



AUG 02 2021

DENR Administrative Order
No. 2021 - 23

SUBJECT : DESIGNATION OF THE BOLO RIVER SYSTEM WATER QUALITY MANAGEMENT AREA AND CREATION OF ITS GOVERNING BOARD

Pursuant to Section 5 of R.A. 9275 otherwise known as the "*Philippine Clean Water Act of 2004*", DENR Administrative Order (DAO) No. 2005-10 or the "*Implementing Rules and Regulations of RA 9275*", and DENR Memorandum Circular 2009-15 or "*Procedural Manual for the Designation of Water Quality Management Areas*", and considering its critical importance to the municipalities of Adams, Bangui, Dumalneg, and Pagudpud in the Province of Ilocos Norte, the Bolo River System is hereby designated as a Water Quality Management Area (WQMA).

Section 1. Policy and Objectives. It is the policy of the State to pursue economic growth in a manner consistent with the protection, preservation and revival of the quality of our fresh, brackish and marine water. Pursuant to this policy statement, this Order aims at protecting and improving the water quality of the Bolo River for present and future generations consistent with the following objectives:

- a) To manage sustainably the Bolo River through stakeholders' engagement to protect its other water sources (i.e. surface waters like springs, lakes and aquifers) and improve its water quality that is necessary for long-term support to agriculture, industries, fisheries and households that are all dependent on the river.
- b) To formulate and implement a WQMA program which recognizes that water quality management issues are inherently related and cannot be detached from concerns on water resources, ecological protection, water supply, public health and quality of life;
- c) To empower the four Local Government Units (LGUs) of Adams, Bangui, Dumalneg, and Pagudpud and the barangays within the Bolo River watershed in the sustainable management of the river;
- d) To encourage, support and mobilize civil society and other sectors, including the academe and businesses to undertake environment-related activities in addressing pertinent environmental issues and problems within the Bolo River WQMA; and
- e) To support the current environmental protection initiatives, programs and efforts of four LGUs (Adams, Bangui, Dumalneg, and Pagudpud) and other civil society organizations in Ilocos Norte to address the impacts of climate change.

Section 2. Scope and Coverage. The WQMA has a total area of 18,263 hectares and covers the Bolo River System and its tributaries including the land within the hydrologic unit bounded by the following geographic coordinates which are consistent with the map in Annex A:

Boundary Control Point	Barangay	Municipality	Latitude	Longitude
1	Brgy. Ligaya	Pagudpud	18°33'5.84"N	120°46'38.85"E
2	Brgy. Ligaya	Pagudpud	18°32'54.37"N	120°46'59.94"E
3	Brgy. Tarrag	Pagudpud	18°32'37.18"N	120°47'25.46"E
4	Brgy. Tarrag	Pagudpud	18°32'8.94"N	120°47'45.89"E
5	Brgy. Tarrag	Pagudpud	18°32'39.79"N	120°48'17.10"E
6	Brgy. Dampig	Pagudpud	18°32'39.99"N	120°48'34.59"E
7	Brgy. Dampig	Pagudpud	18°32'45.33"N	120°48'55.90"E
8	Brgy. Aggasi	Pagudpud	18°32'59.95"N	120°49'17.09"E
9	Brgy. Aggasi	Pagudpud	18°32'56.33"N	120°49'45.07"E
10	Brgy. Saguigui	Pagudpud	18°33'18.05"N	120°50'20.51"E
11	Brgy. Dampig	Pagudpud	18°33'19.48"N	120°50'43.81"E
12	Brgy. Dampig	Pagudpud	18°32'43.48"N	120°51'16.82"E
13	Brgy. Balaoi	Pagudpud	18°33'33.84"N	120°52'26.04"E
14	Brgy. Pancian	Pagudpud	18°33'4.44"N	120°52'48.75"E
15	Brgy. Pancian	Pagudpud	18°33'1.34"N	120°53'21.83"E
16	Brgy. Pancian	Pagudpud	18°32'22.54"N	120°53'12.59"E
17	Brgy. Pancian	Pagudpud	18°31'31.73"N	120°53'17.59"E
18	Brgy. Pancian	Pagudpud	18°31'9.50"N	120°53'18.35"E
19	Brgy. Pancian	Pagudpud	18°31'10.23"N	120°54'3.03"E
20	Brgy. Pancian	Pagudpud	18°31'2.11"N	120°54'23.53"E
21	Brgy. Pancian	Pagudpud	18°31'7.21"N	120°54'44.36"E
22	Brgy. Pancian	Pagudpud	18°31'2.51"N	120°54'59.96"E
23	Brgy. Poblacion	Adams	18°30'36.21"N	120°55'10.48"E
24	Brgy. Poblacion	Adams	18°30'5.78"N	120°55'24.21"E
25	Brgy. Poblacion	Adams	18°29'56.07"N	120°55'47.40"E
26	Brgy. Poblacion	Adams	18°30'13.01"N	120°56'13.70"E
27	Brgy. Poblacion	Adams	18°30'17.10"N	120°56'46.32"E
28	Brgy. Poblacion	Adams	18°30'32.77"N	120°57'10.42"E
29	Brgy. Poblacion	Adams	18°30'30.36"N	120°57'44.27"E
30	Brgy. Poblacion	Adams	18°30'12.16"N	120°57'43.76"E
31	Brgy. Poblacion	Adams	18°30'1.50"N	120°57'33.19"E
32	Brgy. Poblacion	Adams	18°29'35.90"N	120°57'6.42"E
33	Brgy. Poblacion	Adams	18°29'21.19"N	120°56'56.39"E
34	Brgy. Poblacion	Adams	18°28'50.48"N	120°56'55.42"E
35	Brgy. Poblacion	Adams	18°28'37.73"N	120°56'54.72"E
36	Brgy. Poblacion	Adams	18°28'28.47"N	120°56'29.40"E
37	Brgy. Poblacion	Adams	18°28'6.72"N	120°56'42.89"E
38	Brgy. Poblacion	Adams	18°27'48.87"N	120°57'8.42"E
39	Brgy. Poblacion	Adams	18°27'30.34"N	120°57'31.10"E
40	Brgy. Poblacion	Adams	18°27'0.94"N	120°57'33.63"E
41	Brgy. Poblacion	Adams	18°26'44.60"N	120°57'33.70"E
42	Brgy. Poblacion	Adams	18°26'30.79"N	120°56'58.90"E
43	Brgy. Poblacion	Adams	18°26'6.35"N	120°57'5.14"E
44	Brgy. Poblacion	Adams	18°25'50.19"N	120°57'0.11"E
45	Brgy. Poblacion	Adams	18°25'47.47"N	120°56'1.39"E
46	Brgy. Poblacion	Adams	18°25'15.25"N	120°55'12.62"E
47	Brgy. Poblacion	Adams	18°24'59.96"N	120°54'51.68"E
48	Brgy. Poblacion	Adams	18°24'36.92"N	120°54'27.38"E
49	Brgy. Poblacion	Adams	18°24'13.38"N	120°53'58.48"E

50	Brgy. Poblacion	Adams	18°24'10.27"N	120°53'29.03"E
51	Brgy. Poblacion	Adams	18°24'19.28"N	120°53'16.66"E
52	Brgy. Poblacion	Adams	18°24'40.49"N	120°52'56.49"E
53	Brgy. Poblacion	Adams	18°24'51.05"N	120°52'47.14"E
54	Brgy. Poblacion	Adams	18°25'6.73"N	120°52'30.32"E
55	Brgy. Poblacion	Adams	18°25'24.31"N	120°52'6.56"E
56	Brgy. Poblacion	Adams	18°25'33.41"N	120°51'51.76"E
57	Brgy. San Isidro	Dumalneg	18°25'53.94"N	120°51'33.42"E
58	Brgy. San Isidro	Dumalneg	18°26'3.57"N	120°51'24.44"E
59	Brgy. San Isidro	Dumalneg	18°26'4.29"N	120°50'55.84"E
60	Brgy. San Isidro	Dumalneg	18°26'27.76"N	120°50'30.66"E
61	Brgy. San Isidro	Dumalneg	18°26'47.41"N	120°50'6.75"E
62	Brgy. San Isidro	Dumalneg	18°27'13.51"N	120°49'49.18"E
63	Brgy. San Isidro	Dumalneg	18°27'39.78"N	120°49'57.11"E
64	Brgy. San Isidro	Dumalneg	18°28'6.56"N	120°49'48.51"E
65	Brgy. San Isidro	Dumalneg	18°28'28.40"N	120°50'3.90"E
66	Brgy. San Isidro	Dumalneg	18°29'0.04"N	120°49'54.88"E
67	Brgy. San Isidro	Dumalneg	18°29'33.12"N	120°49'49.98"E
68	Brgy. San Isidro	Dumalneg	18°29'55.22"N	120°49'37.43"E
69	Brgy. San Isidro	Dumalneg	18°30'13.64"N	120°49'26.82"E
70	Brgy. San Isidro	Dumalneg	18°30'6.44"N	120°49'5.42"E
71	Brgy. San Isidro	Dumalneg	18°30'0.12"N	120°48'50.07"E
72	Brgy. San Isidro	Dumalneg	18°30'0.42"N	120°48'35.50"E
73	Brgy. San Isidro	Dumalneg	18°29'42.40"N	120°48'10.84"E
74	Brgy. San Isidro	Dumalneg	18°29'43.26"N	120°47'54.43"E
75	Brgy. Payac	Bangui	18°29'47.76"N	120°47'33.49"E
76	Brgy. Payac	Bangui	18°29'48.86"N	120°47'18.18"E
77	Brgy. Payac	Bangui	18°29'52.54"N	120°46'46.31"E
78	Brgy. Payac	Bangui	18°30'23.06"N	120°46'40.58"E
79	Brgy. Payac	Bangui	18°30'43.61"N	120°46'34.61"E
80	Brgy. Payac	Bangui	18°30'58.64"N	120°46'22.39"E
81	Brgy. Bacsil	Bangui	18°31'16.84"N	120°46'32.96"E
82	Brgy. Nagbalagan	Bangui	18°31'45.01"N	120°46'34.90"E
83	Brgy. San Lorenzo	Bangui	18°32'10.12"N	120°46'41.87"E
84	Brgy. San Lorenzo	Bangui	18°32'40.38"N	120°46'5.28"E

Section 3. Political/Administrative Jurisdiction. The political/administrative jurisdiction of the BRS-WQMA encompasses the following areas:

Province	Municipality	Barangays
Ilocos Norte	Adams	Poblacion
	Bangui	Malasin, Nagblagan, Lanao, and San Lorenzo
	Dumalneg	San Isidro
	Pagudpud	Dampig, Ligaya, Pancian, and Tarrag

Section 4. Creation of the WQMA Governing Board. A WQMA Governing Board is hereby created, which shall be chaired by the Regional Director (RD) of the Environmental Management Bureau Regional Office No.1 (EMB-I), and shall have the following members:

- a) Representative of the National Water Resources Board
- b) Representative of the Governor, Province of Ilocos Norte
- c) The Mayors of the following Municipalities or their duly authorized representative:
 - i. Municipality of Adams, Ilocos Norte;
 - ii. Municipality of Bangui, Ilocos Norte;
 - iii. Municipality of Dumalneg, Ilocos Norte;
 - iv. Municipality of Pagudpud, Ilocos Norte;
- d) Representatives of the following Regional Offices in Region I:
 - i. Department of Environment and Natural Resources;
 - ii. Department of Public Works and Highways;
 - iii. Department of Health;
 - iv. Department of Education;
 - v. Department of Science and Technology;
 - vi. Department of Trade and Industry;
 - vii. Department of Agriculture;
 - viii. Department of Tourism;
 - ix. Department of the Interior and Local Government;
 - x. National Economic and Development Authority;
 - xi. Bureau of Fisheries and Aquatic Resources;
 - xii. National Irrigation Administration;
 - xiii. National Commission on Indigenous People;
 - xiv. Provincial Environment and Natural Resources Office- Ilocos Norte;
 - xv. Community Environment and Natural Resources Office- Bangui;
 - xvi. Regional Development Council
- e) Regional representative of the following:
 - i. Water Utility Sector
 - ii. Duly registered Non- Government Organizations/ Local Peoples' Organizations/ Civil Societies involved in Natural Resource Management or Environmental Concerns;
 - iii. Academe;
 - iv. Farmers' Association

The Board may also invite other agencies/institutions to participate in the deliberations of the Board, as necessary.

The terms, vacancy and compensation of expenses of the Governing Board shall be governed by DAO 2005-10. The Local Chief Executive and Head of Offices may appoint/authorize their respective representatives to the Board, provided that he/she is authorized to make commitments on behalf of the office he/she represents. Provided, further, that the LGU representatives in other WQMAs shall also serve as representative in the Bolo River WQMA.

Representatives from the business sector and peoples' organizations/non-government organizations/civil society shall be designated in accordance with the procedure and requirements laid down in DAO 2005-10.

Section 5. Functions of the Governing Board. The Governing Board shall have the following functions:

- a) Formulate the Governing Rules that will ensure effective management of the WQMA Governing Board;
- b) Elect other officers and create working committees within the Board that are deemed necessary for the effective implementation of WQMA policies, programs and activities;
- c) Review and adopt the WQMA Action Plan drafted by the EMB Region I in accordance with the Integrated Water Quality Management Framework and prepare a common and integrated compliance scheme. Thereafter, prepare the succeeding action plans for submission to the DENR;
- d) Together with EMB Region I, assist the Local Government Units in preparing the LGU Compliance Scheme to implement the WQMA Action Plan and drafting local legislation to protect Bolo River and promote overall environmental improvement in the WQMA;
- e) Monitor and facilitate LGU compliance with the WQMA Action Plan; by the local government units;
- f) Formulate strategies to harmonize policies/regulations/local legislations necessary for the effective implementation of R.A. 9275 in accordance with those established under the integrated Water Quality Management Framework;
- g) Recommend local and national legislations that will protect the water quality of Bolo River;
- h) Coordinate relevant activities among its members and member agencies and facilitate the resolution of conflicts;
- i) Undertake complementary interventions for non-point sources, considering their greater contribution to pollution;
- j) Undertake projects that will complement national and local initiatives for water pollution control;
- k) Solicit financial and non-financial support from other parties, both local and international, subject to existing applicable regulations;
- l) Initiate and/or coordinate information dissemination activities pertaining to Bolo River System WQMA;
- m) Prepare and publish on a regular basis, a Water Quality Status Report for the WQMA and submit a copy thereof to the EMB Region I and to the EMB Central Office which shall be consolidated into the National Water Quality Status Report; and
- n) Manage efficiently and judiciously the Area Water Quality Management Fund.

Section 6. Governing Rules. The Governing Board shall formulate its own Governing Rules based on applicable and pertinent laws, policies, rules, and regulations. Based on its Governing Rules, the Governing Board may elect at least one Co-chair, create standing committees as may be necessary to carry out the Board's functions, and designate their respective chairs.

Section 7. Meetings. The Governing Board shall meet quarterly or as often as may be required pursuant to its Governing Rules.

Section 8. Technical Working Group and Technical Secretariat. The Governing Board, pursuant to DENR Administrative Order No. 2005-10 and under the governing rules shall form a Technical Working Group (TWG) or Committees to ensure broad-based participation of all stakeholders in the work of the Governing Board. The TWG shall perform the following functions:

- a) Provide guidance to the WQMA Governing Board in the operationalization of the designated WQMA,
- b) Assist the Governing Board in preparation of the annual work program and financial plans,
- c) Provide technical inputs in the review of the draft WQMA Action Plan (initially prepared by the EMB Regional Office), and in tracking and monitoring of compliance to the WQMA Action Plan, and
- d) Perform other functions to be assigned by the Governing Board.

The Governing Board shall likewise create a Technical Secretariat of the WQMA, which shall be based at the EMB Region I, DENR.

Section 9. Multi-Sectoral Group. In accordance with DAO 2005-10, the Governing Board shall create a Multi-Sectoral group for water quality monitoring and surveillance network, composed of representatives, nominated by the members of the Governing Board. Said group shall augment and complement monitoring and reporting efforts of the EMB Region I.

Section 10. Re-designation of WQMA. When necessary, and only after undertaking necessary studies and conducting consultations with relevant local government authorities, the Secretary of the DENR, upon recommendation of the EMB, shall revise the designation of WQMA, re-adjust its boundaries or reconstitute its membership for adequate representation.

Section 11. Amendments and Revisions. Amendments or revisions of any of the provisions, hereof, shall be made only, upon consultations with the concerned stakeholders in accordance with existing policies on the matter and subject to the written approval by majority of the parties thereto.

Section 12. Separability Clause. Should any of the previous provisions of this Order be subsequently declared invalid or null and void, the validity of the other provisions not affected shall not be impaired and shall remain to be in full force and effect.

Section 13. Effectivity. This Order shall take effect fifteen (15) days after its publications in a newspaper of general circulation and its registration with the Office of the National Administrative Registry (ONAR)


ROY A. CIMATU
Secretary

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November 09, 2021

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ANNEX A-1 BOLO RIVER SYSTEM WATER QUALITY MANAGEMENT AREA MAP

