



Republic of the Philippines
Department of Environment and Natural Resources

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MEMORANDUM

TO : The Regional Executive Directors
DENR 1-13, CALABARZON, MIMAROPA, and NCR

FROM : The Undersecretary
Field Operations, Enforcement and Muslim Affairs

SUBJECT : **GUIDELINES FOR THE CONDUCT OF WATER QUALITY
MONITORING WITHIN THE NATIONAL INTEGRATED
PROTECTED AREA SYSTEM MARINE PROTECTED AREA
(NIPAS MPAs) OF THE COASTAL AND MARINE
ECOSYSTEMS MANAGEMENT PROGRAM FOR CY 2020**

DATE : **07 SEP 2020**

Pursuant to Department Administrative Order No. 2016-26 or the Guidelines on the Implementation of the Coastal and Marine Ecosystem Management Program (CMEMP), all Regional and Field Offices (Protected Area Management Offices) are hereby directed to comply to the attached guidelines on the conduct of the Water Quality Monitoring and Assessment (WQMA) in NIPAS Marine Protected Areas (MPAs) and on the development of the Water Quality Monitoring Plan (WQMP) for NIPAS MPAs.

The prescribed guideline on the conduct of the Water Quality Monitoring and Assessment for NIPAS MPAs by the Regional Offices is in coordination with their respective EMB counterparts which shall provide the technical assistance. The development of WQMP for the NIPAS MPAs will be facilitated through the establishment of monitoring stations and pilot-testing of the adopted assessment protocols. Methodology and parameters to be included in the WQMP shall refer to and adopt the provisions of the Department Administrative Order No. 2016-08: "Water Quality Guidelines and General Effluent Standards of 2016".

Likewise attached is the recommended reporting template for the submission of the progress and corresponding accomplishment reports pertaining to the Water Quality Monitoring and Assessment of the Regional and Field Offices.

For information and compliance.


JIM O. SAMPULNA, CESO III

MEMO NO. 2020-423

*Cc: All Chiefs, Conservation and Development Divisions
All Chiefs, Coastal Resources and Foreshore Management Section
All Chiefs, Planning and Management Divisions
All Chiefs, Finance Division*

Attachments:

- (1) Guidance for the Implementation of the CMEMP Component on Water Quality Monitoring in NIPAS MPAs for CY 2020*
- (2) Annex I: Reporting Template*
- (3) Annex II: Memorandum dated July 29, 2020 from BMB on the Guidelines for the Implementation of the Coastal and Marine Ecosystems Management Program Components for 2020.*

**GUIDELINES FOR THE CONDUCT OF WATER QUALITY MONITORING WITHIN
THE NATIONAL INTEGRATED PROTECTED AREA SYSTEMS MARINE
PROTECTED AREA FOR THE COASTAL AND MARINE ECOSYSTEMS
MANAGEMENT PROGRAM FOR CY 2020**

1. The Regional Office will coordinate with their respective Regional EMB counterparts for the development of an initial Water Quality Monitoring Plan (WQMP) to establish monitoring stations among others, subject to finalization in the following years, and the conduct of the water quality monitoring as a pilot-test of the WQMP. The following Manuals produced by EMB shall also be considered in the development of the initial WQMP available at: <https://water.emb.gov.ph/wp-content/uploads/2017/09/Water-Quality>
 - a. Volume I is a guide to **monitor the surface waters in rivers and streams, lakes and similar water bodies, and marine waters (coastal and offshore), and**
 - b. Where applicable, Volume II is a guide to monitor the quality of **effluent from industries and other regulated wastewater dischargers.**
2. Basic water quality parameters to be measured are the following:
 - a. Color (TCU)
 - b. Dissolved oxygen (minimum) (mg/L)
 - c. Fecal Coliform (MPN/100 mL)
 - d. Nitrate as NO₃-N
 - e. pH (range)
 - f. Phosphate (mg/L)
 - g. Temperature (degrees C)
 - h. Total Suspended Solids (mg/L)

Methods in measuring each parameter will be based on Department Administrative Order No. 2016-08: "Water Quality Guidelines and General Effluent Standards of 2016".

As part of the convergence initiative of the DENR-BMB and the DA-Bureau of Fisheries and Aquatic Resources, Regions are also encouraged to coordinate and collaborate with the BFAR Regional counterpart in assessing other biological parameters in their respective monitoring stations (e.g., Harmful Algal Blooms) to be included in the narrative of their report.

3. The Water Body Classification and Usage of Marine Waters based on Table 2 of Section 5.0 (Classification of Water Bodies) of the Department Administrative Order No. 2016-08 shall be used for the marine component of NIPAS PAs:

Classification	Intended Beneficial Use
Class SA	1. Protected Waters - Waters designated as national or local

	<p>marine parks, reserves, sanctuaries and other areas established by law (Presidential Proclamation 1801 and other existing laws) and/or declared as such by appropriate government agency, LGUs, etc.</p> <p>2. Fishery Water Class I - Suitable for shellfish harvesting for direct human consumption</p>
Class SB	<p>1. Fishery water Class II - water suitable for propagation of shellfish and intended as spawning areas for milkfish and similar species</p> <p>2. Tourists Zones - For ecotourism and recreational activities</p> <p>3. Recreational Water Class I - intended for primary contact recreation (Bathing, swimming, skin diving, etc.)</p>
Class SC	<p>1. Fishery water Class III - For the propagation and growth of fish and other aquatic resources intended for commercial and sustenance fishing</p> <p>2. Recreational Water Class II (for boating, fishing or similar activities)</p> <p>3. Marshy and or mangrove areas declared as fish and wildlife sanctuaries</p>
Class SB	<p>1. Navigable Waters</p>

4. Water quality monitoring shall be conducted once per season (wet and dry).
5. For this year, monitoring sites will be established in existing multiple use and strict protection zones. Within the MUZ, number of sampling sites will vary depending on the number of uses in that protected area as indicated in the table of water classification shown on item # 3.
6. In addition, monitoring sites will be established in the river mouth and identified sites within watersheds, draining to the protected area following same guidelines under DAO 2016-08 to determine the impact of the upstream to the marine environment.
7. For PAs which are likewise identified as Water Quality Management Areas (WQMAs), coordination and/or participation in the conduct by concerned EMB regional Office of water quality monitoring shall be endeavored and reported to BMB annually.
8. Results with recommendation on water quality monitoring per protected area for the 2 seasons (wet and dry) will be submitted to BMB annually following the prescribed format in *Annex I*.

Annex I: WATER QUALITY MONITORING REPORT TEMPLATE

CMEMP Component 1: MPA/MPA Network Establishment and Strengthening

Performance Indicator: Number of WQM station established and WQM stations monitored.

WQM station established: Location (etc.) – Enumerate the WQM stations below with its coordinates.

Monitoring Site	Class	Passed Parameters	Failed Parameters	Recommendations
Strict Protection Zone				
Station 1				
Station 2				
Station n				
Multiple Use Zone				
Station 1				
Station 2				
Station n				
River mouth				
Station 1				
Station 2				
Station n				

A brief narrative discussion of a probable cause of the values not falling within optimal levels as well as recommendations/ actions to be undertaken to address these. Biological parameters should also be included in the narrative to be provided on a later date.