

Designation of Water Quality Management Areas in the Philippines

LEZA A. ACORDA-CUEVAS

Supervising Environmental Management Specialist
Environmental Management Bureau
Department of Environment and Natural Resources
DENR Compound, Visayas Avenue
Diliman, Quezon City
Republic of the Philippines

Abstract

The Philippine Clean Water Act (CWA) of 2004 specifies the designation of certain areas as Water Quality Management Areas (WQMA) using appropriate physiographic units such as watershed, river basins or water resources regions. The WQMA shall have similar hydrological, hydrogeological, meteorological or geographical conditions which affect the physico-chemical, biological and bacteriological reactions and diffusion of pollutants in the water bodies or otherwise share a common interest or such as similar development programs, prospects, or problems. Each WQMA will have a Governing Board, a Technical Secretariat and a Water Quality Multi-sectoral Group to carry out planning and implementation activities.

The designation of WQMA is one of the strategies identified to effectively enforce the CWA and improve the water quality of water bodies through focused interventions or actions that are designed to address specific water quality issues of the areas. Therefore, the designation of WQMA shall take into consideration water quality problems, its sources of pollution, and the beneficial use of the receiving water body; and shall determine what combination of control measures can effectively achieve water quality objectives or improvements.

To date, officially designated WQMA are the area within the jurisdiction of the Laguna Lake Development Authority, the Tigum-Aganan Watershed WQMA, and the Marilao-Meycauayan-Obando River System WQMA. Activities for the designation of Iloilo-Batiano River System WQMA in and Sarangani Bay WQMA are on-going.

Keywords: Water Quality Management Area, Governing Board, WQMA Action Plan, non-attainment areas, attainment areas

Introduction

Republic Act (RA) No. 9275 or the Philippine Clean Water Act (CWA) of 2004 is the basic law on water quality management in the Philippines. CWA was published on 21 April 2004 and subsequently took effect on 6 May 2004. The Implementing Rules and Regulations (IRR) of CWA was approved as Department of Environment and Natural Resources (DENR) Administrative Order No. 2005-10.

In Article 1, Section 2 of RA 9275, the policy of the CWA is stated as follows: “*The State shall pursue a policy of economic growth in a manner consistent with the protection, preservation and revival of fresh, brackish and marine waters*” using the framework of sustainable development. Section 3 of the CWA further states that water quality management shall primarily apply to the abatement and control of pollution from land-based sources.

The water quality management areas (WQMAs) are designated as part of the water quality management system as provided in the entire Chapter 2 of the CWA. Water Quality Management Areas are certain areas using appropriate physiographic unit, such as watersheds, river basins or water resource regions. These management areas shall have similar hydrological, hydrogeological, meteorological or geographical conditions which affect the physico-chemical, biological and bacteriological reactions and diffusion of pollutants in the water bodies or otherwise share a common interest or such as similar development programs, prospects, or problems. Each WQMA shall have a Governing Board (GB) which shall primarily serve as the planning, monitoring, and coordinating body of the said WQMA. The GB shall also review the WQMA Action Plan prepared by the DENR through the EMB. A Technical Secretariat and a Multi-sectoral Group for water quality monitoring and surveillance shall also be provided to the WQMA.

The designation of WQMA is one of the strategies identified to effectively enforce the CWA and improve the water quality of water bodies through focused interventions or actions that are designed to address specific water quality issues of the areas. Therefore, the designation of WQMA shall take into consideration water quality problems, its sources of pollution, and the beneficial use of the receiving water body; and shall determine what combination of control measures can effectively achieve water quality objectives or improvements.

Guidelines for the designation of water quality management areas

The policy of the DENR is to develop a holistic national program of water quality management through the designation of WQMA, the identification of non-attainment and attainment areas, and the preparation and implementation of WQMA Action Plans to improve water quality of water bodies. This should be achieved within the integrated water resource management (IWRM) framework and implemented through the proper delegation and effective coordination of functions and activities.

The Guidelines for the Designation of Water Quality Management Areas was developed with the following objectives:

1. To provide the process through which a WQMA is delineated and designated.
2. To provide useful information for use by the EMB, the Local Government Units (LGUs) and other stakeholders that would ensure that the process of designation of WQMAs is done uniformly.
3. To explain the technical requirements and participatory approaches to direct the users in effectively initiating/implementing the designation of WQMAs.

A WQMA will consist of surface waters, whether natural or man-made and include streams (rivers and creeks), lakes, and marine waters. Only the water bodies that have been classified by the DENR through the EMB based on its beneficial use will be included in considering WQMA designations. A WQMA will also cover the land that is within the hydrologic unit identified, including residential, industrial, commercial, agricultural, tourism, forest and protection areas.

A. *Conditions in Designating a Water Quality Management Area*

There are four major conditions that must be present when a WQMA is designated.

These are:

- 1) The WQMA shall utilize an appropriate physiographic unit, such as a watershed, river basin, or water resource region. However, the use of the lowest appropriate level (such as the sub-basin or micro-watershed) is deemed more suitable from the standpoint of ecological, financial, organizational and institutional considerations.
- 2) The WQMA shall have similar hydrological, hydrogeological, meteorological or geographic conditions which affect the physicochemical, biological and bacteriological reactions and diffusions of pollutants in the water bodies.
- 3) The WQMA shall share a defined common interest, such as, but not limited to, similar water quality-related development programs, prospects, or problems.
- 4) The water quality of specific water body/ies within the physiographic unit chosen may be:
 - i) A non-attainment area (NAA) that needs immediate water quality management interventions to improve the water quality. This a body of water in which the level of a criteria water pollutant is higher than the level allowed for its classification under the water quality guidelines.
 - ii) A combination of NAA and Attainment Area (AA). AA is a body of water that has acceptable levels of water pollutants and therefore meets the water quality guidelines. The designation of a WQMA with a NAA and an AA is applicable when there is a need to improve water quality and the management of the existing and potential pollution sources must be addressed through specific interventions.
 - iii) An AA, but water quality management interventions are needed to improve and/or preserve its condition.Even if the WQMA without a NAA is justified given the above conditions, priority should be given to the areas where water quality has already exceeded the water quality guidelines to ensure that limited resources is efficiently used. The screening of a WQMA proposal therefore, may be made according to the intensity of the pollution problems and its impacts on public health and on the regional economy.

B. Process of Designation

There are two ways by which a WQMA may be initiated. The first way is through the DENR RO, as specified in Section 5 of the CWA, and Rule 5.1.1 states:

“Initiating the process of designation. The Regional Office of the Department shall initiate the process of designation by evaluating information using the criteria to be developed by the Department.”

The second way is proposing the designation of a WQMA from other sources or proponents aside from the DENR RO through the EMB RO. Rule 5.1.1 states:

“Initiating the process of designation. . . . However, any concerned government agency, including local government units, Protected Area Management Boards, watershed councils, Fisheries and Aquatic Resources Management Councils, government corporations with relevant concerns, or civil society, may propose the designation of WQMA in their area to the DENR and submit the relevant information. The concerned agency or organization shall follow the general procedure for designation outlined herein and coordinate with the Department throughout the process of consultations and data gathering.”

In any case, whether or not the process to designate a WQMA is by the EMB or other proponents, the designation process will pass ten (10) main steps, as shown in Figure 1. *Procedure for Designation and Re-designation of WQMA*. These steps establish a consistent way to designate and re-designate WQMA, while still maintaining the flexibility to accommodate the distinctiveness of each WQMA. The EMB Regional Office (RO) shall be the lead agency for this activity.

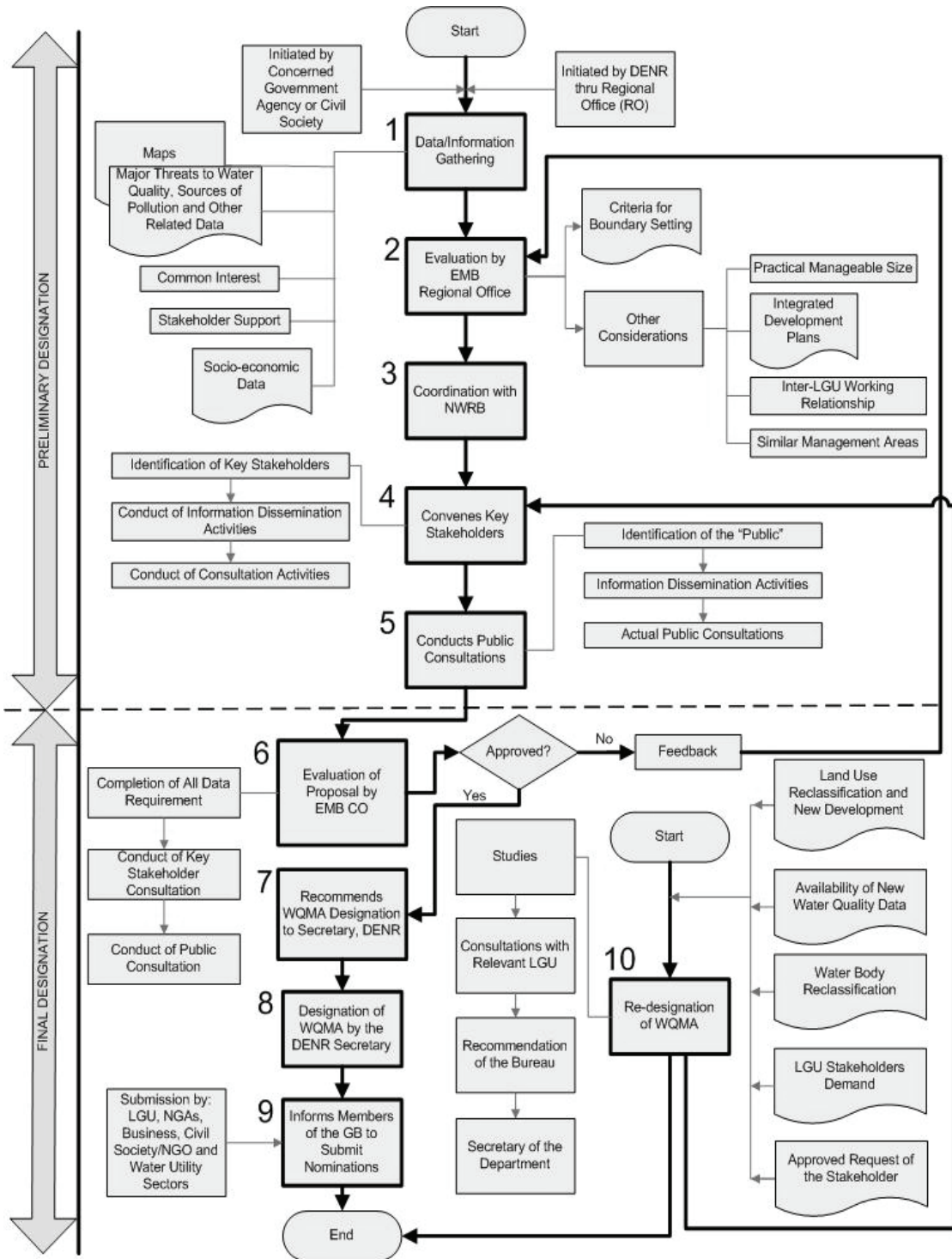


Figure 1. Procedure for Designation and Redesignation of WQMA

1. *Gather Relevant Data/Information*

Among the relevant data/information that should be collected include maps; major threats to water quality, sources of pollution and other related data; common interest such as water quality-related development programs and prospects in the areas to be covered by the proposed WQMA; stakeholders' Support; and socio-economic data.

2. *Evaluate the Data and Information*

The data and information gathered must be evaluated against a set of criteria to ensure that the data is adequate to designate a WQMA.

3. *Coordinate with the National Water Resources Board*

In designating a WQMA, the Department will coordinate with the National Water Resources Board (NWRB).

4. *Convene Key Stakeholders*

Key stakeholders will be identified after which information dissemination and consultation activities will follow.

5. *Conduct Public Consultations*

Not only the key stakeholders are to be informed and consulted on the proposal to designate a WQMA, but also the general public. Public consultations provide an opportunity to inform, educate and communicate with an identified or targeted public.

6. *Evaluate Proposal by the EMB Central Office*

The proposal to designate a WQMA must pass evaluation by the EMB Central Office (CO), in particular, its Water Quality Management Section. If found to have fully complied with the law, then the proposal will be forwarded to the Office of the Department Secretary with the recommendation for WQMA designation, based on having met the prerequisites for designation such as the completion of all data requirements, and the conduct of key stakeholders and public consultations. However, if the proposal is found to have not fully complied with the requirements, then it shall be returned back to the EMB RO, with notations.

7. *Recommend WQMA Designation and Composition of the GB to the Department Secretary*

All final recommendations for WQMA designation and composition of the GB are addressed to the Department Secretary, and shall emanate only from the Director, EMB CO. This ensures that each proposal has passed strict evaluation for its compliance with all the requirements found in the CWA.

8. *Designate WQMA by the DENR Secretary*

Rule 5.1.7 of the CWA IRR states that the designation of the WQMA is made by the DENR Secretary upon the recommendation of the EMB. The designation, therefore, shall take the form of a Department Administrative Order (DAO).

9. *Inform the LGUs, NGAs, Business, Civil Society/NGOs, GOCCs and Water Utility Sectors to Submit Nominations in the GB*

The main provision on the designation of the WQMA GB is found in Section 5 of the CWA, which states:

“ . . . Said management area shall be governed by a governing board composed of representatives of mayors and governors of member LGUs, and representatives of relevant national government agencies, duly registered nongovernmental organization, water utility sector, and business sector. The Department representative shall chair the Governing Board. In the case of the LGUs with membership on more than one (1) management board, the LGU

shall designate only one (1) single representative for all the management areas where it is a member.”

10. Submit Names of GB Membership to the DENR

The names of the permanent and alternate members of the GB shall be submitted to the Secretary of the DENR for approval.

11. Re-designate WQMA

The re-designation of a WQMA can be undertaken as stated in Rule 5.1.7 of the IRR CWA:

“Thereafter, these initial WQMA may be subject to review and consultations for re-adjustment of boundaries and representation in the Governing Board, if necessary.”

Designation of water quality management areas and creation of the governing board

Per Section 5 of RA 9275, the area within the jurisdiction of the Laguna Lake Development Authority (LLDA) was designated as one WQMA under the administration of the LLDA. Aside from the Laguna Lake WQMA, there are two officially designated WQMA, namely, the Tigum-Aganan Watershed WQMA in Iloilo province (Region VI) and the Marilao-Meycauayan-Obando (MMO) River System WQMA in Bulacan province (Region III) through DENR Administrative Orders (DAO) Nos. 2006-18 and 2008-07, respectively. The DAO also created the Governing Board for the said WQMA. Activities for the designation of Iloilo-Batiano River System WQMA in Region VI and Sarangani Bay WQMA in Region XII are on-going.

The following section will focus on the designation of the Marilao-Meycauayan-Obando River System as a Water Quality Management Area.

The MMO River System WQMA is within the province of Bulacan in Region III and parts of the National Capital Region. The area is at the southern end of the Central Valley Basin where major rivers (including Pampanga, Angat, and MMO Rivers) flow from the north and east that eventually drain into Manila Bay.

The MMO River System was prioritized for the WQMA designation due to the following issues:

1. MMO River System is one of the priority rivers for rehabilitation by the EMB-DENR. There is an immediate need for water quality management interventions to revive the Marilao-Meycauayan-Obando River Systems. This is due to various sources of pollution such as domestic wastewater, industrial effluent, dumpsite leachate, agricultural run-off upstream, and nutrient build-up due to aquaculture downstream.
2. The MMO River Systems has an active group of NGOs fully supported by the LGUs, concerned NGAs, and the private sector.
3. Water quality monitoring data is available.

Among the activities undertaken leading to the designation of the Marilao-Meycauayan-Obando (MMO) River Systems WQMA are as follows:

1. Identification and evaluation of candidate sites
2. Identification of water quality problems and possible actions to address the problems
3. Verification of water classification and use of the proposed WQMA
4. Gathering of relevant primary and secondary data
5. Evaluation of data for boundary setting
6. Convening of the key stakeholders
7. Conduct of public consultations

The Governing Board (GB) for the MMO River System WQMA is being chaired and co-chaired by the Environmental Management Bureau Regional Directors of DENR Region III and NCR, respectively. Members include representatives from the LGUs in Bulacan, Valenzuela, and Caloocan; relevant national government agencies; Laguna Lake Development Authority; business/industry; water utility; non-governmental organizations; and the academe. The composition of the GB is in line with the policy of the Philippine Clean Water of 2004 which encourages the participation of an informed and active public in water quality management.

The “success” of the MMO River System WQMA lies in the preparation and implementation of the Water Quality Management Action Plan through multi-stakeholders participation.

LAAC/John 3:16