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:

Coral reef ecosystem marine protected area monitoring in Fagamalo, American Samoa: comprehensive assessment of coral demography (adult and juvenile corals) from belt transect surveys in 2015

1.2. Summary description of the data:

In 2010 the village of Fagamalo, Tutuila, American Samoa, designated a no-take Marine Protected Area that sees the protection of 2.25 square kilometers of ocean. Because little is known regarding the status of living marine communities in the area, and at the request of the American Samoa Department of Marine and Wildlife Resources, NOAA scientists conducted surveys to assess the status of the benthic communities and establish a baseline against which to compare temporal change.

The data described here were collected via belt transect surveys of coral demography (adult and juvenile corals) by the NOAA Coral Reef Ecosystem Program (CREP) according to protocols established by the NOAA National Coral Reef Monitoring Program (NCRMP). In 2015 data were collected at 18 stratified randomly selected sites. These data include:

1) an assessment of coral colony density and size-class distribution for the selected monitoring sites;

2) an assessment of coral recruitment at the monitoring sites; and

3) an evaluation of coral colony condition, including mortality, disease, and bleaching.

These data can be accessed online via the NOAA National Centers for Environmental Information (NCEI) Ocean Archive. Additionally, photoquadrat benthic images were also collected (documented and archived separately).

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:

2015-10-26 to 2015-11-13

1.5. Actual or planned geographic coverage of the data:

W: -170.81195363, E: -170.79879018, N: -14.28060332, S: -14.29253127
Extent of underwater surveys at Fagamalo, Tutuila, American Samoa in 2015.

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Table (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:
Annette M DesRochers

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
annette.desrochers@noaa.gov

2.5. Phone number:
(808)725-5461

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:
Bernardo Vargas-Angel

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?

Yes

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

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:

The data described here were collected via belt transect surveys of coral demography (adult and juvenile corals) by the NOAA Coral Reef Ecosystem Program (CREP) following the same protocol to that established by the NOAA National Coral Reef Monitoring Program (NCRMP).

Process Steps:

- The survey domain encompassed ~95% of the mapped area of reef and hard bottom habitat, and was divided into strata based upon depth. Depth categories of shallow (0–6 m), mid-depth (> 6–18m) and deep (>18–30 m) were incorporated into the stratification scheme, and allocation of sampling effort was proportional to strata area. Sites were randomly selected within each stratum. Survey protocols followed methodologies historically implemented by CREP and the National Coral Reef Monitoring Program (NCRMP) At each site, two haphazardly laid, 18-m transects were the focal point of the surveys. Adult coral colonies were surveyed within four (1.0 × 2.5 m) segments: 0–2.5 m (segment 1); 5.0–7.5m (segment 3); 10–12.5 m (segment 5); and 15 – 17.5 m (segment 7), whereby all adult colonies (> 5 cm diameter) whose center fell within 0.5 meters on either side of each transect line were identified to the lowest taxonomic level possible (species or genus), measured for size (maximum diameter to nearest centimeter), and morphology was noted. In addition, partial mortality and condition of each colony were assessed. Partial mortality was estimated as percent of the colony in terms of old dead and recent dead and the cause of recent mortality was identified if possible. The condition of each colony including disease (not attributed to recent tissue loss) and bleaching was noted along with the extent (percent of colony affected) and level of severity (range from moderate to acute). Juvenile coral colonies (< 5 cm diameter) were surveyed within three (1.0 x 1.0 meter) segments along the same transects: 0-1.0 meter (segment 1); 5.0-6.0 meters (segment 3); and 10.0-11.0 meters (segment 5). Juvenile colonies were distinguished in the field by a distinct tissue and skeletal boundary (not a fragment of a larger colony). Each juvenile colony was identified to the lowest taxonomic level (genus or species) and measured for size by recording both the maximum and perpendicular diameter to the nearest 2 millimeter. Still photographs were collected to record the benthic community composition at

predetermined points along the same 2 transect lines with a high-resolution digital camera mounted on a pole. Photographs were taken every 1 m from the 1 m to the 15 m mark. This work generates 30 photographs per site, which are later analyzed by CREP staff and partners using the computer program CoralNet. This analysis is the basis for estimating benthic cover and composition at each site. (Citation: Summary Report of Baseline Surveys for Benthic and Fish Communities in the Fagamalo No-Take Marine Protected Area, American Samoa)

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):
The quality control occurred at two major stages - 1) data entry and 2) data management. Data entry quality control included both review and manual error correction steps. Data management quality control included several standard error queries followed by correction prior to ingestion into Oracle database.

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)

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/30775

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?

Yes

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:

National Centers for Environmental Information - Silver Spring, Maryland (NCEI-MD)

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

7.2.2. URL of data access service, if known:

http://accession.nodc.noaa.gov/0146680
http://accession.nodc.noaa.gov/0166380
http://accession.nodc.noaa.gov/0166380

7.3. Data access methods or services offered:

Data can be accessed online via the NOAA National Centers for Environmental Information (NCEI) Ocean Archive.

7.4. Approximate delay between data collection and dissemination:

Unknown

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)

NCEI_MD

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):

Pacific Islands Fisheries Science Center - Honolulu, HI

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

Unknown

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

NOAA IRC and NOAA Fisheries ITS resources and assets.

9. Additional Line Office or Staff Office Questions

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