



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

### **MONTHLY REPORT**

**June 2023**  
**(May 16<sup>th</sup>, 2023 – June 15<sup>th</sup>, 2023)**

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### **ADMINISTRATION**

- The Office of Fish and Wildlife Information Systems (OIS) has 38 projects in progress and three new projects requested through the GIS Project Request Form.
- OIS attended the New Jersey Geospatial Forum Elevation Task Force meeting and received updates on the status of various statewide data development projects including LiDAR collection.
- OIS is currently recruiting candidates for GIS and GPS data collection positions.
- OIS attended the NJDEP GIS User Group meeting.
- OIS reviewed and approved various NJFW GIS software license requests.
- OIS presented a “Lighting Talk” on various NJFW web mapping applications at the quarterly NJ Geospatial Forum Meeting. A recording of the meeting is available [here](#).

### **GIS DATA DEVELOPMENT**

#### **Shellfish Aquaculture Lease Lot Data**

- No updates.

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

- OIS completed a fishing regulations pilot project and plans to meet and discuss the project with Freshwater Fisheries to get comments and discuss next steps. The pilot is a web map comprised of seven HUC11 watersheds spanning southern Hunterdon Co. to southwestern Monmouth Co. For the pilot project, OIS divided the area into five zones based on species

distributions and species-specific regulations. Stream segments in the seven watersheds were related to tables of general regulations, waterbody-specific regulations, and species size, season, and creel limits to demonstrate how a statewide web app might work.

### **New Jersey Statewide Trails Dataset**

- OIS published horseback riding trails on Wildlife Management Areas within the NJ [Statewide Trails Dataset](#).

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

- OIS has begun work on a pilot area in Great Egg Harbor River watershed to model potential species presence by life history stage and associated timing restrictions.

### **Wildlife Management Area Boundary Alignment**

- OIS staff mapped 10 parcels, scanned documents for 25 parcels and renamed and reorganized the files following a standard naming and file management convention.

### **Landscape Project**

- OIS is meeting with ENSP regarding the next update to the Landscape Project mapping to determine a timeline for the new listing proposal and public release of version 3.4.

### **Hard Clam (Estuarine) Survey Mapping**

- OIS submitted three datasets and multiple associated layer files for incorporation into the NJDEP Enterprise GIS and for internal and external publication.

### **Wildlife Management Area System Inventory**

- OIS staff is developing a dashboard for BLM to track activities by type, month, WMA, etc. for BLM reporting purposes.
- OIS is in the process of performing schema changes in combination with simplifying the editing workflow in order to accommodate filters within ArcGIS Dashboards so that data will load easily.
- OIS is organizing field collection efforts on WMAs for the summer season.

## **GIS ANALYSIS**

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

- Based upon similar analyses of ocean trawl data by Rutgers and NOAA, OIS is developing an inverse distance weighting (IDW) method of mapping fish species distributions. Rutgers provided some tips on how they built their Ocean Adapt website, which displays global

ocean catch data, but technical aspects are still being investigated related to mapping methodology.

### **Habitat Change Analysis Project (HCAP)**

- OIS is organizing data for another round of analysis once the 2020 land-use/land-cover (LULC) data is available.

### **Summer flounder distribution by size and sex**

- No update.

## **CARTOGRAPHIC PRODUCTION**

### **Bear Incident Mapping**

- Participated in a meeting with Sustainable Waste Management to better understand what they need the maps to show to be useful to them.
- Produced preliminary heat maps of incidence locations based on the data they provided which will be used to choose municipalities to focus on for the eventual production of maps.

### **Buckshutem Wildlife Management Area**

- OIS created a large format map with early successional habitat habitats and wetlands delineated for Bureau of Land Management.

## **WEB MAP/APP PRODUCTION**

### **Hunting & Trapping Explorer**

- Updated the boundary between deer management zones 1 and 67 as well as associated label and hidden layers that were affected by that change.

### **Wildlife Management Area Explorer**

- Updates were made regarding WMA closures and restricted areas.

### **Saltwater Fishing Explorer**

- No updates.

### **Freshwater Fishing Explorer**

- OIS is currently replacing the trout stocking services with hosted services because of persistent update issues involving the cache.

### **Conservation Focal Area Application**

- No updates

### **Offshore Wind Energy GeoHub**

- No updates.

### **Shared Wildlife Health Information System (SWHIS)**

- OIS met with the Wildlife Futures Program (WFP) at UPenn and the Timmons Group to collaborate on the development of a feature service that will include wildlife health events, including animal morbidity and mortality information.

### **Wild Turkey Brood Sighting Survey**

- OIS staff has re-opened this survey up for 2023 collection from June 15<sup>th</sup>-September 15<sup>th</sup>.

### **Turkey Permit Sales and Harvests Dashboard**

- OIS staff will be retiring the current Turkey Permit Pilot Dashboard and will be replacing it with an updated version. This new dashboard will host Turkey Permit Sales and Turkey Harvest data from 2020 to Spring 2023. New data will be appended as needed.

### **Northeast Regional Conservation Priorities web application**

- In development using ArcGIS Experience Builder.

### **Fishing and Hunting License Agent Locator web application**

- Made edits to the list of license agents to add/remove locations and keep the information current and accurate.

### **Waterloo Road Public Comment Form**

- Collected and sent the received comments to ENSP and their consultant and turned the form off.

### **Lenape Farms Story Map**

- OIS is working with BLM and Stockton University to finalize a Story Map highlighting land management projects and activities.

### **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 met with [NJ Conservation Blueprint](#) staff to discuss and review a new approach for a mapping update related to rare species and other ecological integrity data.
- 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 continues to work with BGIS and Science and Research on analyzing multispectral drone imagery from Great Bay Boulevard WMA and Forsythe Wildlife Refuge. We are in the final stages of completing accuracy assessments on our 2022 imagery classifications which attempt to discern the various vegetation types including tall form and short form *Spartina alterniflora*, *Spartina patens*, *Distichlis spicata*, and *Phragmites*, and other ground and water features. Goals of the project are to develop a protocol for determining marsh vegetation health using drone imagery and to quickly distinguish between high marsh and low marsh. We are gearing up for our summer 2023 fieldwork in which we will be revisiting the nine 2022 field sites and conducting additional imagery collection to further refine our protocol.