Beginning with HABITAT

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

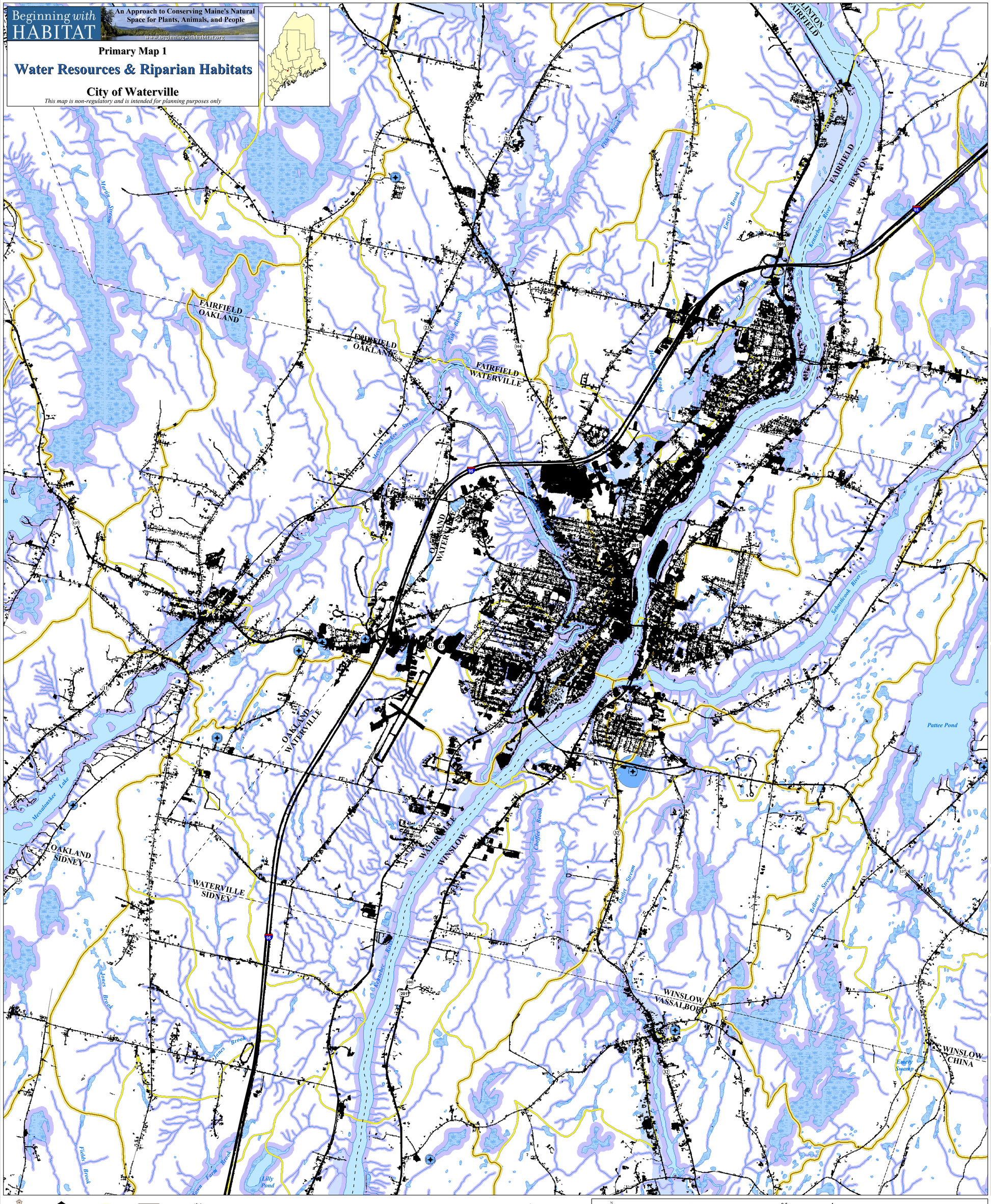
www.beginningwithhabitat.org

Primary Map 1

Water Resources & Riparian Habitats

City of Waterville

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

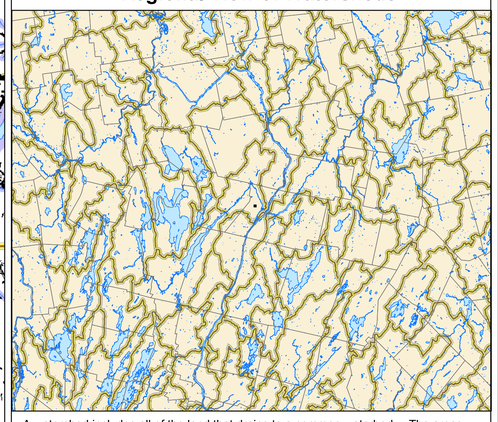


LEGEND

This map depicts riparian areas associated with major surface water features and important public water resources. Developed areas may be located within some of the riparian areas shown. This map does not depict all streams or wetlands known to occur on the landscape and should not be used as a substitute for on the ground surveys. This map should be used as a planning reference only and is intended to illustrate the natural hydrologic connections between surface water features. Protecting riparian habitats protects water quality and can help to maintain habitat connections across the landscape.

- **Organized Township Boundary**
- **Unorganized Township** *(Beginning with Habitat does not provide data for unorganized townships)*
- **Public Water Supply Wells**
- **Subwatersheds** - Drainage divides are grouped together to form subwatersheds. See inset below for more information.
- **Drainage divides**- These are the smallest hydrologic units mapped in Maine. They contain watershed boundaries for most ponds and rivers in Maine.
- **Developed**- Impervious surfaces including buildings and roads
- **NWI Wetlands**- The National Wetlands Inventory (NWI) uses aerial photographs from the mid-1980s to identify wetlands based on remote sensing techniques of photo interpretation. This process did not result in a comprehensive mapping of wetland resources and typically under represents wetland occurrence on the landscape, especially forested wetlands. The presence of wetlands needs to be determined in the field prior to conducting activities that could result in wetland disturbance.
- **Streams and Brooks**
- **Ocean, Lakes, Ponds, and Rivers**
- **Riparian Habitat** - depicted by a 250-foot-wide strip around Great Ponds (ponds ≥10 acres in size), rivers, the coastline, and wetlands ≥10 acres in size and by a 75-foot-wide strip around streams. These areas identify *potential* riparian habitat only. In some places, riparian habitat may already be affected by development or otherwise degraded.
- **Source protection area**- Buffers that represent source water protection areas for wells and surface water intakes that serve the public water supply. Their size is proportional to population served and/or by the type of water supply system. These buffers range from 300 to 2,500 feet in radius.
- **Aquifers**- flow of at least 10 gallons per minute

Regional View of Watersheds



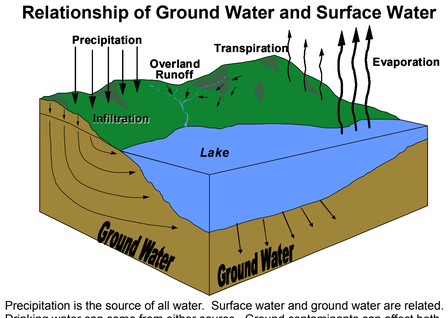
A watershed includes all of the land that drains to a common waterbody. The areas within the watershed are linked ecologically by the water, sediment, nutrients, and pollutants that flow through them. Watersheds can be grouped into larger drainages or divided into smaller ones. Each of these different sized "hydrological units" has a different name. Drainage divides (shown on main map as yellow line), which are the smallest units, generally drain into small ponds, wetlands, or streams. These units are grouped into subwatersheds (shown on both the main map and the above inset map by the yellow-brown-yellow outlines). Subwatersheds are grouped into watersheds, which are grouped into sub-basins. A sub-basin drains to a major waterbody like the Atlantic Ocean or the Penobscot River.

NRCS Subwatersheds (yellow-brown-yellow outlines)

0 5 10 15 20 25 Miles

Inset Scale - 1:500,000

Relationship of Ground Water and Surface Water



Precipitation is the source of all water. Surface water and ground water are related. Drinking water can come from either source. Ground contaminants can affect both. The relationship between ground water and surface water is part of the ***hydrologic cycle. Precipitation*** that falls from the atmosphere as rain or snow:

- reaches the land surface and recharges rivers, lakes, wetlands, and other surface bodies of water directly through ***overland runoff***,
- seeps into the ground through ***infiltration*** and eventually reaches the ground water,
- evaporates from Earth's surface back into the atmosphere through ***evaporation***, or
- evaporates from the leaves and stems of plants through ***transpiration***.

Shoreland Zoning

Maine's Mandatory Shoreland Zoning Act is intended to protect water quality, conserve wildlife habitat, and preserve the natural beauty of Maine's shoreline areas. Successful implementation requires local awareness of and appreciation for surface water resources and effective enforcement of setback and buffer requirements.

Maine's shoreland zones include, at a minimum, all land within:

- 250 feet of the high-water line of any pond over 10 acres, any river that drains at least 25 square miles, and all tidal waters and saltwater marshes;
- 250 feet of a freshwater wetland over 10 acres (except "forested" wetlands); and
- 75 feet of a stream that is either an outlet stream of a great pond, or located below the confluence of two perennial streams as depicted on a USGS topographic map.

Many towns opt to provide greater protection to their water resources by applying shoreland zone protections to additional resource types such as smaller streams and wetlands, or expanding shoreland zone buffer widths. Please contact your town for it's shoreland zoning regulations. For specific guidance regarding Maine's Mandatory Shoreland Zoning Act contact the Dept. of Environmental Protection Shoreland Zoning Unit: Richard Baker 207-287-3901 (Augusta), Michael Morse 207-822-6300 (Portland), Jennifer Cayer 207-941-4116 (Bangor). www.maine.gov/dep/blwq/docstand/szpage.htm

Data Sources

DATA SOURCE INFORMATION
(note: italicized file names can be downloaded from Maine Office of GIS)

TOWNSHIP BOUNDARIES
Maine Office of GIS (2006); *metwp24*

ROADS
Maine Office of GIS, Maine Department of Transportation (2005); *medotpub*

HYDROLOGY
Maine Office of GIS, U.S. Geological Survey (2004); *hyd24*

DEVELOPED
Maine Office of GIS, Maine Department of Environmental Protection (contact agency for this mutiple agency collaboration) (2005); *imperv*

NATIONAL WETLANDS INVENTORY
Maine Office of GIS, U.S. Fish & Wildlife Service (1998); *nwi*

RIPARIAN BUFFERS
Maine Natural Areas Program (2005)

WELLS, WELL BUFFERS
Maine Office of GIS, Maine Department of Human Services-Drinking Water Program (2004); *wells, wellsbuf*

AQUIFERS
Maine Office of GIS, Maine Geological Survey (2006); *aquifer_polygons*

DRAINAGE DIVIDES
Maine Office of GIS (1994); *medrdvd*

DATA SOURCE CONTACT INFORMATION
Maine Office of GIS- http://apollo.ogis.state.me.us/catalog
Maine Natural Areas Program- http://www.maine.gov/doc/nrimc/mnap/
Maine Department of Transportation- http://www.maine.gov/mdot/
Maine Geological Survey- http://www.maine.gov/doc/nrimc/mgs/mgs.htm

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

State of Maine

Additional Funding:

Feet 5,000 2,500 0 0.5 1 Miles
Meters 1,000 500 0 0.5 1 Kilometers

1:24,000 Scale
Universal Transverse Mercator (UTM) Projection
North American Datum (NAD) 1983

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