Beginning *with* HABITAT

An Approach to Conserving Maine's Natural Space for Plants, Animals, and People

www.beginningwithhabitat.org

Supplementary Map 7

Wetlands Characterization

Poland

This map is non-regulatory and is intended for planning purposes only

LEGEND

This map depicts all wetlands shown on National Wetland Inventory (NWI) maps, but categorized them based on a subset of wetland functions. This map and its depiction of wetland features neither substitute for nor eliminate the need to perform on-the-ground wetland delineation and functional assessment. In no way shall use of this map diminish or alter the regulatory protection that all wetlands are accorded under applicable State and Federal laws. For more information about wetlands characterization contact Elizabeth Hertz at the Maine Department of Conservation (207-287-8061, elizabeth.hertz@maine.gov).

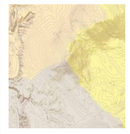
The Wetlands Characterization model is a planning tool intended to help identify likely wetland functions associated with significant wetland resources and adjacent uplands. Using GIS analysis, this map provides basic information regarding what ecological services various wetlands are likely to provide. These ecological services, each of which has associated economic benefits, include: floodflow control, sediment retention, finfish habitat, and/or shellfish habitat. There are other important wetland functions and values not depicted in this map. Refer to www.maine.gov/dep/water/wetlands/ipwetfv2.html for additional information regarding wetland functions and values. Forested wetlands and small wetlands such as vernal pools are known to be underrepresented in the National Wetlands Inventory (NWI) data used to create this map. The model developed to estimate the functions provided by each wetland could not capture every wetland function or value. Therefore, it is important to use local knowledge and other data sources when evaluating wetlands, and each wetland should be considered relative to the whole landscape/watershed when assessing wetland resources at a local level.

Organized Township Boundary

Unorganized Township

Selected Town or Area of Interest

Developed: Impervious surfaces including buildings and roads



Subwatersheds- The shaded, background polygons are subwatersheds (areas that drain to a particular lake, wetland, pond, river, stream, or the ocean). The subwatersheds are shaded to show topographic relief. This "hillshading" assumes the sun is shining from the northwest, so ridgetops and northwest-facing slopes appear light, whereas valleys and southeast-facing slopes appear dark. Because many areas of Maine are relatively flat, the topographic relief shown here has been exaggerated to make the details easier to see.

Wetland Functions: Fill Pattern

Some wetlands may have more than one funtion (fill pattern)

RUNOFF / FLOODFLOW ALTERATION
Wetlands provide natural stormwater control capabilities. As natural basins in the landscape, wetlands are able to receive, detain, and slowly release stormwater runoff. Wetland shelves along stream banks naturally regulate flood waters by providing an area for swollen stream flows to expand and slow, thereby protecting downstream properties. This map assigns Runoff/Floodflow Alteration Functions to wetlands that are (a) contained in a known flood zone, (b) associated with a surfacewater course or waterbody, and (c) with slope < 3%.

AND/OR

EROSION CONTROL / SEDIMENT RETENTION
Wetlands act as natural sponges that can hold water, allowing suspended particles such as sediment to settle out. The dense vegetation in most wetlands helps to stabilize soil and slow water flows, thereby reducing scouring and bank erosion. This map assigns Erosion Control / Sediment Retention functions to wetlands with (a) slope < 3%; (b) emergent vegetation; and (c) close proximity to a river, stream, or lake.

FINFISH HABITAT
Wetlands with documented finfish populations, including wetlands adjacent to a river, stream, or lake.

AND/OR

SHELLFISH HABITAT
Inland wetlands and streams can directly affect the status of coastal shellfish harvest areas. Fecal coliform bacteria and waterborne nutrients resulting from land use changes away from the coast can travel via surface water to harvestable flats. One failed septic system near a stream could close a mudflat several miles away. Excessive nutrients can reduce water clarity and stimulate epiphytic growth that degrades eelgrass meadows. Conservation of freshwater wetlands and stream buffers in coastal watersheds is a key component in marine resource conservation. This map assigns a Shellfish Habitat function to wetlands within 0.5 miles of (a) identified shellfish habitat, (b) identified shellfish closure areas, or (c) mapped eelgrass beds OR palustrine wetlands directly connected by a stream of < 0.5 mile in length to (a) identified shellfish habitat, (b) identified shellfish closure areas, or (c) mapped eelgrass beds.

PLANT/ANIMAL HABITAT
Nearly all wildlife species, and many of Maine's plant species, depend on wetlands during some part of their life cycle. For the purposes of this map, wetlands containing open water or emergent vegetation, 3 or more wetland vegetation classes (see below), and within ¼ mile of a known rare, threatened, or endangered plant or animal occurrence, within ¼ mile of a mapped significant or essential habitat, or within ¼ mile of a rare or exemplary natural community have been assigned this function. Rare element occurrences and mapped habitats can be found on Map 2 High Value Plant & Animal Habitats.

OTHER FUNCTIONS
CULTURAL/EDUCATIONAL. Wetlands within ¼ mile of a boat ramp or school have been assigned this value as these wetlands are likely candidates for use as outdoor classrooms, or similar social benefit. Wetlands rated for other functions listed above may also demonstrate cultural/educational values although not expressly shown.

OR

NO DOCUMENTED FUNCTION. The basis of this characterization is high altitude aerial photos. Photo quality often limits the information that can be interpreted from small wetland features, or those with dense canopy cover. Although not assigned a function under this study, ground surveys may reveal that these wetlands have multiple functions and values.

Wetland Class: Fill Color

Aquatic Bed (floating or submerged aquatic vegetation), Open Water

Emergent (herbaceous vegetation), Emergent/Forested Mix (woody vegetation >20 ft tall), Emergent/Shrub-Scrub Mix (woody vegetation <20 ft tall)

Forested, Forested/Shrub-scrub

Shrub-scrub

Other (rocky shore, streambed, unconsolidated shore, reef, rocky bottom)

National Wetlands Inventory (NWI) maps (the basis of wetlands shown on this map) are interpreted from high altitude photographs. NWI Wetlands are identified by vegetation, hydrology, and geography in accordance with "Classification of Wetlands and Deepwater Habitats" (FWS/OBS-79/31, Dec 1979). The aerial photographs document conditions for the year they were taken. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, State, or local government. NWI maps depict general wetland locations, boundaries, and characteristics. They are not a substitute for on-ground, site-specific wetland delineation.

Data Sources

DATA SOURCE INFORMATION
(note: italicized file names can be downloaded from Maine Office of GIS)
TOWNSHIP BOUNDARIES
Maine Office of GIS (2015); *metwp24*
ROADS
Maine Office of GIS, Maine Department of Transportation (2015); *medotpub*
HYDROLOGY
Maine Office of GIS, U.S. Geological Survey (2010); *NHD*
DEVELOPED
Maine Office of GIS, Maine Department of Inland Fisheries and Wildlife (2015)
NATIONAL WETLANDS INVENTORY (NWI)
Maine Office of GIS (2015); *NWI*
DRAINAGE DIVIDES
Maine Office of GIS (2015); *medrdvd*

DATA SOURCE CONTACT INFORMATION
Maine Office of GIS: http://www.maine.gov/megis/
Maine Department of Transportation: http://www.maine.gov/mdot/
Maine Department of Agriculture, Conservation and Forestry: http://www.maine.gov/dacf/planning/index.html
Maine Geological Survey: http://www.maine.gov/doc/nrimc/mgs/mgs.htm

DIGITAL DATA REQUEST
To request digital data for a town or organization, visit our website. http://www.beginningwithhabitat.org/the_maps/gis_data_request.html

State of Maine

Maine Coastal Program

The Nature Conservancy — Protecting nature. Preserving life.

Maine Audubon

Maine Coast Heritage Trust — A Statewide Land Conservation Organization

SWOAM — Small Woodland Owners Association of Maine

MaineDOT

Maine Natural Areas Program

Feet 5,000 2,500 0 0.5 1 Miles

Meters 1,000 500 0 0.5 1 Kilometers

Scale: 1:24,000
Projection: UTM 19N
Datum: NAD 1983

Supported in part by Maine Outdoor Heritage Fund lottery ticket sales

Map Prepared by Maine Department of Inland Fisheries & Wildlife

June 2020

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Supplementary Map

Natural Resource Co-occurrence

Poland

This map is non-regulatory and is intended for planning purposes only

Sources: Esri, USGS, NOAA

Legend

This map represents the concentration of selected environmental asset data layers overlaid on the landscape. Its purpose is to highlight a given area's relative conservation values as an aid in planning. It offers a generalized and subjective view and should be considered as a starting point for discussion. The layers on this map include buffer zones around water features, important natural communities, listed plant and animal species, areas of undeveloped land, and conserved properties. Some of these layer attributes have been weighted based on qualitative features, such as rarity or size, and are noted below. Cooccurrence modeling is extremely flexible, allowing for the addition, substitution, and relative weighting of data and attributes that best reflect the particularities and priorities of a given area or community. This map draws on data that is depicted on the standard Beginning with Habitat map set, but should still be considered as both supplementary and as work in development.

- **Organized Township Boundary**
- **Unorganized Township**
- **Selected Town or Area of Interest**
- **Developed: Impervious surfaces such as buildings and roads**
- **Conservation Land**

Selected Resource Layers and Assigned Values

Geographic Information System (GIS) software provides a ready means to help identify areas of high resource cooccurrence. The selected data layers of interest are assigned a relative weight, or value, and then overlaid on one another. The values are then summed, classified, and symbolized, revealing the concentration of attributes in a given landscape. (Some of the layers listed may not apply to, or be present on, the area represented by this map.)

Rare and Exemplary Natural Communities
- S1 (Critically Imperiled). Value of 4
- S2 (Imperiled). Value of 4
- S3 (Rare). Value of 3
- S4 and S5 with A or B viability (Exemplary). Value of 3

Rare Plants
- S1 (Endangered). Value of 3
- S1S2 - S2 (Threatened). Value of 2
- S2S3 - S3 (Special Concern). Value of 1

Listed Animals
- Endangered Species (with buffer). Value of 3
- Threatened Species (with buffer). Value of 2
- Species of Special Concern (with buffer). Value of 1

Significant Wildlife Habitats
- Shorebird Habitat. Value of 3
- Seabird Nesting Islands. Value of 3
- Essential Wildlife Habitat. Value of 3
- Wading Bird and Waterfowl Habitats (inland and tidal). Value of 2
- Deer Wintering Areas. Value of 1
- Significant Vernal Pools (with 500' buffer). Value of 1
- Atlantic Salmon Habitat. Value of 2
- Heritage BrookTrout Waters. Value of 2
- Shellfish Beds. Value of 1

Riparian Zones and Water Resources
- Tidal waters 250' buffer. Value of 2
- Great Ponds 250' buffer. Value of 1
- Rivers 250' buffer. Value of 1
- Streams 75' buffer. Value of 1
- Wetlands greater than 10 acres plus 250' buffer. Value of 1
- Wetlands less than10 acres plus75' buffer. Value of 1
- Groundwater Aquifers. Value of 1

Undeveloped Habitat Blocks
- Areas over 1200 acres. Value of 3
- Areas of 600 to 1200 acres. Value of 2
- Areas of 200 to 600 acres. Value of 1

Sum of Attribute Values

- 0
- 1-2
- 3
- 4-5
- 6-8
- 9-12
- Over 12

Focus Areas

Focus Areas of Statewide Ecological Significance
(note: not present in all regions)

Focus Areas of Statewide Ecological Significance have been designated based on an unusually rich convergence of rare plant and animal occurrences, high value habitat, and relatively intact natural landscapes (the combined elements of Beginning with Habitat Maps 1-3). Focus area boundaries were drawn by MNAP and MDIFW biologists, generally following drainage divides and/or major fragmenting features such as roads. Focus Areas are intended to draw attention to these truly special places in hopes of building awareness and garnering support for land conservation by landowners, municipalities, and local land trusts. For descriptions of specific Focus Areas, consult the Beginning with Habitat notebook or the following website: http://www.maine.gov/dacf/mnap/focusarea/index.htm

Data and Information Sources

DATA SOURCES

TOWNSHIP BOUNDARIES
- Maine Office of GIS: *Metwp24* (2013)

ROADS
- Maine Office of GIS, Maine Department of Transportation: *Medotpub* (2015)

HYDROLOGY
- U.S. Geological Survey National Hydrography Dataset (NHD) Maine (2012)

DEVELOPED
- Maine Office of GIS, Maine Department of Inland Fisheries and Wildlife, and multiple other agencies: *Imperv* (2015)

ESSENTIAL & SIGNIFICANT WILDLIFE HABITATS
- Maine Office of GIS, Maine Department of Inland Fisheries & Wildlife; *DWA, ETSC, Ehplvtrn, Ehrtern, IWWH, Sni, Shorebird, TWWH* (2003-2015)

RARE NATURAL COMMUNITIES & PLANTS
- Maine Natural Areas Program: *MNAP_eos* (2015)

ATLANTIC SALMON HABITAT
- Maine Office of GIS, Maine Atlantic Salmon Commission, U.S. Fish & Wildlife Service: *Ashab3* (2013)

DATA SOURCE CONTACTS
- Maine Office of GIS: http://www.maine.gov/megis/catalog/
- Maine Natural Areas Program: http://www.maine.gov/dacf/mnap/index.html
- Maine Department of Inland Fisheries & Wildlife: http://www.maine.gov/ifw/
- U.S. Fish & Wildlife Service, Gulf of Maine Program: http://gulfofmaine.fws.gov
- Maine Atlantic Salmon Commission: http://www.maine.gov/asc/
- Maine Department of Transportation: http://www.maine.gov/mdot/

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