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**Department of
Environmental
Conservation**

Habitat Map and Habitat Summary:
Planning Tools for the City of Kingston

Hudson River Estuary Program

Core Mission

- Ensure clean water

- Protect and restore fish, wildlife, and their habitats

- Provide water recreation and river access

- Help communities adapt to climate change

- Conserve world-famous scenery

Kingston

Hudson River Estuary Watershed
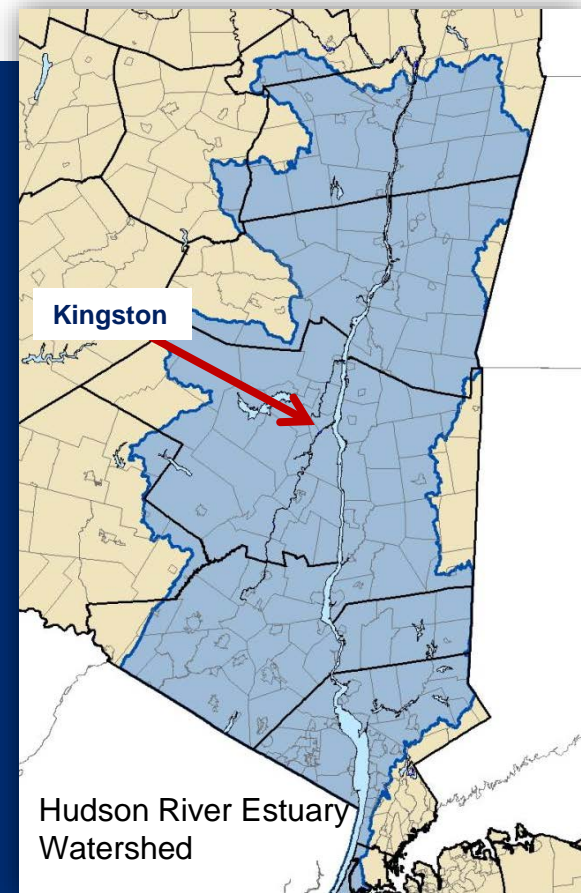
Why are habitats and natural areas a concern of local planning boards?

Photo courtesy of Hudsonia

water quality and quantity

flood control

clean air

carbon storage
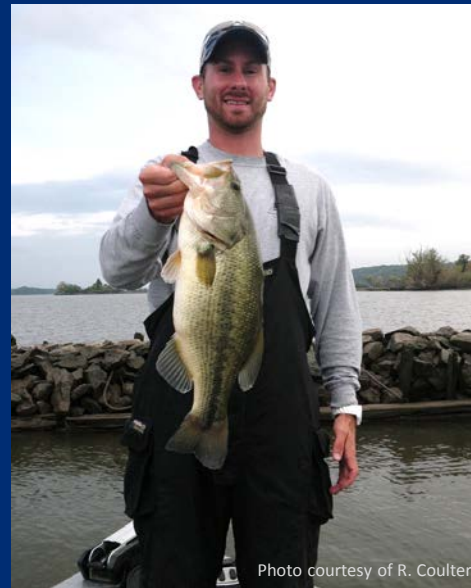
recreation

scenery

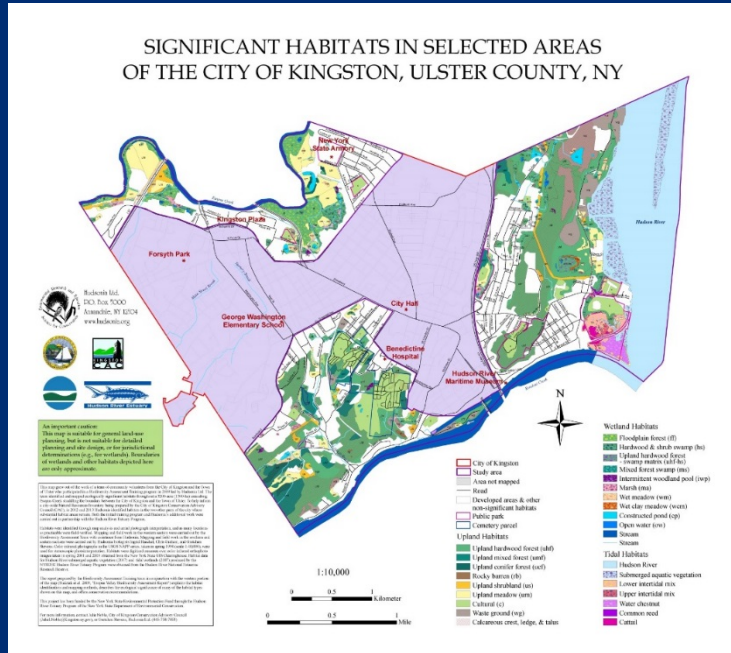forest products

fisheries

Photo courtesy of R. Coulter

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Tools for Planning with Habitat in Mind
Customized for Kingston

Habitat
Map

Habitat
Summary

Both are available at http://www.kingston-ny.gov/nri.

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City of Kingston Habitat Map

- created by Hudsonia Ltd. and community volunteers

- focused on three areas where substantial habitat remains in the city

- habitats were identified through map and air photo analysis, with some field verification

- suitable for general land-use planning, but not for detailed planning or jurisdictional determinations

City of Kingston Habitat Summary

Natural Areas and Wildlife in Your Community

A Habitat Summary Prepared for the City of Kingston
May 2014

This summary was completed to provide information for land-use planning and decision-making as requested by the City of Kingston. It identifies significant ecosystems in the city, including streams, forests, wetlands, shoreline habitats, and other natural areas with important biological values. This summary is based only on existing information available to the New York State Department of Environmental Conservation (DEC) and its partners, and, therefore should not be considered a complete inventory. Additional information about habitats in our region can be found in the *Wildlife and Habitat Conservation Framework* developed by the Hudson River Estuary Program (Penhollow et al. 2006) and in the *Biodiversity Assessment Manual for the Hudson River Estuary Corridor* developed by Hudsonia and published by NYSDEC (Kiviat and Stevens 2001).

Ecosystems of the estuary watershed—streams, forests, stream corridors, grasslands, and shrublands—are not only habitat for abundant fish and wildlife, but also support the estuary and provide many vital benefits to human communities. These ecosystems help to keep drinking water and air clean, moderate temperature, filter pollutants, and absorb floodwaters. They also provide opportunity for outdoor recreation and education, and create the scenery and sense of place that is unique to the Hudson Valley. Local land-use planning efforts are instrumental in balancing future development with protection of these resources. By conserving sufficient habitat to support the region's astonishing diversity of plants and animals, communities can ensure that healthy, resilient ecosystems—and the benefits they provide—are available to future generations. For more information on local conservation approaches, see *Conserving Natural Areas and Wildlife in Your Community: Smart Growth Strategies for Protecting the Biological Diversity of New York's Hudson River Valley* (Strong 2008).

To further support land-use and conservation planning efforts in the Town of Pleasant Valley, this Natural Areas and Habitat Summary can be supplemented by complementary Water Resource and Climate Resilience Summaries, also available from the Hudson River Estuary Program by request.
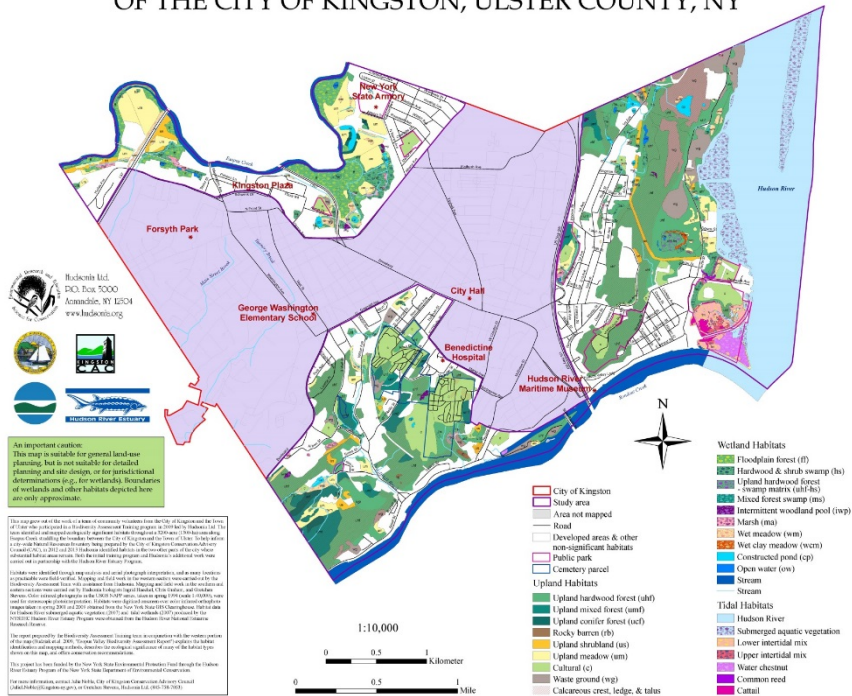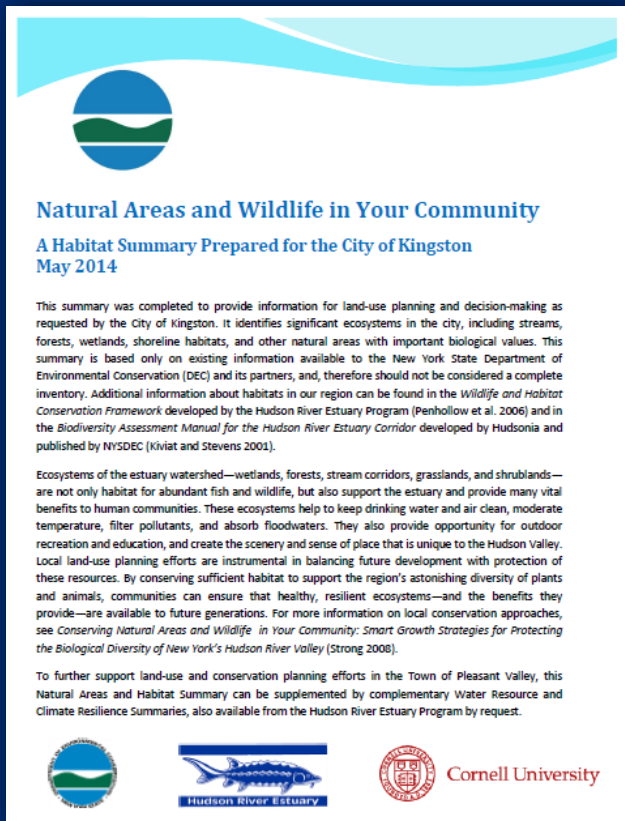
- created by Hudson River Estuary Program staff (L. Heady)
- compiles and summarizes <u>existing </u>data from NYSDEC and partners (no field verification)
- includes maps, tables, and written summary of major ecological features, including streams, forests, wetlands, shorelines, and other habitats with important biological value (refers to Hudsonia Habitat Map, as well)
- suitable for general land-use planning, but not for detailed planning or jurisdictional determinations
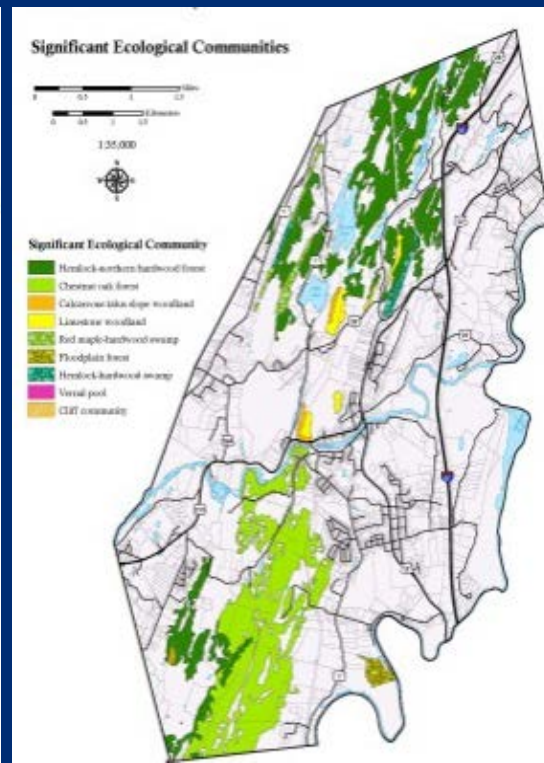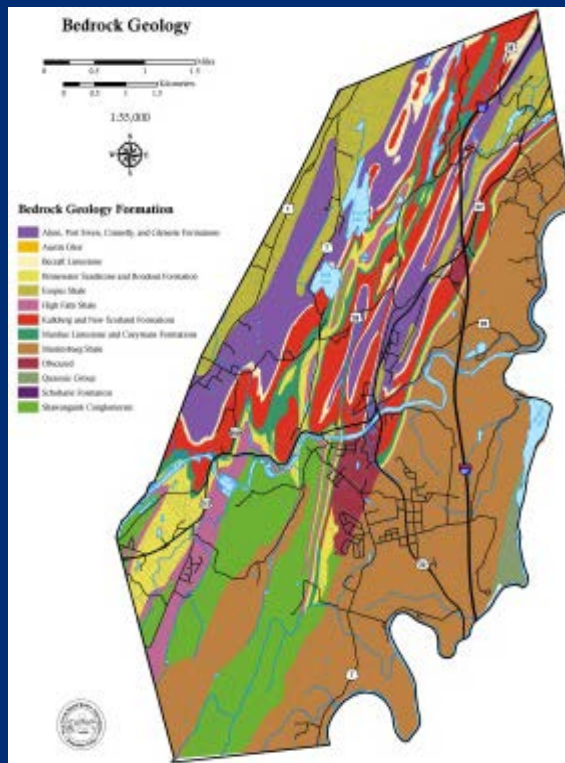
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How can the habitat map and summary be helpful for city planning?

- Information can be incorporated into:
  - ✓ **natural resources inventory**
  - ✓ **open space plan**
  - ✓ **comprehensive plan update**
  - ✓ **zoning update**
  - ✓ **planning board procedures**

Town of Rosendale
NRI, 2010

Bedrock Geology

Significant Ecological Communities

How can the habitat map and summary be helpful for city planning?

- **maps and summary can indicate which habitats and natural areas are on or near a site**
  - ✓ **how does site relate to surroundings?**

How can the habitat map and summary be helpful for city planning?

- maps and summary can indicate which habitats and natural areas are on or near a site

- **can help planning board ask good questions about potential impacts:**
  - ✓ **species and habitats of concern?**
  - ✓ **large forests that can remain intact?**
  - ✓ **wetlands present?**
  - ✓ **shorelines and floodplains present?** *etc.*
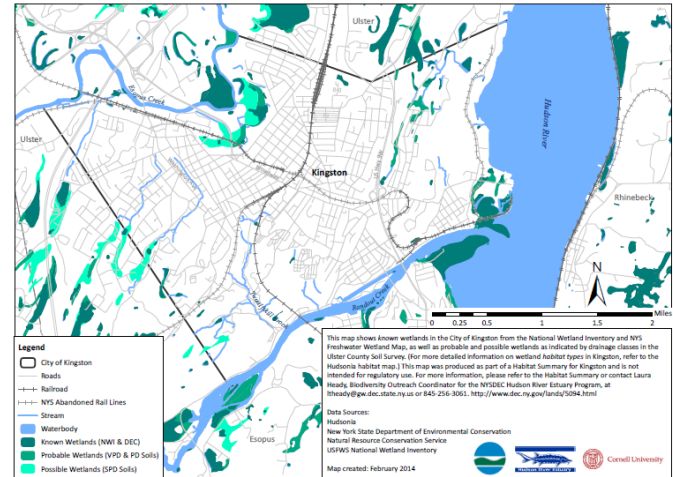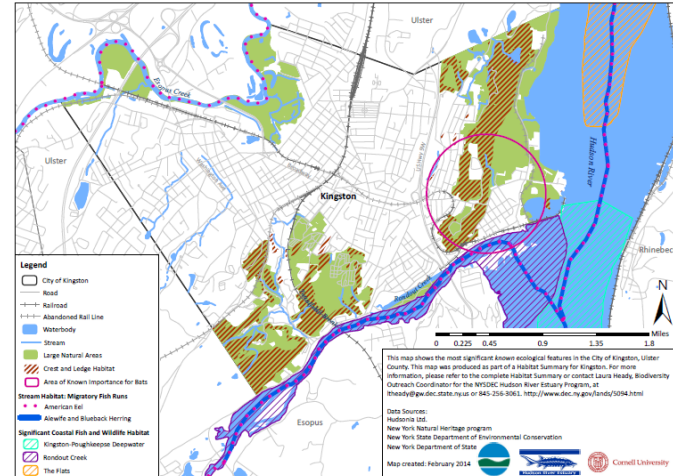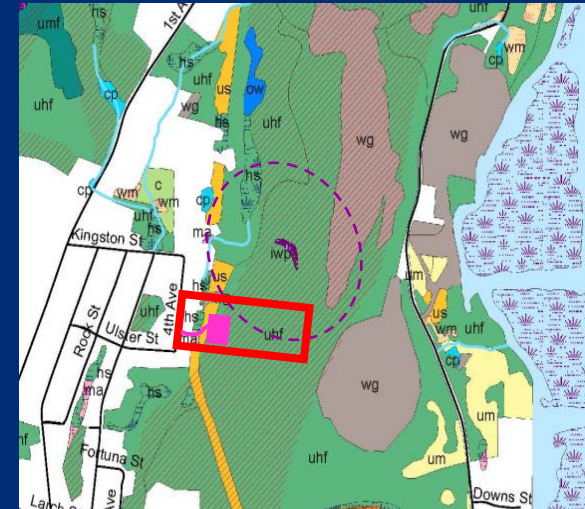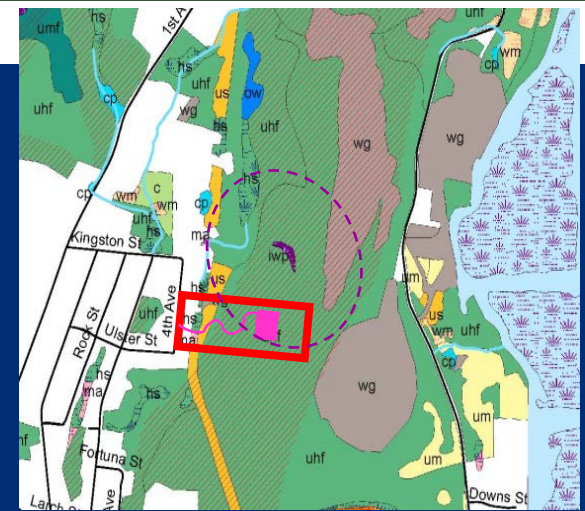

Figure 4: Wetlands in Kingston, NY

Figure 2: Major Ecological Features in Kingston, NY

How can the habitat map and summary be helpful for city planning?

- maps and summary can indicate which habitats and natural areas are on or near a site

- can help planning board ask good questions about potential impacts

  - ✓ **can be reviewed in advance to determine what to look for during site visit**

  - ✓ **CAC can be engaged to assist with reviewing maps and habitat information, and going on site visits with planning board**


Maps courtesy of Hudsonia

How can the habitat map and summary be helpful for city planning?

- maps and summary can indicate which habitats and natural areas are on or near a site

- can help planning board ask good questions about potential impacts

- **will help planning board determine if proposal can be designed or modified to minimize impacts to habitats**


Maps courtesy of Hudsonia
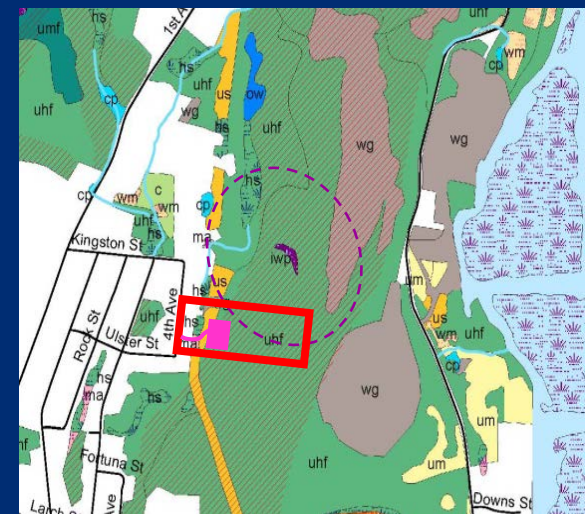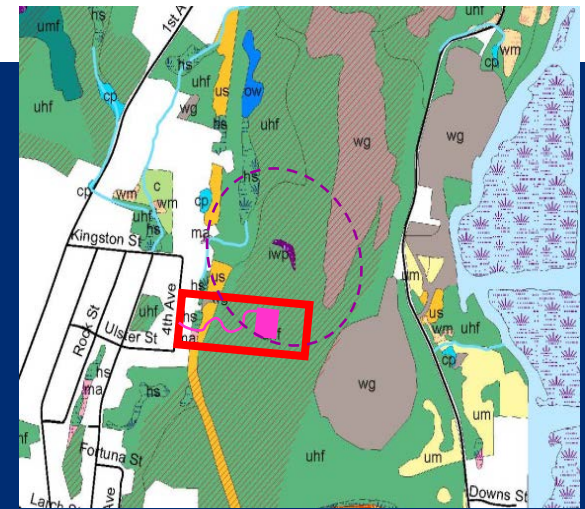
Some examples from Hudson Valley municipalities:

Town of Amenia zoning law requires habitat information for site plan review.

Town of Rhinebeck uses habitat map information for "Site Resource Analysis Assessment" for every subdivision review.

Town of Hyde Park used habitat map and information to designate four Critical Environmental Areas and the planning board consults their map for every site review.

INSTEAD OF THIS   **STRIVE FOR THIS**
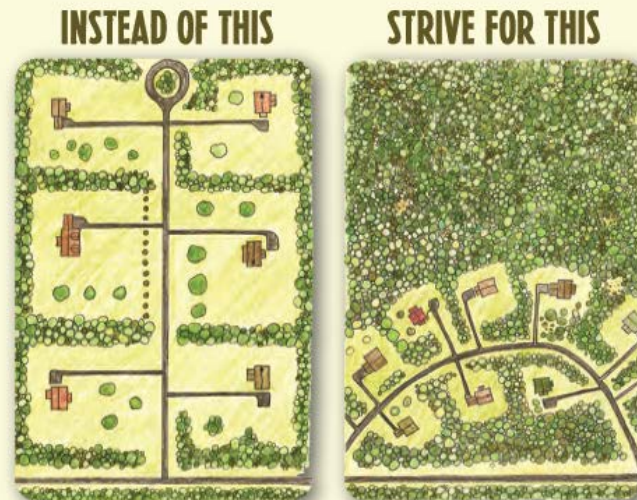
Clustering homes helps maintain most of the site in a natural condition, preserves large contiguous habitat blocks, reduces new road construction, and limits the area of human disturbance. Cluster homes whenever possible, and minimize the footprint of homes by limiting the allowable size of lawns. Clustering and minimizing new road construction will reduce the carbon emissions of a project—both in the short term (from clearing the forest for construction) and in the long term (when land-use designs result in ongoing transportation patterns).

From Make Room for Wildlife, Wildlife Conservation Society Adirondack Program

Using habitat maps and data to think broadly about conservation and land-use planning in Kingston…

- Protect larger, contiguous, natural habitat areas.

- Preserve links between habitats via *broad* connections*.*

- Maintain or restore broad buffer zones of natural vegetation.

- Direct development toward altered or least sensitive areas.

- Consider habitats and natural areas <u>early in the planning process</u>.

Photo by L. Heady

Thank You!

Laura Heady

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Photo by C. Bowser