

# TOOLBOX

*for preparing proposals to the*

## Delaware Watershed Conservation Fund

### **Water Quality Analysis, Assessment and BMPs**

Spreadsheet Tool for Estimating Pollutant Load (STEPL): <http://it.tetrattech-ffx.com/steplweb/>

STEPL employs simple algorithms to calculate nutrient and sediment loads from different land uses and the load reductions that would result from the implementation of various best management practices (BMPs). STEPL provides a user-friendly Visual Basic (VB) interface to create a customized spreadsheet-based model in Microsoft (MS) Excel.

Model My Watershed: <https://wikiwatershed.org/model/>

Model My Watershed is a watershed-modeling web app that enables citizens, conservation practitioners, municipal decision-makers, educators, and students to: analyze real land use and soil data in their neighborhoods and watersheds; model stormwater runoff and water-quality impacts using professional-grade models; and compare how different conservation or development scenarios could modify runoff and water quality.

CBP Expert Panels and Products: [https://www.chesapeakebay.net/who/group/bmp\\_expert\\_panels](https://www.chesapeakebay.net/who/group/bmp_expert_panels)

The Chesapeake Bay Program utilizes expert panels to establish BMP efficiencies and loading estimates for incorporating restoration and conservation actions into Chesapeake water quality goals. While many of those [products and analyses](#) are tied to CB models and physiographic regions, their approaches and estimates can be useful in informing loading calculations and practice effectiveness for the Delaware watershed. This one is particularly comprehensive:

Chesapeake Bay Program Quick Reference Guide for Best Management Practices (BMPs): Nonpoint Source BMPs to Reduce Nitrogen, Phosphorus and Sediment Loads to the Chesapeake Bay and its Local Waters - [https://www.chesapeakebay.net/documents/BMP-Guide\\_Full.pdf](https://www.chesapeakebay.net/documents/BMP-Guide_Full.pdf)

### **Species and Habitat**

Nature's Network: <http://naturesnetwork.org/>

Nature's Network is a collaborative effort facilitated by the U.S. Fish and Wildlife Service Science Applications program that brings together partners from 13 states, federal agencies, nongovernmental organizations, and universities to identify the best opportunities for conserving and connecting intact habitats and ecosystems and supporting imperiled species to help ensure the future of fish and wildlife across the Northeast region. (See also attached fact sheet for Nature's Network in the Delaware River Basin)

*This toolbox is not intended to be exhaustive, guarantee accuracy in estimating outcomes, or endorse the use of any tools over others. These resources should help provide contextual information for proposals. NFWF will update this document regularly as resources become available or are updated. If you have tools and resources you'd like to suggest for the toolbox, please feel free to send them to [jessica.lillquist@nfwf.org](mailto:jessica.lillquist@nfwf.org). (Updated 9-21-2018)*

Delaware River Watershed Business Plan: <https://www.nfwf.org/delaware/Documents/delaware-river-watershed-business-plan.pdf>

In 2017, the Board of Directors of the National Fish and Wildlife Foundation approved NFWF's Delaware River Watershed Business Plan. The plan was developed with the input of a broad range of Delaware River Watershed stakeholders, experts and practitioners—and included an in-depth geospatial analysis performed by the Trust for Public Lands. The plan outlines the species, goals, strategies and activities that will provide the biggest return on investment in the Delaware River Watershed.

NatureServe Explorer: <http://explorer.natureserve.org/>

NatureServe Explorer is an authoritative source for information on more than 70,000 plants, animals, and ecosystems of the United States and Canada. Explorer includes particularly in-depth coverage for rare and endangered species. Perform searches by Species and/or Ecological Communities & Systems by Name, Taxonomy, Location, or Conservation Status. Use the database to easily find scientific and common names, conservation status, distribution maps, images, life histories, conservation needs, and more.

NatureServe National Species Dataset: <http://www.natureserve.org/conservation-tools/national-species-dataset>

NatureServe's foundational at-risk species dataset includes more than 900,000 location records (element occurrences) from our Network of biological inventories operating in all 50 states and in most of Canada. Over four decades, this network has collected and managed detailed local information on plants and animals of conservation concern. Representing the best available information on the known location, viability, and other information on at-risk species populations, this dataset is essential to regional and local analyses, decision-making and planning.

## **Permitting and Compliance**

Fish and Wildlife Service NEPA Reference Handbook:

<https://www.fws.gov/r9esnepa/NEPA%20Handbook%20TOC.pdf>

NFWF General Information for Applicants:

<https://www.nfwf.org/whatwedo/grants/applicants/Pages/home.aspx>

Indirect Cost Policy: <https://www.nfwf.org/whatwedo/grants/applicants/Pages/indirect-policy.aspx>

Indirect Cost Calculator: <https://www.nfwf.org/whatwedo/grants/applicants/Pages/indirect-cost-calculator.aspx>

Required Financial Documents: <https://www.nfwf.org/whatwedo/grants/applicants/Pages/required-financial-docs.aspx>

# Nature's Network

## Lands and waters sustaining wildlife and people in the Delaware River Basin

### Finding common ground to address shared priorities

From the Eastern brook trout living in the fabled Upper Delaware River trout streams of the Catskills, to the American shad that fed our founding families, to the horseshoe crabs and red knots that congregate on the Bayshore beaches each spring, thousands of species have found their niche in the region defined by the lands and waters of Delaware River Basin and Bayshores. Some are common, some are on the brink of extinction, but all depend on the Delaware River Basin's vital habitats to survive.

The resources sustaining these species also provide essential benefits like clean water to millions of people, including those living in New York City and Philadelphia. The Mid-Atlantic is the most densely populated region in the country, yet it is a place where people and nature have long coexisted. The Delaware River Basin is a mosaic of communities, working lands, open spaces and protected habitats. It is a place where our history has been shaped

by our relationship to the land, the rivers that flow from it, and our world renowned Bayshore and Atlantic beaches that offer a seasonal spectacle of some of the most impressive shorebird migrations on earth. But the environment, the ways in which we use the land, and the condition of other natural resources, are changing. And as these changes occur, they are threatening the character of the countryside that defines us, the resources we depend upon, and the wild things and places we care about. To support our outdoor spaces and traditions into the future, we need to work together.

### Laying the groundwork for unified action

In response to these threats, the Northeast Association of Fish and Wildlife Agencies (NEAFWA) coordinated a team of partners from 13 states (including all four in the Delaware River Basin), the U.S. Fish and Wildlife Service, nongovernmental organizations, and universities, who worked for more than a year to develop a

regional conservation design that provides a foundation for unified conservation action across the region.

Called ***Nature's Network***, the design identifies a network of places that help define the highest conservation priorities in the region to sustain natural resources and benefits for future generations. Led by partners from nearly 30 organizations using innovative modeling approaches developed by the University of Massachusetts Amherst and The Nature Conservancy (TNC), *Nature's Network*:

- Reflects scientific consensus from experts across the Delaware River Basin conservation and restoration community.
- Represents a shared vision for natural resources in the Delaware River Basin.
- Offers a practical set of tools to help people working at different scales contribute to regional conservation goals while meeting goals of their organizations.

### ***Nature's Network***

identifies the highest conservation priorities for sustaining natural resources for wildlife and people from the shores of the bay to the Upper Delaware.



U.S. Fish and Wildlife Service



Nicholas A. Tonelli

## Tools for different users

More than a map, *Nature's Network* offers a suite of decision-support tools representing five conservation approaches. Used together, or individually, these tools offer voluntary guidance to:

**Conserve the irreplaceable** – The best place to start strategic conservation is to identify a network of connected, intact, and resilient areas encompassing various types of lands and waters representing important habitats for key species. These are priority places for future sustainable human and natural communities in the Delaware River Basin.

**Make better decisions for the future** – Guidance that reflects projections about how land use and environmental changes will affect natural resources over time can help us safeguard today's investments in conservation for future generations.

**Maximize limited resources** – Conservation agencies and organizations have limited time and money to invest in protecting natural resources that wildlife and people depend upon. Guidance grounded in science and supported through regional collaboration allows more efficient use of limited resources in the face of complex environmental threats.

**Support local priorities with regional perspective** – Seeing how local conservation efforts fit into the bigger regional picture can help connect local, state and regional priorities. By zooming out, practitioners working at any scale can discover new opportunities that warrant a closer look.

**Find opportunities to work together** – Sustaining fish, wildlife, and natural resources in the face of increasing threats is beyond the scope of any single agency. With the benefit of consistent regional information, partners can look across state borders for opportunities to work together towards shared conservation goals at scales that matter for wildlife and people in the Delaware River Basin.

**To see where you fit into Nature's Network visit:**  
[www.naturesnetwork.org](http://www.naturesnetwork.org)

## For more information contact:

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You can look at the big picture with the *Nature's Network* conservation design, which combines numerous datasets to highlight conservation priority areas across the region, or explore individual datasets and tools representing five different conservation approaches.



U.S. Fish and Wildlife Service



*Nature's Network* incorporates habitat needs for hundreds of species of fish, wildlife, and plants, including those identified as Species of Greatest Conservation Need (SGCN) in Wildlife Action Plans, like bog turtle and red knot.