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:

Outer Coast of Washington and Oregon 2014 ESI BIRD Polygons, Lines, Points

1.2. Summary description of the data:

This data set contains sensitive biological resource data for alcids, diving birds, gulls and terns, passerine birds, pelagic birds, raptors, shorebirds, wading birds, and waterfowl for the Outer Coast of Washington and Oregon. Vector polygons in this data set represent birds nesting, migratory staging, wintering sites, and general use areas. Vector lines in this data set represent nesting, roosting, and/or wintering sites. Vector points in this data set represent bird nesting and roosting sites. Species specific abundance, seasonality, status, life history, and source information are stored in relational data tables designed to be used in conjunction with this spatial data layer. This data set comprises a portion of the ESI data for Outer Coast of Washington and Oregon. 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.

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:

2013 to 2014

1.5. Actual or planned geographic coverage of the data:

W: -125.6816, E: -123.5192, N: 48.5059, S: 41.9967
This reflects the extent of all land and water features included in the overall Outer Coast of Washington and Oregon 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:
Sources of data include: 1) interviews with resource experts, 2) published and unpublished reports and 3) digital datasets. Data were provided by Washington Department of Fish and Wildlife (WDFW), U.S. Fish and Wildlife Service (USFWS), NOAA Olympic Coast National Marine Sanctuary (OCNMS), NOAA NMFS Northwest Fisheries Science Center (NWFSC), U.S. Geological Survey (USGS), Oregon State University (OSU), Bird Research Northwest, Audubon, Bureau of Energy Management (BOEM), Audubon Washington, eBird, and Oregon Biodiversity Information Center (ORBIC).

Process Steps:
- 2015-10-01 00:00:00 - Seabird colonies offshore of the Oregon coast and in the Columbia River Estuary are mapped as polygonal features. Seabird colony data for the Outer Coast of Oregon was provided by USFWS; additional colony sites from this data set were mapped as lines (BIRDL) along cliff shorelines and nest points (NESTS) .Tabular data for each OR seabird colony was based on the "R" attribute, or the ' Most Recent Accurate' count per species per colony, based on expert opinion by USFWS. For that reason, there are species counts within colonies of '0 BREEDING BIRDS', implying that it is likely that the species is not currently breeding at that location, but has in the past, and therefore may in the future and/or is still surveyed for presence/absence at that colony location. Less than 10 individual OR seabird colony records dated from 1976-1977; the remainder of the "Most Recent Accurate" counts ranged from 1988-2013. Data for the Columbia River Estuary was provided by Bird Research Northwest. Black oystercatcher wintering and nesting information in Oregon was provided by USGS. Nesting data were mapped to polygons provided by the contributing agencies, based on the most recent data available.
- 2015-10-01 00:00:00 - The distribution of shorebirds, waterfowl, gulls/terns and seabirds in estuarine areas was mapped using several sources: 1) USFWS midwinter waterfowl survey data, 2) eBird counts from 2009-2014 were used to populate species lists and concentrations for waterfowl, shorebirds, gulls, terns, and seabirds, 3) published USFWS NWR Comprehensive Conservation Plans and other reports, and 4) expert opinion of contributing agencies. Smaller estuaries are represented by one polygon for the entire estuary. In the Columbia River Estuary, Willapa Bay, and Grays Harbor, estuarine areas were subdivided into groups of flats or geographic regions based on survey datasets, IBA boundaries, and expert opinion. Concentrations in Oregon estuaries and other bay polygons are generalized to an order of magnitude representing the maximum observation from 2009-2014; as such, these estimates are an indication of the number of animals possible in a given location during the period of highest occupancy. Only species with max counts higher than 100 individuals were included from the eBird dataset. For many

shorebirds and waterfowl, this is during the spring and/or fall migration periods; however, many waterfowl overwinter in coastal bays and estuaries. Brown pelican roosting areas were mapped to seabird colony polygons and other areas (e.g. jetties, flats) based on survey data provided by USFWS. Shoreline areas mapped as polygons include Western snowy plover nesting areas, beaches identified as important shorebird areas in both Washington and Oregon, rocky intertidal habitats for shorebirds in Washington and wintering habitats for black oystercatcher in Oregon. Western snowy plover distributions were mapped based on digital data from ORBIC and WDFW's PHS database, USFWS's Summer Window Surveys between 2005-2012, and expert knowledge from USFWS's Vanessa Loverti, WDFW's Cyndie Sundstrom, and Shoalwater Bay Tribe biologists. Digital data was initially incorporated as-is, and then matched to the ESI shoreline and modified based on input from WDFW, ORBIC, and USFWS biologists during the review process.
- 2015-10-01 00:00:00 - Pelagic bird distributions were mapped using survey data from OCNMS and NOAA NWFSC and published reports from BOEM and USFWS. The offshore region was split into zones to represent nearshore (0-5 km) and shelf (> 5 km offshore) waters in Oregon. Waters greater than 100m in depth were split into another polygon within the OCNMS. These zones were further divided by latitude and also split into 3 regions running north/south along the coast, divided at Cape Meares and the southern boundary of OCNMS. Pelagic distributions of marbled murrelet were provided by the Northwest Forest Plan based on their survey areas. Where boundaries between marbled murrelet data and pelagic bird distributions were similar in offshore areas, they were condensed. Distributions for state and federally threatened and endangered birds were mapped from WDFW's PHS database as well as ORBIC digital data. PHS data was incorporated as-is, except for the case of Western snowy plover, as noted above. Data from ORBIC was generalized to one mile squared quads, when polygons in the data set were less than one half mile in diameter. Species names from the ORBIC data set were also changed to give further protection to sensitive, threatened, and endangered species. Marbled murrelet nesting habitat was mapped from raster digital data produced as part of the Northwest Forest Plan Interagency Regional Monitoring Program's Fifteen Year Report. The two highest probability classes (3 and 4) were selected for inclusion based on consultation with Deanna Lynch (USFWS). These two classes were merged into a single distribution layer and buffered by 50 m to make a more cohesive distribution. Smaller polygons (those under 10,000 m2) were removed from the distribution to reduce the complexity of the product, and only habitat within 3 miles of major water bodies was retained.
- 2015-10-01 00:00:00 - Process step for developing the BIRDSL (BIRD Lines) feature class. Three main sources of data were used to depict bird distribution and seasonality for this data layer: 1) personal interviews with resource experts from U. S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), and Oregon State University (OSU); 2) digital and/or survey data provided by USFWS and USGS; and 3) published hardcopy sources. BIRDL were added to the Outer Coast of

Washington and Oregon ESI as a new spatial format for displaying birds in addition to the standard formats of BIRD polygons and BIRD points or nests. Lines were used to depict seabird colonies that occur along the cliffs of Oregon by USFWS, and RPI/ NOAA adapted that technique for cliff nesting and roosting species as appropriate. BIRDL were also used to to depict black oystercatcher nesting areas along OR cliffs and brown pelican roosting areas. Tabular data for each OR seabird colony was based on the "R" attribute, or the 'Most Recent Accurate' count per species per colony, based on expert opinion by USFWS. For that reason there are species counts within colonies of '0 BREEDING BIRDS', implying that it is likely that the species is not currently breeding at that location, but has in the past, and therefore may in the future and/or is still surveyed for presence/absence at that colony location. Less than 10 individual OR seabird colony records dated from 1976-1977; the remainder of the "Most Recent Accurate" counts ranged from 1988-2013. Black oystercatcher shoreline nesting areas in Oregon are represented as lines corresponding to survey segments. Sites are indicated as either having confirmed nesting pairs based on survey data or suspected nesting based on available habitat. The above digital and/ or hardcopy sources were compiled by the project biologist to create the BIRDSL data layer.
- 2015-10-01 00:00:00 - Process step for developing the BIRDSPT (BIRD Points) feature class. Four main sources of data were used to depict BIRDSPT (BIRD Points) distribution and seasonality for this data layer: 1) personal interviews with resource experts from Washington Department of Fish and Wildlife (WDFW), Oregon State University (OSU), U.S. Fish and Wildlife Service (USFWS), and Bird Research Northwest; 2) digital and/or survey data from USFWS, WDFW, Bird Research Northwest; and 3) published reports and books, and 4) online sources (seasonality only). BIRDSPT were used to depict seabird colonies for the Outer Coast of Washington, based on data that was provided by USFWS. While there are some WA colony locations with tabular data current up to 2010, many records have ' DATA PRIOR TO 2000' in the concentration field (as per discussions with various data providers), as some of the 'Most Recent Accurate' counts for these colonies dated back to the 1980s and 1970s. Brown pelican roosting information from USFWS surveys is also depicted as points where the survey sites matched the colonial nesting sites. BIRDSPT were used to depict seabird colonies for the Outer Coast of Oregon, based on the data that was provided by USFWS, in a few locations only. The 'Most Recent Accurate' counts, based on USFWS expert opinion, were displayed in the concentration field by species by colony (more information in the BIRDL layer). The majority of seabird colony data for Oregon was diplayed as polygons and lines for this atlas. Nesting/roosting colony data from other data sources (e.g., WDFW, OSU, and Bird Research Northwest) were depicted as BIRDSPT for the following species/species groups: cormorants, terns, common murre, gulls, great blue heron, raptors, and purple martin. The above digital and/or hardcopy sources were compiled by the project biologist to create the BIRDSPT data layer.
- 2015-10-01 00:00:00 - The above digital and/or hardcopy sources were compiled by the project biologist to create the BIRDS, BIRDSL, and BIRDSPT data layers.

Depending on the type of source data, three general approaches are used for compiling each 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 BIRDS, BIRDSL, and BIRDSPT 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/55724

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.