

# Putting Natural Areas on the Map in Hudson Valley Municipalities

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## Introduction

If asked to draw a map of municipal resources, what would you include? Roads, reservoirs, parks, farmland? The library and schools? What about elements of “green infrastructure” such as forests and wetlands? These are often not considered in a town’s traditional view of its resources. And despite the essential ecosystem services they provide, these important natural areas are often overlooked during decisions about land use. The Hudson River Estuary Program and Cornell University are partnering to shift this paradigm, by raising the capacity of watershed communities to incorporate natural resource information into their conservation and land-use planning, and be better stewards of the estuary ecosystem.



Figure 1. Local planning board decisions provide pathways to better stewardship.

## Methods

For over a decade, we have offered training and technical assistance to fill the gap in biological information available to municipalities, improve their understanding of the value of natural areas, and provide guidance on how to incorporate conservation principles into local decision-making. Through various partner projects, GIS data layers and conservation priorities were developed for the watershed and in 2005, we created the “Habitat Summary” tool to interpret and deliver these data to community leaders. Content has since expanded and Habitat Summaries now integrate program data with science-based information from a variety of sources, to assist municipalities with understanding their relationship to the estuary, and recognizing and valuing their important natural areas and habitats. The Summaries include maps, tables, and written interpretation, with hyperlinks to websites for more information.

### Habitat Summary Maps and Tables:

- Regional Context
- Major Ecological Features
- Hudson River Coastal & Shoreline Habitat
- Streams and Watersheds
- Wetlands
- Large Forests
- State Rare Plants, Animals, and Ecosystems (Table)
- Birds of Conservation Concern (Table)

## Outcomes

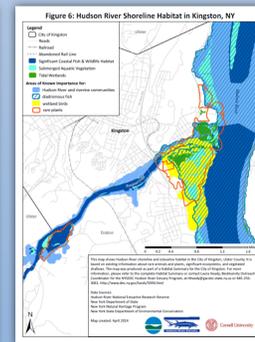
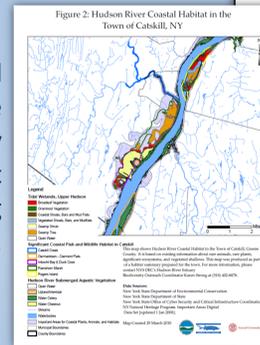
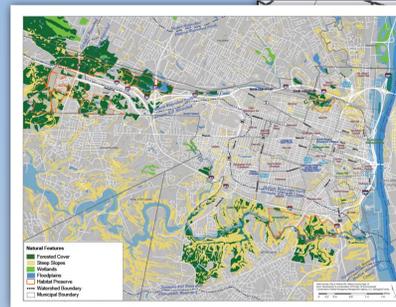
Habitat Summaries have been prepared for 33 municipalities in the estuary watershed (see Figure 3) and in more recent years, have been delivered with an accompanying presentation to town officials demonstrating how the data can be applied to decision-making. In 2013, staff working on watershed and climate change at the Estuary Program developed companion Water Resource and Climate Resilience Summaries that are complementary to the Habitat Summary. Figure 3 discusses some of the diverse ways that municipalities have used habitat data from the Estuary Program in their local planning efforts.

### ★ City of Albany

included recommendations for protecting major ecological features and this forest patch map in its Comprehensive Plan.

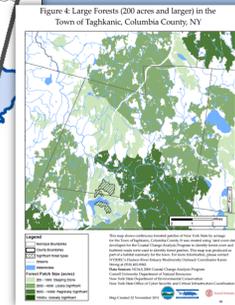
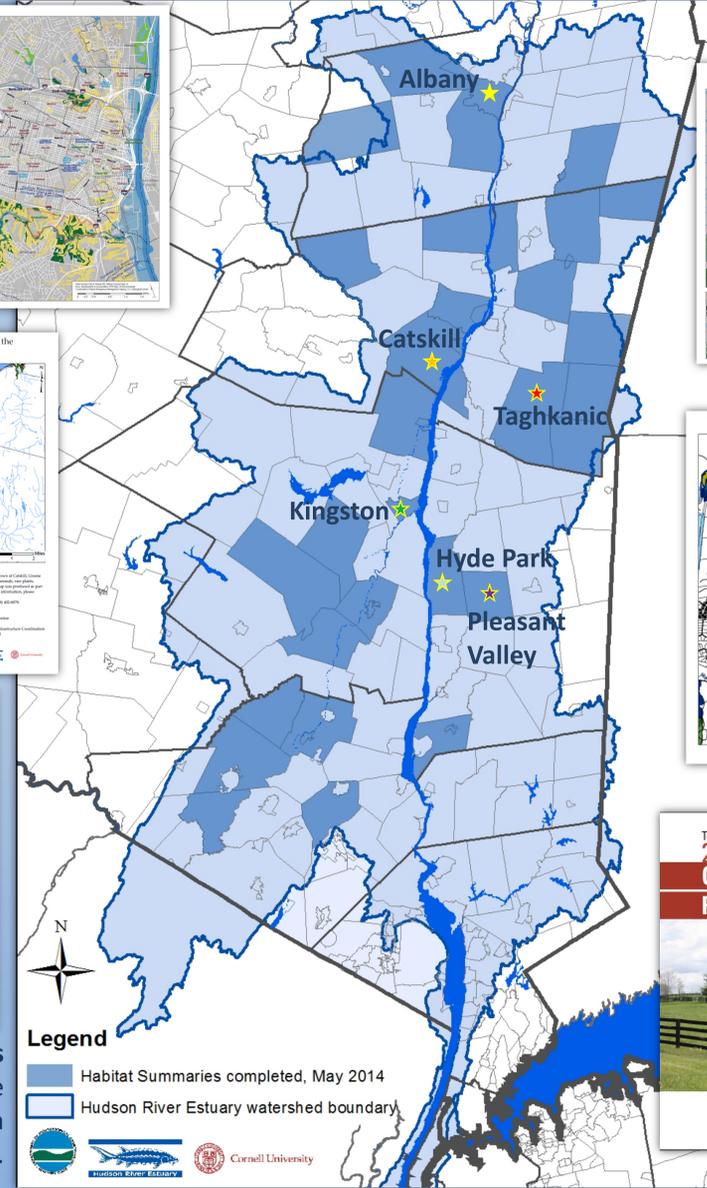
### ★ Town of Catskill

Planning Board members use the data and maps to identify Hudson River coastal habitat and important forests during project review.

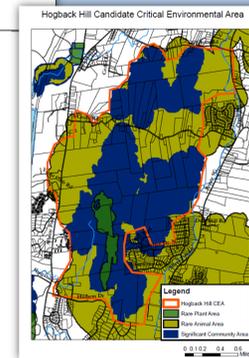


### ★ City of Kingston’s

Conservation Advisory Council will be using their Habitat Summary for a new Natural Resource Inventory.



★ Town of Taghkanic established a Conservation Advisory Council after a public presentation of the summary highlighted the importance of the Town’s forests.



★ Town of Hyde Park designated four Critical Environmental Areas to raise awareness of high quality forests, wetlands, streams, and shorelines.



★ Town of Pleasant Valley incorporated data and conservation recommendations on important wetlands, rare species habitat, and large forests into their award-winning Open Space and Farmland Plan.

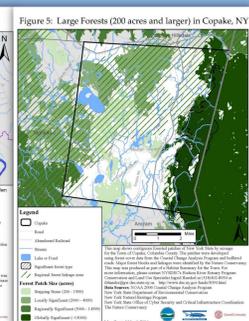
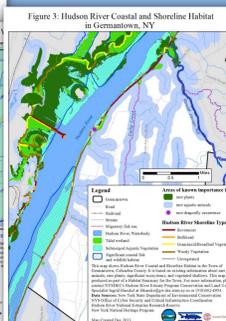
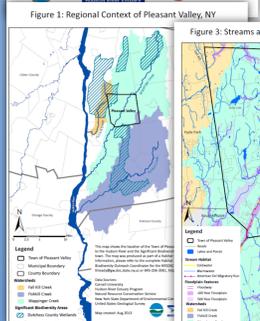
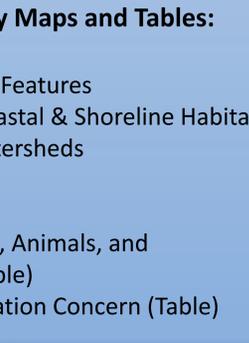
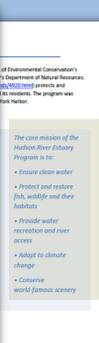
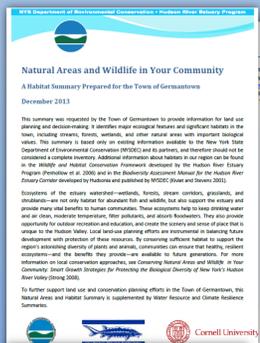


Figure 2. Examples of Habitat Summary maps showing regional context, streams and watersheds, coastal and shoreline habitat, and large forests.

## Next Steps

- Continue to deliver data and technical assistance to municipalities to support the Hudson River Estuary Program’s commitment to community resiliency, clean water, and a vital ecosystem.
- Explore what emerging biological data may be valuable to municipalities and learn how best to incorporate the data into Habitat Summaries.
- Develop written guidance on using natural resource inventories to inform municipal planning decisions and create conservation-oriented policies.
- Explore the potential for using web map technology for sharing data.

## For More Information

You can learn more about the Estuary Program’s outreach and technical assistance program at <http://www.dec.ny.gov/lands/5094.html> or by contacting Laura Heady at [ltheady@gw.dec.state.ny.us](mailto:ltheady@gw.dec.state.ny.us)



Cornell University