

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:

Acropora retusa coral species proposed critical habitat for use in ESA/FIFRA consultations

1.2. Summary description of the data:

These data represent critical habitat proposed for designation (November 30, 2023) under the Endangered Species Act for the coral *Acropora retusa* at 3 island units in American Samoa (Tutuila, Ofu & Olosega, and Rose Atoll). Please refer to the Code of Federal Regulations and the supporting information report for more details and consider the regulatory language when using these spatial data. <https://www.fisheries.noaa.gov/action/proposed-rule-designate-critical-habitat-indo-pacific-corals> Specific areas of critical habitat for the Indo-Pacific coral species *Acropora retusa* proposed for designation include marine area around 3 island units in American Samoa (Tutuila, Ofu & Olosega, and Rose Atoll) with suitable hard-bottom habitat within the depth range 0-20 m, as described below. Specific areas of critical habitat were delineated in four steps: (1) General information was used to delineate soft vs. hard substrates, leaving only hard substrate areas; (2) for the hard substrate areas identified in Step 1, specific substrate information was used to delineate unsuitable vs. suitable hard substrates, leaving only the latter; (3) for the suitable hard substrate areas identified in Step 2, we used water quality information to further delineate suitable vs. unsuitable areas; and (4) from the suitable areas identified in Steps 1-3, we removed any overlapping artificial substrates and managed areas. The four steps were implemented for each of the 18 units as follows: For Step 1, we used comprehensive hard-soft substrate maps developed by PIFSC (PIFSC 2021) to delineate soft vs. hard substrates, leaving only hard substrate areas within the combined depth ranges of all listed species in each unit for 16 of the 18 units. For Wake Atoll, we used the substrate map from PIBHMC (2021). For French Frigate Shoals, we used the geomorphological structure component of the maps developed by NCCOS (2003). For Step 2, we started with the hard substrate areas identified in Step 1, then distinguished unsuitable vs. suitable hard substrates. Many hard substrates are unsuitable because: (1) highly-fluctuating physical conditions cause extreme changes in water quality (e.g., shallow pavement and rubble, especially on reef flats); (2) water motion continuously mobilizes sediment (e.g.,

pavement with sand channels) or unstable substrate (e.g., rubble); or (3) flat, low-relief areas provide poor settlement and growth habitat (e.g., pavement). Removal of these areas left suitable hard substrates, including spur-and-groove, individual patch reef, aggregate reef, aggregated patch reef, scattered coral/rock, and rock/boulder. For this step, primary information sources were Brainard et al. (2008, 2012, 2019), NCCOS (2003, 2005, 2010), PIBHMC (2021), PIFSC (2021), the detailed public comment letters from the Territories (AS DMWR 2021, CNMI DLNR 2021, Guam DOAG 2021), and the American Samoa, Guam, CNMI, PRIA, and NWHI chapters in Waddell and Clarke (2008). Additional sources for individual units are cited in the unit sections below. For Step 3, starting with the suitable hard substrate areas identified in Step 2, we used water quality information to further delineate suitable vs. unsuitable areas. Some of the areas identified in Step 2 are chronically subject to pollution such as excessive nutrients, excessive sediment, contaminants, or other water quality problems, making them unsuitable. Generally, such areas occur in enclosed lagoons and inner harbors where there is high runoff and limited water circulation. Outside of such areas, point and non-point sources of pollution generally do not overlap with suitable hard substrates because wastewater outfalls are located on soft substrates beyond the reef slopes, and stormwater and freshwater discharge occurs primarily on soft substrates (sand or mud) or unsuitable hard substrates (pavement or rubble) along or near shorelines. For this step, primary information sources were Brainard et al. (2008, 2012, 2019), EPA (2021a-f), the detailed public comment letters from the Territories (AS DMWR 2021, CNMI DLNR 2021, Guam DOAG 2021), Territory water quality assessments (AS EPA 2020, CNMI BECQ 2018), and sources for individual units cited in the unit sections below. For Step 4, from the suitable areas identified via the above three steps, we removed any artificial substrates and managed areas, because they do not provide the essential feature, as explained in section 3.2.3 above. This only applies to existing artificial substrates and managed areas, not proposed or planned artificial substrates and managed areas. For more details and complete citations see the Critical Habitat Information Report: <https://www.fisheries.noaa.gov/s3/2023-11/03-coral-critical-habitat-report-20231114-final.pdf> Links to the full text of the proposed rule in the Federal Register and other supporting materials can be found here: <https://www.fisheries.noaa.gov/action/proposed-rule-designate-critical-habitat-indo-pacific-corals>

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: -170.89841, E: -168.086948, N: -14.105083, S: -14.610193

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:

Karrin Goodman

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

karrin.goodman@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:

Karrin Goodman

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:

- 2023-12-15 00:00:00 - As described above, this species' HUC-based critical habitat dataset was modified from the polygon-based species "agency-official" NMFS critical habitat data. This HUC-based critical habitat file represents the HUC-12 watersheds (USGS Watershed Boundary Dataset; <https://www.usgs.gov/national-hydrography/watershed-boundary-dataset>) that intersect with the "agency-official" critical habitat polygon-based data. The data were reviewed and revised to add any additional HUC-12 watersheds that were determined to have hydrologic connectivity to the critical habitat.

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/72761>

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):

Honolulu, HI

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.