Environmental Protection Agency (EPA) Chesapeake Bay Program (CBP) Goal Implementation Team (GIT) Funding Program

The Chesapeake Bay Trust has been designated to receive federal funds from the U.S. EPA as part of the CBP GIT Funding Program. The work funded by this initiative advances outcomes identified in the 2014 Chesapeake Bay Watershed Agreement. Each year, certain outcomes are chosen by the CBP as top priorities to address, and these stretch across all GITs and workgroups.

Project Title: Updating the Chesapeake Conversation Partnership (CCP) Priority Habitat Dataset of the Chesapeake Conservation Atlas: A Scoping Project

Organization: Skeo Solutions Inc.

GIT: Fostering Chesapeake Stewardship

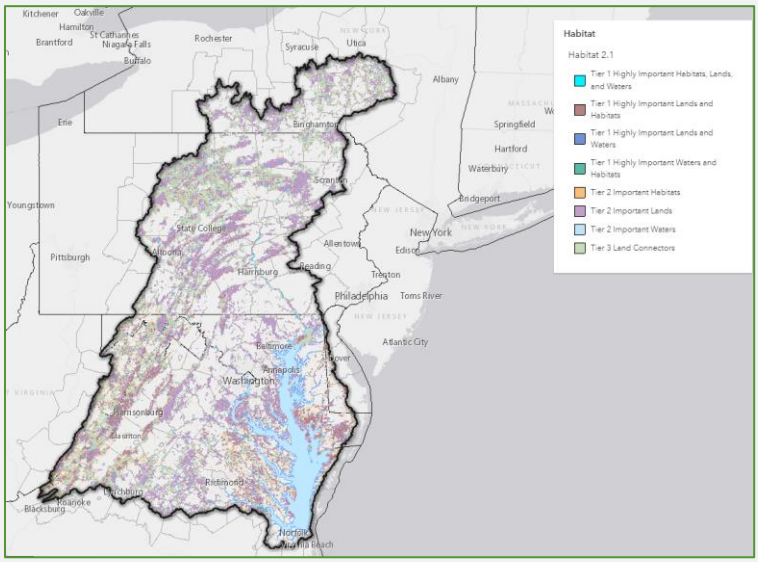
Project Context: The Chesapeake Conservation Partnership (CCP) currently hosts a Chesapeake Bay priority habitat map on the Chesapeake Conservation Atlas as a static map, with an interactive version accessible in the Chesapeake Conservation Atlas and the Targeting Tools Portal. To update this priority habitat map to include the most current data, the CCP requested support through the CBP GIT funding program (administered by the Chesapeake Bay Trust) to scope an approach with several options for data selection and methods.

Award #: 21089

Project summary: The overall goal of the CCP Priority Habitat Scoping Project is to produce a report that describes user needs, subject matter expert perspectives, an assessment of similar habitat models, potential approaches, and associated resources. These resources will focus on what is required to update the watershed-wide dataset of important habitat to guide terrestrial and aquatic habitat conservation, restoration and stewardship. This project is the first phase that may lead to a more detailed future project to update the CCP Priority Habitat dataset.

Nature's Network has produced a GIS model and prioritization tool called the Conservation Design, a collection of datasets to identify a network of places that help define the highest conservation priorities in the region to sustain natural resources and benefits for future generations.

The Chesapeake Conservation Atlas includes the priority habitat map developed by Nature's Network and customized for the Chesapeake Bay watershed with black duck data by the Conservation Innovation Center (CIC). The map identifies priorities for important habitat, land, water and connectors.



Method: From December 2022- May 2023, stakeholder outreach and engagement were conducted to receive feedback and input on approaches to update the CCP habitat model. Two workshops were held for CBP staff, one workshop for stakeholders external to CBP, and eight subject matter expert interviews were conducted. The expertise from these stakeholders includes land conservation organizations, land trusts, land use planners, state wildlife or natural heritage staff, and federal agencies.

As part of the project scope, the consultant assessed large landscape habitat assessment models including Nature's Network, CBP existing decision-support tools, and important overlays potentially useful in evaluating high habitat value. The full report provides details on the models/ layers according to their relevance to an update of the Chesapeake Bay High Value Habitat Model.

Reflection:

- Moving forward, additional outreach to stakeholders and subject matter experts may be needed when implementing a model update
- Additional literature, models, and best practices should be reviewed as they are released and published

Resources:

- CCP Conservation Atlas
- Natures Network Conservation Design
- CBP Targeting Tools Portal

Partners:
Chesapeake Conservation Partnership (CCP)

Results: From the feedback received throughout the project, the following scenarios are presented as options for future updates to the CCP high priority habitat dataset.

a. Adopt Nature's Network 2.0
b. Tailor Nature's Network 2.0 with Chesapeake Bay data, including 10-meter land cover
c. Similar to B with Chesapeake 1-meter land cover
d. Similar to B with Chesapeake 1-meter land cover only for select areas (such as urban or urbanizing areas)

Recommendations:

- Adopt the new Nature's Network Conservation Design datasets as the foundation layers for the CBP Habitat Model.
- Create a dynamic web-based interface to house the new CCP Habitat Model that will provide flexibility in viewing individual data layers, changing scales, and adding data relevant to specific geography and program.
- Invest in funding for outreach, education and technical assistance.

The full report offers considerations for using 1-meter land cover data versus 30-meter data. The 1-meter land cover dataset may serve best as a reference layer to view parcel scale areas to find more detail than in the 30-meter Nature's Network. The report also provides information on different scenarios, costs, annual maintenance, staffing, computing needs, development timeframe, and other additional considerations for developing a new or updated model.

Award #: 21089