



OFFICE OF FISH AND WILDLIFE INFORMATION SYSTEMS

MONTHLY REPORT

June 2021

(May 16th, 2020 – June 15th, 2021)

Patrick Woerner, Geographic Information Systems Specialist
Kevin Blythe, Geographic Information Systems Specialist
Michael Davenport, Geographic Information Systems Specialist
Brian Henderson, Geographic Information Systems Specialist
George Miragliuolo, Information Technology Specialist

Temporary/Seasonal Employees: Nick Myers

ADMINISTRATION

- The Office of Fish and Wildlife Information Systems (OIS) has 46 projects in progress and four new projects requested through the DFW GIS/IT Project Request Form.
- OIS attended the quarterly NJ Geospatial Forum (NJGF) meeting.
- OIS represented the Division of Fish & Wildlife at the GIS User Group Program Representative Meeting.
- OIS reviewed a wireframe for the new DFW website and is exploring opportunities for potential mapping applications to feature on the new site.
- OIS is reviewing the next version of the Hunting & Trapping Digest and providing recommendations on incorporation of information on the [Hunting & Trapping Explorer](#) that was released last September.
- OIS conducted preliminary analysis and developed a list of potential sites for the construction of a new Marine Resource Center.

GIS DATA DEVELOPMENT

Deer Management Zones

- Deer Management Zones (DMZ) were edited in preparation for the 2021-2022 season. Edwin B. Forsythe NWR zones 56, 57, 58, and 70 were eliminated and incorporated into the surrounding existing zones. Zones 56 and 57 were merged into Zone 42. Zone 58 was

merged into Zone 51. Those portions of Zone 70 surrounded by Zone 22 were merged into Zone 22. Those portions of Zone 70 surrounded by Zone 24 were merged into Zone 24.

Conservation Focal Areas

- OIS updated habitat and open space acreages for each Wildlife Action Plan Conservation Focal Area using the most recent data available. Updated CFA GIS data is being prepped for publication and will be served up in a web mapping application.

Anadromous Fish Habitat Mapping

- OIS received a revised dataset from Freshwater Fisheries staff that is currently under review for incorporation into a model that will assist in mapping stretches of streams according to potential species presence and associated timing restrictions for environmental and permit review applications.

Wildlife Management Area Boundary Alignment

- OIS staff scanned 70 survey maps and mapped/re-mapped 20 parcels.

Landscape Project

- OIS is awaiting updated species occurrence data from ENSP for use in Landscape.

Georeferencing & Digitizing of Historic Shellfisheries Charts and Maps

- OIS staff have completed digitizing shellfish, SAV, sediment, and survey station data based upon historic, georeferenced maps from 1963 and the 1980's. Upon completion of metadata for those layers and QA/QC, those layers will be provided to BGIS for public release.

Georeferencing of Historic Subaquatic Vegetation Maps

- OIS staff have completed digitizing submerged aquatic vegetation data based upon historic, georeferenced aerial images from 1979. Upon completion of metadata for those layers and QA/QC, those layers will be provided to BGIS for public release.

Hard Clam (Estuarine) Survey Mapping

- Working with Bureau of Shellfisheries (BSF) staff, OIS staff have developed a methodology for mapping hard clam densities and other estuarine survey data collected by BSF since 2000. Resultant GIS data for test sites have been reviewed by BSF. Staff are now processing survey data to complete mapping.

Prime Fishing Areas from APAIS sites

- At the request of BSF staff, a new feature layer displaying Access Point Angler Intercept Survey (APAIS) locations has been developed for public use. The GIS layer is currently being reviewed by BGIS prior to being made public.

Wildlife Management Area Planning Tool Development

- OIS and BLM will meet to review completed drafts of habitat management patch files for Assunpink and Greenwood Wildlife Management Areas and will develop plans to expand to other WMAs.

GIS ANALYSIS

Summer flounder distribution by size and sex

- OIS is awaiting feedback from Bureau of Marine Fisheries on draft mapping.

Habitat Change Analysis Project (HCAP)

- No update.

CARTOGRAPHIC PRODUCTION

WMA Emergency Closures

- OIS Staff produced five maps for the Bureau of Law Enforcement showing emergency closure areas.

Artificial Reef Guide Update

- GIS staff have created 17 draft maps of all artificial reefs currently within the Artificial Reef Program to create an update to the Artificial Reef Guide created in 2007. Draft maps as well as a draft of a key to all deployments are currently being reviewed by BMF staff. OIS staff is being assisted by I&E staff with a graphic design project to update Reef Profile images to insert into each reef map.

Shellfish Leasing Policy Mapping

- Per the request of the Bureau of Shellfisheries, OIS staff have created an automated approach for creating maps for the BSF document “Shellfish Aquaculture Leasing Policy of the Atlantic Coast Section of the New Jersey Shellfisheries Council”. The new method for producing the 45+ maps for the document will greatly expedite the amount of time required to produce the maps, enhance their appearance, and reduce the potential for human error within the resultant maps. During this reporting period, the mapping process has been expanded to produce 40+ poster-sized lease maps for BSF offices.

Post Stratify Pre-1993 Surf Clam Inventory Data

- OIS staff produced 50 surf clam station charts for the years 1983 to 1993.

Offshore Wind Energy Mapping

- During this reporting period, one new map was created for MFA staff which displays areas of overlap between the Ocean Trawl survey area, offshore wind energy lease areas, and proposed cable routes.

Great Places to Fish Close to Home

- OIS staff are in the final stages of producing a print version of the Great Places to Fish Close to Home web map.

WEB MAP/APP PRODUCTION

Artificial Reef Web Map Application

- GIS staff have created 17 draft maps of all artificial reefs currently within the Artificial Reef Program to create an update to the Artificial Reef Guide created in 2007. Draft maps as well as a draft of a key to all deployments are currently being reviewed by BMF staff. OIS staff is being assisted by I&E staff with a graphic design project to update Reef Profile images to insert into each reef map.

Deer Vehicle Accident (DVA) Application

- No update, awaiting outside information for further development.

Hunting and Trapping Explorer

- Edits are underway to update the Hunting & Trapping application and associated mapping applications.
- Usage data for the 2020-2021 season was gathered with ~77k total views. A breakdown by mapping application is shown in the table below:

App	Total Views	%_Total
NJ Hunting & Trapping Explorer	30749	
NJ Division of Fish & Wildlife License Locator	9919	20.8
NJ Beaver & Otter Management Zone Explorer	1203	2.5
NJ Deer Management Zone Explorer	20723	43.5
NJ Mink, Muskrate & Nutria Trapping Zone Explorer	1022	2.1
NJ Special Sea Duck Hunting Area Explorer	1053	2.2
NJ Waterfowl Hunting Zone Explorer	2188	4.6
NJ Turkey Hunting Area Explorer	3162	6.6
NJ Squirrel Muzzleloading Rifle Hunting Area Explorer	2152	4.5
NJ Black Bear Management Zone Explorer	2600	5.5
NJ Special Winter Canada Goose Season Hunting Area Explorer	1517	3.2
NJ Woodcock Hunting Zones	1524	3.2

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 classified each of the >40,000 bear nuisance calls received from 2001 to 2020 to the Bear Management Zone (BMZ) it originated from.
- OIS staff continue to support the Bureau of Shellfisheries' collaboration with Rutgers in their project developing a GIS-based tool for spatial planning and management of shellfish aquaculture in New Jersey. During this reporting period, staff participated in a Technical Advisory Group meeting as well as two Project Working Group meetings.
- OIS staff met with the DEP's Offshore Wind Coordination and Offshore Wind Research & Monitoring Teams as well as Marine Fisheries' Wind Energy Team.
- OIS staff took over responsibility for the Land Management Review (LMR) coordination while the staff that usually handles LMRs are on leave. Staff participated in three virtual meetings to go over and ask questions about the steps involved.
- Staff entered nine LMR projects that have been submitted for review in addition to sending out reminders and status updates for previously entered LMRs.
- OIS staff helped Bureau of Shellfisheries acquire four new ArcGIS Pro licenses.
- OIS staff assisted Bureau of Shellfisheries staff during one day of the Hard Clam Survey in Sandy Hook Bay.

IT PROCUREMENT

- **IT Procurement Detail:**

Type	IT Products on Order	IT Products Deployed
Computer Hardware		
Laptop	27	3
Desktop	2	
Removable Storage Devices	0	
Seagate Expansion Desktop external hard drive	2	
Keyboard/Mouse	5	
Monitors	24	
Monitor/Docking Station Hub	2	
Printers	0	
USB Monitor Camera	0	
Cellular Devices		
State Cell Phone	1	
Software		
NA	0	
Special Orders		
Docking Station	25	2
Dell Battery	2	
Computer Bags	27	3
Trimble Unit	1	
SonarWiz 7 Sidescan Sonar Post-processing Software	0	
GO-PRO,HERO8	1	
Security box Spartan Camera	0	
Drone	1	

- George Miragliuolo continues to be the DFW's point of contact to set up meetings and webinars with GoToWebinar/GoToMeeting in order to communicate with constituents outside of DEP.
- DOIT is moving away from the Dell Docking Stations and moving forward with a Dell 24 Video Conferencing Monitor/Docking Station combo.
- OIS met with the Natural and Historic Resources IT Coordinator to review Purchase Orders that are in process and upcoming.

IT INVENTORY

- The Division's IT inventory continues to be updated. The IT inventory is being revised monthly to update deactivated equipment that was sent to surplus.

IT SUPPORT (non-DEP HelpDesk)

- No update.