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:
Coho Salmon (Central California Coast ESU)

1.2. Summary description of the data:
Critical habitat includes the water, substrate, and adjacent riparian zone of estuarine and riverine reaches (including off-channel habitats). The riparian area is defined as the area adjacent to a stream that provides the following functions: shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter.See the final rule (64 FR 24049) for descriptions of areas excluded from this critical habitat designation. Excluded Indian lands were not clipped out of the data.

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

1.4. Actual or planned temporal coverage of the data:

1.5. Actual or planned geographic coverage of the data:
W: -124.357815, E: -121.971378, N: 40.265013, S: 36.953822

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:
Shanna Dunn

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
shanna.dunn@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:
Shanna Dunn

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):
Process Steps:
- 2019-10-10 00:00:00 - Data creation process 2019. COCCC_CH.shp Central California Coast (CCC) coho data were developed as part of an effort to interpret

and depict several salmonid critical habitat designations completed in the 1990s that relied on text-based descriptions but lacked GIS data. Critical habitat areas were identified based on the following: - The regulatory definition of ESA critical habitat for this ESU found at 50 CFR 226.210 (a) and the supporting final rule (64 FR 24061, May 5, 1999); - U.S. Geological Survey (USGS) high resolution National Hydrography Dataset (NHD) - downloaded February 2018; - Intrinsic Potential (IP) GIS data from a juvenile coho rearing model developed by the Southwest Fisheries Science Center (SWFSC); - National Elevation Data and Digital Topographic Maps; - California Fish Passage Assessment Database [ds69, published 2019-03-05] and Coho Distribution [ds326, published 2016-06-22] from the California Department of Fish and Wildlife (CDFW); - The professional judgment of biologists from the NMFS California Coastal Office, Protected Resources Division, and SWFSC; and - Maps and documentation in these references: Spence, B.C., Harris, S.L., Jones, W.E., Goslin, M. N., Agrawal, A., and E. Mora. 2005. Historical occurrence of coho salmon in streams of the Central California Coast coho salmon Evolutionarily Significant Unit. Technical Memorandum NOAA-TM-NMFS-SWFSC-383. Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, U.S. Dept of Commerce. Agrawal, A., Schick, R.S., Bjorkstedt, E.P., Szerlong, R.G., Goslin, M.N., Spence, B.C., Williams, T. H., and K.M. Burnett. 2005. Predicting the potential for historical coho, Chinook and steelhead habitat in Northern California. Technical Memorandum NOAA-TM-NMFS-SWFSC-379. Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, U.S. Dept of Commerce. NMFS. 2012. Final Recovery Plan for Central California Coast coho salmon Evolutionarily Significant Unit. National Marine Fisheries Service, Southwest Region, Santa Rosa, California. Spatial analysis steps to produce data. 1) Clipped the NHD to the text description from the critical habitat designation 2) Partitioned the NHD into 100 meter segments 3) Calculated the gradient of each 100 meter segment using a 10 meter USGS digital elevation model (DEM) 4) Used the NHD's flow direction and a geometric network to analyze gradient, removed segments upstream of 7% gradients (reference: Agrawal et. al. 2005 - Figure 1 gradient suitability curve for coho) 5) Retained segments downstream of 7% gradients that were too small (<= 20 meters) to rely on the gradient value (i.e., 1 to 2 pixels in the DEM) or were artificial paths (NHD FCode 55800) to maintain network connectivity 6) Retained segments that overlapped with CDFW coho distribution data (field observations) and SWFSC intrinsic potential coho data (model) with the 21.5 deg C temperature mask applied (Agrawal et. al. 2005) 7) Removed segments upstream from total natural barriers, total anthropogenic barriers, and partial barriers that were specifically identified as blocking upstream adult coho migration 8) Removed segments identified by NMFS biologists as not being accessible to or suitable habitat for coho. The following tribal lands were excluded from the Central California Coast coho critical habitat designation, but were not clipped out of the spatial data: Cloverdale Rancheria, Coyote Valley Rancheria, Dry Creek Rancheria, Guidiville Rancheria, Hopland Rancheria, Lytton Rancheria, Manchester/Point Arena Rancheria, Pinoleville Rancheria, and Stewarts Point Rancheria. **IMPORTANT NOTE** Critical habitat was designated to include "

all river reaches accessible in 1999" to CCC coho salmon from Punta Gorda in northern California south to the San Lorenzo River in central California, including Arroyo Corte Madera Del Presidio and Corte Madera Creek, tributaries to San Francisco Bay. These spatial data are NMFS' best estimate of "all
- 2021-05-24 00:00:00 - The source data in COCCC_CH.shp (GCS_North_American_1983) were post processed to COCCC_ch_FINAL_20210524 (GCS_North_American_1983). The 100 meter segments (39,816 feature count) leftover from the gradient analysis were cumbersome and deemed unnecessary for publication. COCCC_CH.shp fields: FID, Shape, Permanent_, FDate, Resolution, GNIS_ID, GNIS_Name, LengthKM, ReachCode, FlowDir, WBArea_Per, FType, FCode, MainPath, InNetwork, Visibility, Enabled, POINT_X, POINT_Y, POINT_X_1, POINT_Y_1, RASTERVALU, RASTERVA_1, Diff, Percent, meters, Shape_Leng, DPS Geometry editing steps included: 1) ccc_coho_post_processing_remove100msegs.gdb -> converted "COCCC_CH.shp" to a feature class "COCCC_CH" in the gdb 2) Selected, by location, all features in the original 2018 NHD that shared a line segment with " COCCC_CH" 3) Exported selected NHD features to "COCCC_CH_NHDselectexport" 4) Used "COCCC_CH" to clip NHD features in "COCCC_CH_NHDselectexport" and created "COCCC_CH_NHDselectexport_clip" 5) Reviewed output against source and found a single feature that did not migrate, added the feature in with merge tool to create final layer "COCCC_ch_FINAL_20210524" (feature count 7,301).
- 2021-05-25 00:00:00 - Version COCCC_ch_FINAL_20210524 (GCS_North_American_1983) was converted into the standardized feature class SalmonCoho_CentralCaliforniaCoastESU_19990505 (GCS_WGS_84 wkid 4326) using the National Critical Habitat Geodatabase processing protocol. During standardization, geometry was not edited. Attributes were edited. Metadata was edited and populated using the final rule/CFR and the source COCCC_CH.shp (GCS_North_American_1983). Migrated fields: "GNIS_Name" into "UNIT", "FCode" into "NOTES" (populated descriptions with FCode values) Dropped fields: OBJECTID, Permanent_Identifier, FDate, Resolution, GNIS_ID, LengthKM, ReachCode, FlowDir, WBArea_Permanent_Identifier, FType, MainPath, InNetwork, VisibilityFilter, Shape_Length

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:
- 1.3. Is this a one-time data collection, or an ongoing series of measurements?
- 1.4. Actual or planned temporal coverage of the data
- 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
- 7.2. Name of organization of facility providing data access
- 7.2.1. If data hosting service is needed, please indicate
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.2. Data storage facility prior to being sent to an archive facility
- 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/65303

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:

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

7.3. Data access methods or services offered:

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):
Portland, OR

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.