

**Guam Community Coral Reef Monitoring Program (CCRMP)**  
**Data Management Plan for Macro-Invertebrate Observations**

**1. General Description of Data to be Managed**

- Name of Data Collection
  - **Guam Community Coral Reef Monitoring Program (CCRMP)**
  - **Macro-Invertebrate Observations**
- Keywords that characterize the data
  - **Macro-invertebrate**
  - **Echinoderms**
  - **Mollusks**
  - **Crustaceans**
  - **Sea Cucumber**
  - **Sea Star**
  - **Sea Urchin**
  - **Octopus**
  - **Snail**
  - **Giant Clam**
  - **Belt Transect**
- Summary description of the data to be generated (abstract)
  - **Guam community members will gather macro-invertebrate data within a 2-meter wide belt along a 25-meter transect. Members will identify invertebrates to the lowest taxonomic level possible. Members will quantify the number of macro-invertebrates within the belt by species. Data will be supported by photos from the sites. Members will survey a total of 50 square meters.**
- Anticipated temporal coverage of the data
  - **2012 – present**
  - **NOTE: Data has been collected year-round weather-permitting**
- Anticipated geographic coverage of the data
  - **Guam**
- What data types will you be creating or capturing?
  - **Alpha-numeric data**
- How will you capture or create the data?
  - **Volunteer diver visual observations**

**2. Points of Contact**

- Who is the overall point of contact for the data collection?
  - **Valerie Brown, valerie.brown@noaa.gov**
- Who is responsible for verifying the quality of the data?
  - **Valerie Brown, valerie.brown@noaa.gov**
- Who is responsible for answering questions about the data collection?
  - **Marybelle Quinata, marybelle.quinata@noaa.gov**
- Who is responsible for data documentation and metadata activities?
  - **Marybelle Quinata, marybelle.quinata@noaa.gov**
- Who is responsible for the data storage and data disaster recovery activities?
  - **Marybelle Quinata, marybelle.quinata@noaa.gov**

**3. Data Stewardship**

- What quality control procedures will be employed, or are employed?
  - **All program members are required to attend training programs**
  - **Data sheets are logged and stored at the PIRO Guam Field Office**

- **Data is entered into spreadsheet and checked for accuracy**
- **Once the relational database and web-based data entry forms are established, members will enter data directly to the database and submit datasheets for storage. Data will then be checked for accuracy before it is approved for release.**
- What is the overall lifecycle of the data from collection or acquisition to making it available to customer?
  - **Volunteer diver observations for a station are written on paper**
  - **Observations are then transcribed to an Excel spreadsheet**
  - **Backups of the data are taken at regular intervals**
  - **The data is not currently archived**

#### 4. Data Documentation

- Which metadata repository will be used to document this data collection?
  - **At the moment, metadata records have not been created for the data collection. Part of the FY15 CRCP Further Expansion of the Guam Data Management Initiative proposal is to create an ISO-formatted metadata record for this data collection that will be submitted to the NOAA Coral Reef Information System (CoRIS).**
- In addition to discovery-level metadata, what additional metadata or other documentation is necessary to fully describe the data and ensure its long-term usefulness? How will that metadata be collected and updated? Is there a requirement to document this data collection in other metadata repositories?
  - **There is no additional metadata**
  - **Updates to any existing metadata record will be supplied to CoRIS and serve to replace the existing metadata record**
- What standards will be used to represent data and metadata elements in this data collection?
  - **The metadata record will be formatted to comply with ISO-19115 in accordance with the NOAA-standard**

#### 5. Data Sharing

- Will the data be made available to the public? If so, what is the expected date of first availability? Is this a one-time data collection, or an ongoing series of measurements? Will there be a Principal Investigator hold or other delay between data collection and publication, and if so for how long?
  - **At the moment, the data is not available to the public**
  - **In the future, the data should be made available once the data has been entered and the QC process has been completed**
- Will users be subject to any access conditions or restrictions, such as submission of non-disclosure statements, special authorization, or acceptance of a licensing agreement?
  - **Users will be subject to a data sharing agreement**
- What data access protocols will be used to enable data sharing? The use of open standard, interoperable, non-proprietary web services is recommended (for example, OPeNDAP, or Open Geospatial Consortium (OGC) web services).

- **Data will be downloaded as a comma-delimited file (csv) with corresponding XML metadata records**

## **6. Initial Data Storage and Protection**

- Where and how will the data be stored initially?
  - **Physical data sheets**
  - **Scanned data sheets**
  - **MS Excel spreadsheets**
- How will the data be protected from accidental or malicious modification or deletion? Discuss data back-up, disaster recovery/contingency planning, and off-site storage relevant to the data collection.
  - **The data will be backed up at regularly defined intervals**
- If there will be limitations to data access, how will these data be protected from unauthorized access? How will access permissions be managed? What process is to be followed in the event of unauthorized access?
  - **No restrictions to data access once data sharing agreement is signed**

## **7. Long-Term Archiving and Preservation**

- Will the data be archived and preserved with a NOAA Data Center (NODC, NCDC, NGDC)?
  - **At the moment, there are no plans to archive the data at a NOAA Data Center. Data archival is listed as a FY17 milestone in the FY15 CRCP Further Expansion of the Guam Data Management Initiative proposal.**