MEMORANDUM

SEP 1 4 2022

FOR　　：　**The Undersecretary**
Finance, Climate Change and Information Systems
Legal, Administration, Human Resources and Legislative Affairs
Policy, Planning and International Affairs
Field Operations – Luzon, Visayas and Environment
Field Operations – Mindanao

The Assistant Secretary
Finance, Information Systems and Mining Concerns

The Director
Biodiversity Management Bureau
Environmental Management Bureau
Ecosystems Research and Development Bureau
Forest Management Bureau
Land Management Bureau
Mines and Geosciences Bureau

The Director
Climate Change Service
Foreign Assisted and Special Projects Service
Policy and Planning Service

The Administrator
National Mapping Resource and Information Authority

The Executive Director
River Basin Control Office
Manila Bay Coordinating Office
National Water Resources Board
Palawan Council for Sustainable Development Staff

The General Manager
Laguna Lake Development Authority

The Regional Executive Director
DENR Region III, CALABARZON, VII and X

FROM　　：　**The Director**
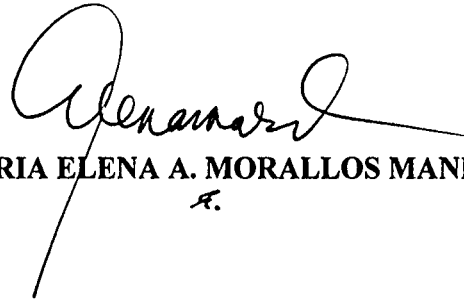Knowledge and Information Systems Service

SUBJECT　：　**AGREEMENTS ON THE WRITESHOP ON THE GUIDELINES
AND PROTOCOLS FOR ENR SPATIAL DATASETS ON
AUGUST 31-SEPTEMBER 2, 2022**

MEMO NO. 2022 - 627

In line with the thrust to develop guidelines and protocols for the implementation of DENR Control Map, the Knowledge and Information Systems Service, conducted the Writeshop on the Guidelines and Protocols for ENR Spatial Datasets on August 31-September 2, 2022. The activity primarily aims to convene technical personnel from the bureaus, attached agencies and central office to formulate and finalize guidelines/protocols on the following topics for managing and sharing of GIS data and maps in the DENR Control Map Portal:

1. Attributes and Symbology of ENR spatial datasets;
2. Metadata;
3. Data quality assurance and control procedures; and
4. Data Sharing

In this regard, we are furnishing you a copy of the agreements reached during the writeshop. Enclosed is a copy of the agreements for ready reference. For further clarification/inquiries, you may contact DENR Control Map Secretariat at denrcontrolmap@denr.gov.ph or (63) 8925-8278.

For your information and guidance.

MARIA ELENA A. MORALLOS MANILA
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DENR
CONTROL MAP

Writeshop on ENR Spatial Datasets Discussion and Agreements

Activity Details

A. Learning Event:	Writeshop on the Guidelines and Protocols for ENR Spatial Datasets
B. Learners:	Representatives from: Office of the Undersecretary for Legal, Administration, Human Resources and Legislative Affairs Office of the Undersecretary for Policy, Planning and International Affairs Office of the Undersecretary for Field Operations - Luzon, Visayas and Environment Office of the Undersecretary for Undersecretary for Field Operations-Mindanao Office of the Assistant Secretary for Finance, Information Systems and Mining Concerns Climate Change Service Foreign Assisted and Special Projects Service Network and Infrastructure Management Division Statistics and Data Resource Management Division Planning and Programming Division Project Monitoring and Evaluation Division Policy Study Division River Basin Control Office Manila Bay Coordinating Office Biodiversity Management Bureau Ecosystems Research and Development Bureau Forest Management Bureau Environmental Management Bureau Land Management Bureau Mines and Geosciences Bureau Laguna Lake Development Authority National Mapping Resource and Information Authority National Water Resources Board Palawan Council for Sustainable Development Staff DENR Region III DENR Region IV-A DENR Region VII DENR Region X
C. Venue:	Widus Hotel, Clark Freeport Zone, Pampanga
D. Period:	August 31 to September 2, 2022
E. Program Manager:	Statistics and Data Resource Management Division

Compilation of Attributes of ENR spatial datasets

1. The draft document format will be changed to follow the following format:

    A. **Description**

        1. **Apprehension and/or Seizures** - [Short description of the Apprehension and/or Seizures layer]
        2. **Arboretum** - [Short description of the Arboretum layer]
        3. ...

    B. **Attributes**

APPREHENSIONS AND/OR SEIZURES					
AUTHORITATIVE SOURCE:	Forest Management Bureau				
GEOMETRY TYPE:	Point				
FILE NAME:	THREAT_AS				
FIELD NAME	**TYPE**	**FIELD LENGTH**	**DESCRIPTION**	**DOMAIN**	**VALID VALUES**
REGION	Text	10	Refers to the name of Regional jurisdiction	Coded	1 - Region I
PENRO	Text	50	Refers to the name of PENRO jurisdiction	NA	Aurora
DISTRICT	Text	10	Refers to the name of Congressional District	NA	I
CENRO	Text	50	Refers to the name of CENRO jurisdiction	NA	Dingalan
MUNI_CITY	Text	100	Refers to the name of municipality/city jurisdiction	NA	Dingalan
BARANGAY	Text	100	Refers to the name of barangay jurisdiction	NA	Kabalin

Additional information not included in the previous format are:

a. Domain - used to describe the values accepted in a field, this may be Coded or Range. If this is not applicable for a particular field, indicate "N/A".

    i. Coded - specify a valid set of values that can be used in the field. For example:

Code	Description
1	Region 1
2	Region 2

       ii.   Range - specify the minimum and maximum values accepted in the field, this is applicable for number and date fields.

  b. Valid Values
      i.   If with domain - indicate the list of codes and description (coded) or the range values (range). If the domain is long, cite the reference document.
      ii.   If without domain - indicate a sample entry

2. There will be no change in the list of layers that will be included in the current version of the Compilation of Attributes.

3. The following changes on the attributes were agreed upon:

  a. For layers such as PA, mining tenement, etc., **add the date** when the area was proclaimed/approved
  b. For layers that were proclaimed, **include legal basis** for the proclamation
  c. For layers that need PSGC, include PSGC, if not remove PSGC
  d. For layers, such as KBA, **include the reason why they were identified as such**
  e. Use sentence case for attribute.
  f. The default date that will be used is DD/MM/YYYY
  g. Use the following format for the following fields:
     • REGION – use PSA format, e.g. Region I, Region II
     • PENRO – use PSA name of Province without, typed without the word "PENRO" in the beginning
     • DISTRICT – e.g. I, II, Lone
     • CENRO – name of CENRO typed without the word "PENRO" in the beginning
     • MUNI_CITY – use PSA
     • BARANGAY – use PSA
     • PSGC – 10-digit (without PH at the beginning)
     Reference: <u>Philippine Standard Geographic Code (PSGC) | Philippine Statistics Authority (psa.gov.ph)</u>
  h. For Northing and Eastings, FMB will consider the suggestion to not include this in the attribute table, and will likely remove this.

4. Since the direction is to develop enterprise geodatabase for ENR spatial datasets, the following suggestions should be considered for future database design:
     • Consider the relationship of the table, better to normalize the table to avoid duplication. We can create look-up tables. Create an Office Code.
     • Consider the design of the back-end and maximize the capability of the RDMS.
     • Database design should be application independent.

- We can perform a Data Requirements Analysis Report to understand the relationship of each table for database design.

5. The offices concerned shall adjust the documents until **September 9, 2022.**

Compilation of Symbology for ENR spatial datasets

1. The draft document format will be changed to follow the format below:

Landslide Susceptibility

GEOMETRY TYPE:	Polygon
ASSOCIATED FIELD NAME:	Type
REFERENCE STANDARD:	

Items/Feature/Category	Example	Specifications
Very High		
High Landslide		
Moderate Landslide		
Low Landslide		
Debris flow accumulation (background)		
Debris flow accumulation (design)		

Additional information not included in the previous format are:

- **Reference Standard**
  - If there is an reference standard used for the symbology:
    - Indicate if local or international
    - Indicate the name of the reference standard used
  - If there is no specific reference standard, indicate "User defined"
- **Items/Feature/Category** - list the items, feature or category that will be symbolized
- **Example** - screenshot of the item/feature/category to show how it should look like
- **Specifications** - describe the specifications for the symbology, to include but not limited to:
  - Form/Style: point, line, polygon

o Color: point, line, polygon Hex
o Value: polygon
o Rotation/Angle: point, line
o Size: point, line, polygon
o Texture: polygon

2. No need to make changes on the symbology prepared by each office at this time.

3. For Rivers, use NAMRIA symbology unless there are different data for specific purposes, e.g. inland wetland layer.

4. In case of conflict in symbology, adjust the pattern, texture, etc.

5. The following suggestions should be considered for future iterations of this symbology document:
   - Come up with a color convention for symbology
   - Utilize international standards for colors.
   - During design, consider that the end-users are the managers.

6. The offices concerned shall adjust the documents until **September 23, 2022.**

Metadata for ENR spatial datasets

1. Taking off from the idea that DENR Control Map will be for DENR use while Geoportal Philippines (GP) is for public consumption and that DENR datasets will later on be shared and published to the GP, the DENR Control Map shall:
   a. Utilize the FGDC format for its metadata.
   b. The metadata fields required by NAMRIA will also be the metadata fields required by the DENR Control Map.

2. The metadata fields shown in Annex A of GP include:
   - Name of the geospatial data
   - Abstract/Description
   - Dataset History/Lineage
   - Scale of the Data Source
   - Projection
   - Geospatial Coverage
   - Level of Disaggregation
   - Data Status
   - Data Source
   - Data Format
   - Data Restriction
   - Data Policy
   - Data Custodian

- Agency Information

3. SDRMD shall draft the document following the agreements stated above and share this to the TWG on DENR Control Map on **September 16, 2022**. The TWG shall submit their comments and feedback to the SDRMD on **September 23, 2022**.
4. All offices with items shared in DENR Control Map Portal (bureaus, attached agencies and CO) shall update the metadata (on layers) and reupload/reshare in DENR Control Map Portal by **December 15, 2022**.

Data Quality Assurance and Control

1. The purpose of this document is to define the quality control standards that we aim to implement for the maps produced in DENR.

2. The following quality controls shall be used for the maps produced by DENR:
   a. Spatial Accuracy
   b. Geometry Check
   c. Topology Check – use basic topology from Esri
   d. Spatial attribute
      i. Consistency - how the attribute was typed, e.g. elem, elementary
      ii. Correctness of Attribute table
      iii. Completeness of Attribute table
   e. Completeness
      i. General information
      ii. Symbology
      iii. Metadata

3. SDRMD shall draft the document following the agreements stated above and share this to the TWG on DENR Control Map on **September 23, 2022**. The TWG shall submit their comments and feedback to the SDRMD on **September 30, 2022**.

Data Sharing

1. The purpose of this document is to define the data sharing protocol that we aim to implement for the DENR Control Map.

2. On use of Data Sharing Agreement:
   - No need to use data sharing across offices within DENR.
   - DENR shall follow the data sharing protocols that it intends to engage with.

- As a side agreement, the offices that have not submitted the official DSA to NAMRIA committed to submit these by **September 16, 2022.**

3. For data needs outside the scope of DENR:
   a. DENR personnel are encouraged to check the Geoportal Philippines (GP) if data needed is available and downloadable.
   b. If data is not available or downloadable, DENR CO will facilitate the request to other agencies. Concerned offices should send the list of needed data from other agencies to SDRMD following the format below:

Layer	Data Owner (Name of Agency)	Intended Use	Format

4. NAMRIA drafted an open data policy for their office. They graciously suggested using the draft to serve as a take off point for developing an internal open data policy within DENR. The draft was provided to participants through the Google drive accessible through https://bit.ly/3RWQY59. The TWG DENR Control Map will convene on **October 12, 2022.**

5. Access to the data that is requested by offices/clients outside DENR should be defined in the planned open data policy. Some suggestions raised is to (1) follow the Freedom of Information (FOI) policy of the office or refer to the request to the office concerned.

6. Sharing between GP and DENRCM Portal should also be tackled in the open data policy. Some suggestions raised to NAMRIA is to execute DSA only once.

7. The draft open data policy prepared by NAMRIA includes a detailed listing of available datasets and the level of sharing for each dataset. DENR should also prepare a similar listing, hence, for all offices with items within DENR Control Map, we need the following information:

Office	Content	Who will share	Who can access	Downloading to be supported	Frequency of updates

Note: For bureaus and NAMRIA, fill out the Portal-to-Portal document as agreed during the meeting last August 26, 2022.

Creation of GIS Units in the field offices

1. The current structures followed by the regional offices when addressing DENR Control Map concerns are described below:

Region	Current Setup
CALABARZON	Overall supervision: PMD with ICT support
Region 3	Overall supervision: SDM with ICT support
Region 7	Overall supervision: PMD Mapping activities: Technical Divisions
Region 10	Uploading to DENRCM Portal: PMD Mapping activities: Technical Divisions

2. Based on discussion, it was agreed that:
   - A DAO on the creation of GIS Units shall be drafted. This will include the GIS Units in the field offices and bureaus.
   - For the Regional Office, PENROs and CENROs,
     - The overall supervision of the GIS Unit shall be performed by the Planning and Management Division.
     - The GIS Units shall be created at all levels, Regional Office, PENROs and CENROs.
     - The GIS Units will be composed of:
       - One (1) personnel each from Planning Management Division/Section/Unit, Conservation and Development Division/Section/Unit, EnforcementDivision/Section/ Unit, Licenses, Patents and Deeds Division/ Section/ Unit, and Survey and Mapping Division/ Section/Unit

3. The following suggestions were raised:
   - Make the structure uniform across all regions, PENROs and CENROs
   - Make GIS a required competency to all technical personnel in the regions
   - Support with training for both the ArcGIS and open source GIS

Tasks and Deadlines

In summary, the following deadlines were set:

Task	Submission Date	Responsible Office
Upload open data policy of NAMRIA to google folder	September 2, 2022	NAMRIA
Input on the Compilation of Attributes – rework based on the agreed format and other agreements	September 9, 2022	All bureaus and attached agencies
Send list of layers needed from other agencies to SDRMD	September 9, 2022	All bureaus, attached agencies, CO
Send list of layers and access sharing in DENR Control Map	September 9, 2022	All office without own Portal
Submit DSA to NAMRIA	September 16, 2022	ERDB, RBCO, MBCO, EMB, CALABARZON
Send draft of Metadata document to TWG DENRCM	September 16, 2022	SDRMD
Input on the Compilation of Symbology – rework based on the agreed format and other agreements	September 23, 2022	All bureaus and attached agencies
Send comment/ concurrence on the Metadata document to SDRMD	September 23, 2022	TWG members
Send draft of Data Quality document to TWG DENRCM	September 23, 2022	SDRMD
Send comment/ concurrence on the Data Quality document to SDRMD	September 30, 2022	TWG members
Convene to discuss the open data policy	October 12, 2022	
Update metadata (on layers) and reupload/reshare in DENR Control Map Portal	December 15, 2022	All offices with items shared in DENR Control Map Portal (bureaus, attached agencies and CO)

After the comments and feedback from the TWG members are received and included in the document, a Technical Committee on DENR Control Map Meeting will be called to finalize the documents.