

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

South Carolina 2015 ESI BIRD Polygons, Points

1.2. Summary description of the data:

This data set contains sensitive biological resource data for wading birds, shorebirds, waterfowl, raptors, diving birds, seabirds, passerine birds, and gulls and terns in South Carolina. Vector polygons in this data set represent bird nesting, migratory staging, and wintering sites. Vector points in this data set represent known sites of high concentrations of nesting seaside sparrow. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables (described below) designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for South Carolina. ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources. See also the BIRDSPT data layer, part of the larger South Carolina ESI database, for additional bird information.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2014 to 2015

1.5. Actual or planned geographic coverage of the data:

W: -81.1615, E: -78.414, N: 33.9384, S: 31.9322

This reflects the extent of all land and water features included in the overall South Carolina ESI study region. The bounding box for this particular feature class may vary depending on occurrences identified and mapped.

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Map (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

ESI Program Manager

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

orr.esi@noaa.gov

2.5. Phone number:

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

ESI Program Manager

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality,

objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Lineage Statement:

Three main sources of data were used to depict bird distribution and seasonality for this data layer: 1) personal interviews with resource experts from South Carolina Department of Natural Resources (SCDNR) and U.S. Fish and Wildlife Service (USFWS); 2) published and unpublished reports; and 3) digital/tabular datasets provided by SCDNR and U.S. Fish and Wildlife Service (USFWS).

Process Steps:

- 2015-08-01 00:00:00 - Breeding shorebirds, diving birds, gulls and terns: Survey data on locations of breeding shorebirds, diving birds, and terns were provided by SCDNR via shapefiles, spreadsheets, and expert local knowledge for the following species: American oystercatcher (state species of concern), black skimmer (state species of concern), brown pelican, gull-billed tern (state species of concern), least tern (state threatened), royal tern, sandwich tern, willet, and Wilson's plover (state threatened). Point data were converted to polygons by associating points to sections of the coast (i.e., shell rakes, beaches, and small coastal islands) and creating a 50 m onshore/offshore buffer, which in some areas was extended to include ESI polygons 7 and 9A (exposed and sheltered tidal flats, respectively) per expert opinion. For American oystercatcher (surveyed in 2002) and Wilson's plover (surveyed in 2012), concentration values represent the sum of all pairs from within a survey area. For seabird nesting colonies, concentration values are the maximum of nests from across survey years, 2010-2013.

- 2015-08-01 00:00:00 - Migrating and wintering shorebirds, diving birds, wading birds, gulls and terns: Migrating and wintering shorebird, diving bird, and tern information was provided by USFWS Integrated Waterbird Monitoring and Management (IWMM), SCDNR shorebird project surveys, and SCDNR resource experts. IWMM surveys provided simple counts for impoundments from 2010 to 2012. SCDNR provided mid-winter shorebird surveys from 2014, non-breeding American oystercatcher observations from 2002, and expert knowledge. Red knot (federally and state threatened), piping plover (federally and state threatened), and marbled godwit were mapped based on the 2013 Shorebird Project Report published by USFWS. Survey areas were compiled to represent different sections of the coast (i.e., different beach habitats and small coastal islands). A 50 m onshore/offshore buffer was mapped along these coastal areas, and extended beyond the buffer to include ESI polygons 7 and 9A (exposed and sheltered tidal flats, respectively) per expert opinion. Based on the maximum count across survey years, shorebird counts were binned into 100s or 1,000s of birds. Federal and state threatened and endangered species and state species of special concern from IWMM data are qualified as having a "vulnerable occurrence".

- 2015-08-01 00:00:00 - Colonial wading and diving bird nesting and concentration

areas: Three sources of data were used to map nesting colonial wading and diving birds. Locations of wading and diving bird nesting colonies and wood stork (federally threatened, state endangered) nesting colonies were mapped based on 2014 surveys. To mask the exact locations, a randomized geographic shift was applied to nesting points within 1-1.5 km of the original nest location. Shifted wading bird nest points were buffered by 2.5 km and wood stork nest points by 3.5 km to create a nesting polygon. Overlapping wading bird and wood stork buffers, respectively, were merged and clipped to a 50 m buffer of the shoreline. Counts were reported as the sum of wading bird or wood stork colonies that occurred within the polygon. Wading bird concentration areas reflect impoundments counted in 2010-2012 IWMM surveys. Federal and state threatened and endangered species and state species of special concern from these data are qualified as having a "vulnerable occurrence" where they occur, while other wading birds have been grouped as "wading birds". Counts were binned into 10s, 100s, or 1,000s.

- 2015-08-01 00:00:00 - Wetland associated waterfowl: Waterfowl data for South Carolina were mapped from USFWS 2010-2014 mid-winter waterfowl surveys, USFWS 2004-2015 Christmas Bird Count (CBC) data, USFWS IWMM data, and expert knowledge from SCDNR. Survey blocks were divided into three zones based on whether the habitat represented 1) lower rivers and sounds, 2) saltwater and brackish creeks and marshes, or 3) freshwater rivers, impoundments, and marshes. For reporting species and concentrations, species counts less than 10 were combined into a more general grouping (e.g., dabbling ducks, diving ducks, etc.), while those with counts equal to or greater than 10 have been listed by species. Counts were binned into 10s, 100s, 1,000s, or 10,000s. Species were assigned to a specific zone and concentrations of species or species groups were adjusted per expert opinion. Nesting distributions of waterfowl were determined using species' presence during USFWS mid-winter waterfowl, IWMM, and CBC surveys alongside SCDNR expert knowledge. Nesting concentrations for waterfowl (i.e., "possible") reflect areas where species were detected during winter surveys and expert knowledge from SCDNR was used to determine nesting presence. Numbers from wintering surveys are likely underestimates, since surveys do not necessarily occur during each species' months of peak abundance.

- 2015-08-01 00:00:00 - Atlantic Ocean seabirds: Distribution of nearshore and offshore pelagic birds, gulls, terns, diving birds, alcids, and waterfowl in the Atlantic Ocean, bays, and sounds were generated from discussions with resource experts, reports, and survey data. Alcids, diving birds, gulls, terns (except black tern), and northern gannet were mapped based on compiled survey data from USFWS that included USFWS Atlantic Coast Wintering Sea Duck Surveys (ACWSD; preliminary survey in 2008, full surveys 2009-11) and USFWS Atlantic Marine Assessment Program for Protected Species (AMAPPS) seabird surveys (preliminary survey in 2010, full-coast surveys in summer 2011, spring and fall 2012, winter 2014). Based on expert advice, data were grouped into two offshore polygons (0-5 nautical miles [nm] from shore and 0-12 nm offshore). Species and species groups were placed into respective polygons based on their frequency of occurrence in

these areas and concentration values were determined through discussions with resource experts. Species in bays and sounds were mapped from SCDNR expert knowledge. Pelagic birds (except northern gannet), black tern, and phalaropes were mapped based on information from Wigh (2007) and Beaton et al. (2003).

- 2015-08-01 00:00:00 - Bald eagles: Bald eagle (state threatened) nest locations were mapped based on 2013-2014 nesting survey data provided by SCDNR. The exact locations were masked with a 250 m buffer by SCDNR. The display of this data does not imply that areas mapped reflect current nest locations, but rather are to be used as a guide to what has been observed over recent years. Resource experts should be contacted in the event of a spill.

- 2015-08-01 00:00:00 - Secretive marsh birds: Distributions of black rail, clapper rail, king rail, and least bittern, were provided by SCDNR. Distributions of seaside sparrow, saltmarsh sparrow, and Nelson's sparrow were based on discussions with resource experts.

- 2015-08-01 00:00:00 - Seaside sparrow nesting sites: Data used to depict seaside sparrow nest sites were provided by Chris Hill, professor at Coastal Carolina University, and confirmed by Aaron Given, wildlife biologist of the Town of Kiawah Island. Seaside sparrow nesting sites with high concentrations of individuals were mapped based on expert knowledge. These sources were used by the project biologist to create the BIRD POINTS data layer. (Citation: SEASIDE SPARROW BREEDING AND WINTERING)

- 2015-08-01 00:00:00 - The above digital and/or hardcopy sources were compiled by the project biologist using the process steps described, to create the BIRD POLYS and POINTS data layers. Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:24,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. See the Lineage section for additional information on the type of source data for this data layer. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the BIRD POLYS and POINTS data layers are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
 - 7.1.1. If data are not available or has limitations, has a Waiver been filed?
 - 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

<https://www.fisheries.noaa.gov/inport/item/53815>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

Office of Response and Restoration (ORR)

7.2.1. If data hosting service is needed, please indicate:**7.2.2. URL of data access service, if known:**

https://response.restoration.noaa.gov/esi_download

7.3. Data access methods or services offered:

Data can be accessed by downloading the zipped ArcGIS geodatabase from the Download URL (see Distribution Information). Questions can be directed to the ESI Program Manager (Point Of Contact).

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:****8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office of Response and Restoration - Seattle, WA

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.