



OFFICE OF FISH AND WILDLIFE INFORMATION SYSTEMS

MONTHLY REPORT

February 2023
(February 16th, 2023 – March 15th, 2023)

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ADMINISTRATION

- The Office of Fish and Wildlife Information Systems (OIS) has 35 projects in progress and five new projects requested through the DFW GIS/IT Project Request Form.
- OIS met with NJFW management to review and discuss planned GIS projects for 2023.
- OIS is nearing completion of its annual grant report following the framework set out in TRACS, the tracking and reporting system for conservation and related actions funded by the U.S. Fish and Wildlife Service's Wildlife and Sport Fish Restoration Program.
- OIS staff was trained on versioned editing within NJDEP's Enterprise geodatabase.
- OIS attended the New Jersey Geospatial Forum (NJGF) meeting.

GIS DATA DEVELOPMENT

Shellfish Aquaculture Lease Lot Data

- OIS is awaiting a round of edits from Shellfisheries staff in order to update the NJDEP Enterprise layer of lease lots and lease holder information.

Freshwater Fishing Opportunities and Access

- OIS continues work on mapping freshwater fishing regulations.

Diadromous Fish Habitat Mapping and Timing Restrictions

- OIS is scheduling meetings with both the Marine Resources Administration (MRA) and Bureau of Freshwater Fisheries to determine project objectives.

Wildlife Management Area Boundary Alignment

- OIS staff scanned, renamed and organized the files for 76 WMAs and mapped 22 additional parcel boundaries.

Landscape Project

- The 2020 land-use/land-cover (LULC) data will be completed in September 2023 and be used as the basis for a new habitat base layer. OIS will need species occurrence data from ENSP, incorporating occurrences for newly proposed species, including freshwater fish.

Hard Clam (Estuarine) Survey Mapping

- OIS staff is working on completing the final layer files for ArcGIS Pro and ArcMap.
- This dataset is estimated to be published as NJDEP Enterprise layers early this spring.

Wildlife Management Area System Inventory

- OIS staff met with BLM crew staff to demo and test ArcGIS Field Maps for tracking of management activities on a per patch basis. Field crew staff will now use the mobile application to record management activities on WMA habitat patches.
- OIS is developing a dashboard for BLM to track activities by type, month, WMA, etc. for reporting purposes.
- OIS mapped an update to the Menantico Ponds WMA Closure, which is currently under review.

Regional Habitat Data Adoption

- Data were recently re-published to ArcGIS Online and work to create a web map that allows users to easily explore the Northeast Regional Conservation Priorities data has resumed.

GIS ANALYSIS

Ocean Trawl Survey Environmental/Biological Analysis

- OIS continues to work with the Bureau of Marine Fisheries on a methodology for mapping species distributions and environmental variables from ocean trawl survey data.

Summer flounder distribution by size and sex

- No update.

Habitat Change Analysis Project (HCAP)

- No update.

Greenwood Forest WMA Monitoring Project

- OIS, working with the Bureau of Land Management, set up a drone monitoring project to monitor forestry activities planned for the quail management area at the center of Greenwood Forest WMA. Having recently received word from the state office of cybersecurity that we DJI drones have not been grounded, OIS is planning to fly over several sites at Greenwood in the next week or two.

CARTOGRAPHIC PRODUCTION

WMA Wall Map

- OIS is awaiting feedback from I&E on a final layout.

WEB MAP/APP PRODUCTION

Shared Wildlife Health Information System (SWHIS)

- OIS has a signed data sharing agreement between NJFW and the Wildlife Futures Program at UPenn for entering wildlife morbidity and mortality data into SWHIS.

Wildlife Habitat Explorer

- A layer on WMA closures and restrictions was added to the [WMA Explorer](#) web app.

Hunting & Trapping Explorer

- Data updates were made to the [License Agents](#) web app.

Saltwater Fishing Explorer

- No update.

Freshwater Fishing Explorer

- OIS is in the last steps of preparing the spring trout stocking data for the [Trout Stocked Waters of NJ](#) application.

Marine Resources GeoHub

- OIS staff has completed a draft of the Marine Resources GeoHub, and will continue adding new layers when requested by Marine Resources staff.

Upland Gamebird Sighting Survey

- The survey has been published and is open for public submissions.
- OIS staff is working on creating a Dashboard to present submission data.

Furbearer Sighting Survey

- The survey has been published and is open for public submissions.
- OIS staff is working on creating a Dashboard to present submission data.

GIS TECHNICAL GUIDANCE

- OIS met with The Nature Conservancy (TNC) regarding ranking of rare species habitat for the Conservation Blueprint mapping tool.
- OIS participated in a meeting with Rutgers University regarding maintenance and promotion of the Aquaculture Spatial Planning Tool.
- OIS staff responded to internal and external inquiries regarding various datasets and applications, including Landscape Project and the Hunting & Trapping Explorer.
- OIS continues to work with Bureau of Information and Education so that OIS apps and other products are more prominent and easier for users to find.
- OIS continues to work with BGIS and Science and Research on analyzing multispectral drone imagery from Great Bay Boulevard WMA and Forsythe Wildlife Refuge. The focus is currently image classification, developing training classification schema for each site, and “training” our models to recognize the various vegetation types and other areas on the marsh. Staff is engaged in image segmentation—adjusting spectral and spatial detail and minimum segment size parameters to best group pixels in order to produce accurate vegetation and land cover classifications.
- OIS staff reviewed the NJ Marine Digest related to the presentation of Marine Apps developed by OIS.