



## **OFFICE OF FISH AND WILDLIFE INFORMATION SYSTEMS**

## **MONTHLY REPORT**

#### April 2022 (March 16<sup>th</sup>, 2021 – April 15<sup>th</sup>, 2022)

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Temporary/Seasonal Employees: Molly VanWieren

# **ADMINISTRATION**

- The Office of Fish and Wildlife Information Systems (OIS) has 26 projects in progress and five new projects requested through the DFW GIS/IT Project Request Form.
- OIS staff gave a presentation entitled *Developing Online Mapping Tools for Fish and Wildlife Conservation* at the 77<sup>th</sup> Annual Northeast Fish and Wildlife Association Conference in Long Branch, NJ, April 3-5.
- Performance Assessment Reviews (PARs) were completed for staff.
- OIS met with the Wildlife Futures Program at the University of Pennsylvania regarding NJ participation in the Shared Wildlife Health Information System (SWHIS) to facilitate management, analysis of wildlife health data including morbidity and mortality events.
- OIS staff presented two web map applications at the annual NJDEP GIS mapping contest.
- OIS completed its annual report for year one. A highlight from report includes 2021 usage of web map applications developed by OIS:



#### **GIS DATA DEVELOPMENT**

#### Shellfish Aquaculture Lease Lot Data

• Bureau of Shellfisheries staff is beginning the process of editing an enterprise version of the lease lot dataset.

#### **Fishing Opportunities and Access**

OIS published trout stocking data including four feature classes (trout stocked streams, stream midpoints, trout stocked lakes, and lake centroids). These feature classes were linked to the 2022 stocking schedule. They are available on NJDEP Open Data and were incorporated into an ArcGIS Online application titled <u>Trout Stocked Waters of New Jersey</u>. This application and the Great Fishing Close to Home application were placed in a Story Map called the <u>New Jersey Freshwater Fishing Explorer</u>.

#### **Diadromous Fish Habitat Mapping and Timing Restrictions**

• No update.

#### Horseshoe Crab Impingement Data

• OIS is reviewing horseshoe crab impingement data submitted by the Wetlands Institute and Manomet for submission as a NJDEP enterprise dataset.

#### Wildlife Management Area Boundary Alignment

• OIS staff scanned the documents for twenty-eight WMA parcels.

#### **Landscape Project**

• OIS continues to coordinate with ENSP regarding the next version of the Landscape Maps.

#### Hard Clam (Estuarine) Survey Mapping

- OIS staff has completed edits and created 6 maps for the following historical datasets: Hard Clam Harvest Value of 1963, Associated Shellfish Species Production Areas of 1963, Submerged Aquatic Vegetation of 1979, Hard Clam Abundance of 1980s, Associated Shellfish Distribution of 1980s, and Submerged Aquatic Vegetation of 1980s. OIS is waiting for Shellfisheries staff to review and provide any further edits or suggestions.
- OIS staff has created maps for the following recent datasets: Hard Clams Abundance and Associated Species Distribution of Raritan Bay and of Sandy Hook Bay, and Hard Clams Abundance, Associated Species Distribution, and SAV Distribution of Navesink River, Shrewsbury River, Little Egg Harbor Bay, and Barnegat Bay. Shellfisheries staff are currently reviewing these data.

#### Wildlife Management Area Planning Tool Development

- OIS staff continues to work with Bureau of Land Management to QA/QC all point assets and all roads within WMA boundaries.
- OIS has completed and QA/QC metadata for the original 6 WMAs: Black River, Clinton, Greenwood, Assunpink, Millville, and Maple Lake and has been submitted for incorporation into NJDEP's enterprise system.

#### **Regional Habitat Data Adoption**

- OIS staff finalized the feature classes and raster files to be added to the DEP Enterprise.
- OIS staff prepared metadata for the feature classes and raster files that will be added to the DEP Enterprise. It will undergo a final review before they are officially added.

#### GIS ANALYSIS

#### **Ocean Trawl Survey Environmental/Biological Analysis**

• No update.

#### Summer flounder distribution by size and sex

• OIS is working to update heat maps showing flounder distribution by length.

#### Habitat Change Analysis Project (HCAP)

• No update.

## **CARTOGRAPHIC PRODUCTION**

#### Artificial Reef Guide Update

• OIS is working with Bureau of Marine Fisheries to finalize the guide.

#### Surf Clam Post-stratification mapping

• After the Bureau of Shellfisheries ran coordinate corrections on its 1981-1993 data, OIS remapped surf clam station charts for those years, identifying the grid blocks for each station. A total of 70 station charts and block grid maps were produced.

#### **Offshore Wind Energy**

• OIS staff has created three maps for the Offshore Wind Energy Wall maps and has sent to Marine Fisheries staff for review.

## WEB MAP/APP PRODUCTION

## Hunting & Trapping Explorer

• No update.

## Artificial Reef Web Map Application

• OIS is awaiting Bureau of Marine Fisheries review of deployment data for incorporation into a web application.

## **Offshore Wind Energy GeoHub**

• The GeoHub has also been updated with all new Offshore Wind Energy data.

## Wildlife Rehabilitators Web Map

• The Bureau of Wildlife Management polled rehabbers and they declined to have their locations published in a web map. This project will therefore be suspended.

## Wild Turkey Brood Sighting Survey

• OIS Staff has completed the Wild Turkey Brood Sighting Survey and is ready for publication.

## NJ Seafood Finder Web Map

• OIS staff made a number of additions and edits to the NJ Seafood Finder Story Map, primarily adding new locations.

# **GIS TECHNICAL GUIDANCE**

- OIS staff responded to internal and external inquiries regarding various datasets and applications, including Landscape Project and the Hunting & Trapping Explorer.
- OIS staff continues to work with Bureau of Shellfisheries regarding their collaboration with Rutgers in a project developing a GIS-based tool for spatial planning and management of shellfish aquaculture in New Jersey.
- OIS staff prepared a map for Law Enforcement showing the extent of a proposed shooting range expansion.
- OIS, in collaboration with Science & Research, BGIS, and Rowan University, began work on a project titled *Mapping and Assessing Tidal Marsh Condition Via Multispectral Imaging*. The project plans to develop methods for mapping plant communities and tidal wetland condition using drones equipped with multispectral imaging over two years at six sites along New Jersey's Atlantic coast.