAL

The data table SEASONAL specifies the month when each species is present.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	
	ELEMENT character
	SPECIES_ID integer
	SEASON_ID integer
	JAN character
	FEB character
	MAR character
	APR character
	MAY character
	JUN character
	JUL character
	AUG character
	SEP character
	OCT character
	NOV character
	DEC character
	EL_SPE character
	EL_SPE_SEA character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
BIRD	Birds
FISH	Fish
HABITAT	Habitats
INVERT	Invertebrates
M_MAMMAL	Marine Mammals
REPTILE	Reptiles

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for each species and is unique within each element and refers to a nationwide ESI species list maintained at RPI and NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

1-N

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SEASON_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location. There can be one seasonality record per species, or the same species can have different monthly presence or breeding activities at different sites. When this occurs, a new record with a different SEASON_ID is referenced

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

1-N

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

JAN

5.1.2.2. ATTRIBUTE DEFINITION:

Present in January

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

FEB

5.1.2.2. ATTRIBUTE DEFINITION:

Present in February

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
MAR

5.1.2.2. ATTRIBUTE DEFINITION:
Present in March

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
APR

5.1.2.2. ATTRIBUTE DEFINITION:
Present in April

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
MAY

5.1.2.2. ATTRIBUTE DEFINITION:
Present in May

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
JUN

5.1.2.2. ATTRIBUTE DEFINITION:
Present in June

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
JUL

5.1.2.2. ATTRIBUTE DEFINITION:
Present in July

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
AUG

5.1.2.2. ATTRIBUTE DEFINITION:
Present in August

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SEP

5.1.2.2. ATTRIBUTE DEFINITION:

Present in September

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

OCT

5.1.2.2. ATTRIBUTE DEFINITION:

Present in October

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
<hr/>	
	5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE: Research Planning, Inc.
5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:	
nominal	
5.1.2.1. ATTRIBUTE LABEL:	
NOV	
5.1.2.2. ATTRIBUTE DEFINITION:	
Present in November	
5.1.2.3. ATTRIBUTE DEFINITION SOURCE:	
Research Planning, Inc.	
5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
<hr/>	
	5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE: Research Planning, Inc.
5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:	
nominal	
5.1.2.1. ATTRIBUTE LABEL:	
DEC	
5.1.2.2. ATTRIBUTE DEFINITION:	
Present in December	
5.1.2.3. ATTRIBUTE DEFINITION SOURCE:	
Research Planning, Inc.	

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

X

Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT and
SPECIES_ID

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
--	---

1-N

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE_SEA

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT,
SPECIES_ID, and SEASON_ID

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

MASSACHUSETTS METADATA

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

1-N

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: SOC_DATA

The data table SOC_DATA contains the human-use attributes and links to the data layers MGT and SOCECON using SOC_LUT

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	HUNUM integer TYPE character NAME character CONTACT character PHONE character G_SOURCE integer A_SOURCE integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

HUNUM

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the SOC_LUT lookup table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique link

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

TYPE

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies the feature type

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

ACCESS	Access
AIRPORT	Airport
AQUACULTURE	Aquaculture
BOAT RAMP	Boat Ramp
BRIDGE	Bridge
COAST GUARD	Coast Guard
COMMERCIAL FISHING	Commercial Fishing
FERRY	Ferry
HISTORICAL SITE	Historical Site
LOCK OR DAM	Lock or Dam
MANAGEMENT AREA	Use Management Area (ACEC)
MARINA/ANCHORAGE	Marina/Anchorage
MARINE SANCTUARY/RESERVE	Marine Sanctuary/Reserve
NATIONAL PARK	National Park
STATE PARK/FOREST	State Park/Forest
RECREATIONAL BEACH	Recreational Beach
RECREATIONAL FISHING	Recreational Fishing
WASHOVER	Washover
WATER INTAKE	Water Intake
WILDLIFE REFUGE/WMA	Wildlife Refuge/Wildlife Management Area

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NAME

5.1.2.2. ATTRIBUTE DEFINITION:

The feature name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

A AND T BOATYARD	ANAWAN CLUB CLUBHOUSE
ABBOT HALL	ANCIENT BURYING GROUND
ABBOT, EDWIN HOUSE	ANDREW - SAFFORD HOUSE
ABBOTSFORD	ANDREW HARDING BEACH
ABIGAIL ADAMS STATE PARK	ANGIER, JOHN B. HOUSE
ABORN, JOHN HOUSE	ANNISQUAM BRIDGE
ACADEMY BUILDING	ANNISQUAM HARBOR LIGHT STATION
ACCESS	ANNISQUAM YACHT CLUB
ACUSHNET CEDAR SWAMP STATE RESERVATION	ANTHONY'S BEACH
ACUSHNET HEIGHTS HISTORIC DISTRICT	ANTHONY, DAVID HOUSE
ACUSHNET STATE WILDLIFE MANAGEMENT AREA	ANTHONY, DAVID M. HOUSE
ADAMS - CROCKER - FISH HOUSE	ANTHONY, HAROLD HORTON HOUSE
ADAMS - MAGOUN HOUSE	APPLETON, NATHAN RESIDENCE
ADAMS - NERVINE ASYLUM	APPLETON, SAMUEL BUILDING
ADAMS ACADEMY	APPONAGANSETT BEACH
ADAMS BUILDING	APPONEGANSETT MEETING HOUSE
ADAMS NATIONAL HISTORIC SITE COMPLEX	AQUACULTURE
ADAMS, ABRAHAM HOUSE	ARCADE BUILDING
ADAMS, CHARLES - LOCKE, WOODBURY HOUSE	ARCADE, THE
ADAMS, JOHN SCHOOL	ARLINGTON STREET CHURCH
AFRICAN MEETING HOUSE	ARMORY OF THE FIRST CORPS OF CADETS
AGRICULTURAL HALL	ARNOLD ARBORETUM
AHEARN HOUSE - CURRAN, DAVID HOUSE	ARTHUR AVENUE BEACH
AIRPORT	ASH STREET HISTORIC DISTRICT
ALBION STREET, 380	ASHLEY HOUSE
ALBREE - HALL - LAWRENCE HOUSE	ASHWORTH BROTHERS MILL
ALDEN, ARTHUR HOUSE	ATHENAEUM PRESS BUILDING
ALDEN, JOHN HOUSE	ATLANTIC AVENUE BEACH
ALGONQUIN PRINTING COMPANY	ATWOOD - HIGGINS COMPLEX HIST. DIST.
ALL SAINTS CHURCH	ATWOOD HOUSE AND SAMPSONS POND BEACH
AMELIA EARHART DAM	ATWOOD, EPHRAIM HOUSE
AMERICAN NET AND TWINE COMPANY FACTORY	AUCOOT BEACH
AMERICAN PRINTING - METACOMET MILL	AUCOOT ROAD BEACH
AMES BUILDING, THE	AUSCOOT BOAT YARD
AMES NOWELL STATE PARK	AUSTIN BLOCK
AMES, JOSIAH A. HOUSE	AUSTIN HALL
AMESBURY & SALISBURY MILL VILLAGE HD	AUSTIN, FRANCIS B. HOUSE
ANAWAN CLUB CARETAKER'S HOUSE	AVON HILL HISTORIC DISTRICT
	AYRE, JOHN HOUSE
	B & B CHEMICAL COMPANY
	BACHELOR ROW - PEAR TREE- L MAIN ST DIST
	BACK BAY ARCHITECTURAL DISTRICT

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

BACK BAY FENS, SECTIONS OF	BAXTER, CAPT. SHUBAEL HOUSE
BACK BAY HISTORIC DISTRICT	BAXTER, CAPT. SYLVESTER HOUSE
BACON, CLIFTON HOUSE	BAXTER, CHARLES L. HOUSE
BAILEY HOUSE	BAY HEAD SHORES BEACH
BAINBRIDGE, RANDOLPH HOUSE	BAY MARINE
BAKER HOUSE	BAY ST, 1
BAKER'S ISLAND LIGHT STATION	BAY STATE RD - BACK BAY W ARCHITECTURAL
BAKER, BENJAMIN JR. HOUSE	BAY STREET LOBSTER
BAKER, CAPT. SETH JR. HOUSE	BAY VILLAGE HISTORIC DISTRICT
BAKER, NATHANIEL HOUSE	BAYVIEW AVENUE, 32
BAKER, SARAH J. SCHOOL	BAYVIEW BEACH
BAKERS BEACH	BEACH
BALCH, JOHN HOUSE	BEACH - KNAPP DISTRICT
BALDWIN, MARIA HOUSE	BEACH AT GREAT HERRING POND
BALLSTON BEACH	BEACH NEAR STRONG ISLAND
BANK BLOCK	BEACH RESERVATION
BANK STREET BEACH	BEACHWOOD BEACH
BAPTIST PARSONAGE	BEACON HILL HISTORIC DISTRICT
BARDENS BOATYARD	BEACON STREET HISTORIC DISTRICT
BARK STREET SCHOOL	BEARD, PADILLA HOUSE
BARKER, GEORGE A. HOUSE	BEARSE POND ACCESS
BARKER, HENRY F. HOUSE	BEARSE, CAPT. ALLEN H. HOUSE
BARKING CRAB	BEARSE, CAPT. OLIVER HOUSE
BARLOWS BOAT YARD	BEAUPORT
BARLOWS LANDING BEACH	BEDFORD BUILDING, THE
BARNARD MILLS	BEEBE ESTATE
BARNES, HOWARD C. HOUSE	BELCHER - ROWE HOUSE
BARNES, JAMES B. HOUSE	BELL ROCK CEMETERY
BARNES, MELISSA E. AND WALTER S. HOUSE	BELLE ISLE MARSH STATE RESERVATION
BARNSTABLE COUNTY SUPERIOR COURTHOUSE	BELLEVILLE WAREHOUSE
BARNSTABLE MUNICIPAL AIRPORT	BELLINGHAM - CARY, GOV. HOUSE
BARNSTABLE OLD JAIL	BELLINGHAM SQUARE DISTRICT
BARTLETT - RUSSELL - HEDGE HOUSE	BELMONT CLUB - YOUNG, JOHN HOUSE
BASS HOLE AQUACULTURE FACILITY	BELMONT ROAD BEACH
BASS RIVER BEACH AND BOAT ACCESS	BEND OF THE LANE
BASSINGS BEACH/ BRIGGS HARBOR	BENNINK - DOUGLAS COTTAGES
BATELLE LABS	BENTLEY, EMMA HOUSE
BATEMAN, WILLIAM R. HOUSE	BERGER FACTORY
BATTERYMARCH BUILDING	BERKELEY BUILDING
BAXTER MILL	BERKELEY STREET HISTORIC DISTRICT
BAXTER STREET HISTORIC DISTRICT	BERRY, CAPT. JAMES HOUSE
BAXTER, CAPT. RODNEY J. HOUSE	BERTRAM HALL
	BETH ISRAEL SYNAGOGUE

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

BETHANY CONGREGATIONAL CHURCH	BOSTON EDISON ELECTRIC
BEVERLY CENTER HISTORIC DISTRICT	ILLUMINATING CO.
BEVERLY DEPOT	BOSTON ENGINE CO. NO.32, WORKING
BEVERLY GRAMMAR SCHOOL	THEATER
BEVERLY MUNICIPAL AIRPORT	BOSTON HARBOR ISLANDS NRA
BICKFORDS MARINA	BOSTON LIGHT STATION
BIGELOW BLOCK	BOSTON NAVAL SHIPYARD
BIGELOW SCHOOL	BOSTON PUBLIC GARDEN
BIGELOW STREET HISTORIC DISTRICT	BOSTON PUBLIC LIBRARY
BILLINGS, FREDERICK HOUSE	BOTTLE HOUSE BLOCK
BIOLOGICAL LABORATORY	BOTTUME, JOHN HOUSE
BIRD ISLAND LIGHT STATION	BOURNE BACK RIVER ACEC
BLACK BEACH	BOURNE MARINA
BLACK BEACH ACCESS	BOW STREET HISTORIC DISTRICT
BLACKSTONE BLOCK HISTORIC DISTRICT	BOWDITCH SCHOOL
BLAKE, JAMES HOUSE	BOWDITCH, NATHANIEL HOUSE
BLANEY BEACH	BOWDITCH, WILLIAM INGERSOLL HOUSE
BLISH - GARRET HOUSE	BOWEN, L. HOUSE
BLISH POINT BOAT RAMP	BOWEN, NATHAN HOUSE
BLODGETT, ELIZABETH HOUSE	BOWKER PLACE
BLOSSOM, BARNABUS HOUSE	BOYLSTON BUILDING
BLUE MUSSEL HARVEST	BRABROOK, E.H. HOUSE
BOARDMAN HOUSE	BRACKETT, S. E. HOUSE
BOARDMAN, STEPHEN HOUSE	BRADBURY, WILLIAM F. HOUSE
BOAT RAMP	BRADDOCK, EDWARD HOUSE
BOGUSLAVSKY TRIPLE DECKERS	BRADFORD - SMITH BUILDING
BOIT, E. E. HOME FOR AGED WOMEN	BRADFORD - UNION STREET HIST. DIST.
BONNER - SNOW HOUSE	BRADFORD, CAPT. DANIEL HOUSE
BONNER, WILLIAM HOUSE	BRADFORD, CAPT. GAMALIEL HOUSE
BORDEN - WINSLOW HOUSE	BRADFORD, CAPT. GERSHOM HOUSE
BORDEN FLATS LIGHT STATION	BRAMBLE HILL
BORDEN, ANDREW J. BUILDING	BRANDEIS, LOUIS HOUSE
BORDEN, ARIADNE J. AND MARY A. HOUSE	BRANT ISLAND BEACH ROAD
BORDEN, N. B. SCHOOL	BRANT POINT LIGHT STATION
BORDER CITY MILLS	BRATTLE HALL
BORDER CITY MILLS - MILL #2	BRATTLE, WILLIAM HOUSE
BOSTON AND MAINE RAILROAD DEPOT	BRAY, THOMAS FARM HISTORIC DISTRICT
BOSTON ATHENAEUM	BRAYTON METHODIST EPISCOPAL CHURCH
BOSTON CENTER FOR ADULT EDUCATION	BRAYTON POINT STATE SALT MARSH
BOSTON COMMON	BRAYTON POINT STATION
BOSTON COMMON AND PUBLIC GARDEN	BRAZER, SECOND BUILDING
BOSTON EDISON	BREAKHEART RESERVATION
	BREAKWATER BEACH
	BREAKWATER BEACH II

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

BRIARWOOD BEACH	BURGESS, CHARLES H. HOUSE
BRICK BLOCK	BURGESS, FRANK HOUSE
BRIDGE VILLAGE HISTORIC DISTRICT	BURGIN, CLARENCE HOUSE
BRIGGS, GEORGE I. HOUSE	BURNHAM, DAVID HOUSE
BRIGGS, HORACE HOUSE	BURNHAM, JAMES HOUSE
BRIGHTMAN, HATHAWAY HOUSE	BURNHAM, THOMAS - PATCH, COL. JOHN HOUSE
BRISTOL BEACH	
BRISTOL CO. SUPERIOR COURTHOUSE AND REG.	BURR BROTHERS MARINA
BROAD ST, 102	BUSWELL, CLARA HOUSE
BROAD ST, 5-7	BUTLER FLATS LIGHT STATION
BROAD ST, 50-52	BUZZARDS BAY BEACH
BROAD ST, 64A-64	C K BEACH CLUB
BROAD ST, 66	CABLE, BENJAMIN STICKNEY MEMORIAL HOSP.
BROAD ST, 68-70	CABOT, CAPT. JOHN HOUSE
BROAD ST, 72	CADMAN - WHITE - HANDY HOUSE
BROAD ST, 9	CAHOON HOLLOW BEACH
BROADWAY HISTORIC DISTRICT	CALDWELL BLOCK
BROADWAY WINTER HILL CONGREGATIONAL CHURCH	CALEF, DR. JOHN HOUSE
BROMFIELD ST, 20-30	CALF PASTURE PUMPING STATION
BROOKLINE - BOSTON MILESTONE	CALL, PHILIP HOUSE
BROOKLINE ARTS CENTER	CAMBRIDGE ARMORY
BROOKLINE VILLAGE COMMERCIAL DISTRICT	CAMBRIDGE CITY HALL
BROOKS, CHARLES HOUSE	CAMBRIDGE COMMON HISTORIC DISTRICT
BROOKS, JAMES H. HOUSE	CAMBRIDGE MUTAL FIRE INSURANCE CO. BLDG.
BROOKS, JONATHAN HOUSE	CAMBRIDGE PUBLIC LIBRARY
BROOKS, LUTHER HOUSE	CAMBRIDGE STREET, 1707-1709
BROWN - HODGKINSON HOUSE	CAMBRIDGE STREET, 1715-1717
BROWN HOUSE	CAMPBELL PARK - MEACHAM ROAD HIST. DIST.
BROWN SQUARE HOUSE	CAMPBELL, COLLEN C. HOUSE
BROWN'S MANOR	CANAL ELECTRIC
BROWN, AUSTIN HOUSE	CANARY - HARTNETT HOUSE
BROWN, C. H. COTTAGE	CANEDY, SQUIRE WILLIAM B. HOUSE
BROWN, JOHN IV HOUSE	CAPE ANN MARINA
BROWNS YACHT YARD	CAPE COD AIRPORT
BRYANT - CUSHING HOUSE	CAPE COD MUSEUM OF NATIONAL HISTORY
BRYANT, WILLIAM OCTAGON HOUSE	CAPE COD NATIONAL SEASHORE
BUCK, CHARLES HOUSE	CAPE COD NATIONAL SEASHORE BEACHES
BUDDY'S TRUCK STOP	CAPE COD RAIL TRAIL
BUFFINGTON, DEA. JOHN HOUSE	CAPE POGE LIGHT
BULFINCH TRIANGLE HISTORIC DISTRICT	
BUNKER HILL MONUMENT	
BUNKER HILL SCHOOL	

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

CAPE POGUE RESERVATION/ EAST BEACH	CHARLTON MILL
CARNEGIE LIBRARY	CHARTER STREET HISTORIC DISTRICT
CARNEY, SGT. WILLIAM H. HOUSE	CHASE - HYDE FARM - MAIN HOUSE
CARPENTER CENTER FOR THE VISUAL ARTS	CHASE GARDEN CREEK STATE SALT MARSH
CARPENTER, COL. THOMAS III HOUSE	CHASE OLIVER THREAD MILL
CARR - OSBORN - DURFEE HOUSE	CHASE, LEMUEL B. HOUSE
CARR ISLAND STATE WILDLIFE SANCTUARY	CHASE, SAMUEL HOUSE
CARR, MARTIN W. SCHOOL	CHATHAM HISTORIC BUSINESS DISTRICT
CARVILL, ALPHONSO AND JEMIMA HOUSE	CHATHAM LIGHT BEACH
CASHMAN PARK	CHATHAM LIGHT STATION
CASTLE HILL - GREAT HOUSE, THE	CHATHAM MUNICIPAL AIRPORT
CATARACT ENGINE COMPANY #3	CHATHAM RAILROAD DEPOT
CEDAR POINT BEACH	CHATHAM WINDMILL
CENTENNIAL AVENUE, 81	CHELSEA CITY HALL
CENTER METHODIST CHURCH	CHELSEA CREEK BEACH
CENTER PARK HISTORIC DISTRICT	CHELSEA SQUARE HISTORIC DISTRICT
CENTERVILLE HISTORIC DISTRICT	CHEQUESSET NECK BEACH
CENTRAL BUILDING (SWEETSER FACT. BLDG.	CHESTER STREET HISTORIC DISTRICT
CENTRAL BURYING GROUND	CHESTNUT COURT HOUSES
CENTRAL CONGREGATIONAL CHURCH	CHESTNUT STREET HIST. DIST. ENLARGED
CENTRAL FIRE STATION	CHESTNUT STREET HISTORIC DISTRICT
CENTRAL GLOUCESTER HISTORIC DISTRICT	CHESTNUT STREET LOCAL HISTORIC DISTRICT
CENTRAL LIBRARY	CHILD, FRANCIS HOUSE
CENTRAL NEW BEDFORD HISTORIC DISTRICT	CHILDREN'S HOME, THE
CENTRAL SQUARE HISTORIC DISTRICT	CHILDS RIVER ACCESS
CENTRAL SQUARE POST OFFICE	CHOATE BRIDGE
CHACE MILLS	CHOATE, RUFUS HOUSE
CHACE, ARNOLD B. ROWHOUSES	CHRIST CHURCH
CHAMBERLAIN, SAMUEL HOUSE	CHUBBUCK, THOMAS JR. HOUSE
CHAPAQUOIT BEACH	CHURCH GREEN BUILDING
CHAPIN MEMORIAL PARK	CHURCH GREEN BUILDINGS
CHARLES PLAYHOUSE	CHURCH OF CHRIST
CHARLES RIVER BASIN HISTORIC DISTRICT	CHURCH OF THE ASCENSION
CHARLES RIVER STATE RESERVATION	CHURCH OF THE NEW JERUSALEM
CHARLES ST. AFRICAN METH. EPISCOPAL CH.	CHURCH STREET, 26-28
CHARLES STREET MEETING HOUSE	CITY HALL HISTORIC DISTRICT
CHARLESTOWN SAVINGS BANK	CLAFLIN - RICHARDS HOUSE
	CLAPP HOUSES
	CLAPPS POND ACCESS
	CLARK'S POINT LIGHT
	CLARK, J. H. HOUSE
	CLEVELAND LEDGE LIGHT STATION

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

CLEVELAND STREET, 13	CONNELL, WILLIAM M. SCHOOL
CLIFF, ZEBEDEE E. HOUSE	CONSTITUTION BEACH
CLIFFORD - WARREN HOUSE	CONVERSE MEMORIAL BUILDING
CLOUGH, EBENEZER HOUSE	CONVERSE STREET, 39
CLOVERDEN - MANN HOUSE	COOK - OLIVER HOUSE
COAST GUARD	COOKS BROOK BEACH
COAST GUARD RADIO STATION	COOKS POND ACCESS
COAST GUARD STATION	COOPER - DAVENPORT TAVERN WING
COBURN, FRED HOUSE	COOPER - FROST - AUSTIN HOUSE
COCKLE COVE BEACH LANDING	COPP'S HILL BURIAL GROUND
CODDINGTON SCHOOL	COPP'S HILL TERRACE
CODMAN BUILDING (10 LIBERTY SQ. BLDG.)	CORKY ROW HISTORIC DISTRICT
CODMAN SQUARE HISTORIC DISTRICT	CORN HILL BEACH
CODMAN, COL. CHARLES ESTATE	CORNELL MILLS
COFFIN, JETHRO HOUSE	CORNING, SAMUEL HOUSE
COFFIN, TRISTRAM HOUSE	CORPORATION BEACH
COFFINS BEACH	COTTAGE FARM HISTORIC DISTRICT
COGAN, BERNARD HOUSE	COTTAGE FARM LOCAL HISTORIC DISTRICT
COGAN, JAMES HOUSE	COTUIT HISTORIC DISTRICT
COGSWELL'S GRANT	COUGHLIN SCHOOL
COHASSET COMMON HISTORIC DISTRICT	COUNTY STREET HISTORIC DISTRICT
COHASSET YACHT CLUB	COWDREY, GEORGE HOUSE
COKER, BENJAMIN HOUSE	COX - HICKS HOUSE
COLBURN, SARAH FOSTER HOUSE	COX BUILDING
COLD STORAGE BEACH	CRAIGIE ARMS
COLE'S HILL	CRAIGVILLE HISTORIC DISTRICT
COLE, BENJAMIN HOUSE	CRANE BEACH - CASTLE HILL
COLLEGE HOUSE	CRANE POND ST. WILDLIFE MANAGEMENT AREA
COLLINS, WILLIAM HOUSE	CRANE, EDWARD HOUSE
COLONIAL ACRES BEACH	CRANE, FRANK W. HOUSE
COLONIAL BEACON GAS STATION	CRANE, THOMAS PUBLIC LIB. - WOLLASTON BR
COLUMBUS AVE. - WARREN AVE. HIST. DIST.	CRANE, THOMAS PUBLIC LIBRARY
COMMERCIAL FISHING	CRANSTON STREET, 17
COMMERCIAL LOBSTER	CRESCENT MILL
COMMERCIAL PALACE HISTORIC DISTRICT	CRESSY BEACH
COMMERCIAL STREET, 86-88	CROCKER TAVERN
COMMONWEALTH AVENUE MALL	CROCKER, BENOMI - BARNABAS HOUSE
COMMONWEALTH PIER 5	CROCKER, CAPT. ALEXANDER HOUSE
CONANT, EXERCISE HOUSE	CROCKER, EBENEZER JR. HOUSE
CONDOR STREET BEACH	CROCKER, LOT HOUSE
CONGREGATION AGUDATH SHOLOM	CROMBIE STREET HISTORIC DISTRICT
CONGRESS STREET FIRE STATION	CRONIN BEACH

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

CRONIN, WILLIAM HOUSE	DEMPSEY, ADDIS HOUSE
CROSBY HOUSE	DENNIS, JOSIAH MANSE
CROSBY, DANIEL HOUSE	DENNIS, THOMAS HOUSE
CROWELL - BOURNE FARM	DEPOT STREET BEACH
CROWELL, C. C. HOUSE	DERBY STREET LOCAL HISTORIC DISTRICT
CROWINSHIELD, BENJAMIN W. HOUSE	DERBY SUMMER HOUSE
CROWNINSHIELD HOUSE	DERBY WATERFRONT HISTORIC DISTRICT
CUFFE, PAUL HOUSE	DERBY WHARF LIGHTHOUSE
CUMMINGS, E.E. HOUSE	DEROSAY - MCNAMEE HOUSE
CURLEY, JAMES MICHAEL HOUSE	DEVOTION, EDWARD HOUSE
CURTIS, PAUL HOUSE	DICEY, RUSSELL M. HOUSE
CUSHING HOMESTEAD	DIGHTON ROCK
CUSHING, CALEB HOUSE	DIGHTON ROCK STATE PARK
CUSTOM HOUSE AND BONDED WAREHOUSE	DIKE, LYMAN - ORNE, JOSHUA HOUSE
CUSTOM HOUSE DISTRICT	DILL BUILDING
CYCLORAMA BLDG. (CENTER FOR THE ARTS)	DILLAWAY SCHOOL
CYPRESS - EMERSON HISTORIC DISTRICT	DILLINGHAM HOUSE
DALTON, MICHAEL HOUSE	DIONIS BEACH
DAM	DISTRICT 13 POLICE STATION
DANA - PALMER HOUSE	DIVINITY HALL
DANIELS, BLAKE COTTAGE	DODGE HOUSE
DANIELS, CHARLES A. SCHOOL	DODGE, E. P. BUILDING
DANVERS TOWN HALL	DOGFISH BAR BEACH
DANVERSPORT YACHT CLUB	DOGGET, SOLON HOUSE
DARLING - PRINCE HOUSE	DONAGHY, THOMAS SCHOOL
DARLING, SAMUEL HOUSE	DONAHUES MARINA
DAVENPORT - ALLEN AND ENDICOTT FACTORY	DORCHESTER HEIGHTS NATIONAL HIST. SITE
DAVIS - FREEMAN HOUSE	DORCHESTER NORTH BURYING GROUND
DAVIS AND TRIPP MARINA	DORCHESTER POTTERY WORKS
DAVIS, DR. FRANK HOUSE	DORCHESTER-MILTON L. MILLS INDUST. DIST.
DAVIS, EBENEZER HOUSE	DOROTHY Q APARTMENTS
DAVIS, THOMAS ASPINWALL HOUSE	DOUCETTE, PETER TEN FOOTER SHOE SHOP
DAVIS, WILLIAM MORRIS HOUSE	DOW BLOCK
DAVIS/ WEST DENNIS BEACH	DOWNER ROWHOUSES
DAVOL SCHOOL	DOWNER, CUTLER HOUSE
DAWSON BUILDING, THE	DOWNTOWN CHELSEA RESIDENTIAL DISTRICT
DAY, NATHANIEL - DODGE, COL. ISAAC HOUSE	DOWNTOWN FALL RIVER HISTORIC DISTRICT
DEAN, SILAS HOUSE	DOWNTOWN HISTORIC DISTRICT
DEANE - WILLIAMS HOUSE	DOWNTOWN SALEM HISTORIC DISTRICT
DELPHIC CLUB	DRAPER'S POINT PUBLIC LANDING
DEMAREST LLOYD STATE PARK	

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

DUDLEY HOUSE	ELEVATOR WORKS
DUDLEY STATION AND ELEVATED N. OF DUDLEY	ELGIN ROAD BEACH
DUDLEY STATION HISTORIC DISTRICT	ELIOT BURYING GROUND
DUNE SHACKS OF PEAKED HILL BARS	ELIOT CONGREGATIONAL CHURCH
DUNVEGAN, THE	ELIOT HALL
DURELL, GEORGE W. SCHOOL	ELIOT HALL (THE FOOTLIGHT CLUB)
DURELL, WALTER HOUSE	ELIOT, JOHN SQUARE HISTORIC DISTRICT
DURFEE MILLS	ELKS BUILDING
DURFEE, B. M. C. HIGH SCHOOL (OLD)	ELLIS, ASA HOUSE
DURGIN, E. A. HOUSE	ELLISVILLE HARBOR ACEC
DUTCH HOUSE, THE	ELLISVILLE HARBOR STATE PARK
DUTCH, SAMUEL HOUSE	EMERALD NECKLACE PARKS
DUXBURY BEACH	EMMETT COTTAGE
DUXBURY BEACH RESERVATION	ENGLEWOOD BEACH
DUXBURY YACHT CLUB	ENGLEWOOD DINER
DYKE - WHEELER HOUSE	ENGLISH HIGH SCHOOL
EAGLE ISLAND STATE NATURAL HERITAGE AREA	ENGLISH STATE SALT MARSH
EARLE ROAD BEACH	ERNESTINA, SCHOONER
EARLE, JOHN M. HOUSE	ESSEX COUNTY COURT BUILDING COMPLEX
EAST CAMBRIDGE HISTORIC DISTRICT	ESSEX INSTITUTE HISTORIC DISTRICT
EAST CAMBRIDGE SAVINGS BANK	ESSEX INSTITUTE MUSEUM
EAST CHOP BEACH AND YTC	ESSEX TOWN HALL - BURNHAM MEM. LIBRARY
EAST CHOP LIGHT	EUSTIS ST. ARCH. CONSERVATION DISTRICT
EAST END DISTRICT	FABENS BUILDING
EAST FALMOUTH HISTORIC DISTRICT	FAIRBORN, T. HOUSE
EAST HORSENECK BEACH	FAIRHAVEN - NEW BEDFORD BRIDGE
EASTERN POINT LIGHT STATION	FAIRHAVEN HIGH SCHOOL AND ACADEMY
EASTHAM STATE MARSH MANAGEMENT AREA	FAIRHAVEN TOWN HALL
EASTVILLE POINT BEACH	FALL RIVER BLEACHERY
EATON DRUG BUILDING	FALL RIVER MUNICIPAL AIRPORT
EDGARTOWN HARBOR LIGHTHOUSE	FALL RIVER PUBLIC LIBRARY
EDGARTOWN LOCAL HISTORIC DISTRICT	FALMOUTH AIRPORT
EDGARTOWN VILLAGE HISTORIC DISTRICT	FALMOUTH HEIGHTS TOWN BEACH
EDGERTON, W. L. HOUSE	FALMOUTH VILLAGE HISTORIC DISTRICT I
EDGEWATER AND ROCKLAND STREET BEACH	FALMOUTH VILLAGE HISTORIC DISTRICT II
EDWARD J. LOPEZ AVENUE, 42	FANEUIL HALL
EGG ROCK STATE WILDLIFE SANCTUARY	FANEUIL, PETER SCHOOL
EGYPT BEACH	FARRIER, AMASA BOARDING HOUSE
ELDREDGE PUBLIC LIBRARY	FARRIER, AMASA HOUSE
ELEPHANT ROCK BEACH CLUB	FARWELL - RUSSELL STORE

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

FAXON, JOB FRANKLIN HOUSE	FOOTE, EDWARD HOUSE
FAY, ISAAC HOUSE	FORBES HILL STANDPIPE
FEDERAL RESERVE BANK BUILDING	FORBES, CAPT. R. B. HOUSE
FEDERAL STREET HISTORIC DISTRICT	FORE RIVER CLUB HOUSE
FELTON, NATHANIEL JR. HOUSE	FOREST BEACH AND LANDING
FELTON, NATHANIEL SR. HOUSE	FORT INDEPENDENCE
FENWAY - BOYLSTON STREET HIST. DIST.	FORT PHOENIX
FENWAY STUDIOS	FORT PHOENIX BEACH STATE
FERNALD, GEORGE P. HOUSE	RESERVATION
FERRY	FORT PICKERING -FORT WILLIAM -FORT
FERRY HOUSE	ANNE
FIELD'S CORNER MUNICIPAL BUILDING	FORT REVERE STATE RESERVATION
FILENE'S DEPARTMENT STORE	FORT REVERE TOWER
FINFISH HARVEST	FORT SEWALL - FORT ON GALE'S HEAD
FIQUERIDO'S MARINA	FORT TABER DISTRICT
FIRE STATION #4	FORT WARREN
FIRST BAPTIST CHURCH	FORT WASHINGTON
FIRST BAPTIST CHURCH OF WOLLASTON	FORT WASHINGTON HISTORIC DISTRICT
FIRST CHURCH IN ROXBURY	FOSTER SPINNING COMPANY
FIRST CHURCH OF JAMAICA PLAIN	FOSTER, ALEXANDER HOUSE
FIRST CHURCH UNITARIAN	FOSTER, GEN. GIDEON HOUSE
FIRST CONGREGATIONAL CHURCH	FOSTER, JACOB HOUSE
FIRST ENCOUNTER BEACH	FOSTER, WALTER K. HOUSE
FIRST PARISH CHURCH	FOWLE'S NEWS
FIRST RELIGIOUS SOCIETY CHURCH	FOWLER HOUSE
FIRST RELIGIOUS SOCIETY PARISH HALL	FOWLER, JOSEPH HOUSE
FIRST UNITARIAN CHURCH	FOWLERS MARINA
FIRST UNIVERSALIST CHURCH	FOX HILL SCHOOL
FISH FLAKE HILL HISTORIC DISTRICT	FOX ISLAND STATE SALT MARSH
FISH PIER	FRANCIS - ALLYN HOUSE
FISHER BEACH	FRANCIS AVENUE, 26
FLAX POND ACCESS	FRANCIS, DR. TAPPAN EUSTIS HOUSE
FLENTJE, ERNST HOUSE	FRANKLIN PARK
FLETCHER, JONATHAN HOUSE	FREEMAN'S WHARF
FLINT MILLS	FREETOWN STATE FOREST
FLOUR AND GRAIN EXCHANGE	FRENCH CABLE HUT
FLYERS BOAT RENTALS	FRENCH CABLE STATION
FLYING HORSES CAROUSEL	FRIEND STREET, 14
FOGG ART MUSEUM	FRIEND, JAMES HOUSE
FOGG BUILDING	FRIENDS MEETING HOUSE
FOGG LIBRARY	FRONT STREET BLOCK
FOLEY, MICHAEL COTTAGE	FROST, DAVID HOUSE
FOLLEN STREET HISTORIC DISTRICT	FROST, ELIZABETH TENANTHOUSE
FOLLEN STREET, 10	FROST, WALTER HOUSE

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

FULLER HOUSE	GLOUCESTER CITY HALL
FULLER, ENOCH HOUSE	GLOUCESTER MARINA
FULLER, MARGARET HOUSE	GLOVER HOUSE
FULLER, PETER BUILDING	GLOVER, GEN. JOHN HOUSE
FULLER, WILLIAM GRIFFIN HOUSE	GOFF HOMESTEAD
FULTON - COMMERCIAL STREETS DISTRICT	GOOD HARBOR BEACH
G.A.R. HALL AND MUSEUM	GOODALE, ISAAC HOUSE
G.E. LYNN	GOODSPEED HOUSE
GAINES, JOHN HOUSE	GOODWIN, OZIAS HOUSE
GAINSBORO DRIVE BEACH	GOOSEBERRY NECK BEACH
GALE, GEORGE HOUSE	GOSNOLD STATE WILDLIFE MANAGEMENT AREA
GARDNER - PINGREE HOUSE	GOTT HOUSE
GARDNER, FRANCIS L. HOUSE	GOULD, SAMUEL HOUSE
GARDNER, ISABELLA STEWART MUSEUM	GOVERNMENT ISLAND HISTORIC DISTRICT
GARDNER, JOSEPH HOUSE	GRACE BAPTIST CHURCH
GARDNER, PRESERVED HOUSE	GRACE EPISCOPAL CHURCH
GARDNER, SAMUEL HOUSE	GRAFFAM DEVELOPMENT HISTORIC DISTRICT
GARFIELD STREET HISTORIC DISTRICT	GRAND LODGE OF MASONS
GARRISON, WILLIAM LLOYD HOUSE	GRANDVIEW, THE
GARRISON, WILLIAM LLOYD SCHOOL	GRANITE KEYSTONE BRIDGE
GAUT, SAMUEL HOUSE	GRANITE MILLS
GAY HEAD COAST GUARD STATION	GRANT, BENJAMIN HOUSE
GAY HEAD LIGHTHOUSE	GRASS, HENRY J. HOUSE
GAY, W. ALLAN HOUSE	GRASSY POND STATE NATURAL HERITAGE AREA
GEORGE LANE BEACH	GRAVES LIGHTHOUSE
GERRY, ELBRIDGE HOUSE	GRAY GABLES BEACH
GIBSON, CHARLES JR. HOUSE	GRAY, CAPT. THOMAS HOUSE
GIDDINGS, GEORGE - BURNHAM, THOMAS HOUSE	GRAYS BEACH
GIDDINGS, GEORGE HOUSE AND BARN	GREANY BUILDING
GIDDINGS, LT. SAMUEL HOUSE	GREAT HOLLOW BEACH
GIFFORD FARM	GREEK ORTHODOX CATHEDRAL OF NEW ENGLAND
GILETTE PLANT	GREEN, DEA. DANIEL HOUSE
GILL, CHARLES HOUSE	GREEN, JONATHAN HOUSE
GILMORE STREET, 15	GREENWOOD STREET, 118
GILMORE, ONSLOW HOUSE	GREENWOOD UNION CHURCH
GILSON HOUSE	GREYS NECK BEACH
GINGERBREAD HILL HISTORIC DISTRICT	GRINNELL, JOSEPH MANSION
GLAD TIDINGS HISTORIC DISTRICT	GULL LANDING BEACH
GLEASON, EDWARD FRANCIS HOUSE	GUSTIN, JULIA HOUSE
GLEN MAGNA MANSION	HAFENREFFER BREWERY
GLENDON ROAD BEACH	
GLOBE YARN MILLS	

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

HAIGH, JOHN HOUSE	HARVARD SQUARE HISTORIC DISTRICT
HAIGIS BEACH	HARVARD SQUARE SUBWAY KIOSK
HAILEY, FRED HOUSE	HARVARD STREET HISTORIC DISTRICT
HAINES, THOMAS HOUSE	HARVARD UNION
HALE - BOYNTON HOUSE	HARVARD YARD HISTORIC DISTRICT
HALE, EDWARD EVERETT HOUSE	HARWICH HISTORIC DISTRICT
HALE, REV. JOHN HOUSE	HASKELL, WILLIAM HOUSE
HALFWAY HOUSE	HASTINGS SQUARE HISTORIC DISTRICT
HALIBUT POINT STATE PARK	HASTY PUDDING CLUB
HALL, ISAAC HOUSE	HATCHERY INTAKE
HALL, MARY - HASKELL HOUSE	HATHAWAY, JAMES D. HOUSE
HALLETT, CAPT. WILLIAM HOUSE	HAVEN, WILBUR FISKE HOUSE
HALLETT, SETH HOUSE	HAWDEN HOUSE
HALLORAN, JOHN HOUSE	HAWKINS, LORENZO D. HOUSE
HAMILTON HALL	HAWLEY, GIDEON HOUSE
HAMILTON HISTORIC DISTRICT	HAWTHORNE CLASS STUDIO
HAMMOND CASTLE	HAYDEN BUILDING
HAMPTON BEACH	HAYDEN, LEWIS HOUSE
HANCOCK CEMETERY	HEAD OF THE MEADOW BEACH
HANCOCK STREET, 104-106	HEAD OF THE PLAINS STATE NAT. HER. AREA
HANCOCK, EBENEZER HOUSE	HEARD, NATHANIEL - LAKEMAN, RICHARD III
HAPGOOD, RICHARD HOUSE	HEMENWAY, DR. HORACE HOUSE
HARBOR HAVEN ASSOCIATES BEACH	HEN COVE BEACH
HARBOR LOBSTER	HENDERSON CARRIAGE REPOSITORY
HARBORVIEW BEACH	HERON ROAD BEACH
HARDING BEACH	HERON WAY MARINA
HARDING'S BEACH	HERRICK, ELLA PROCTOR HOUSE
HARDING'S BEACH POINT	HERRING CREEK BEACH
HARDING, CHESTER HOUSE	HERRING RIVER WATERSHED ACEC
HARDWICK HOUSE	HERSEY, EBENEZER B. HOUSE
HARGRAVES MILL #1	HIBBARD, BENJAMIN HOUSE
HARLOW HOMESTEAD	HICKEY - OSBORNE BLOCK
HARLOW POND STATE NATURAL HERITAGE AREA	HIGGINS, JEDEDIAH HOUSE
HARLOW, OLD FORT HOUSE	HIGH ROCK TOWER & COTTAGE, DAISY COTTAGE
HARLOW, SGT. WILLIAM FAMILY HOMESTEAD	HIGH SCHOOL AVENUE, 25
HARRADEN, EDWARD HOUSE	HIGH STREET DISTRICT
HARRIS FARM	HIGHLAND HOUSE
HARRISWOOD CRESCENT	HIGHLAND LIGHT STATION
HARTHAVEN BEACH AND HARBOR	HIGHLAND, THE
HARVARD GRADUATE CENTER	HIGHLANDS HISTORIC DISTRICT
HARVARD HOUSES HISTORIC DISTRICT	HILL HOUSE
HARVARD LAMPOON BUILDING	HILL SCHOOL, THE

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

HILL, SIDNEY A. HOUSE	HOXIE, TIMOTHY HOUSE
HILLSIDE AVENUE HISTORIC DISTRICT	HOYT, BENJAMIN HOUSE
HINCKLEY HOMESTEAD	HULL VILLAGE BEACH
HINCKLEY, CAPT. JOSEPH HOUSE	HULL VILLAGE HISTORIC DISTRICT
HINCKLEY, NYMPHUS HOUSE	HUMAROCK BEACH
HINCKLEY, S. ALEXANDER HOUSE	HUMPHREYS, SIR JOHN HOUSE
HINGHAM BATHING BEACH	HUNT STREET, 51
HINGHAM CENTRE HISTORIC DISTRICT	HUNT, BENJAMIN HOUSE
HINGHAM YACHT CLUB	HURD HOUSE
HISTORICAL SITE	HUTCHINS, HARRISON M. HOUSE
HIXVILLE VILLAGE HISTORIC DISTRICT	HUTCHINSON - JOCELYN HOUSE
HOLBROOK, DR. AMOS HOUSE	HUTCHINSON'S, GOV. HA-HA
HOLLANDER BLOCKS	HYANNIS PONDS STATE WILDLIFE MGT. AREA
HOLLINGSWORTH, ROBERT HOUSE	HYANNIS PORT HISTORIC DISTRICT
HOLMES, OLIVER WENDELL HOUSE	HYANNIS ROAD HISTORIC DISTRICT
HOLT, CHAUNCEY HOUSE	HYDE - TAYLOR HOUSE
HOMER - LOVELL HOUSE	INDEPENDENT CHRISTIAN CHURCH
HOMER, JACOB HOUSE	INDIA ST, 25-27
HOOK, HIRAM HOUSE	INGALLS - WHEELER - HORTON HOMESTEAD
HOOPER HOUSE	INGERSOLL HOUSE
HOOPER, KING MANSION	INMAN ROAD BEACH
HOOSAC STORES 1, 2 AND 3	INMAN SQUARE HISTORIC DISTRICT
HOPKINS, ELISHA HOUSE	INMAN STREET, 102-104
HORNBINE BAPTIST CHURCH	INMAN STREET, 106-108
HORNBINE SCHOOL	INMAN STREET, 110-112
HORSEFOOT PATH BEACH	INNER CAPE COD BAY ACEC
HORSENECK BEACH STATE RESERVATION	INTERNATIONAL TRUST COMPANY BUILDING
HORTICULTURAL HALL (ALSO SYMPHONY HALL)	IPSWICH RIVER ACCESS
HORTON, WELCOME FARM	IRELAND, GEORGE HOUSE
HORTONVILLE HISTORIC DISTRICT	IRELAND, SAMUEL HOUSE
HOSE HOUSE #2	ISHAM, HERMAN HOUSE
HOSPITAL POINT RANGE LIGHT	JACOBS FARM
HOTEL ADELAIDE	JAMAICA PLAIN NEIGHBORHOOD HOUSE
HOTEL KEMPSFORD	JAMAICA POND BOATHOUSE
HOTEL WAVERLY, THE	JAMES HOOK LOBSTER
HOUGHTON BEECH TREE	JARVIS, THE
HOUSE OF SEVEN GABLES	JEFFERSON SCHOOL
HOUSE OF SEVEN GABLES HISTORIC DISTRICT	JENKINS - WHELDEN FARMSTEAD
HOWARD, WILLIAM HOUSE	JENKINS HOMESTEAD
HOWE, SAMUEL GRIDLEY AND JULIA WARD HOUS	JENKINS, FRANKLIN B. HOUSE
HOWES, "TOM SAILOR" HOUSE	JENKINS, JOSEPH HOUSE
HOWLAND, JABEZ HOUSE	JERICHO BOAT LAUNCH

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

JESUS MARIE CONVENT	LAKE SNIPATUIT ACCESS
JEWELL, DAVID L. HOUSE	LAKE STREET BEACH
JOHN F. KENNEDY STATE RESERVATION	LAKEMAN, RICHARD - JOHNSON, ARTHUR HOUSE
JOHNSON, J. V. HOUSE	LAMSON, NEWTON HOUSE
JONES, JOHN HOUSE	LAMSON, RUFUS HOUSE
JONES, THOMAS W. HOUSE	LANDING STRIP
JONES, WILLIAM R. HOUSE	LANE, FITZ HUGH HOUSE
JORDAN, DR. CHARLES HOUSE	LANGMAID BUILDING
JUBILEE YACHT CLUB	LANGMAID TERRACE
KATAMA AIR PARK	LARCH FARM
KATAMA PLAINS ST. NATURAL HERITAGE AREA	LARRABEE'S BRICK BLOCK
KEENE, WALTER HOUSE	LATTIMORE - PRATT HOUSE
KENDRICKS, JOHN HOUSE	LAUREL LAKE MILLS
KENNEDY COMPOUND	LAWRENCE LIGHT GUARD ARMORY
KENNEDY PARK	LAWRENCE MODEL LODGING HOUSES
KENNEDY'S BUILDING	LAWSON TOWER
KENNEDY, F. A., STEAM BAKERY	LEATHER DISTRICT
KENNEDY, JOHN FITZGERALD NAT. HIST. SITE	LECHMERE POINT CORPORATION HOUSES
KENNEDY, THE	LECOUNT HOLLOW BEACH
KENNEY, DAVID HOUSE	LEE STREET, 15-17
KERR THREAD MILL	LEE, JEREMIAH MANSION
KEYES, AMOS HOUSE	LEONARD, PATRICK HOUSE
KIMBALL, BENJAMIN HOUSE	LEWIS POINT BEACH
KIMBALL, C. HENRY HOUSE	LEWIS, LAURENCE HOUSE
KIMBALL, JOHN HOUSE	LIBERTY HALL
KIMBALL, SOLOMON HOUSE	LIBERTY PLAIN HISTORIC DISTRICT
KING CAESAR HOUSE	LIBERTY TREE BUILDING
KING PHILIP MILLS	LIBERTY TREE DISTRICT
KING'S CHAPEL BURYING GROUND	LIGHTSHIP NO. 114
KINGS BEACH	LILY POND ACCESS
KINGS'S CHAPEL	LINCOLN HIST. DIST. EXTENSION (PHASE I)
KINGSLEY, CHESTER HOUSE	LINCOLN HIST. DIST. EXTENSION (PHASE II)
KINSMAN, BENJAMIN HOUSE	LINCOLN HIST. DIST. EXTENSION (PHASE III)
KITTREDGE, ALVAH HOUSE	LINCOLN HISTORIC DISTRICT
KLOUS, SEMAN ROWHOUSES	LINCOLN HOUSE
KNIGHT, R. A. - LACOUNT, EUGENE HOUSE	LINCOLN HOUSE CLUB
KNOWLES BEACH	LINCOLN, GEN. BENJAMIN HOUSE
KRESGE AUDITORIUM	LINDEN PARK
L STREET STATION	LINDEN SQUARE
LABOR IN VAIN ROAD HOUSE	LINDSEY, WILLIAM HOUSE
LAFAYETTE - DURFEE HOUSE	LITTLE HARBOR BEACH
LAFAYETTE STREET HISTORIC DISTRICT	

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

LITTLE STATE BEACH	LYNN ARMORY
LITTLE, ARTHUR D. INC. BUILDING	LYNN COMMON HISTORIC DISTRICT
LIVERMORE, WILLIAM HOUSE	LYNN HERITAGE STATE PARK
LOBSTER FISHING	LYNN MASONIC HALL
LOBSTER POUND	LYNN PUBLIC LIBRARY
LOCK AND DAM	LYNN REALTY COMPANY BUILDING #2
LOCKE - BALDWIN - KINSLEY HOUSE	LYNN SHORE STATE RESERVATION
LOCKE - OBER RESTAURANT	LYNN YACHT CLUB
LOCKHARDT, CHARLES H. HOUSE	LYNNWOOD
LODGE, HENRY CABOT RESIDENCE	LYON, T. U. HOUSE
LOGAN INTERNATIONAL AIRPORT	LYONS PARK AND DANE STREET BEACH
LOMBARD, LEWIS HOUSE	M.I.T. CHAPEL
LONG BEACH	M76 BOAT RAMP
LONG ISLAND HEAD LIGHT	MA GENERAL HOSPITAL - BULFINCH BUILDING
LONG PLAIN FRIENDS MEETINGHOUSE	MA GENERAL HOSPITAL - ETHER DOME
LONG POINT LIGHT STATION	MA HISTORICAL SOCIETY BUILDING
LONG WHARF AND CUSTOM HOUSE BLOCK	MA INSTITUTE OF TECHNOLOGY NR DISTRICT
LONG, JAMES HOUSE	MACY, NATHANIEL HOUSE
LONGWOOD HISTORIC DISTRICT	MACY, THOMAS WAREHOUSE
LORD, DAVID APARTMENTS	MAGANSETT BEACH
LORD, ROBERT III - BAKER, SAMUEL HOUSE	MAIN STREET HISTORIC DISTRICT
LORING - GREENOUGH HOUSE	MAIN STREET, 237-239
LORING, GEORGE HOUSE	MAIN STREET, 600
LORING, HARRISON HOUSE	MAIN STREET, 606
LOTHROP, CALEB HOUSE	MAIN STREET, 614
LOVEJOY, ALVAN L. HOUSE	MALIBU BEACH
LOVEJOY, CHARLES HOUSE	MANCHESTER HISTORIC DISTRICT
LOVELL BLOCK	MANCHESTER VILLAGE HISTORIC DISTRICT
LOVELL, CAPT. GEORGE HOUSE	MANLEY, WILLIAM M. HOUSE
LOVELL, NEHEMIAH HOUSE	MANNET BEACH
LOVERING, JOSEPH HOUSE	MANNING, JOSEPH K. HOUSE
LOW BEACH	MANUEL F. CORRELLUS STATE FOREST
LOW, THOMAS HOUSE	MAPLE AVE HISTORIC DISTRICT
LOWELL'S BOAT SHOP	MAPLEWOOD AVENUE, 78
LOWER HIGHLANDS HISTORIC DISTRICT	MARBLEHEAD HISTORIC DISTRICT
LOWER ROXBURY HISTORIC DISTRICT	MARBLEHEAD LIGHT
LOWER UNION STREET HISTORIC DISTRICT	MARCH, SAMUEL HOUSE
LUKE BUILDING	MARCONI - RCA WIRELESS RECEIVING STATION
LUNA, TUGBOAT	MARCONI STATION
LUTHER STORE	MARDEN, JENNIE HOUSE
LUTHER'S CORNER HISTORIC DISTRICT	MARINA
LUTHER, WILLIAM HOUSE	

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

MARINA/MARINA ANCHORAGE	MCKAY, DONALD HOUSE
MARKET SQUARE HISTORIC DISTRICT	MECHANICS MILL
MARSHFIELD MUNICIPAL AIRPORT	MEDFORD PIPE BRIDGE
MARSTON MILLS CEMETERY	MEETING HOUSE GREEN DISTRICT
MARSTON MILLS HEARSE HOUSE	MELROSE PUBLIC LIBRARY
MARSTON MILLS METHODIST CHURCH	MELROSE TOWN CENTER HISTORIC DISTRICT
MARSTON, ELIAS HOUSE	MELVIN, ISAAC HOUSE
MARSTON, WILLIAM HOUSE	MEMORIAL HALL
MARTHA'S VINEYARD AIRPORT	MENANHANT YACHT CLUB
MARTHAS VINEYARD CAMPGROUND HIST. DIST.	MENAUHANT BEACH
MARTIN - MAXWELL ESTATE	MENTZNER, W. C. HOUSE
MARTIN FARM	MERCHANT, WILLIAM - CHOATE HOUSE
MARTIN H. BURNS STATE WILDLIFE MGT. AREA	MERKEL BEACH
MARY BESSE PARK/ PIER	MERRIFIELD "ROSEBANK" HOUSE
MARY O'MALLEY WATERFRONT PARK ST. RES.	MERRILL ESTATE
MASHNEE VILLAGE BEACH	MERRILL'S WHARF HISTORIC DISTRICT
MASHPEE NATIONAL WILDLIFE REFUGE	MERRIMAC HAT COMPANY MILLS
MASHPEE PINE BARRENS ST. NAT. HER. AREA	METROPOLITAN DIST. COMM. PUMPING HOUSE
MASON, JOSIAH JR HOUSE	METROPOLITAN STORAGE WAREHOUSE
MASONIC TEMPLE	METROPOLITAN THEATRE
MASSACHUSETTS FIELDS SCHOOL	METROPOLITAN YACHT CLUB
MASSACHUSETTS HALL	MIACOMET HEATH STATE NATURAL HER. AREA
MASSACHUSETTS MENTAL HEALTH CENTER	MIDDLESEX FELS RESERVOIRS HIST. DIST.
MASSACHUSETTS SCHOOL OF ART	MIDDLESEX FELS STATE RESERVATION
MASSACHUSETTS STATE HOUSE	MILESTONE, 1767
MASSASOIT FIREHOUSE #5	MILK ISLAND STATE WILDLIFE SANCTUARY
MASSASOIT NATIONAL WILDLIFE REFUGE	MILL WAY HISTORIC DISTRICT
MASSASOIT STATE PARK	MILLARD - SOUTHER - GREEN HOUSE
MATTAPOISETT BOAT YARD AND YACHT CLUB	MILLER, EDWARD HOUSE
MAUDSLAY STATE PARK	MILLETT STREET, 11
MAYFLOWER BEACH	MILLICENT LIBRARY
MAYO BEACH	MILLYARD HOLLOW FRAME DAM
MAYO BEACH I	MILTON CENTRE HISTORIC DISTRICT
MAYO BEACH II	MILTON HILL HISTORIC DISTRICT
MAYO BEACH III	MINOT BEACH
MBL/WHOI	MINOT'S LEDGE LIGHT
MCCORMACK, JOHN W. BLDG. AND COURTHOUSE	MISSION HILL TRIANGLE HISTORIC DISTRICT
MCINTIRE HISTORIC DISTRICT	MONOMOY NATIONAL WILDLIFE REFUGE
	MONOMOY POINT LIGHTHOUSE

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

MONROE, BESSIE HOUSE	NATIONAL SHAWMUT BANK BUILDING
MONTROSE, THE	NAUSET BEACH
MONUMENT BEACH	NAUSET BEACH LIGHT
MONUMENT SQUARE HISTORIC DISTRICT	NAVAL HOSPITAL, BOSTON HISTORIC DISTRICT
MOORE - HILL HOUSE	NED POINT LIGHT
MORAIN FARM	NEDS POINT BEACH
MORELAND STREET HISTORIC DISTRICT	NEEL ROAD BEACH
MORRIS ISLAND DIKE AND BEACH	NELL, WILLIAM C. RESIDENCE
MORSE, TIMOTHY HOUSE	NELSON, JOHN R. HOUSE
MOSCOW STREET, 1-7	NEPONSET RIVER ESTUARY ACEC
MOSHUP BEACH	NEPONSET RIVER STATE RESERVATION
MOUND STREET BEACH	NEW BEDFORD HIST. DIST. (WATERFRONT)
MOUNT PLEASANT - SOUTH STREET HIST. DIST	NEW BEDFORD MUNICIPAL AIRPORT
MOUNT PLEASANT HISTORIC DISTRICT	NEW BEDFORD YACHT CLUB
MOUNT VERNON STREET HISTORIC DISTRICT	NEW CHARLES RIVER DAM
MOUNT WOLLASTON CEMETERY	NEW ENGLAND AQUARIUM
MOVERS' BLOCK	NEW ENGLAND CONSERVATORY OF MUSIC
MUNICIPAL GROUP HISTORIC DISTRICT	NEW ENGLAND HEBREW ACADEMY
MUNROE BUILDING	NEW ENGLAND HOSP. FOR WOMEN & CHILDREN -
MUNROE, BENJAMIN HOUSE	NEW ENGLAND HOSP. FOR WOMEN AND CHILDREN
MUNROE, EDWIN AND BENJAMIN HOUSE	NEW ENGLAND TELEPHONE BUILDING
MUNROE, ROBERT HOUSE	NEW OLD SOUTH CHURCH
MURPHY, WILLIAM HOUSE	NEW RIDING CLUB
MURRAY, WILLIAM HOUSE	NEWBURY HISTORIC DISTRICT
MUSEUM BEACH	NEWBURYPORT AIRFIELD
MYLES STANDISH STATE FOREST	NEWBURYPORT HARBOR FRONT RANGE LIGHT
MYLES STANDISH STATE MONUMENT	NEWBURYPORT HARBOR LIGHT
MYSTIC RIVER STATE RESERVATION	NEWBURYPORT HARBOR REAR RANGE LIGHT
NAHANT BEACH/ LYNN SHORE ST. RESERVATION	NEWBURYPORT HISTORIC DISTRICT
NAHANT CIVIC HISTORIC DISTRICT	NEWCOMB HOLLOW BEACH
NAHANT TOWN HALL	NEWCOMB PLACE
NANTASKET BEACH STATE RESERVATION	NEWCOMB, JOHN HOUSE
NANTASKET PIER	NEWELL FARM
NANTUCKET HISTORIC DISTRICT	NEWHALL, LUCIAN HOUSE
NANTUCKET MEMORIAL AIPIORT	NEWMAN - FISKE - DODGE HOUSE
NANTUCKET NATIONAL WILDLIFE REFUGE	NEWMAN, ANDREW HOUSE
NANUMET HEIGHTS BEACH	NEWSPAPER ROW
NARRAGANSETT MILLS	NICHOLS, JOHN F. HOUSE
NARROWS HISTORIC DISTRICT	
NATIONAL MONUMENT TO THE FOREFATHERS	

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

NICKERSON BEACH/ CHAPPEL ROCK	OFF CRAIGVLE BEACH
NICKERSON MANSION - FIELDSTONE HALL	OLD BURYING GROUND
NICKERSON STATE PARK	OLD CAMBRIDGE BAPTIST CHURCH
NILES BEACH	OLD CAMBRIDGE HISTORIC DISTRICT
NILES, LOUVILLE HOUSE	OLD CAMBRIDGEPORT HISTORIC DISTRICT
NOBILITY HILL HISTORIC DISTRICT	OLD CASTLE
NOBSKA POINT LIGHT STATION	OLD CEMETERY
NOMANS LAND ISLAND NAT. WILDLIFE REFUGE	OLD CITY HALL
NOQUOCHOKE ST. WILDLIFE MANAGEMENT AREA	OLD COLONY TRUST COMPANY BUILDING
NORFOLK STREET HISTORIC DISTRICT	OLD CORNER BOOKSTORE, THE
NORTH ABINGTON DEPOT	OLD COUNTY COURTHOUSE
NORTH ATLANTIC LOBSTER	OLD FARM
NORTH AVE CONGREGATIONAL CHURCH	OLD GARRISON HOUSE
NORTH BEACH	OLD HIGGINS FARM WINDMILL
NORTH BEDFORD HISTORIC DISTRICT	OLD KINGS HIGHWAY REGIONAL HIST. DIST.
NORTH BURIAL GROUND	OLD MEDFORD HIGH SCHOOL
NORTH CHRISTIAN CONGREGATIONAL CHURCH	OLD MIDDLESEX COUNTY SUPERIOR COURTHOUSE
NORTH FALMOUTH HISTORIC DISTRICT	OLD MILL
NORTH SCITUATE BEACH	OLD NORTH CHURCH
NORTH SHORE BEACH	OLD PARSONAGE
NORTH SHORE BOAT WORKS	OLD POST OFFICE BUILDING
NORTH SHORE STATE SALT MARSH	OLD SHIP MEETINGHOUSE
NORTHERN AVENUE DRAW BRIDGE	OLD SHIP STREET HISTORIC DISTRICT
NORTHSIDE HISTORIC DISTRICT	OLD SHIPBUILDER'S HISTORIC DISTRICT
NORTON POINT BEACH	OLD SILVER BEACH
NOTRE DAME SCHOOL	OLD SOUTH CHURCH
NOWLAND, J. MARTIN HOUSE	OLD SOUTH MEETING HOUSE
NOYES, JAMES HOUSE	OLD STATE HOUSE
NURSE, REBECCA HOUSE	OLD STORY FARM
NYE, BENJAMIN HOMESTEAD	OLD THIRD DISTRICT COURTHOUSE
O'SHEA BUILDING NO. 1	OLD TOWN CENTER HISTORIC DISTRICT
O'SHEA BUILDING NO. 2	OLD TOWN HALL HISTORIC DISTRICT
OAK BLUFFS CHRISTIAN UNION CHAPEL	OLD TOWN HISTORIC DISTRICT
OAK GROVE CEMETERY	OLD TOWN HOUSE
OAK STREET, 52	OLD WEST CHURCH
OAKDALE AVENUE BEACH	OLIVERS POND STATE NATURAL HERITAGE AREA
OAKES, EDWARD HOUSE	OLMSTED PARK SYSTEM
ODD FELLOW'S HALL	ON-I-SET WIGWAM
ODD FELLOW'S HALL 1	ONSET BEACH
ODD FELLOWS BUILDING	OPPOSITION HOUSE
ODD FELLOWS HALL	ORCHARD BEACH

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

OSBORN STREET GRAMMAR SCHOOL	PEIRCE - NICHOLS HOUSE
OSTERVILLE BAPTIST CHURCH	PEMBERTON BEACH
OTIS - WYMAN HOUSE	PENIKESE ISLAND STATE WILDLIFE SANCTUARY
OTIS AIR FORCE BASE	PENNIMAN, CAPT. EDWARD HOUSE AND BARN
OTIS, FIRST HARRISON GRAY HOUSE	PERKINS, CAPT. MATTHEW HOUSE
OTIS, SECOND HARRISON GRAY HOUSE	PERKINS, JOHN - HODGKINS HOUSE
OUR LADY OF GOOD VOYAGE CHURCH	PERKINS, JOHN HOUSE
OWEN LITTLE WAY BEACH	PERLEY'S MARINA AND TOWN LANDING
OYSTER POND BEACH	PERRY BEACH
PADANARAM VILLAGE HISTORIC DISTRICT	PETTENGILL, C. F. HOUSE
PAINE - DODGE HOUSE	PHILLIPS, FRANKLIN HOUSE
PAINES CREEK LANDING AND BEACH	PHINNEY - SMITH HOUSE
PALMER'S ISLAND LIGHT STATION	PHINNEY, WILLIAM HOUSE
PAMET HARBOR YACHT CLUB	PHIPPS STREET BURYING GROUND
PARAMOUNT THEATRE	PHOENIX BUILDING
PARK	PIANO ROW HISTORIC DISTRICT
PARK STREET DISTRICT	PICARD, ISRAEL HOUSE
PARK STREET RAILROAD STATION	PICKERING, REV. THEOPHILUS HOUSE
PARKER - BURNETT HOUSE	PICTURE LAKE ACCESS
PARKER HOUSE	PIERCE - HICHBORN HOUSE
PARKER MILLS HISTORIC DISTRICT	PIERCE BEACH
PARKER RIVER BEACH	PIERCE HOUSE
PARKER RIVER NATIONAL WILDLIFE REFUGE	PIERCE, CAPT. MIAL HOUSE
PARKER RIVER/ESSEX BAY ACEC	PIERCE, WILLIAM ROWHOUSES
PARKERS BOAT YARD	PILGRIM HALL
PARKMAN, FRANCIS HOUSE	PILGRIM MEMORIAL STATE PARK
PARKWOOD BEACH	PILGRIM MILLS
PARSONAGE FOUNDATION SITE	PILGRIM NUCLEAR POWER STATION
PATCH, EMELINE HOUSE	PILL HILL HISTORIC DISTRICT
PATTILLO, JAMES W. HOUSE	PILL HILL LOCAL HISTORIC DISTRICT
PAVILLION BEACH	PINE STREET SCHOOL
PAWSEY BEACH	PINEY POINT BEACH
PEABODY CENTRAL FIRE STATION	PINKHAM HOUSE
PEABODY CITY HALL	PJ'S LOBSTER
PEABODY CIVIC CENTER	PLEASANT - SCHOOL STREET HIST. DIST.
PEABODY COURT APARTMENTS	PLEASANT AVENUE HISTORIC DISTRICT
PEABODY INSTITUTE LIBRARY	PLEASANT BAY ACEC
PEABODY MUS.OF SALEM-E.INDIA MARINE HALL	PLEASANT BAY BEACH
PEABODY, GEORGE HOUSE	PLEASANT ROAD BEACH
PEABODY, JOHN P. HOUSE	PLEASANT VIEW AIRPORT
PECK - BOWEN HOUSE	PLUM COVE BEACH
PEGGOTTY BEACH	PLUM ISLAND AIRPORT

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

PLUM ISLAND POINT BEACH	PROVINCETOWN MUNICIPAL AIRPORT
PLYMOUTH ANTIQUARIAN HOUSE	PROVINCETOWN PUBLIC LIBRARY
PLYMOUTH HISTORIC DISTRICT	PT BOAT 617
PLYMOUTH LIGHT STATION (GURNET)	PT BOAT 796
PLYMOUTH LONG BEACH	PUNCHARD - DUNLARD HOUSE
PLYMOUTH MUNICIPAL AIRPORT	PURITAN HOUSE
PLYMOUTH POST OFFICE BUILDING	PUTNAM, DEA. EDWARD JR. HOUSE
PLYMOUTH ROCK	PUTNAM, GENERAL ISRAEL HOUSE
PLYMOUTH VILLAGE HISTORIC DISTRICT	PUTNAM, JAMES JR. HOUSE
POCASSET FIREHOUSE #7	QUAMHASSET ROAD BEACH
POCASSET RIVER ACEC	QUARRY STREET, 108-112
POINT ALLERTON LIFESAVING STATION	QUEQUECHAN CLUB
POINT INDEPENDENCE BEACH	QUEQUECHAN VALLEY MILLS HISTORIC DIST.
POINT OF PINES BEACH	QUINCY CENTER LOCAL HISTORIC DISTRICT
POINT OF PINES YACHT CLUB	QUINCY ELECTRIC LIGHT AND POWER COMPANY
POINT OF ROCKS BEACH	QUINCY HOMESTEAD
POLPIS HARBOR	QUINCY MARKET
POND HILL SCHOOL	QUINCY POINT FIRE STATION
POOLE, GEORGE HOUSE	QUINCY POLICE STATION
POPE'S BEACH	QUINCY QUARRIES SITE STATE RESERVATION
POPPONESSET BEACH	QUINCY SCHOOL
POPPONESSET BEACH (PRIVATE)	QUINCY TOWN HALL
POPPONESSETT BEACH	QUINCY, JOSIAH HOUSE
PORCELLIAN CLUB	RACE POINT LIGHT STATION
PORT ROYAL HOUSE, THE	RAM ISLAND STATE WILDLIFE SANCTUARY
PORTLAND STREET, 138-142	RAYCROFT BEACH
PRATT - FAXON HOUSE	RAZOR CLAM HARVEST
PRATT AVENUE BEACH	REA - PROCTOR HOMESTEAD
PRATT, DEXTER HOUSE	REA - PUTNAM - FOWLER HOUSE
PRESCOTT STREET, 16	READ, CHENEY HOUSE
PRESCOTT, GUSTAVUS G. HOUSE	READ, NATHAN HOUSE
PRESCOTT, WILLIAM HICKLING HOUSE	REARDON,EDMUND HOUSE
PRESTON - FOSTER HOUSE	RECORD, JONATHAN DEXTER HOUSE
PRINCE - OSBORNE HOUSE	RECREATIONAL FISHING
PRINCETON ST. ARCHITECTURAL CONSERVATION	RED RIVER BEACH
PRINCETON, THE	REED, TIMOTHY HOUSE
PROCTOR STREET, 6	REHOBOTH VILLAGE HISTORIC DISTRICT
PROCTOR, JOHN HOUSE	REVERE BEACH RESERVATION
PROCTOR, THOMAS E. BUILDING	REVERE, PAUL HOUSE
PROSPECT CONGREGATIONAL CHURCH	
PROSPECT HILL TOWER AND OBSERVATORY	
PROVINCETOWN HISTORIC DISTRICT	

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

REVERSIBLE COLLAR COMPANY BUILDING	ROUND HOUSE
REXHAME BEACH	ROWELL HOUSE
RHODEHOUSE, NELSON HOUSE	ROXBURY HIGHLANDS HISTORIC DISTRICT
RICES BEACH	ROXBURY PRESBYTERIAN CHURCH
RICHARDS, ALFRED H. HOUSE	ROXBURY STANDPIPE
RICHARDS, ELLEN SWALLOW HOUSE	ROYALL, ISAAC HOUSE
RICHARDS, THEODORE W. HOUSE	RUGGLES PARK
RICHARDSON BLOCK	RUMNEY MARSH STATE RESERVATION
RICHARDSON, DR. SOLON O. HOUSE	RUMNEY MARSHES ACEC
RICHARDSON, JOHN HOUSE	RUSSELL - HOWLAND HOUSE
RICHMOND COURT	RUSSELL, EDWARD HOUSE
RICKER, GEORGE AND JEREDIAH HOUSE	RUSSELL, PHILEMON HOUSE
RIDGEVALE BEACH	RUSSELL, SUSAN HOUSE
RIVER STREET FIREHOUSE	RUSSELLS MILLS VILLAGE HISTORIC DISTRICT
RIVERBANK COURT HOTEL	RUSSIA WHARF BUILDINGS
RIVERSIDE BEACH	RUST, NATHANIEL MANSION
RIVIERA, THE	RYDER BEACH AND LANDING
ROBBINS, HENRY HOUSE	RYMES, CHRISTOPHER HOUSE
ROBBINS, JOSEPH HOUSE	S. STATION INTERLOCKING SYSTEM - TOWER 1
ROBERTS BROTHERS HOUSE	SACRED HEART CH.,RECTORY,SCH.,& CONVENT
ROBINSON, ENOCH HOUSE	SACRED HEART SCHOOL
ROBINSON, JAMES HOUSE	SAGAMORE BEACH
ROBINSON, WILLIAM HOUSE	SAGAMORE MILL NO. 2
ROCHESTER STATE WILDLIFE MANAGEMENT AREA	SAGAMORE MILLS NO. 1 AND 3
ROCKLAND HIGH SCHOOL	SAINT AIDAN'S CHURCH AND RECTORY
ROCKLAND MEMORIAL LIBRARY	SAINT ANNES CHURCH AND PARISH COMPLEX
ROCKLAND TRUST COMPANY	SAINT AUGUSTINE CHAPEL & CEMETERY
ROCKPORT DOWNTOWN MAIN ST. HIST. DIST.	SAINT BOTOLPH STREET AREA ARCHITECTURAL
ROCKS VILLAGE HISTORIC DISTRICT	SAINT CLOUD HOTEL
ROCKY GUTTER ST. WILDLIFE MGT. AREA	SAINT JAMES EPISCOPAL CHURCH
ROCKY HILL MEETING HOUSE	SAINT JOSEPH'S ORPHANAGE
RODMAN CANDLE WORKS	SAINT JOSEPH'S ROMAN CATHOLIC CHURCH
RODMAN, BENJAMIN HOUSE	SAINT LOUIS CHURCH
ROGERS, CAPT. RICHARD HOUSE	SAINT MARY OF THE ASSUMPTION COMPLEX
ROGERS, REV. NATHANIEL HOUSE	SAINT MICHAEL'S EPISCOPAL CHURCH
RONAN, MARY T. SCHOOL	SAINT PATRICK'S CHURCH
ROSEBUD DINER	SAINT PAUL'S CHURCH
ROSS TAVERN	
ROTCH - JONES - DUFF HOUSE	
ROTCH, WILLIAM HOUSE	
ROUGHAN HALL	
ROUND HILL BEACH	

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

SAINT PAUL'S RECTORY	SAUNDERS, WILLIAM HOUSE
SAINT STEPHEN'S CHURCH	SAVOY THEATER (OPERA HOUSE)
SAINT STEPHEN'S MEMORIAL CHURCH	SAWIN - COBB - WILSON HOUSE
SALEM - AUBURN STREETS HISTORIC DISTRICT	SAWIN, EZEKIEL HOUSE
SALEM CITY HALL	SAXON THEATRE (MAJESTIC - EMERSON)
SALEM COMMON HISTORIC DISTRICT	SCHOONER ADVENTURE
SALEM COMMUTER FERRY TERMINAL	SCHUEBELER, CHARLES HOUSE
SALEM LAUNDRY	SCUDDER, JOSIAH JR. HOUSE
SALEM MARITIME NATIONAL HISTORIC SITE	SCUSSET BEACH RESERVATION
SALEM NEWS PUBLISHING COMPANY BUILDING	SEA PLANE BASIN
SALEM OLD TOWN HALL	SEA SCALLOP HARVEST
SALEM POWER STATION	SEA STREET BEACH
SALEM RAILROAD SIGNAL TOWER	SEACONNET MILL
SALEM STATE COLLEGE INTAKE	SEAGULL BEACH
SALEM STREET BURYING GROUND	SEAPORT STUDIO
SALEM VILLAGE HISTORIC DISTRICT	SEARS CRESCENT AND SEARS BLOCK
SALEM WILLOWS HISTORIC DISTRICT	SEARS ROEBUCK & COMPANY MAIL ORDER STORE
SALISBURY BEACH STATE RESERVATION	SEARS, DAVID HOUSE
SALT POND BEACH	SEAVIEW BEACH
SAMPSON FOLLY - SAMPSON, JOSIAH HOUSE	SECOND CAMBRIDGE SAVINGS BANK BUILDING
SANDS, HIRAM HOUSE	SECOND UNITARIAN CHURCH
SANDS, IVORY HOUSE	SECOND WATERHOUSE HOUSE
SANDWICH STATE FISH HATCHERY	SEDDON TAVERN
SANDY BEACH	SENATE RECEPTION ROOM
SANDY GUNROCK BEACH	SEVER HALL
SANDY NECK CULTURAL RESOURCES DISTRICT	SEWALL - SCRIPTURE HOUSE
SANDY NECK/BARNSTABLE HARBOR ACEC	SHADY HILL HISTORIC DISTRICT
SANDY POINT ACCESS AREA	SHAWME CROWELL STATE FOREST
SANDY POINT STATE RESERVATION	SHAWMUT YACHT CLUB
SANFORD SPINNING COMPANY	SHAW'S BOAT YARD
SANKATY HEAD LIGHT	SHEDD, WILLIAM HOUSE
SANTO CRISTO CHURCH	SHELL OIL COMPANY "SPECTACULAR" SIGN
SANTUIT HISTORIC DISTRICT	SHELLFISH HARVEST
SAUGUS IRON WORKS NAT'L HISTORICAL SITE	SHELLFISH HARVEST SITE
SAUGUS IRON WORKS NATIONAL HISTORIC SITE	SHELLFISH LEASE AREA
SAUGUS TOWN HALL	SHELLFISH RELAY SITE
SAUNDERS, CHARLES HICKS HOUSE	SHEPARD BLOCK
	SHEPPARD, EBEN W. HOUSE
	SHIP SHOP MARINA
	SHIPYARD LANE BEACH
	SHIRLEY - EUSTIS HOUSE
	SHORE ROAD BEACH I

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

SHORE ROAD BEACH II	SOUTH MIDDLE BEACH
SHORT BEACH	SOUTH SCHOOL
SHORT HOUSE	SOUTH SHORE STATE SALT MARSH
SHUBAEL POND ACCESS	SOUTH STATION HEADHOUSE
SHUBERT THEATRE	SOUTH STATION WAITING ROOM
SIDELINGER, GEORGE A. HOUSE	SOUTH SWANSEA UNION CHURCH
SILVER SHELL BEACH	SOUTH VILLAGE ROAD BEACH
SIMCOCK HOUSE	SOUTH WATUPPA BOAT RAMP
SIMMONS BEACH	SOUTH WEYMOUTH NAVAL AIRSTATION
SKAKET BEACH	SOUTH YARMOUTH - BASS RIVER HIST. DIST.
SLADE SPICE MILL	SOUTHER TIDE MILL
SLY POND STATE NATURAL HERITAGE AREA	SOUTHWICK STRAUSS TANNERY
SMITH BEACH	SOUTHWICK, JOHN HOUSE
SMITH HOUSE	SPARROW, RICHARD HOUSE
SMITH, A. C. AND COMPANY GAS STATION	SPEAR, SETH HOMESTEAD
SMITH, AARON HOUSE	SPELAN, MICHAEL HOUSE
SMITH, HAZADIAH HOUSE	SPENCER - PIERCE - LITTLE BARN
SMITH, JOHN HOUSE	SPENCER - PIERCE - LITTLE HOUSE
SMITH, JOHN MACE HOUSE	SPINDLE ROCK BEACH CLUB
SMITH, MATTHIAS HOUSE	SPINNEY, LAWRENCE HOUSE
SMITH, SAMUEL TAVERN SITE	SPRAGUE HOUSE
SMUGGLER'S HOUSE	SPRING HILL HISTORIC DISTRICT
SNOW, LEMUEL JR. HOUSE	SPRING POINT BEACH
SO. BARRIER BCH. ST. FISH. & WILD. AREA	SPRING STREET, 54
SO. TRIANGLE POND ST. NATURAL HER. AREA	SPRING, ANDREW CRAIGIE HOUSE
SOLDIERS AND SAILORS MEMORIAL BLDG.	SPURR, ELIPHALET HOUSE
SOMERSET MARINA	SQUEATEAGUE HARBOR BEACH
SOMERSET STATION	SQUIBNOCKET BEACH
SOMERSET YACHT CLUB	ST. JOSEPH'S ROMAN CATH. CH. COMPLEX
SOMERVILLE CITY HALL	ST. MARY'S RC. CATHEDRAL AND RECTORY
SOMERVILLE HISTORICAL SOCIETY	ST. NICHOLAS ORTHODOX CHURCH AND RECTORY
SOMERVILLE JOURNAL BUILDING	ST. PAUL'S CH., CHAPEL & PARISH HOUSE
SOMERVILLE THEATRE	STACY, GEORGE O. HOUSE
SOULE, LAWRENCE HOUSE	STAFFORD MILLS
SOUTH BEACH	STANDISH, JAMES H. HOUSE
SOUTH CAPE BEACH STATE PARK	STANSTEAD, THE
SOUTH DENNIS HISTORIC DISTRICT	STATE BOAT RAMP
SOUTH END DISTRICT	STATE FISHING PIER
SOUTH END LANDMARK DISTRICT	STATE LOBSTER HATCHERY
SOUTH GREEN DISTRICT	STATE LUNATIC HOSPITAL AT DANVERS
SOUTH HARWICH METHODIST CHURCH	STATEN STREET, 7

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

STEARNS, R. H. - WATERMAN, FOSTER BLDG.	TAHANTO BEACH
STEARNS, R. H. BUILDING	TAPLEY BUILDING
STEBBINS, ELIZA HOUSE	TARPAULIN COVE STATE WILDLIFE SANCTUARY
STEELE HOUSE	TAUNTON MUNICIPAL AIRPORT
STEELE, JOHN DOUBLE HOUSE	TAUNTON YACHT CLUB
STELLWAGEN BANK NMS	TAY, JESSE HOUSE
STICKNEY - SHEPARD HOUSE	TAYLOR - BRAY FARM
STOCK EXCHANGE BUILDING	TAYLOR, ADONIRAM HOUSE AND STABLE
STODDARD, BELA HOUSE	TAYLORS POINT BEACH
STODDER'S NECK STATE RESERVATION	TELEGRAPH HILL
STONEHAM ALMSHOUSE	TEMPEST KNOB BOAT RAMP
STONEHAM FIRE STATION	TEMPLE PLACE HISTORIC DISTRICT
STONEHAM PUBLIC LIBRARY	TEN POUND ISLAND LIGHT
STONY BEACH	TENEAN BEACH
STORY GRAMMAR SCHOOL	TERN HARBOR MARINA
STORY, ISAAC HOUSE	TEXTILE DISTRICT
STORY, JOSEPH HOUSE	THACHER ISLAND NATIONAL WILDLIFE REFUGE
STRAIGHTSMOUTH ISLAND LIGHT	THACHERS BEACH
STREET CLOCK	THAD ELLIS WETLAND ST. NAT. HER. AREA
SUFFOLK COUNTY COURT HOUSE	THE BEACON
SUFFOLK COUNTY JAIL	THE COLONY HISTORIC DISTRICT
SUMMER ST, 83-87	THE OLD MILL
SUMMER ST, 89-95	THIRD MEETING HOUSE
SUMNER HILL HISTORIC DISTRICT	THOMAS - WEBSTER ESTATE
SUMNER, CHARLES HOUSE	THOMAS, ANTHONY HOUSE
SUNKEN MEADOW BEACH	THOMPSON STREET SCHOOL
SUNSET MARINE	THOMSON, ELIHU HOUSE
SUPERIOR COURTHOUSE AND BARTLET MALL	THORNDIKE, CAPT. JOHN HOUSE
SURF CLAM BAIT HARVEST	THUMPERTOWN BEACH
SURF CLAM HARVEST	TILTON, D. HORACE HOUSE
SURF DRIVE BEACH	TIMES AND OLYMPIA BUILDINGS
SURFSIDE BEACH	TITCOMB, BENAIAH HOUSE
SUTTON BLOCK	TOBEY HOMESTEAD
SWALLOW, MORTON T. HOUSE	TOBEY, JOSIAH HOUSE
SWAMPSCOTT FISH HOUSE	TOUSSAINT, WINAND HOUSE
SWANSEA VILLAGE HISTORIC DISTRICT	TOWER - WILDER HISTORIC DIST. EXTENSION
SWEETSER, MICHAEL HOUSE	TOWER - WILDER HISTORIC DISTRICT
SWEETSER, WARREN HOUSE	TOWN AQUACULTURE SITE
SWIFT, E. E. C. STORE	TOWN BEACH
SWIFTS BEACH	TOWN BOUNDARY MARKER
SYLVESTER, JOHN HOUSE	TOWN HALL SQUARE HISTORIC DISTRICT
SYMPHONY HALL (ALSO HORTICULTURAL HALL)	

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

TOWN HILL HISTORIC DISTRICT	U. S. POST OFFICE - MILTON MAIN
TOWN LANDING/ HEAD OF MEADOW BEACH	U. S. POST OFFICE - QUINCY MAIN BRANCH
TOWN PIER	U. S. POST OFFICE - SALEM MAIN BRANCH
TOWN STABLE	U. S. POST OFFICE - SANTUIT BRANCH
TRADE WIND AIRPORT	U.S. POST OFFICE GARAGE
TREADWELL - SPARKS HOUSE	UNCLE HARVEY'S POND ACCESS
TREADWELL, NATHANIEL - HALE HOUSE	UNION #2 ENGINE HOUSE
TREMONT NAIL FACTORY DISTRICT	UNION MILLS
TREMONT POND ACCESS	UNION RAILWAY CAR BARN
TREMONT ST.BLOCK BTW AVERY & BOYLSTON	UNION STREET RWY. CARBARN & REPAIR SHOP
TREMONT STREET SUBWAY	UNION WHARF
TREMONT TEMPLE BAPTIST CHURCH	UNITARIAN SOCIETY IN FALL RIVER
TRINITY CHURCH	UNITARIAN UNIVERSALIST CH. & PARSONAGE
TRINITY EPISCOPAL CHURCH	UNITED FIRST PARISH CHURCH
TRINITY NEIGHBORHOOD HOUSE	UNITED PARISH - HARVARD CHURCH
TRINITY RECTORY	UNITED SHOE MACHINERY CORP. CLUBHOUSE
TRINITY UNITED METHODIST CHURCH	UNITED SHOE MACHINERY CORPORATION BLDG
TRIPPS BOAT YARD	UNITED STATES CUSTOM HOUSE
TROTTER, WILLIAM MONROE HOUSE	UNITED STATES CUSTOMS HOUSE
TROUT HATCHERY	UNIVERSITY HALL
TRUESDALE HOSPITAL COMPLEX	UNIVERSITY MUSEUM
TRUNK RIVER BEACH	UPHAM'S CORNER MARKET
TUCKER FARM HISTORIC DISTRICT	UPHAM, PHINEAS HOUSE
TUCKER, DR. HARRISON A. COTTAGE	UPPER MAGAZINE STREET HISTORIC DISTRICT
TUCKERMAN, WILLIAM F. HOUSE	URBAN ROWHOUSE
TUCKERS BEACH	US POST OFFICE - NEWBURYPORT MAIN BRANCH
TUFTS, NATHAN PARK	US POST OFFICE - PROVINCETOWN MN. BRANCH
TUFTS, PETER AND OLIVER HOUSE	US POST OFFICE - SOMERVILLE MAIN BRANCH
TUFTS, PETER HOUSE	US POST OFFICE - WEYMOUTH LANDING BRANCH
TUFTS, REV. JOHN HOUSE	USS CASSIN YOUNG
TURNBULL, R. P. HOUSE	USS CONSTITUTION (OLD IRONSIDES)
TWIN LIGHTS HISTORIC DISTRICT	USS JOSEPH P. KENNEDY
TWIN LIGHTS NORTH TOWER	USS LIONFISH
TWIN SISTERS OF NAUSET LIGHTHOUSES	USS MASSACHUSETTS
TWITCHELL, GINERY HOUSE	VALENTINE - FRENCH HOUSE
U. S. CUSTOM HOUSE	VALENTINE SOAP WORKERS' COTTAGE
U. S. POST OFFICE - AMESBURY BRANCH, OLD	
U. S. POST OFFICE - BEVERLY MAIN BRANCH	
U. S. POST OFFICE - CHELSEA BRANCH	
U. S. POST OFFICE - LYNN MAIN BRANCH	
U. S. POST OFFICE - MEDFORD MAIN	

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

VAMP BUILDING	WEEKS, BARZILLAI HOUSE
VEAZIE, WILLIAM ROWHOUSES	WEIR RIVER ACEC
VERMONT BUILDING	WELCH, REV. MOSES HOUSE
VINAL, ALBERT HOUSE	WELLFLEET CENTER HISTORIC DISTRICT
VINEYARD HAVEN YACHT CLUB	WELLFLEET HARBOR ACEC
WADE, JOHN HOUSE	WELLFLEET TOWN PIER
WADE, JONATHAN HOUSE	WENHAM HISTORIC DISTRICT
WADE, MARY HOUSE	WESLEY METHODIST CHURCH
WADSWORTH SCHOOL	WESLEYAN ASSOCIATION BUILDING
WAH WAH TAYSEE BEACH	WESSAGTUSSETT YACHT CLUB
WAINWRIGHT, CAPT. JOHN - TREADWELL HOUSE	WESSAGUSSET BEACH
WAITT BRICK BLOCK	WEST - COGSWELL HOUSE
WAKEFIELD PARK HISTORIC DISTRICT	WEST BARNSTABLE TOWN BOUNDARY MARKER
WALDO - CALDWELL, JOHN HOUSE	WEST BARNSTABLE VILLAGE HISTORIC DIST.
WALKDEN FARM	WEST BEACH
WALKER BUILDING, THE	WEST CONCORD ST, 96
WALKER GARAGE	WEST DENNIS TOWN RAMP
WALKER, PETER HOUSE	WEST FALMOUTH HISTORIC DISTRICT
WALKER, WILLIAM HOUSE	WEST NEWBURY TRAINING FIELD HIST. DIST.
WALSH, JOHN HOUSE	WEST SCHOOLHOUSE
WAMPANOAG MILL	WEST SOMERVILLE BRANCH LIBRARY
WAQUOIT BAY ACEC	WEST STREET HISTORIC DISTRICT
WAQUOIT BAY NAT. ESTUARINE RES. RESERVE	WEST TISBURY HISTORIC DISTRICT
WAQUOIT HISTORIC DISTRICT	WESTPORT POINT HISTORIC DISTRICT
WARD, JOHN HOUSE	WESTPORT YACHT CLUB
WARD, JOSHUA HOUSE	WESTWOOD ROAD HISTORIC DISTRICT
WARE HALL	WEWEANTIC BEACH
WARREN, H. HOUSE	WEYMOUTH BACK RIVER ACCESS
WARREN, H. M. PUBLIC SCHOOL	WEYMOUTH CIVIC DISTRICT
WASH OVER	WEYMOUTH/HINGHAM BACK RIVER ACEC
WASHINGTON SCHOOL	WHALES BEACH
WASHINGTON SQUARE HISTORIC DISTRICT	WHEELER - INGALLS HOUSE
WASHINGTON STREET HISTORIC DISTRICT	WHEELER, AARON HOUSE
WASHINGTON STREET THEATRE DISTRICT	WHIPPLE, JOHN HOUSE
WATER INTAKE	WHITE - ELLERY HOUSE
WATERS, CHARLES HOUSE	WHITE - PRESTON HOUSE
WAVERLY APARTMENTS	WHITE HORSE BEACH
WEBB MEMORIAL STATE PARK	WHITE PLACE HISTORIC DISTRICT
WEBCOWIT CLUB	WHITE, CHARLES E. HOUSE
WEBSTER, DANIEL LAW OFFICE AND LIBRARY	WHITECREST BEACH
	WHITING, PEREZ HOUSE

MASSACHUSETTS METADATA

5.1.2.4.1.1. ENUMERATED DOMAINVALUE:

WHITMAN, JOSIAH B. HOUSE	WIXON PIER
WHITTEMORE HOUSE	WOLLASTON FIRE STATION
WHITTIER, JOHN GREENLEAF HOUSE	WOLLASTON THEATRE
WIANNO CLUB	WOLLASTON UNITARIAN CHURCH
WIANNO HISTORIC DISTRICT	WOMAN'S CLUB OF FALL RIVER
WIGGLESWORTH BUILDING	WOMPATUCK STATE PARK
WILBUR THEATRE	WOOD END LIGHT LOOKOUT STATION
WILD HARBOR ACCESS	WOOD NECK BEACH
WILEY STREET, 28	WOOD, CHARLES HOUSE
WILEY, CALEB HOUSE	WOOD, J.A. HOUSE
WILLARD STREET, 92	WOODBERRY - QUARRELS HOUSE
WILLCOMB, JOSEPH HOUSE	WOODBERRY, PETER HOUSE
WILLIAM FORWARD ST. WILDLIFE MGT. AREA	WOODBIDGE, THOMAS MARCH HOUSE
WILLIAM STREET HISTORIC DISTRICT	WOODS HOLE HISTORIC DISTRICT
WILLIAMS - LINSOTT HOUSE	WOODS HOLE SCHOOL
WILLIAMS, CHARLES HOUSE	WOODS, JOHN HOUSE
WILLIAMS, CHARLES JR. HOUSE	WOODVILLE SCHOOL
WILLIAMS, F. G. HOUSE	WOODWARD - PARSONS HOUSE
WILLIAMS, MICAH HOUSE	WOODWARD INSTITUTE
WILLIS FISHING PIER	WORCESTER, FREDERICK HOUSE
WILLIS, STILLMAN HOUSE	WORTHEN, DANIEL HOUSE
WILSON, SHOREBORNE HOUSE	WRIGHT HOUSE
WINFIELD HOUSE	WRIGHT, ELISHA HOMESTEAD
WING FORT HOUSE	WRIGHT, HENRY HOUSE
WING'S NECK LIGHT	WYATT, GEORGE HOUSE
WINSHIP, CHARLES HOUSE	WYNDERMERE BLUFFS BEACH
WINSLOW, KENELM HOUSE	WYOMING MILLS
WINSLOW, LUTHER JR. HOUSE	Y.M.C.A BUILDING
WINTER STREET HISTORIC DISTRICT	YANKEE LOBSTER
WINTHROP BEACH	YARMOUTH CAMP GROUND HISTORIC DISTRICT
WINTHROP BUILDING	YOUNG MEN'S CHRISTIAN UNION
WINTHROP, DEANE HOUSE	YOUTH'S COMPANION BUILDING
WIRTH, JACOB BUILDING	ZEITERION THEATER
WITHEY, S.B. HOUSE	ZYLPHA ROAD BEACH

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION
SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

CONTACT

5.1.2.2. ATTRIBUTE DEFINITION:

Contact person

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

ACEC Program

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

PHONE

5.1.2.2. ATTRIBUTE DEFINITION:

Telephone number

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

(508) 291-0950

(508) 678-5283

(508) 678-8321

(617) 934-0571

268-4061

423-0337

542-1992

(617) 727-3160, ext. 552

884-0707

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

G_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:

Geographic source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique link

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

A_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:

Attribute source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique link

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: SOC_LUT

Lookup table to link SOC_DATA to SOCECON and MGT data layers.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
<u>Attributes</u>	HUNUM	integer
	ID	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

HUNUM

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links SOC_LUT and SOC_DATA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links SOC_LUT to the SOCECON and MGT data layers

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: SOCECON

The data layer SOCECON contains the entity points and complete chains for the human-use data.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
<u>Complete Chains</u>	TYPE	character
<u>Entity Points</u>	TYPE	character
	ID	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TYPE

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies a line or point with a socio-economic, or human-use, feature. This attribute allows direct access to the type of feature instead of linking to the more detailed SOC_DATA table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
A	Airport (Point)
A2	Access (Point)
AQ	Aquaculture (Point)
B	Recreational Beach (Point)
BR	Boat Ramp (Point)
CF	Commercial Fishing (Point)
CG	Coast Guard (Point)
F	Ferry (Point)
HS	Historical Site (Point)
LD	Lock or Dam (Point)
M	Marina/ Anchorage (Point)
MA	Management Area (ACEC) (Point)
R	Bridge (Chain)

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
RF	Recreational Fishing (Point)
WI	Water Intake (Point)
WO	Washover (Point)

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the SOC_LUT table. ID is a concatenation of atlas number (45), element number (10), and record number.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: SOURCES

The data table SOURCES contains the primary sources used to create the ESI atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:

Attributes

5.1.1.2. ENTITY TYPE DEFINITION:

SOURCE_ID	integer
ORIGINATOR	character
DATE_PUB	integer
TITLE	character
DATA_FORMAT	character
PUBLICATION	character
SCALE	character
TIME_PERIOD	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

SOURCE_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Source identifier that links to G_SOURCE, S_SOURCE, and A_SOURCE in the BIORES and SOC_DATA data tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

1-N

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ORIGINATOR

5.1.2.2. ATTRIBUTE DEFINITION:

Author of the data set

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Begley, M., MDEP, Providence
Bergan, J., DFWELE (Westboro)
Blodgett, B., DFWELE/DFW
Brady, P., DMF (Pocasset)
Burrell, D., DFWELE/DFW
Cooper, A. and H. Clish, MCZM
DFWELE, DFW
Division of Marine Fisheries, DFWELE
Early, G., New England Aquarium
Gault, C., Waquoit Bay NEER
Geist, M.A. (ed.)
Goldstein, P., American Museum of Natural
History
Hain, J., NMFS/NEFSC (Principal Contact)
Hain, J.H.W., et al.
Harrington, B. and E. Perry
Harrington, B., Manomet Observatory
Heusmann, H., DFWELE/DFW
Howe, A., DMF, DFWELE
Iwanowicz, R., DMF (Newburyport)
Janik, D. and B. Gass, MCZM, NERO
Jury, S.H., J.D. Field, S.L. Stone, D.M. Nelson, and
M.E. Monaco
Massachusetts Department of Environmental
Protection and NOAA Coastal Services Center
Massachusetts Natural Heritage and Endangered
Species Program
MASSGIS, EOE, Boston, MA
McKenna, S., MCZM, Barnstable
Metropolitan Area Planning Commission
NOAA, SEA Division and Massachusetts DMF,
DFWELE
Packard, R. and J. Hutchinson, DEP-ER
Parsons, K., Manomet Observatory
Payne, P.M. and L.A. Selzer
Perkins, R., et al., MDEP-NERO

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Plough, J. DMF, DFWELE
 Plymouth-Salisbury, Massachusetts Area
 Committee
 Public Access Board, DFWELE
 Rand McNally and Company
 Research Planning, Inc.
 Resource Management Project at UMass
 Reynolds, M. and M. Adams, NPS, CCNSS
 Rhode Island-Southeastern Massachusetts Area
 Committee
 Roach, D., DFWELE
 Rough, V.
 South Shore Shellfish Program, DFWELE, DMF
 Steinitz, M., Massachusetts Historical
 Commission
 Stellwagen Bank National Marine Sanctuary
 Stone, S.L., T.A. Lowery, J.D. Field, S.H. Jury, D.M.
 Nelson, and M.E. Monaco
 U.S. Fish and Wildlife Service, Real Estate
 Division
 U.S. Geological Survey
 Waring, G., NMFS/NEFSC
 Waring, G.T., D.L. Palka, K.D. Mullin, J.H.W.
 Hain, L.J. Hansen, and K.D. Bisack
 Zeroka, R., MCZM

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:

Date of data collection or publication

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
 DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
 VALUE DEFINITION:**

1-N

The first two integers are the month and the last four are the year. If month is unknown, only the four-digit year is entered

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE

DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

TITLE

5.1.2.2. ATTRIBUTE DEFINITION:

Title of the source data set or document

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Originator who provided data, or RPI for personal interviews with resource experts

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Additional Access Locations for Massachusetts Coastal Area

Additional Boat Ramp Locations for Massachusetts Coastal Area

Additional Socioeconomic Resources for Massachusetts Coastal Area

Anadromous Fish Seasonality for the North Shore (New Hampshire to Boston)

Anadromous Fish Seasonality for the South Shore (Cape Cod to Rhode Island)

Areas of Critical Environmental Concern

Bird Updates to NHESP Coastal Rare Species Habitats Sensitive to Oil Spills Map

Black Sea Bass Distribution for Massachusetts Coastal Area

Boat Ramps, Marinas

Boundary for Stellwagen Bank National Marine Sanctuary

Coastal Rare Species Habitats Sensitive to Oil Spills

Distribution and Abundance of Fishes and Invertebrates in Mid-Atlantic Estuaries

Distribution and Abundance of Seal Haul-outs in Massachusetts

Distribution and Abundance of Fishes and Invertebrates in North Atlantic Estuaries

Draft Updates to the Plymouth to Salisbury, Massachusetts Area Contingency Plan (ACP)

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Eelgrass and Associated Data for Massachusetts
 Estuarine Living Marine Resources
 Gray Seals in Nantucket Sound, Massachusetts,
 Winter and Spring 1994
 Important Shorebird Staging Sites Meeting
 Western Hemisphere Shorebird Reserve
 Network Criteria in the U.S.
 Land Use Data Layer
 Massachusetts Anadromous Fish Datalayer
 Massachusetts Coastal Colonial Waterbird
 Inventory
 Miscellaneous Resources for Waquoit Bay
 National Estuarine Research Reserve
 National Wildlife Refuge Boundaries for Region
 5
 Potential Waterfowl Concentration Areas and
 Other Resources for Coastal Massachusetts
 Potential Waterfowl Concentration Areas for
 Cape Cod Bay, Nantucket Sound, and Vicinity
 Protected and Recreational Open Space Datalayer
 Public Access Board Sites Data Layer
 Rand McNally Business Traveler's Road Atlas
 and Guide to Major Cities
 Rhode Island and Southeastern Massachusetts
 Area Contingency Plan (ACP)
 Sea Run Brook and Brown Trout Steams and
 Seasonality
 Seal Haul-out Sites for Various Coastal Locations
 Seasonality and Life-history of the Northeastern
 Beach Tiger Beetle
 Shellfish Beds, Harvest Areas, and Lease Sites for
 the S. Shore of Massachusetts
 Shellfish Resources of the Massachusetts Coast
 1978
 Shorebird Concentration Areas of Major
 Importance for Coastal Massachusetts
 State Register of Historic Places Datalayer
 The Distribution, Abundance, and Selected Prey of
 the Harbor Seal, *Phoca vitulina concolor*, in
 Southern New England
 The Fin Whale, *Balaenoptera physalus*, in Waters
 of the NE US Continental Shelf
 U.S. Atlantic and Gulf of Mexico Marine Mammal
 Stock Assessments–1996

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

USGS Topographic Quadrangles
Various Socioeconomic and Biological Resources
for Massachusetts Coastal Area
Various Resources for Massachusetts Coastal Area
Wading Bird and Forging Site Locations for
Massachusetts Coastal Area
Waquoit Bay National Estuarine Research
Reserve
Whale Sightings Distribution for Large-Whale
TRT and CETAP Project

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

DATA_FORMAT

5.1.2.2. ATTRIBUTE DEFINITION:

The format of the source data set

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Digital Point
Digital Polygons
Expert Knowledge
Hardcopy Maps
Hardcopy Maps, Text Document
Hardcopy Tables
Text Document

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

PUBLICATION

5.1.2.2. ATTRIBUTE DEFINITION:

Additional citation information

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Database Contact: Mark Monaco and D.M. Nelson
DFWELE

DFWELE GIS, Contact (617) 727-1614

DFWELE, DFW, MA, Westboro

ELMR Report No. 12, NOAA/ NOS Strategic
Environmental Assessments Division, Silver
Spring, MD 280 pp.

ELMR Report No. 13, NOAA/ NOS Strategic
Environmental Assessments Division, Silver
Spring, MD 221 pp.

Final Report to the Marine Mammal
Commission, Contract #T10155615, 28 pp.

Marine Mammal Science 5(2), pp. 173-192

Massachusetts Coastal Zone Management, Boston,
MA

Massachusetts Historical Commission, Office of
the Secretary of the Commonwealth

MASSGIS, 20 Somerset Street, Boston, MA 02108,
(617) 727-5229

MDEM, Division of Forests and Parks–Region 1,
Waquoit, MA 113 pp.

National Marine Fisheries Service, Northeast
Fisheries Science Center, Woods Hole, MA

NOAA Coastal Services Center, 2234 S. Hobson
Avenue, Charleston, SC 29405

NOAA Technical Memorandum NMFS–
Northeast Fisheries Science Center, 114 US
Dept. of Commerce, NOAA, NEFSC, Woods
Hole, MA 250 pp.

Rand McNally and Company, Post Office Box
7600, Chicago, IL 60680, 128 pp.

Rep. International Whaling Commission, 42:653-
669

Program Contacts: M. Hickey and F. Germano
U.S. Coast Guard, Marine Safety Office, Boston,
MA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

U.S. Coast Guard, Marine Safety Office,
Providence, RI
U.S. Department of the Interior, Fish and Wildlife
Service, 121 pp.
U.S. Fish and Wildlife Service, Regional Office,
Hadley, MA
U.S. Geological Service, Woods Hole Field Center,
384 Woods Hole Road, Quissett Campus,
Woods Hole, MA 02543
U.S. Geological Survey, Reston, VA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SCALE

5.1.2.2. ATTRIBUTE DEFINITION:

Source scale denominator

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

1 inch = 10 miles
24000
24000 - 25000
25000
100000
N/A
Unknown
Various

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

TIME_PERIOD

5.1.2.2. ATTRIBUTE DEFINITION:

Date(s) of data collection

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

1966-1989

1971-1992

1977-1997

1978

1978-1982

1978-1995

1983-1986

1988-1997

1992

1993

1994

1994-1995

1995

1996

1997

1997-1998

1998

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: SPECIES

The data table SPECIES identifies all species used in the ESI atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:
<u>Attributes</u>	SPECIES_ID integer
	NAME character
	GEN_SPEC character
	ELEMENT character
	SUBELEMENT character
	NHP character
	DATE_PUB integer
	EL_SPE character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for each species and is unique within each element and refers to a nationwide ESI species list maintained at RPI and NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NAME

5.1.2.2. ATTRIBUTE DEFINITION:

Species common name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Alewife
American bittern
American black duck
American eel
American lobster
American oystercatcher
American plaice
American sand lance
American shad
Arctic tern
Atlantic cod
Atlantic herring
Atlantic jackknife clam
Atlantic mackerel
Atlantic menhaden
Atlantic rock crab
Atlantic salmon
Atlantic sturgeon
Atlantic surfclam
Atlantic tomcod
Atlantic white-sided dolphin
Bald eagle
Bay anchovy
Bay scallop
Black drum
Black sea bass
Black skimmer
Black-bellied plover
Black-crowned night-heron
Blue crab
Blue mussel
Blueback herring

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Bluefish
Brant
Brook trout (sea run)
Brown trout (sea run)
Butterfish
Canada goose
Canvasback
Cattle egret
Channel catfish
Colonial waterbirds
Common eider
Common moorhen
Common tern
Cownose ray
Cunner
Daggerblade grass shrimp
Diamondback terrapin
Diving ducks
Double-crested cormorant
Dunlin
Eastern oyster
Eelgrass
Eiders
Fin whale
Fourspine stickleback
Glossy ibis
Goby
Gray seal
Great black-backed gull
Great egret
Green crab
Green sea turtle
Green urchin
Grubby
Haddock
Harbor porpoise
Harbor seal
Harlequin duck

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Herring gull
Hogchoker
Hudsonian godwit
Humpback whale
Jonah crab
Kemp's ridley sea turtle
King rail
Laughing gull
Leach's storm-petrel
Least bittern
Least tern
Lesser yellowlegs
Little blue heron
Loggerhead sea turtle
Long-finned pilot whale
Longhorn sculpin
Mallard
Minke whale
Mullet
Mummichog
Ninespine stickleback
Northeastern beach tiger beetle
Northern kingfish
Northern pipefish
Northern quahog (hard clam)
Northern right whale
Northern searobin
Northern shrimp
Ocean pout
Ocean quahog
Oldsquaw
Osprey
Oyster toadfish
Pied-billed grebe
Pinfish
Piping plover
Pollock
Rainbow smelt

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Red hake
Red knot
Red-breasted merganser
Rock gunnel
Roseate tern
Saddle-backed dolphin
Sanderling
Scaup
Scoters
Scup (porgy)
Sea lamprey
Sea scallop
Semipalmated sandpiper
Sevenspine bay shrimp
Sheepshead minnow
Shorebirds
Short-billed dowitcher
Shorthorn sculpin
Shortnose sturgeon
Silver hake
Silversides
Skates
Smooth flounder
Snowy egret
Softshell clam
Spiny dogfish
Spot
Striped bass
Summer flounder
Tautog
Threespine stickleback
Wading birds
Waterfowl
Weakfish
White hake
White perch
Windowpane flounder
Winter flounder

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Yellow perch
Yellow-crowned night-heron
Yellowtail flounder

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

GEN_SPEC

5.1.2.2. ATTRIBUTE DEFINITION:

Species scientific name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Acipenser brevirostrum
Acipenser oxyrinchus
Alosa aestivalis
Alosa pseudoharengus
Alosa sapidissima
Ammodytes americanus
Anas platyrhynchos
Anas rubripes
Anchoa mitchilli
Anguilla rostrata
Apeltes quadracus
Arctica islandica
Ardea alba
Argopecten irradians
Aythya spp.
Aythya valisineria
Balaenoptera acutorostrata
Balaenoptera physalus
Botaurus lentiginosus
Branta bernicla

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Branta canadensis
Brevoortia tyrannus
Bubulcus ibis
Calidris alba
Calidris alpina
Calidris canutus
Calidris pusilla
Callinectes sapidus
Cancer borealis
Cancer irroratus
Carcinus maenas
Caretta caretta
Centropristis striata
Charadrius melodus
Chelonia mydas
Cicindela dorsalis dorsalis
Clangula hyemalis
Clupea harengus
Crangon septemspinosa
Crassostrea virginica
Cynoscion regalis
Cyprinodon variegatus
Delphinus delphis
Egretta caerulea
Egretta thula
Ensis directus
Eubalaena glacialis
Fundulus heteroclitus
Gadus morhua
Gallinula chloropus
Gasterosteus aculeatus
Globicephala melaena
Gobiosoma spp.
Haematopus palliatus
Haliaeetus leucocephalus
Halichoerus grypus
Hippoglossoides platessoides
Histrionicus histrionicus

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Homarus americanus
Ictalurus punctatus
Ixobrychus exilis
Lagenorhynchus acutus
Lagodon rhomboides
Larus argentatus
Larus atricilla
Larus marinus
Leiostomus xanthurus
Lepidochelys kempii
Limnodromus griseus
Limosa haemastica
Macrozoarces americanus
Malaclemys terrapin
Megaptera novaeangliae
Melanitta spp.
Melanogrammus aeglefinus
Menidia spp.
Menticirrhus saxatilis
Mercenaria mercenaria
Mergus serrator
Merluccius bilinearis
Microgadus tomcod
Morone americana
Morone saxatilis
Mugil spp.
Mya arenaria
Myoxocephalus aeneus
Myoxocephalus octodecemspinosus
Myoxocephalus scorpius
Mytilus edulis
Nyctanassa violacea
Nycticorax nycticorax
Oceanodroma leucorhoa
Opsanus tau
Osmerus mordax
Palaemonetes pugio
Pandalus borealis

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Pandion haliaetus
Paralichthys dentatus
Peprilus triacanthus
Perca flavescens
Petromyzon marinus
Phalacrocorax auritus
Phoca vitulina
Phocoena phocoena
Pholis gunnellus
Placopecten magellanicus
Plegadis falcinellus
Pleuronectes americanus
Pleuronectes ferrugineus
Pleuronectes putnami
Pluvialis squatarola
Podilymbus podiceps
Pogonias cromis
Pollachius virens
Pomatomus saltatrix
Prionotus carolinus
Pungitius pungitius
Raja spp.
Rallus elegans
Rhinoptera bonasus
Rynchops niger
Salmo salar
Salmo trutta (sea run)
Salvelinus fontinalis (sea run)
Scomber scombrus
Scophthalmus aquosus
Somateria mollissima
Somateria spp.
Spisula solidissima
Squalus acanthias
Stenotomus chrysops
Sterna antillarum
Sterna dougallii dougallii
Sterna hirundo

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Sterna paradisaea
 Strongylocentrotus droebachiensis
 Syngnathus fuscus
 Tautoga onitis
 Tautogolabrus adspersus
 Trinectes maculatus
 Tringa flavipes
 Urophycis chuss
 Urophycis tenuis
 Zostera marina

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:

Date of NHP listing

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

0	No NHP rank
11996	Date of NHP rank
11998	Date of NHP rank
51996	Date of NHP rank
51997	Date of NHP rank
71994	Date of NHP rank
71996	Date of NHP rank
81997	Date of NHP rank
111996	Date of NHP rank

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

The Nature Conservancy (TNC)

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Biological element

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

BIRD	Birds
FISH	Fish
HABITAT	Habitats
INVERT	Invertebrates
M_MAMMAL	Marine Mammals
REPTILE	Reptiles

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SUBELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Species subgroup

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

algae
 amphibian
 bird
 bivalve
 crab
 diadromous
 diving

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

e_nursery
 e_resident
 freshwater
 gull_tern
 insect
 m_benthic
 passerine
 pinniped
 plant
 raptor
 sav
 shorebird
 shrimp
 turtle
 wading
 waterfowl
 wetland

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NHP

5.1.2.2. ATTRIBUTE DEFINITION:

The Nature Conservancy's Global Conservation Status Ranking (G-RANK) (see Master, 1991, Conservation Biology, 5:559-563, for full definitions)

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

The Nature Conservancy (TNC)

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

G1	Critically imperiled
G3	Vulnerable
G4	Apparently secure
G4G5	Range rank, apparently secure to secure

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
G4T1T2	Apparently secure species, subspecies range rank critically imperiled to imperiled
G4T3 G5	Apparently secure species, vulnerable subspecies Secure

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

The Nature Conservancy (TNC)

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordered

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT and SPECIES_ID

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

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5.1. DETAILED DESCRIPTION: STATUS

The data table STATUS identifies the species that are listed as either threatened or endangered on state or federal lists.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:

Attributes

5.1.1.2. ENTITY TYPE DEFINITION:

ELEMENT	character
SPECIES_ID	integer
STATE	character
S_F	character
T_E	character
DATE_PUB	integer
EL_SPE	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

BIRD
FISH
HABITAT
INVERT
M_MAMMAL
REPTILE

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

Birds
Fish
Habitats
Invertebrates
Marine Mammals
Reptiles

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for each species and is unique within each element and refers to a nationwide ESI species list maintained at RPI and NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

1-N

Unique number

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

STATE

5.1.2.2. ATTRIBUTE DEFINITION:

Two-letter state abbreviation

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

MA

Massachusetts

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

S_F

5.1.2.2. ATTRIBUTE DEFINITION:

State and Federal status

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

F	Federally listed
S	State listed
S/F	State and Federally listed

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

USFWS, NMFS, Massachusetts
DFWELE

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

T_E

5.1.2.2. ATTRIBUTE DEFINITION:

Threatened and endangered status

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

**5.1.2.4.1.1. ENUMERATED
DOMAIN VALUE:**

**5.1.2.4.1.2. ENUMERATED DOMAIN
VALUE DEFINITION:**

E	State endangered
E/E	Endangered on Federal and State lists
T	State threatened
T/T	Threatened on Federal and State lists

**5.1.2.4.1.3. ENUMERATED DOMAIN VALUE
DEFINITION SOURCE:**

USFWS, NMFS, Massachusetts
DFWELE

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:

Date of T or E listing

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

51997

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

USFWS, NMFS, Massachusetts DFWELE

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT and SPECIES_ID and links to BIORES, SPECIES, and SEASONAL databases

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

1-N

5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:

Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

6.0. DISTRIBUTION INFORMATION

6.1. DISTRIBUTOR

6.1.1. CONTACT PERSON PRIMARY

6.1.1.1. CONTACT PERSON:

John Kaperick

6.1.1.2. CONTACT ORGANIZATION:

NOAA

6.1.4. CONTACT ADDRESS

6.1.4.1. ADDRESS TYPE:

Physical Address

6.1.4.2. ADDRESS:

7600 Sand Point Way N.E., Bin C15700

6.1.4.3. CITY:

Seattle

6.1.4.4. STATE OR PROVINCE:

W A

6.1.4.5. POSTAL CODE:

98115-0070

6.1.5. CONTACT VOICE TELEPHONE:

(206) 526-6400

6.1.7. CONTACT FACSIMILE TELEPHONE:

(206) 526-6329

6.2. RESOURCE DESCRIPTION:

ESI Atlas for Massachusetts

6.3. DISTRIBUTION LIABILITY:

Although this data has been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer input peripherals, or when the physical medium is delivered in damaged condition.

6.5. CUSTOM ORDER PROCESS

Contact NOAA for distribution options (see 6.1.1.).

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7.0. METADATA REFERENCE INFORMATION

7.1. METADATA DATE:

199904

7.2. METADATA REVIEW DATE:

199904

7.4. METADATA CONTACT

7.4.1. CONTACT PERSON PRIMARY

7.4.1.1. CONTACT PERSON:

Jill Petersen

7.4.1.2. CONTACT ORGANIZATION:

NOAA HMRAD

7.4.3. CONTACT POSITION:

GIS Manager

7.4.4. CONTACT ADDRESS

7.4.4.1. ADDRESS TYPE:

Physical Address

7.4.4.2. ADDRESS:

7600 Sand Point Way, N.E., Bin C15700

7.4.4.3. CITY:

Seattle

7.4.4.4. STATE OR PROVINCE:

Washington

7.4.4.5. POSTAL CODE:

98115

7.4.5. CONTACT VOICE TELEPHONE:

(206) 526-6944

7.4.7. CONTACT FACSIMILE TELEPHONE:

(206) 526-6329

7.4.8. CONTACT ELECTRONIC MAIL ADDRESS:

jill_petersen@hazmat.noaa.gov.us

7.5. METADATA STANDARD NAME:

Content Standards for Digital Geospatial Metadata

7.6. METADATA STANDARD VERSION:

19940608

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