

*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:**

NCRMP and related PIFSC surveys: Statistical Summary of Key Environmental Variables at Coral Reef Survey Sites across the Pacific Ocean from 2000 to 2020

### **1.2. Summary description of the data:**

The Environmental Data Summary (EDS) tool was developed by scientists of the Ecosystem Sciences Division (ESD) at the NOAA Pacific Islands Fisheries Science Center (PIFSC). The survey data utilized in tool development was funded by the National Coral Reef Monitoring Program (NCRMP) as well as other related projects including the Coral Triangle Initiative (CTI) and USAID. The EDS is an advanced environmental data summary tool that gives users a simple, consistent way to enhance in situ survey data with external environmental data. The EDS is written in R and provides users an interface to NOAA CoastWatch and OceanWatch datasets through the ERDDAP server protocol. The oceanographic parameters involved in this tool include chlorophyll A, photosynthetically active radiation (PAR), turbidity (Kd490), wave height, and sea surface temperature (SST) measurements. The EDS outputs were summarized at NCRMP REA Site level from 2000 to 2020 across 57 islands covered by the survey.

### **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:**

2000 to 2019, 2002 to 2020, 2012 to 2015, 2001 to 2018, 2003 to 2017, 2005 to 2019

### **1.5. Actual or planned geographic coverage of the data:**

W: -178.4, E: -161.9, N: 28.5, S: 23.1

NWHI region including following islands: "Nihoa", "Necker", "French Frigate", "Maro", "Laysan", "Lisianski", "Pearl & Hermes", "Kure", "Midway", "Gardner"

W: -171.1, E: -168.1, N: -11, S: -14.9

SAMOA region including following islands: "Tutuila", "Tau", "Ofu & Olosega", "Swains", "Rose", "South Bank"

W: 120.9, E: 150.4, N: 13.7, S: -9.3

CT region including following islands: "Philippines", "Timor Leste", "New Britain"

W: -176.6, E: -166.7, N: 19.3, S: -0.4

PRIAs region including following islands: "Howland", "Baker", "Jarvis", "Palmyra", "Kingman", "Johnston", "Wake"

W: 142.4, E: 145.9, N: 20.6, S: 12.8

MARIAN region including following islands: "Saipan", "Tinian", "Sarigan", "Zealandia", "Pagan", "Agrihan", "Stingray", "Farallon de Pajaros", "Supply", "Maug", "Asuncion", "Anatahan", "Guguan", "Alamagan", "Pathfinder", "Arakane", "Aguijan", "Rota", "Guam", "Santa Rosa"

W: -160.5, E: -154.8, N: 22.2, S: 18.9

MHI region including following islands: "Oahu", "Maui", "Hawaii", "Kauai", "Niihau", "Lehua", "Molokai", "Lanai", "Molokini", "Kaula", "Kahoolawe"

#### **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:**

Lori H Luers

### **2.2. Title:**

Metadata Contact

### **2.3. Affiliation or facility:**

### **2.4. E-mail address:**

lori.luers@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:**

Kisei Tanaka

**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:

Environmental Data Summary (EDS) is an advanced environmental data summary tool that gives users a simple, consistent way to enhance in situ survey data with external environmental data. The EDS is written in R and provides users an interface to NOAA CoastWatch • OceanWatch datasets through the ERDDAP server protocol. The program allows users to download/filter/extract large amounts of gridded and tabular data given user-defined time stamps and geographical coordinates.

Process Steps:

- 2022-03-09 00:00:00 - All reproducible codes, data and SOPs can be found here. Any inquires and questions can be sent to [kisei.tanaka@noaa.gov](mailto:kisei.tanaka@noaa.gov) [https://github.com/krtanaka/eds\\_workshop](https://github.com/krtanaka/eds_workshop) [https://github.com/krtanaka/ncei\\_eds](https://github.com/krtanaka/ncei_eds) (Citation: Tanaka KR, Oliver TA (2021) NCRMP: Pacific Reef Assessment and Monitoring Program: Statistical Summary of Key Environmental Variables at Coral Reef Survey Sites across the Pacific Ocean from 2000 to 2020. [gov.noaa.nmfs.inport:65209](https://www.gov.noaa.nmfs.inport:65209))

**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):**

Kisei Tanaka is routinely conducting a standard QC measures twice every fiscal year.

## 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/65209>

### 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](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:**

<https://accession.nodc.noaa.gov/0256762>

**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.*