Available Datasets and Maps

Datasets Collected

During Spring 2004, staff from the Maine Coast Protection Initiative downloaded and reviewed available GIS datasets. In addition to available datasets, several data sources were identified that could be used for further mapping efforts.

The datasets included the following types of information, including:

- physical and political regions in Maine
- land and water characterizations
- habitat data for rare and commercial species
- data for access points

Habitat
There are a significant number of maps and data available about habitat and natural resources, and specific agencies and/or organizations have responsibility for updating the data on a regular basis. In addition to the datasets, there are several web-based Internet Mapping Servers that provide users with the ability to access wide breadth and depth of habitat data.

Access
Much less data exists about coastal access. The existing data layers focus on resources that may be available for recreational boating access, and do not provide information regarding pedestrian access or access for commercial working waterfront purposes. There is a significant amount of data about access but it has not put into a GIS format.

Scenic/Cultural
Initiative staff were unable to identify GIS data layers related to scenic and cultural resources.

Base Information

The following GIS layers provide base information about political or physical regions in Maine, including town and county information.

Name	Geographical Area	Description	Code
Biophysical Region	State	Depicts boundaries of 15 Biophysical Regions in Maine at 1:250,000 scale. The regions were developed in a statewide classification (McMahon, 1990) by Janet McMahon	BIOPHY
State and County	State	Contains state and county boundaries for Maine, mapped at 1:100,000 scale. The coverage has polygon topology	CNTY100
State and County	State	Contains state and county boundaries for Maine, mapped at 1:24,000 scale. The coverage has polygon topology	CNTY24
Conservation Lands	State	Contains public ownership and lease boundaries at 1:100,000 scale for Maine land in federal, state, municipal and non-profit ownership and easement.	MEPUB100
Town Names	State	Depicts political boundaries, common town names, and geocodes for Maine at 1:100,000 scale. The coverage was created from USGS, 1:100,000 digital line graph files of town boundaries.	METWP100
Town Names	State	Depicts political boundaries, common town names, and geocodes for Maine at 1:24,000 scale. The coverage was created from USGS, 7.5 minute map series, town boundaries	METWP24
Coast	24K by coastal county	Depicts Maine's coastline at mean high wate, based on USGS 1:24,000 scale quadrangles.	Coast
Land Trust	State	Contains information about the communities served by each land trust in the Maine Land Trust Network	LandTrust

Land and Water Information

The following GIS layers provide information about physical aspects, including land cover and watersheds. Subwatersheds will be useful as they provide the context for the "soft line" of the Maine Coast Protection Initiative's geographic boundary. Land Cover was used by Beginning with Habitat to identify major unfragmented, undeveloped blocks of land.

Name	Geographical Area	Description	Code
Land Cover	Coastal Counties	GOMLC7 provides land cover data from five interpretations of Landsat data, and wetland cover from photo-interpretations were combined to yield a 31-class raster (grid) digital dataset, "GOMLC7".	gomlc7
6-digit subwatersheds	State	WBDME6_A is a digital hydrologic unit boundary layer of Level 6 (12-digit) SUBWATERSHEDs for Maine. The source data was developed by delineating the boundary lines on a USGS base of 1:24000 scale	WBDME6_A
Watershed - Ponds and Rivers	State	MEDRDVD contains watershed boundaries for most ponds and rivers in Maine, based on USGS 1:24,000 scale quadrangle maps. Drainage boundaries were determined using the 1:24,000 scale contours	MEDRDVD
Watershed - Public Water Supply	State	DIRSHED depicts watershed areas of surface waters that are active sources of Maine public water supplies, depicted at 1:24000 scale.	DIRSHED
Water Quality Monitoring Points	State	VOLMON24 provides information on water quality monitoring points along the coast of Maine that have been sampled by volunteer water quality monitoring organizations.	VOLMON24
Bathymetry	State	BATHY30 is a raster data set of bathymetry and intertidal cover types for the Gulf of Maine developed by the U.S. Fish & Wildlife Service; Gulf of Maine Program.	BATHY30
Bathymetry	State	BATHYM100 contains bathymetry lines for the Gulf of Maine at a scale of 1:100,000 showing depth in 10 meter intervals. This coverage was developed by the Maine Geological Survey	BATHYm100

Habitat Data

The following GIS layers provide information about mapped habitats for both rare species and commercial species. Information about rare animal species, including bald eagle, terns, and plovers, was used in Beginning with Habitat, and forms part of the basis for identification of Beginning with Habitat Focus Areas.

Name	Geographical Area	Description	Code
Bald Eagle	State	EHEAGLE contains bald eagle nest sites in Maine mapped as Essential Habitat by the Maine Department of Inland Fisheries and Wildlife (MDIFW).	EHEAGLE
Piping Plover and Least Tern	State	EHPLVTRN contains Piping Plover and Least Tern nesting, feeding, and brood-rearing areas identified and mapped as Essential Habitat by the Maine Department of Inland Fisheries and Wildlife (MDIFW	EHPLVTRN
Roseate Tern	State	EHRTERN Roseate Tern nesting areas identified and mapped as Essential Habitat by the Maine Department of Inland Fisheries and Wildlife (MDIFW).	EHRTERN
Fish Passage	State	ACFISH2 contains point locations of streams and rivers in Maine with runs and passages of anadromous and catadromous fish. Attributes include IDs for fish species and water body name.	ACFISH2
Atlantic Salmon	State	ASHAB3 contains arcs attributed with habitat categories, area, and an indication of spawning and rearing potential of Atlantic Salmon habitats in Maine, suitable for mapping at 1:24,000 or larger	ASHAB3
Mollusks - East	State	CLASS03E is a REGIONS dataset and contains status of molluscan shellfish growing area classifications for the coast of Maine, as of July 2003, east of Fort Point Stockton Springs	CLASS03E
Mollusks - West	State	CLASS03W is a REGIONS dataset that contains status, July 2003, of molluscan shellfish growing area classifications for the Maine coast west of Fort Point Stockton Springs	CLASS03W
Eelgrass Meadows	State	MEGRASS is a POLYGON coverage that represents Maine's eelgrass meadows, which form an important aquatic habitat for the state, suitable for mapping at 1:24,000 scale.	MEGRASS
Shellfish	State	SHELL offers a generalized representation of molluscan shellfish habitat in Maine, based on a 1977 Maine Department of Marine Resources coastwide survey.	SHELL

Coastal Seabird Nesting Islands	State	SNI contains POLYGONS that represent NRPA (Natural Resource Protection Act) regulated coastal seabird nesting islands or portions thereof along the coast of Maine.	SNI
Worms	State	WORM provides a generalized representation at 1:24,000 scale of commercially harvested marine worm habitat in Maine, based on Maine Department of Marine Resources data from 1970's.	WORM

Access Data

The following GIS layers provide information about access points. While not specifically coastal, these layers provide important information about what is mapped for access points. In addition to these mapped points, several other data sources provide additional information about access, although these have not been converted into GIS format. *(see Other Sources of Information below for more details)*

Name	Geographical Area	Description	Code
Boat Launches	State	BOATLNCH depicts state-managed and state-assisted boating facility locations throughout Maine at 1:24000 scale or better recorded by the Boating Facilities Division of the Bureau of Parks & Lands	BOATLNCH
Bridges in MEDOT's 6-Year Plan	State	BRDGS6YR was created by Maine Department of Transportation to show locations of bridges identified in MEDOT's 2004-2009 Six-Year Plan.	BRDGS6YR

Other Sources of Information

During the process of identifying datasets and reviewing existing conservation efforts, several other data sources were identified. Although these are not included in this electronic dataset of GIS files, they are useful to include in this reference and may be helpful in the planning process. There are three categories of other files not included in this dataset:

- Not Available for Download, because of data processing fees or confidentiality issues
- Not Available in GIS Format, but may be relevant to the project
- Not Downloaded, because direct connection to project is not clear

Not Available for Download

The following GIS data sources have been identified but were not included in this data set, either because a data-processing fee is charged, or data is only for internal use at the organization.

- MNAP – Habitat Consultation Areas Mapping Project
- MCHT – Conservation Lands in Casco Bay
- USFWS – Gulf of Maine Habitat Models

MNAP - Habitat Consultation Areas Mapping Project

The Habitat Consultation Areas Mapping Project (HCAMP) is a cooperative effort between the Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Natural Areas Program (MNAP) in the Department of Conservation to develop maps that identify areas with important habitats and natural features. The maps can be used as a screening tool to facilitate landowner preparation for permit application. The maps use "consultation areas" to represent areas in which the MNAP or MDIFW have concerns.

Consultation areas are grid cells approximately 0.24 mi^2 (about 154 acres) in size that represent areas containing known important animal or plant habitat and natural features. A grid cell is highlighted when one or more habitats or natural features are documented to occur anywhere within it. The information represented includes the most up-to-date and accurate information available from the MNAP and the MDIFW at the time of map production. Consultation areas represent locations of the following:

- Endangered, Threatened, and special concern animals and plants;
- Essential habitats for Endangered and Threatened animals (also see Essential Habitat atlas for regulated areas);
- Deer wintering areas;
- Waterfowl and wading bird habitats;
- Shorebird feeding and roosting areas;
- Seabird nesting islands; and,
- Unique natural communities.

http://www.state.me.us/doc/nrimc/mnap/infoservices/infoservices.html

MCHT – Conservation Lands in Lower Casco Bay

Staff from USFWS Gulf of Maine Program, Casco Bay Project led an effort to collect and compile existing data on the conservation status of all lands in the 15-town study region. The database is maintained at Maine Coast Heritage Trust for future updating.

This project also identified and mapped important habitat for 9 groups of species and results are being used to catalyze voluntary habitat protection efforts in the region. The habitat maps are included in this dataset, but because they are specific to a small geographic area, and are subsets of coastwide data, they have not been reviewed.

http://gulfofmaine.fws.gov/cascobay.html

USFWS – Gulf of Maine Habitat Maps

The Gulf of Maine Coastal Program has completed a project which identifies important habitats within the U.S. portion of the Gulf of Maine watershed. Maps, models, and metadata were developed for 64 Fish and Wildlife'trust' species, and for an additional 27 priority species identified by Partners in Flight, the Interational Shorebird Suvey, the North American Waterbird Conservation Plan, and USFWS Region 5 Migratory Bird Management Office.

This information was not requested for this dataset because an internet map viewer is available which allows users to:

- View important habitat by habitat type or for all 91 species combined
- View the top 25% or top 50% of the most valuable habitat
- View important habitat for each of the 91 species separately
- View environmental themes including land cover and bathymetry
- Draw a polygon of interest (usually a parcel) on the screen to create a table of habitat values that includes results for all 91 species
- Create and print a map of the area of interest

Information Not in GIS Format

The following information is available in tabular format, but no GIS maps appear to exist. It may be useful to create maps for some of this information.

Access

Description	Source
List of state-owned and assisted boat facilities (own, name, type, fee, funding source) - appendix 2 includes acquired land, but undeveloped	MDoC Strategic Plan for Access
List of rivers in need of guaranteed or additional access (*would need to identify which are coastal)*	MDoC Strategic Plan for Access
List of boating facility priorities for coastal communities - from 1989 DECD study by Sasaki Associates - updated in 1994?	MDoC Strategic Plan for Access
Table showing state-sponsored boating sites by county	
Table showing tidal miles and tile sites per tidal mile for coastal counties	
Port and Harbor Facilities on the Maine Coast (9 types of access with number of access points per town) identified 86 coastal towns with facilities - this was done by Southern Maine EcoDev District and Eastern ME Dev Corp in 1998, under contract by DMR	DMR – Contribution of Working Waterfronts
Statistics about working waterfronts for 25 towns in 5 areas: coastal description, boat access, facilities, development pressure, waterfront issues	CEI – Preserving Commercial Fishing Access
MITA identified recreation management strategies for its' islands, including voluntary guidelines, site management, and visitor education.	BPL – Recreation Management Plan for MITA islands

Habitat

Description	Source
Detailed data about the important, scarce, and vulnerable wetlands in Maine	MDoC SCORP

Files Not Downloaded

The following data files are available for download but are not included in this dataset. They can be downloaded in the future, if they are relevant.

Name	**Description**	**Geographic Area**
drgclips	Collarless digital raster graphics - .tiff format images of USGS 7.5 minute series	24K Tile
medem30s	Digital terrain elevation models in grid format, based on USGS 7.5 minute	24K Tile
medoq	MrSid format	24K Tile
ortho_hf	High resolution 24-bit color ortho-rectified digital images	24K Tile
contours	Contains contour lines for Maine from USGS at 1:24,000 scale quadrangles	24K Tile
nwi	USFW national wetland inventory polygon data at 1:24,000 scale	24K Tile
wetchar	Contains National Wetland Inventory polygons for towns characterized on six different wetland functions and values at scale of 1:24,000.	
hydro	Lakes, ponds, rivers, perennial and intermittent streams, and coastline at 1:1000,000 scale.	
ponds	Ponds and lake features from USGS 1:24,000 scale quadrangles.	24K Tile
rivers	Double line river features from USGS 1:24,000 scale quadrangles.	24K Tile
roads	Roads and trails from USGS 1:24,000 scale quadrangles.	24K Tile
streams	Single line streams from USGS 1:24,000 scale quadrangles.	24K Tile
gnis-h	Names and point locations of most hydrologic features in Maine, as shown on USGS 1:24,000 quadrangles.	
gnis-l	Names and point locations of landform features (such as summits, islands, capes, bars, and ridges), as shown on USGS 1:24,000 quadrangles.	
gnis-p	Names and point locations of most place-name features in Maine, as shown on USGS 1:24,000 quadrangles.	
	Data from the 2000 U.S. census – *this may be relevant if it's important to map trends in population or identify rapidly growing areas – some of this may have already been done by Regional Planning Commissions and/or Smart Growth organizations.*	