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 INVERTEBRATE Polygons

   1.2. Summary description of the data:
   This data set contains sensitive biological resource data for marine, estuarine, and terrestrial invertebrate species for the Outer Coast of Washington and Oregon. Vector polygons in this data set represent invertebrate distribution and concentration areas. 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 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:

Three main sources of data were used to depict invertebrate distribution and seasonality for this data layer: 1) personal interviews with resource experts from Olympic Coast National Marine Sanctuary (OCNMS), Olympic National Park (NPS), Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), and the University of Washington (UW); 2) digital and/or survey data provided by OCNMS, NPS, ODFW, WDFW, and Washington Department of Natural Resources (WDNR); and 3) published and unpublished reports.

Process Steps:

- 2015-10-01 00:00:00 - Shellfish species were primarily mapped from WDFW, ODFW, and tribal shellfishery managers' expert knowledge, and supplemented with catch data to confirm and add distribution areas. Offshore and nearshore species (Dungeness crab, red and Pacific rock crabs, grooved tanner crab, pink shrimp, spot shrimp, coonstripe shrimp, red and flat abalone, and sea urchins) were mapped to bathymetry, high catch or fishing effort areas, and/or habitat (e.g., hard substrate, submarine canyons, kelp areas), per experts' instructions. (Benthic habitat data provided by Chris Romsos, Active Tectonics and Seafloor Mapping Lab, Oregon State University.) Razor clams were mapped from fishery managers' expert knowledge as well. Bay and estuarine shellfish species were mapped from fishery documents and supplemented with expert knowledge. Clam, crab, and shrimp species present in each bay and estuary were mapped to the entire bay or estuary, except where more specific spatial information was available. Geoduck are present only in small, isolated areas in the Strait of Juan de Fuca, and they were mapped from the WDFW Priority Habitats and Species (PHS) spatial database. Deep sea coral and sponge communities were mapped using benthic survey data from OCNMS. OCNMS has surveyed Sanctuary waters for these unique communities, but they have not yet surveyed all Sanctuary areas or the broader region. Thus, confirmed deep sea coral and sponge sites have been included in the ESI, but these data indicate presence only, not absence. They are included in both the "Benthic" and "Invertebrate" ESI layers. Areas not mapped as deep sea coral and sponge communities may contain undiscovered deep sea coral and sponge sites. Oregon silverspot butterfly (FT/WA SE) was mapped using WDFW's PHS database. Polygons were mapped as-is. The name of a federally threatened insect was obscured at the request of ORBIC, the data provider. This species was mapped as "Threatened insect" . Other invertebrates of conservation priority and/or cultural significance - Pinto abalone is listed as a federal Species of Concern and a Washington State Species of Greatest Conservation Need and Candidate Species. This species was mapped using WDFW PHS data. The spatial data were generalized to a 3 km offshore buffer of townships whose waters were known to contain pinto abalone, per WDFW's request, to protect the species from illegal harvest. Oregon plant bug is ranked S2 - Imperiled in Oregon, and was mapped using ORBIC data. Siuslaw hairy-necked tiger

beetle is ranked S1/S2 and was mapped using survey information from The Xerces Society for Invertebrate Conservation status reports. The Makah Tribe, the Hoh Tribe, and the Quinault Indian Nation provided information about invertebrate species that are culturally significant (e.g., olive shells [Makah]) and/or are used for subsistence fishing (e.g., East Pacific red octopus, clams, mussels).

- 2015-10-01 00:00:00 - Rocky intertidal communities in both Washington and Oregon were mapped using a combination of spatial resources and expert knowledge. Rocky intertidal habitat was identified from a variety of spatial sources, and then expert knowledge was used to populate species lists for these areas. For Washington, rocky intertidal areas were identified using proposed intertidal marine reserves vector data from NPS and the Washington ShoreZone database where the shoreline contained a positive value (continuous or patchy) for bioband MUS (the mussel Mytilus californianus). Rocky islands and emergent rocks were added from the Washington ShoreZone product and the ESI shoreline product, from which all islands classified as 1A or 2A were included. For Oregon, rocky intertidal areas were identified using rocky shorelines vector data from ODFW. Additional rocky islands and emergent rocks were added using the Oregon ShoreZone product and the ESI shoreline product (all 1A or 2A islands). The spatial information for rocky intertidal communities was extensively reviewed by ODFW, OCNMS, NPS, the Makah Tribe, the Hoh Tribe, and the Quinault Indian Nation to ensure all appropriate areas were included. For both states, rocky intertidal habitat was identified from the aforementioned spatial sources, and expert knowledge from ODFW, OCNMS, NPS, the Makah Tribe, the Hoh Tribe, and the Quinault Indian Nation was used to develop a general list of taxa that inhabit this zone. This " species" (i.e., taxa) list for rocky intertidal communities is not meant to be an exhaustive list of all species present, but instead is intended to generally characterize the community composition of these high biodiversity areas. The same list of taxa was used to characterize the rocky intertidal community throughout the study area, with additional species included in tribal areas where expansion of the list was suggested.

- 2015-10-01 00:00:00 - The above digital and/or hardcopy sources were compiled by the project biologist to create the INVERT data layer. 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 INVERT data layer 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/55729

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.