Bird's Nest Resources Corporation

River Restoration Project through Dredging Activity Cluster of Alag and Longos Rivers

Baco, Oriental Mindoro

PROJECT DESCRIPTION FOR SCOPING

ENVIRONMENTAL IMPACT ASSESSMENT
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU

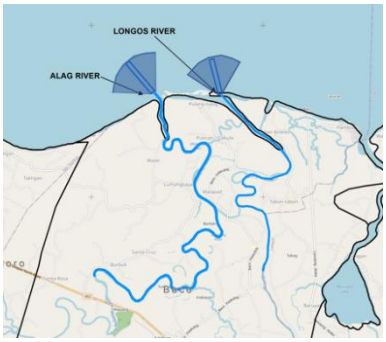
TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXES

1 BASIC PROJECT INFORMATION

Name of Project:	**River Restoration Project through Dredging Activity Cluster of Alag and Longos Rivers Project**	
Project Location:	Barangays Water, Pulang-Tubig, Putican-Cabulo, Tabon-Tabon, Malapad, Burbuli, San Andres, Poblacion, Catwiran I, Catwiran II, Alag, Santa Rosa I, Lumang-Bayan, Municipality of Baco, Orinetal Mindoro	
Project Proponent:	**BIRD'S NEST RESOURCES CORPORATION**	
Proponent's Address	402 Bencom Bldg. 146 West Avenue, Brgy. Phil-Am, Quezon City	
Contact Person:	**ARCH. BRANDO R. BULOSAN**	
Position/ Designation:	Vice President	
Contact No:	02 8529-6808, 0916-688-8317	
Project Size:	Total dredging area of approximately 317.4 hectares Total volume of dredge material is approximately 16.2 M m^3 Buffer Zone 20 m from river banks	
Project Timeframe:	Total of two years with an extraction rate of 9 Mm^3 per annum.	

2 PROJECT DESCRIPTION

2.1 Project Location and Area

2.1.1 Project Location

The River Restoration Project involves the restoration of the river from the river mouth up to 10 km upstream. The river mouth of Alag River and Longos River is located at Barangay Water and San Andres respectively under the Municipality of Baco in the Province of Oriental Mindoro. Other barangays covered by the project area is shown in Table 2-1. Figure 2-1 shows the location map of the proposed project.

Table 2-1: Project Location

Project Location	Barangays Water, Pulang-Tubig, Putican-Cabulo, Tabon-Tabon, Malapad, Burbuli, San Andres, Poblacion, Catwiran I, Catwiran II, Alag, Santa Rosa I, Lumang-Bayan, Municipality of Baco, Orinetal Mindoro
Geographical Coordinates	See Annex 1

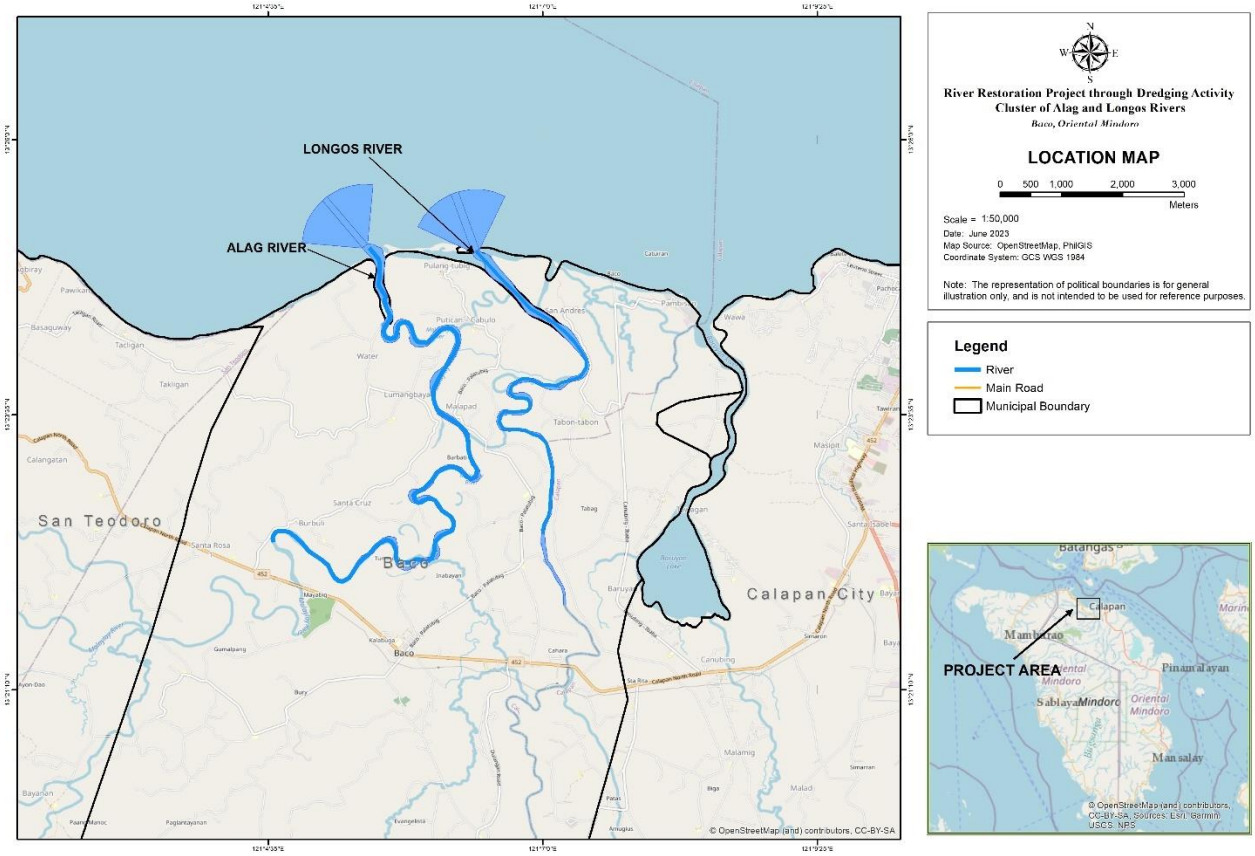


Figure 2-1: Project Location Map

2.1.2 Accessibility of Project Site

The project is accessible via a 2-hour road travel from Manila on the South Luzon Expressway and Southern Tagalog Arterial Road going to Batangas Port, then via sea vessel going to Calapan port. From Calapan City, the project area is about one hour land travel via Calapan North Road (**Figure 2-2**).

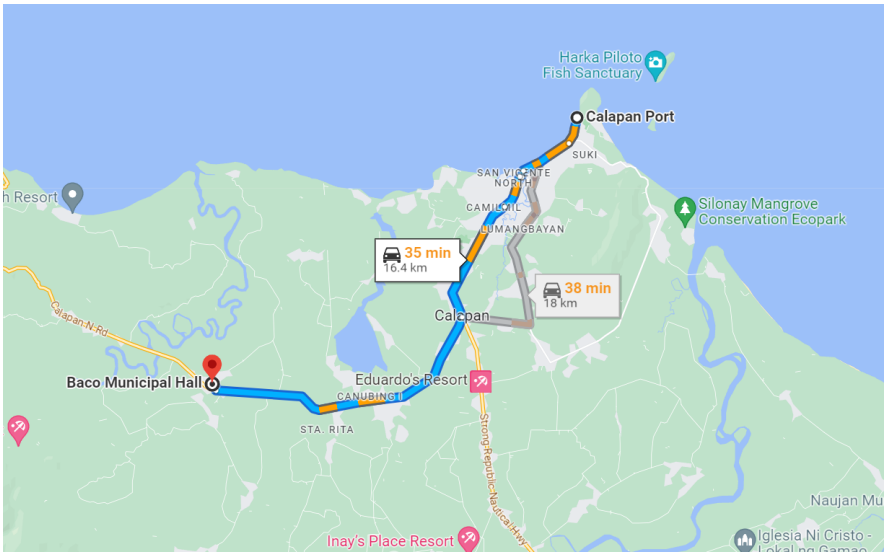


Figure 2-2: Project Site Accesibility

2.2 Project Rationale

The Department of Environment and Natural Resources issued Administrative Order No. 2019-14 (DAO 2019-17) dated November 4, 2019, Rationalizing Dredging Activities in Heavily Silted River Channels within the Province of Oriental Mindoro Pursuant to the DENR-DPWH-DILG-DOTR Joint Memorandum Circular No. 1 Series of 2019 (Annex 2).

Item I. Section 2 of DAO 2019-14 prescribes that in order to open heavily-silted river channels of Oriental Mindoro, the areas starting from coastline of river deltas extending all the way upstream, as may be determined by the Provincial Government in accordance with the DPWH Dredging Master Plan, are hereby declared as exclusive River Dredging Zones (RDZ). Hence, The Department of Public Works and Highways Region IV-B prepared the Master Plan and identified the RDZ for river dredging projects at the cluster of Alag River and Longos River in Baco, Oriental Mindoro.

The Inter-Agency Committee (IAC) issued a resolution on March 30, 2023 opening the submission of letters of intent, and proof of financial and technical capacities of interested applicant for Longos River, Alag River, Subaang River, Wasig River, Cagankan River, Mansalay River, Pula River Maujao River and Cawacat River (Annex 3).

The Provincial Government of Oriental Mindoro (PGOM) released a notice to the public on March 30, 2023 (Annex 4) pursuant to the provisions of DPWH-DENR-DILG-DOTr Joint Memorandum Circular No. 1, Series of 2019; and the Inter-Agency Committee (IAC) on Rationalizing Dredging Activities in the Heavily Silted Rivers Channels within the Province of Oriental. The notice stated that the PGOM is now accepting proposals from private sector proponents who are willing, and financially and technically capable to undertake river restoration, through large-scale dredging activites in the said river systems.

In this regard, BNRC submitted its proposal to the IAC and was issued a certification by the Provincial Government of Oriental Mindoro that the said company has been conferred the status as pre-qualified proponent to undertake River Restoration through dredging activities in the Cluster of Alag River and Longos River. The certification is prented in Annex 5.

Alag River and Longos River is among those river systems heavily silted with sand, mud and gravel materials coming from the mountains of Halcon in the Province of Oriental Mindoro. Currently, no temporary docks nor flood control embankments have been built by the government for the river or its

estuary. According to on-site inspections of the river estuary, the river is severely clogged, which is unfavorable for drainage. It requires immediate desilting and dredging to improve the conveyance capacity of the river and to ensure that there will be no occurrence of waterlogging that could cause substantial damage to lives and properties of residents living in the area. Figure 2-3 and Figure 2-4 show the river site condition.

Figure 2-3: Aerial view of Alag River Delta

Figure 2-4: Aerial View of Longos River

2.3 Project Alternatives

2.3.1 Siting

There were no other sites considered for the project. The project locations were based on the studies condected by the Mines and Geosciences Bureau Revion IV-B on the identified River Dredging Zones (RDZs) in the Province of Oriental Mindoro.

2.3.2 Resource

Water Sources

The project will require water source for its site office. The water source will be sourced from the local water district and only intended for domestic use. The operation is not expected to severely compete for water use with the host community.

Power Sources

Electric power for the site office will be sourced from the local cooperative. Back-up generators may be present when necessary for use in case of power outage.

2.3.3 No Project Option

If the Project is not implemented, the flooding problem in the Municipality of Baco will remain rampant and will further hinder development efforts int the area. Further, unabated flooding will eventually cause damage to property and life.

2.4 Project Components

The summary of project components is presented in Table 2-2. The project will not utilize a stockpile area because the dredged materials will be hauled directly to designated end-use in the Manila Bay.

Table 2-2: Summary of Project Components

Component	Description
Dredging Vessel	Cutter-Suction Dredger with dredging capacity of 40,000 m^3/day
Hauling Barge	Self-Propelled Pelican Barge with 5,000 m^3 capacity.
Mother Vessel	With capacity of 35,000 m^3. It will be anchored 3 to 5 km offshore and haul dredged materials to end-user location.
Other support facilities and equipment	Field office, equipment staging area, bunk house, generator set (150kVa)
Pollution Control Devices	Silt curtains

2.5 Process Technology

The dredging operations will utilize the Cutter-Suction Dredging Method – Self Propelled Pelican Barge. The cutter-suction dredger (CSD) is both self-propelled vessel and stationary dismountable vessel equipped with a rotating cutter head. The powerful cutter suction dredger is used mainly in dredging rock, clay, silt and sand. It is being normally deploys in the construction and maintenance of ports, land reclamation and coastal defenses, and riverbank protection and in dredging trenches for pipelines.

2.6 Project Size

The project will cover the cluster of Alag River and Longos River of the river dredging zone identified by the DPWH. The total volume of dredge material is estimated at 16.2 million cubic meters.

Table 2-3: Summary of Dredge Material Volume

Zone	Position	Length (m)	Width (m)	Design Depth (m)	Volume (m^3)
1	Delta, Alag River	1,000	60	2-12	2,170,000
2	Alag River	10,000	60	2-9	6,650,000
3	Delta, Longos River	1,000	100	2-12	2,650,000
4	Longos River	10,000	100	2-9	4,731,000

2.7 Development Plan, Description of Project Phases and Corresponding Timeframes

2.7.1 Pre-Construction Phase

This phase will be limited to the securing of other permits, tender of contracts and equipment and personnel acquisition. No site development is expected at this phase.

2.7.2 Construction/ Development Phase

The proponent will provide all labor and equipment costs necessary to move personnel, equipment, supplies and incidentals to and from the project site, establish its field office and other facilities necessary for the work, obtain bonds, required insurance, government permits and clearances and other pre-construction expenses necessary for the smooth implementation of the project.

The following site preparatory activities shall be undertaken:

- Clearing of the staging area
- Construction of temporary structures to a rented area near the project site (e.g. site office, storage for spare parts and supplies)
- Delivery of supplies and spare parts
- Launch of the dredge into the project site

The dredge equipment shall be subject to inspection by the DPWH and a representative from the Provincial Government of Oriental Mindoro prior to actual dredging activities to ensure that it is in satisfactory operating condition and capable of efficiently performing the scale/scope of the proposed dredging activities within the time frame of the IAC.

2.7.3 Operation Phase

The CSD operates by positioning the spuds poles and anchor winches to ensure the vessel is firmly anchored during dredging. After lowering the ladder with the cutter head at the end, the cutter head is move sideways by pulling the side wires. The loosen materials are suck by the dredge pumps through the suction pipes. The CSD moves forward by means of spud carriage. **Figure 2-5** shows the spud poles, ladder, dredge pump and cutter head of the CSD.

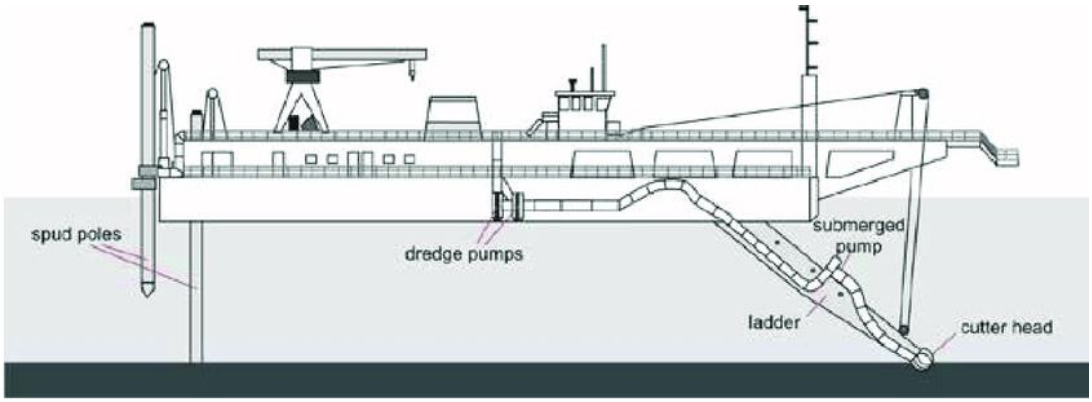


Figure 2-5: Cutter-Suction Dredger

The dredging channel to be created shall maintain the angle of repose to minimize slope failure. Sounding shall be conducted every 100 meters of the dredge channel for the calculation of volume or by drop survey of vessel. The dredging operation is intended to remove substantial volume of river materials to ease and reduce the swelling of the river that pose a threat to the vicinity.

During the entire project duration, progress will be monitored through bathymetric surveys. Report of the result of the bathymetric survey shall be submitted to the IAC for monitoring purposes. Environmental impact and water quality will be monitored through water sampling at various locations of the project site under the supervision of the monitoring team by the Environmental Management Bureau Region IVB (EMB-MIMAROPA) and the designated Monitoring Team of the IAC. The frequency of the submission of reports shall be in accordance with the set of rules to be issued by the IAC.

Figure 2-6 shows the dredging operation cycle.

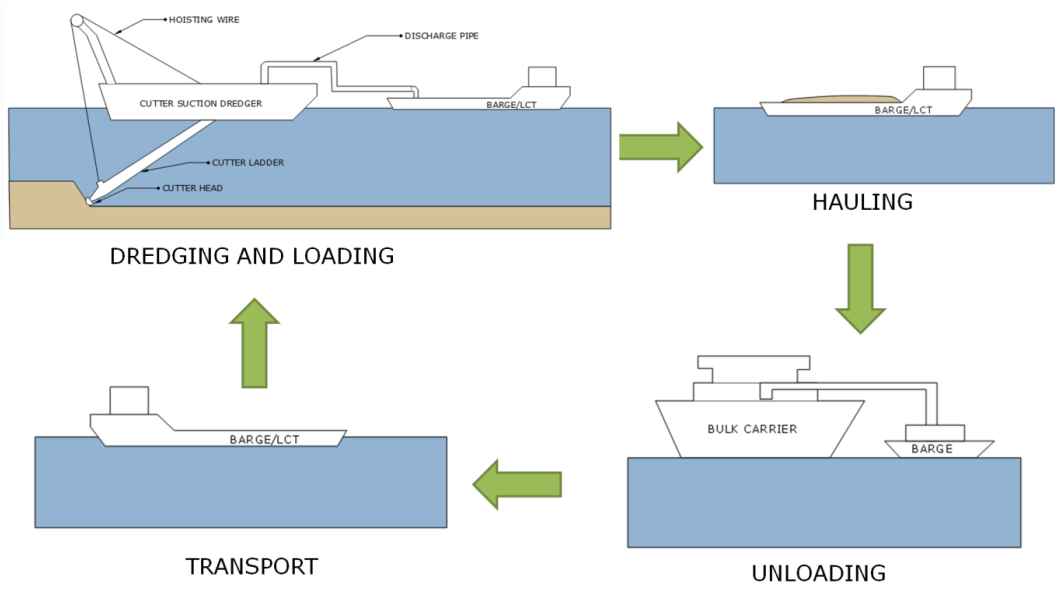


Figure 2-6: Cutter Suction Dredger Operation Cycle

2.7.4 Decommissioning Phase

Abandonment shall cover the temporary structures used during pre-construction and construction phases such as storage yards, camp house, and temporary staging areas.

Demobilization shall include the following:

- Removal of all equipment and material mobilized, installed and utilized to complete the project;
- Disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site.

In case abandonment is imperative due to force majeur or any other reasons, the structures, equipment and other related facilities may be used for other applications. Otherwise, the removal of structures, equipment and machineries from the existing site will be done to minimize possible threats to the surrounding environment.

An abandonment plan shall be formulated with consideration of the following:

- Advice and properly compensate affected employees; separation fees or compensation fees will be provided to any displaced employees;
- Machines / Equipment dismantled will be sold to interested parties;
- Removal of Solid, Liquid and Hazardous Wastes within the site through a DENR-certified Waste Transporter/ Treater; and
- Clean up and possible remediation of the site, if future evaluations and testing suggest such activity is applicable.

2.8 Manpower Requirements

In order to achieve a unified management and ensure the quality and management of the dredging project, the following project organization will be fully responsible for the command and coordination and organization of the project activities, so as to ensure its efficient and high quality completion.

Table 2-4 below shows the manpower requirements for the project.

Table 2-4: Manpower Requirements

Position	Number
Chief Site Engineer	1
Administrative Officer	1
Engineering Safety and Quality Manager	1
Materials and Equipment Manager	1
Quality Manager	1
Environment, Health and Safety Manager / PCO	1
Admin Staff	6
Security	4
CSD operator	16
Pipeline worker	12
Tug Boat Operator	24
Pelican Barge Operator	60
General worker	20

2.9 Project Cost

The project cost is estimated at 648 million pesos. The said cost is subject to change based on actual field conditions encountered on the project site.

2.10 Project Schedule

Table 2-5 below shows the proposed project schedule. The compressed schedule of activities reflects the urgent need for the project to alleviate the flooding problem in the province.

Table 2-5: Proposed Project Schedule

Activity	Schedule
1. Mobilization and Site Preparation	1 month
2. Dredging Activities	
a. River delta	4 – 5 months
b. River system	2 years
3. Demobilization	1 month

The river delta which has total dredging quantity of 4.8 million cubic meter will be completed in 4 to 5 months based on 25 days dredging operation per month with dredging capacity of 40,000 cubic meter per day. While the river system will be completed in 2 years by having an extraction rate of 9 million cubic meter per annum based on 25 days at 9 months operation per year. The number of operating months was assumed by considering adverse weather condition.

3 PROJECT PHASES, KEY ENVIRONMENTAL ASPECTS, WASTES, ISSUES AND BUILT-IN MEASURES

Table 3-1 presents the potential environmental impacts and mitigating measures for each project phase.

Table 3-1: Summary of Potential Environmental Impacts and Mitigating Measures

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention for Mitigation or Enhancement	Responsible Entity	Cost (PHP)	Guarantee / Financial Arrangement
I. PRE-OPERATION PHASE						
Mobilization of Dredging Equipment	People	Navigational Traffic	• Acquisition of permits • Conduct Social Preparations • Posting of notices	BNRC LGUs	• Part of construction cost	Included in the project development and implementation
II. OPERATION PHASE						
Dredging	Water Quality	• Turbidity plume generation (suspended sediments) that may cause degradation of water quality	• Installation of green valves, recycling (part of) overflow water, using overflow with a bottom exit, or reducing the overflow.	BNRC	• Part of operation cost	Included in the project development and implementation
		• Saline Intrusion	• Maintain slope as per design limits	BNRC	• Part of operation cost	
		• Presence of oil and grease from machineries that may cause degradation of water quality	• Quarterly water quality monitoring • Conduct proper inspection and prompt maintenance of machines and equipment, and facilities	BNRC	• Part of operation cost	
		• Erosion of river banks	• Implement the approved Design Plan which may include river bank protection	BNRC	• Part of operation cost	

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention for Mitigation or Enhancement	Responsible Entity	Cost (PHP)	Guarantee / Financial Arrangement
		• Contamination of water due to improper disposal of hazardous waste such as used oil, contaminated soil, rags/wipers and containers.	• Proper storage, label and full containment of hazardous waste; • Disposal through Department of Environment and Natural Resources (DENR)-recognized treatment/disposal facilities • Secure HazWaste Generator ID from DENR • Training of personnel in handling hazardous waste;	BNRC	• Part of operation cost	
		• Water pollution due to improper disposal of solid waste from dredging vessels	• Implement proper collection, segregation and disposal of solid waste;	BNRC	• Part of operation cost	
	Marine Ecology	• Turbidity plume generation (suspended sediments) • Threat to abundance, frequency and distribution of species	• Operation to be scheduled during dry season if possible to reduce turbidity migration to coastal waters;	BNRC IAC LGUs	• Part of operation cost	IAC Arrangements
	River Ecology	• General habitat damage/loss in the dredge area and hydraulic entrainment • Disturbance of navigation routes • Increase turbidity, sedimentation, &TSS	• Baseline condition of the river will determine the possible impact on the local river ecology • Strict compliance with proper disposal of hazardous waste from the equipment • Monitoring database on water quality covering standard parameters for Class C waters	BNRC IAC LGUs	• Part of operation cost	IAC Arrangements

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention for Mitigation or Enhancement	Responsible Entity	Cost (PHP)	Guarantee / Financial Arrangement
		• Release of contaminants	(physico-chemical and heavy metal content of water)			
	Air Quality	• Air pollution	• Implement proper maintenance of engines and generators	BNRC	• Part of operation cost	Included in budget for maintenance
Removal of vegetation due to dredging	Terrestrial Ecology	• Threat to Existence and/or Loss of Important Local Species	• If applicable, conduct 100% inventory of the affected trees along the dredging area to determine the total counts, category, and characteristics of affected trees and minimize removal particularly in areas adjacent to vegetation of higher conservation significance as much as possible. Native/endemic/ indigenous species of trees, shrubs and grasses will be specified. • If applicable secure tree cutting permit in compliance with DENR Memorandum Order No. 2012-02. • Operation should be within the assigned River Dredging Zone	BNRC	• Part of construction cost	Included in the project development and implementation
	• Fisher folks • Vulnerable persons (Women-headed households, elderly, persons with disabilities and the poor)	• Navigational Traffic • Noise generation	• Minimize dredging activities during night time especially in areas within hearing distance from existing communities • Buffer zone should be observed to minimize noise level at the community near the river bank. • Use of proper Personal Protective Equipment (PPE)	BNRC	• Part of operation cost	IAC Arrangements

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention for Mitigation or Enhancement	Responsible Entity	Cost (PHP)	Guarantee / Financial Arrangement
• Removal of fishnets and boat docking area of fisherfolks	• Fisher folks	• Disturbance of livelihood • Loss of income	• Prepare and implement livelihood and income restoration for PAF's whose present means of livelihood is no longer viable and will have to engage in new income activity. • Conduct Social Development Plan (SDP) including livelihood training for business owners, vendors, employers and agricultural landowners affected by project. • Operation should be within the assigned River Dredging Zone	BNRC	• To be included in the SDP budget	Approved SDP
II. ABANDONMENT PHASE						
Demobilization	Land and Water	Adverse environmental footprint	Follow closure and abandonment procedures/ policy	BNRC	Part of Mobilization	Part of Mobilization

4 PUBLIC SCOPING

4.1 Public Scoping with the Municipal Council

BNRC conduct a Public Scoping with the Municipal Council of Baco. The Public Scoping was conducted on 2 June 2023 at 9am at the municipal hall of Baco. The meeting was attended by municipal mayor, member of the Sangguniang Bayan and representative of the following offices:

- Municipal Planning and Development Office
- Municipal Social and Development Welfare Officer
- Municipal Agriculture Officer
- Municipal Engineer
- Municipal Environment and Natural Resource Officer
- Municipal Risk Reduction and Management Officer

The attendance sheet and receiving letters are attached in respectively.

The agenda of the meeting includes the following:

- Introduction of the participants
- Presentation of Project Description
- Presentation of EIA Process
- Open Forum

Figure 4-1: BRNC preseting the Project Description to the Municipal Council

4.2 Public Scoping with the Barangay Council

BNRC conduct a Public Scoping with the Barangay ouncil of Baco. The Public Scoping was conducted on 2 June 2023 at 2pm at the municipal hall of Baco. The meeting was attended by the barangay captains and representative of the following barangays.

1. Water
2. Pulang-Tubig
3. Putican-Cabulo
4. San Andres
5. Tabon-Tabon
6. Malapad

7. Lumang-Bayan
8. Catwiran I
9. Catwiran II
10. Burbuli
11. Poblacion
12. Alag
13. Santa Rosa

Figure 4-2: Open Forum during the Public Scoping with the Barangay Council

4.3 Summary of Issues and Concerns

The issues and concerns are presented in the attached Public Scoping Report.

Annex 1: Project Geographical Coordinates

ALAG RIVER GEOGRAPHIC COORDINATES

Corner	latitude	Latitude	longitude	Longitude	Corner	Latitude	Longitude
1	13.41569	13° 24' 56.50"	121.0918	121° 5' 30.53"	117	13° 22' 21.66"	121° 5' 30.03"
2	13.41522	13° 24' 54.79"	121.0921	121° 5' 31.48"	118	13° 22' 25.30"	121° 5' 33.47"
3	13.4143	13° 24' 51.47"	121.0924	121° 5' 32.53"	119	13° 22' 27.66"	121° 5' 35.28"
4	13.41288	13° 24' 46.36"	121.0922	121° 5' 31.78"	120	13° 22' 28.22"	121° 5' 39.38"
5	13.41198	13° 24' 43.13"	121.0921	121° 5' 31.41"	121	13° 22' 26.80"	121° 5' 41.53"
6	13.4096	13° 24' 34.57"	121.0931	121° 5' 35.12"	122	13° 22' 24.49"	121° 5' 41.74"
7	13.40856	13° 24' 30.81"	121.0936	121° 5' 36.88"	123	13° 22' 18.78"	121° 5' 41.61"
8	13.40769	13° 24' 27.67"	121.094	121° 5' 38.27"	124	13° 22' 15.39"	121° 5' 42.76"
9	13.40712	13° 24' 25.65"	121.0937	121° 5' 37.27"	125	13° 22' 13.62"	121° 5' 44.73"
10	13.40618	13° 24' 22.25"	121.0931	121° 5' 35.05"	126	13° 22' 12.64"	121° 5' 47.86"
11	13.40469	13° 24' 16.90"	121.0929	121° 5' 34.46"	127	13° 22' 13.84"	121° 5' 51.09"
12	13.40374	13° 24' 13.48"	121.0935	121° 5' 36.43"	128	13° 22' 17.87"	121° 5' 56.38"
13	13.4035	13° 24' 12.61"	121.0943	121° 5' 39.62"	129	13° 22' 18.17"	121° 6' 1.55"
14	13.40387	13° 24' 13.95"	121.0952	121° 5' 42.74"	130	13° 22' 19.02"	121° 6' 4.37"
15	13.40446	13° 24' 16.05"	121.0957	121° 5' 44.59"	131	13° 22' 21.04"	121° 6' 5.82"
16	13.40512	13° 24' 18.45"	121.0956	121° 5' 44.17"	132	13° 22' 23.76"	121° 6' 5.78"
17	13.40605	13° 24' 21.79"	121.0955	121° 5' 43.87"	133	13° 22' 27.67"	121° 6' 3.92"
18	13.4065	13° 24' 23.39"	121.0958	121° 5' 44.73"	134	13° 22' 30.52"	121° 6' 5.86"
19	13.40631	13° 24' 22.71"	121.0965	121° 5' 47.36"	135	13° 22' 32.19"	121° 6' 8.95"
20	13.4056	13° 24' 20.15"	121.0969	121° 5' 48.79"	136	13° 22' 33.07"	121° 6' 11.64"
21	13.40479	13° 24' 17.26"	121.0972	121° 5' 49.76"	137	13° 22' 35.16"	121° 6' 13.42"
22	13.40421	13° 24' 15.17"	121.0971	121° 5' 49.45"	138	13° 22' 36.27"	121° 6' 14.02"
23	13.40352	13° 24' 12.67"	121.0973	121° 5' 50.21"	139	13° 22' 39.10"	121° 6' 13.86"
24	13.40303	13° 24' 10.92"	121.0979	121° 5' 52.59"	140	13° 22' 41.89"	121° 6' 12.22"
25	13.40295	13° 24' 10.61"	121.099	121° 5' 56.23"	141	13° 22' 44.04"	121° 6' 8.88"
26	13.40314	13° 24' 11.30"	121.0998	121° 5' 59.21"	142	13° 22' 45.37"	121° 6' 6.81"
27	13.40393	13° 24' 14.13"	121.1006	121° 6' 2.17"	143	13° 22' 47.46"	121° 6' 4.97"
28	13.40478	13° 24' 17.22"	121.1013	121° 6' 4.68"	144	13° 22' 50.05"	121° 6' 3.51"
29	13.40556	13° 24' 20.01"	121.102	121° 6' 7.17"	145	13° 22' 51.31"	121° 6' 2.07"
30	13.40571	13° 24' 20.56"	121.1029	121° 6' 10.36"	146	13° 22' 52.52"	121° 5' 59.93"
31	13.40524	13° 24' 18.86"	121.1035	121° 6' 12.44"	147	13° 22' 52.55"	121° 5' 57.43"
32	13.40448	13° 24' 16.13"	121.1038	121° 6' 13.74"	148	13° 22' 51.53"	121° 5' 54.98"
33	13.40364	13° 24' 13.10"	121.1038	121° 6' 13.78"	149	13° 22' 50.52"	121° 5' 52.35"
34	13.40261	13° 24' 9.41"	121.1034	121° 6' 12.18"	150	13° 22' 51.05"	121° 5' 51.16"
35	13.40135	13° 24' 4.84"	121.1028	121° 6' 10.05"	151	13° 22' 52.47"	121° 5' 50.69"
36	13.4003	13° 24' 1.09"	121.1022	121° 6' 8.09"	152	13° 22' 53.72"	121° 5' 51.51"
37	13.39977	13° 23' 59.18"	121.1017	121° 6' 6.01"	153	13° 22' 53.89"	121° 5' 53.23"
38	13.39918	13° 23' 57.04"	121.1008	121° 6' 2.94"	154	13° 22' 53.78"	121° 5' 55.08"
39	13.39817	13° 23' 53.43"	121.1002	121° 6' 0.64"	155	13° 22' 54.76"	121° 5' 57.61"
40	13.39756	13° 23' 51.23"	121.1001	121° 6' 0.18"	156	13° 22' 56.91"	121° 6' 0.32"
41	13.39537	13° 23' 43.35"	121.1004	121° 6' 1.51"	157	13° 22' 58.97"	121° 6' 2.15"
42	13.39404	13° 23' 38.54"	121.1008	121° 6' 2.72"	158	13° 23' 1.46"	121° 6' 3.19"
43	13.39318	13° 23' 35.44"	121.1012	121° 6' 4.25"	159	13° 23' 3.29"	121° 6' 4.01"
44	13.39256	13° 23' 33.22"	121.1021	121° 6' 7.47"	160	13° 23' 4.92"	121° 6' 6.18"
45	13.39188	13° 23' 30.76"	121.1033	121° 6' 11.78"	161	13° 23' 6.47"	121° 6' 9.09"
46	13.39138	13° 23' 28.98"	121.1041	121° 6' 14.87"	162	13° 23' 6.82"	121° 6' 12.05"
47	13.39054	13° 23' 25.95"	121.1049	121° 6' 17.67"	163	13° 23' 6.37"	121° 6' 14.66"
48	13.38945	13° 23' 22.04"	121.1055	121° 6' 19.65"	164	13° 23' 5.05"	121° 6' 16.90"

ALAG RIVER GEOGRAPHIC COORDINATES

49	13.38874	13° 23' 19.45"	121.1056	121° 6' 20.24"	165	13° 23' 3.19"	121° 6' 18.56"
50	13.38767	13° 23' 15.60"	121.1055	121° 6' 19.93"	166	13° 23' 1.12"	121° 6' 19.99"
51	13.38684	13° 23' 12.61"	121.1058	121° 6' 20.85"	167	13° 22' 59.77"	121° 6' 21.79"
52	13.38576	13° 23' 8.74"	121.1061	121° 6' 22.09"	168	13° 22' 59.26"	121° 6' 23.59"
53	13.38516	13° 23' 6.57"	121.1068	121° 6' 24.42"	169	13° 22' 59.85"	121° 6' 25.66"
54	13.3844	13° 23' 3.83"	121.1071	121° 6' 25.60"	170	13° 23' 1.22"	121° 6' 26.86"
55	13.38394	13° 23' 2.19"	121.1072	121° 6' 25.98"	171	13° 23' 2.60"	121° 6' 27.16"
56	13.38365	13° 23' 1.14"	121.1069	121° 6' 24.76"	172	13° 23' 5.76"	121° 6' 26.79"
57	13.38385	13° 23' 1.87"	121.1061	121° 6' 21.81"	173	13° 23' 8.34"	121° 6' 25.22"
58	13.38435	13° 23' 3.65"	121.1056	121° 6' 20.17"	174	13° 23' 9.72"	121° 6' 23.27"
59	13.38533	13° 23' 7.20"	121.1047	121° 6' 17.00"	175	13° 23' 12.52"	121° 6' 22.60"
60	13.38559	13° 23' 8.11"	121.1041	121° 6' 14.59"	176	13° 23' 17.42"	121° 6' 21.56"
61	13.38576	13° 23' 8.72"	121.1034	121° 6' 12.40"	177	13° 23' 20.07"	121° 6' 21.69"
62	13.38567	13° 23' 8.42"	121.1025	121° 6' 8.86"	178	13° 23' 25.00"	121° 6' 21.22"
63	13.38532	13° 23' 7.17"	121.1017	121° 6' 6.21"	179	13° 23' 29.50"	121° 6' 17.30"
64	13.38475	13° 23' 5.11"	121.1009	121° 6' 3.37"	180	13° 23' 33.32"	121° 6' 13.14"
65	13.38451	13° 23' 4.23"	121.1007	121° 6' 2.58"	181	13° 23' 35.45"	121° 6' 9.76"
66	13.38373	13° 23' 1.43"	121.1004	121° 6' 1.48"	182	13° 23' 37.41"	121° 6' 6.13"
67	13.38324	13° 22' 59.68"	121.1002	121° 6' 0.75"	183	13° 23' 39.59"	121° 6' 3.99"
68	13.3828	13° 22' 58.07"	121.0998	121° 5' 59.22"	184	13° 23' 42.05"	121° 6' 3.38"
69	13.38228	13° 22' 56.19"	121.0992	121° 5' 57.13"	185	13° 23' 47.74"	121° 6' 3.24"
70	13.38212	13° 22' 55.63"	121.0987	121° 5' 55.21"	186	13° 23' 51.35"	121° 6' 5.08"
71	13.38216	13° 22' 55.78"	121.0979	121° 5' 52.48"	187	13° 23' 57.66"	121° 6' 7.95"
72	13.38207	13° 22' 55.44"	121.0975	121° 5' 50.85"	188	13° 24' 1.32"	121° 6' 10.86"
73	13.38179	13° 22' 54.46"	121.0971	121° 5' 49.51"	189	13° 24' 5.34"	121° 6' 13.72"
74	13.3812	13° 22' 52.31"	121.0969	121° 5' 48.90"	190	13° 24' 9.66"	121° 6' 15.64"
75	13.38064	13° 22' 50.32"	121.0971	121° 5' 49.56"	191	13° 24' 14.46"	121° 6' 16.99"
76	13.38025	13° 22' 48.88"	121.0974	121° 5' 50.72"	192	13° 24' 18.73"	121° 6' 16.30"
77	13.38007	13° 22' 48.27"	121.0978	121° 5' 52.13"	193	13° 24' 21.33"	121° 6' 14.25"
78	13.3804	13° 22' 49.43"	121.0985	121° 5' 54.70"	194	13° 24' 22.54"	121° 6' 12.03"
79	13.38076	13° 22' 50.74"	121.099	121° 5' 56.47"	195	13° 24' 22.18"	121° 6' 8.34"
80	13.38088	13° 22' 51.17"	121.0998	121° 5' 59.43"	196	13° 24' 21.33"	121° 6' 4.95"
81	13.38056	13° 22' 50.01"	121.1005	121° 6' 1.88"	197	13° 24' 18.93"	121° 6' 2.63"
82	13.38001	13° 22' 48.04"	121.1008	121° 6' 2.96"	198	13° 24' 15.17"	121° 5' 59.90"
83	13.37938	13° 22' 45.76"	121.1012	121° 6' 4.39"	199	13° 24' 13.55"	121° 5' 57.94"
84	13.3789	13° 22' 44.05"	121.1016	121° 6' 5.83"	200	13° 24' 12.91"	121° 5' 55.33"
85	13.37851	13° 22' 42.64"	121.1023	121° 6' 8.24"	201	13° 24' 13.93"	121° 5' 52.59"
86	13.37803	13° 22' 40.89"	121.1029	121° 6' 10.34"	202	13° 24' 15.88"	121° 5' 51.47"
87	13.37751	13° 22' 39.03"	121.1033	121° 6' 12.04"	203	13° 24' 18.19"	121° 5' 51.22"
88	13.37722	13° 22' 38.01"	121.1035	121° 6' 12.56"	204	13° 24' 21.04"	121° 5' 50.95"
89	13.37664	13° 22' 35.90"	121.1034	121° 6' 12.34"	205	13° 24' 23.71"	121° 5' 50.06"
90	13.37634	13° 22' 34.84"	121.103	121° 6' 10.90"	206	13° 24' 24.94"	121° 5' 47.59"
91	13.37618	13° 22' 34.26"	121.1021	121° 6' 7.45"	207	13° 24' 25.48"	121° 5' 45.10"
92	13.37587	13° 22' 33.12"	121.1012	121° 6' 4.46"	208	13° 24' 24.55"	121° 5' 43.08"
93	13.37541	13° 22' 31.47"	121.1008	121° 6' 2.90"	209	13° 24' 22.81"	121° 5' 41.63"
94	13.37458	13° 22' 28.47"	121.1006	121° 6' 2.22"	210	13° 24' 20.93"	121° 5' 41.13"
95	13.37385	13° 22' 25.87"	121.1008	121° 6' 2.74"	211	13° 24' 17.97"	121° 5' 41.00"
96	13.37287	13° 22' 22.34"	121.1013	121° 6' 4.53"	212	13° 24' 15.87"	121° 5' 40.66"

ALAG RIVER GEOGRAPHIC COORDINATES

97	13.37243	13° 22' 20.73"	121.1011	121° 6' 3.83"	213	13° 24' 14.97"	121° 5' 39.56"
98	13.37218	13° 22' 19.85"	121.1005	121° 6' 1.89"	214	13° 24' 15.01"	121° 5' 38.03"
99	13.37219	13° 22' 19.87"	121.0999	121° 5' 59.61"	215	13° 24' 16.18"	121° 5' 36.71"
100	13.37191	13° 22' 18.86"	121.0985	121° 5' 54.51"	216	13° 24' 19.17"	121° 5' 36.92"
101	13.37097	13° 22' 15.50"	121.0974	121° 5' 50.74"	217	13° 24' 22.51"	121° 5' 38.57"
102	13.37069	13° 22' 14.47"	121.0969	121° 5' 48.90"	218	13° 24' 25.23"	121° 5' 40.50"
103	13.3708	13° 22' 14.89"	121.0962	121° 5' 46.21"	219	13° 24' 28.92"	121° 5' 40.89"
104	13.37137	13° 22' 16.93"	121.0956	121° 5' 44.01"	220	13° 24' 31.81"	121° 5' 39.46"
105	13.37236	13° 22' 20.49"	121.0954	121° 5' 43.43"	221	13° 24' 34.77"	121° 5' 38.08"
106	13.37391	13° 22' 26.08"	121.0954	121° 5' 43.32"	222	13° 24' 37.68"	121° 5' 38.25"
107	13.37503	13° 22' 30.10"	121.0951	121° 5' 42.35"	223	13° 24' 44.64"	121° 5' 35.25"
108	13.37525	13° 22' 30.90"	121.0941	121° 5' 38.70"	224	13° 24' 53.94"	121° 5' 36.57"
109	13.37491	13° 22' 29.69"	121.0931	121° 5' 35.26"	225	13° 24' 55.11"	121° 5' 36.15"
110	13.37437	13° 22' 27.72"	121.0925	121° 5' 32.95"	226	13° 24' 59.83"	121° 5' 35.70"
111	13.37352	13° 22' 24.68"	121.0919	121° 5' 30.70"	227	13° 25' 3.61"	121° 5' 32.45"
112	13.37283	13° 22' 22.20"	121.091	121° 5' 27.73"	228	13° 25' 4.55"	121° 5' 31.24"
113	13.37239	13° 22' 20.60"	121.0902	121° 5' 24.55"	229	13° 25' 5.20"	121° 5' 27.56"
114	13.37155	13° 22' 17.58"	121.0894	121° 5' 21.94"	230	13° 25' 2.85"	121° 5' 24.63"
115	13.37126	13° 22' 16.55"	121.0897	121° 5' 22.96"	231	13° 24' 56.50"	121° 5' 30.53"
116	13.3718	13° 22' 18.49"	121.0903	121° 5' 24.91"			

LONGOS RIVER GEOGRAPHIC COORDINATES

Corner	Latitude	Longitude	Corner	Latitude	Longitude
1	13° 25' 0.68"	121° 6' 22.76"	92	13° 21' 54.63"	121° 7' 11.04"
2	13° 24' 58.30"	121° 6' 23.59"	93	13° 21' 54.82"	121° 7' 12.24"
3	13° 24' 56.62"	121° 6' 25.64"	94	13° 21' 59.92"	121° 7' 11.92"
4	13° 24' 55.90"	121° 6' 28.00"	95	13° 22' 3.43"	121° 7' 11.38"
5	13° 24' 53.82"	121° 6' 29.66"	96	13° 22' 8.67"	121° 7' 8.51"
6	13° 24' 51.43"	121° 6' 29.64"	97	13° 22' 11.75"	121° 7' 6.51"
7	13° 24' 46.88"	121° 6' 33.58"	98	13° 22' 15.19"	121° 7' 4.91"
8	13° 24' 43.19"	121° 6' 39.66"	99	13° 22' 18.25"	121° 7' 2.66"
9	13° 24' 40.33"	121° 6' 42.79"	100	13° 22' 21.38"	121° 7' 2.16"
10	13° 24' 37.35"	121° 6' 45.34"	101	13° 22' 21.49"	121° 7' 2.15"
11	13° 24' 33.89"	121° 6' 48.06"	102	13° 22' 25.67"	121° 7' 1.56"
12	13° 24' 30.49"	121° 6' 50.27"	103	13° 22' 29.18"	121° 7' 1.32"
13	13° 24' 28.11"	121° 6' 52.16"	104	13° 22' 32.54"	121° 7' 0.81"
14	13° 24' 26.37"	121° 6' 56.20"	105	13° 22' 36.33"	121° 7' 1.60"
15	13° 24' 25.27"	121° 7' 0.19"	106	13° 22' 39.40"	121° 7' 2.89"
16	13° 24' 23.19"	121° 7' 4.05"	107	13° 22' 41.67"	121° 7' 4.17"
17	13° 24' 20.27"	121° 7' 6.85"	108	13° 22' 42.66"	121° 7' 4.64"
18	13° 24' 16.27"	121° 7' 10.96"	109	13° 22' 47.76"	121° 7' 4.92"
19	13° 24' 7.72"	121° 7' 18.99"	110	13° 22' 56.32"	121° 7' 5.57"
20	13° 24' 2.94"	121° 7' 22.46"	111	13° 23' 2.55"	121° 7' 6.20"
21	13° 24' 0.62"	121° 7' 22.52"	112	13° 23' 5.59"	121° 7' 6.21"
22	13° 23' 57.57"	121° 7' 21.21"	113	13° 23' 5.65"	121° 7' 6.20"
23	13° 23' 55.84"	121° 7' 18.58"	114	13° 23' 10.40"	121° 7' 5.40"
24	13° 23' 55.04"	121° 7' 15.45"	115	13° 23' 15.38"	121° 7' 4.28"
25	13° 23' 54.02"	121° 7' 13.52"	116	13° 23' 19.94"	121° 7' 2.59"
26	13° 23' 50.63"	121° 7' 10.50"	117	13° 23' 22.94"	121° 7' 0.61"
27	13° 23' 50.56"	121° 7' 10.44"	118	13° 23' 25.22"	121° 6' 58.22"
28	13° 23' 49.50"	121° 7' 8.76"	119	13° 23' 26.36"	121° 6' 53.19"
29	13° 23' 49.96"	121° 7' 6.07"	120	13° 23' 27.58"	121° 6' 49.19"
30	13° 23' 50.19"	121° 7' 3.79"	121	13° 23' 27.92"	121° 6' 45.80"
31	13° 23' 50.20"	121° 7' 3.74"	122	13° 23' 27.89"	121° 6' 42.82"
32	13° 23' 51.09"	121° 7' 1.09"	123	13° 23' 28.26"	121° 6' 39.80"
33	13° 23' 52.84"	121° 6' 58.27"	124	13° 23' 29.02"	121° 6' 38.29"
34	13° 23' 54.13"	121° 6' 55.09"	125	13° 23' 32.60"	121° 6' 37.72"
35	13° 23' 54.16"	121° 6' 51.68"	126	13° 23' 34.38"	121° 6' 38.92"
36	13° 23' 53.50"	121° 6' 49.35"	127	13° 23' 35.16"	121° 6' 41.42"
37	13° 23' 52.93"	121° 6' 45.70"	128	13° 23' 34.97"	121° 6' 43.88"
38	13° 23' 51.11"	121° 6' 42.18"	129	13° 23' 35.02"	121° 6' 49.21"
39	13° 23' 49.32"	121° 6' 41.36"	130	13° 23' 36.21"	121° 6' 51.97"
40	13° 23' 47.40"	121° 6' 40.92"	131	13° 23' 38.09"	121° 6' 53.92"
41	13° 23' 45.76"	121° 6' 41.04"	132	13° 23' 40.34"	121° 6' 54.57"
42	13° 23' 44.46"	121° 6' 42.35"	133	13° 23' 42.65"	121° 6' 54.54"
43	13° 23' 43.91"	121° 6' 43.99"	134	13° 23' 44.93"	121° 6' 53.33"
44	13° 23' 43.73"	121° 6' 45.69"	135	13° 23' 46.69"	121° 6' 50.58"
45	13° 23' 44.50"	121° 6' 47.45"	136	13° 23' 46.96"	121° 6' 48.40"
46	13° 23' 44.37"	121° 6' 49.71"	137	13° 23' 46.29"	121° 6' 46.19"
47	13° 23' 43.30"	121° 6' 51.73"	138	13° 23' 46.27"	121° 6' 44.69"
48	13° 23' 42.08"	121° 6' 52.86"	139	13° 23' 48.67"	121° 6' 43.14"
49	13° 23' 40.31"	121° 6' 53.06"	140	13° 23' 49.76"	121° 6' 44.00"

LONGOS RIVER GEOGRAPHIC COORDINATES

50	13° 23' 38.76"	121° 6' 52.33"	141	13° 23' 51.35"	121° 6' 46.63"
51	13° 23' 37.73"	121° 6' 51.05"	142	13° 23' 52.11"	121° 6' 49.67"
52	13° 23' 36.57"	121° 6' 48.14"	143	13° 23' 52.25"	121° 6' 52.94"
53	13° 23' 36.41"	121° 6' 46.07"	144	13° 23' 52.24"	121° 6' 54.71"
54	13° 23' 36.95"	121° 6' 43.43"	145	13° 23' 50.15"	121° 6' 58.64"
55	13° 23' 37.65"	121° 6' 41.14"	146	13° 23' 48.54"	121° 7' 2.17"
56	13° 23' 37.71"	121° 6' 39.56"	147	13° 23' 48.04"	121° 7' 4.64"
57	13° 23' 36.61"	121° 6' 37.47"	148	13° 23' 47.94"	121° 7' 7.98"
58	13° 23' 33.81"	121° 6' 35.86"	149	13° 23' 48.30"	121° 7' 9.64"
59	13° 23' 31.12"	121° 6' 35.56"	150	13° 23' 49.75"	121° 7' 11.53"
60	13° 23' 29.04"	121° 6' 36.26"	151	13° 23' 51.20"	121° 7' 12.94"
61	13° 23' 27.24"	121° 6' 37.46"	152	13° 23' 52.28"	121° 7' 14.68"
62	13° 23' 26.49"	121° 6' 39.19"	153	13° 23' 52.94"	121° 7' 17.44"
63	13° 23' 26.22"	121° 6' 42.93"	154	13° 23' 53.53"	121° 7' 20.07"
64	13° 23' 26.30"	121° 6' 47.31"	155	13° 23' 54.88"	121° 7' 21.97"
65	13° 23' 25.73"	121° 6' 50.56"	156	13° 23' 56.28"	121° 7' 23.37"
66	13° 23' 24.80"	121° 6' 53.84"	157	13° 23' 58.80"	121° 7' 24.36"
67	13° 23' 23.33"	121° 6' 57.18"	158	13° 24' 1.18"	121° 7' 24.65"
68	13° 23' 20.78"	121° 7' 0.48"	159	13° 24' 4.42"	121° 7' 23.86"
69	13° 23' 17.98"	121° 7' 2.07"	160	13° 24' 7.54"	121° 7' 22.39"
70	13° 23' 14.54"	121° 7' 3.13"	161	13° 24' 10.93"	121° 7' 20.13"
71	13° 23' 8.57"	121° 7' 4.46"	162	13° 24' 15.21"	121° 7' 17.89"
72	13° 23' 4.70"	121° 7' 4.80"	163	13° 24' 18.74"	121° 7' 15.25"
73	13° 23' 0.72"	121° 7' 4.79"	164	13° 24' 21.66"	121° 7' 12.03"
74	13° 22' 56.92"	121° 7' 4.47"	165	13° 24' 22.60"	121° 7' 9.89"
75	13° 22' 50.08"	121° 7' 4.04"	166	13° 24' 23.85"	121° 7' 6.96"
76	13° 22' 46.28"	121° 7' 3.82"	167	13° 24' 26.22"	121° 7' 4.62"
77	13° 22' 43.90"	121° 7' 3.76"	168	13° 24' 28.65"	121° 7' 1.02"
78	13° 22' 42.09"	121° 7' 2.88"	169	13° 24' 30.88"	121° 6' 56.56"
79	13° 22' 39.98"	121° 7' 1.44"	170	13° 24' 34.28"	121° 6' 52.31"
80	13° 22' 36.89"	121° 7' 0.04"	171	13° 24' 39.45"	121° 6' 47.36"
81	13° 22' 33.92"	121° 6' 59.60"	172	13° 24' 39.54"	121° 6' 47.31"
82	13° 22' 30.96"	121° 6' 59.19"	173	13° 24' 41.85"	121° 6' 45.30"
83	13° 22' 30.93"	121° 6' 59.20"	174	13° 24' 43.87"	121° 6' 44.27"
84	13° 22' 28.23"	121° 6' 59.10"	175	13° 24' 48.23"	121° 6' 40.54"
85	13° 22' 22.46"	121° 7' 0.13"	176	13° 24' 53.33"	121° 6' 35.97"
86	13° 22' 16.76"	121° 7' 1.89"	177	13° 24' 56.33"	121° 6' 33.93"
87	13° 22' 12.72"	121° 7' 4.83"	178	13° 24' 58.93"	121° 6' 31.70"
88	13° 22' 8.51"	121° 7' 6.80"	179	13° 24' 59.62"	121° 6' 30.79"
89	13° 22' 4.07"	121° 7' 9.77"	180	13° 25' 0.24"	121° 6' 27.94"
90	13° 21' 59.82"	121° 7' 10.99"	181	13° 25' 1.92"	121° 6' 26.43"
91	13° 21' 55.97"	121° 7' 10.84"	182	13° 25' 0.68"	121° 6' 22.76"

ALAG RIVER DELTA

Corner	Latitude	Longitude
1	13°25′36.29″ N	121°05′30.36″ E
2	13°25′05.22″ N	121°05′27.55″ E
3	13°25′02.86″ N	121°05′24.67″ E
4	13°25′05.57″ N	121°04′52.87″ E
5	13°25′11.55″ N	121°04′53.73″ E
6	13°25′17.21″ N	121°04′55.65″ E
7	13°25′22.42″ N	121°04′58.70″ E
8	13°25′26.96″ N	121°05′02.59″ E
9	13°25′30.74″ N	121°05′07.18″ E
10	13°25′33.77″ N	121°05′12.59″ E
11	13°25′35.62″ N	121°05′18.27″ E
12	13°25′36.49″ N	121°05′24.32″ E

LONGOS RIVER DELTA

Corner	Latitude	Longitude
1	13°25′30.11″ N	121°06′40.07″ E
2	13°25′01.93″ N	121°06′26.45″ E
3	13°25′00.65″ N	121°06′22.85″ E
4	13°25′14.01″ N	121°05′54.02″ E
5	13°25′14.01″ N	121°05′54.02″ E
6	13°25′23.88″ N	121°06′00.74″ E
7	13°25′27.87″ N	121°06′05.44″ E
8	13°25′30.84″ N	121°06′10.66″ E
9	13°25′32.76″ N	121°06′16.35″ E
10	13°25′33.76″ N	121°06′22.33″ E
11	13°25′33.65″ N	121°06′28.51″ E

Annex 2: DENR Administrative Order 2019-14

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel Nos. 929-6626 to 29; 929-6633 to 35
929-7041 to 43; 929-6252; 929-1669
Website: http://www.denr.gov.ph / E-mail: web@denr.gov.ph

NOV 0 4 2019

DENR ADMINISTRATIVE ORDER NO. 14, S. 2019

SUBJECT : **RATIONALIZING DREDGING ACTIVITIES IN THE HEAVILY-SILTED RIVER CHANNELS WITHIN THE PROVINCE OF ORIENTAL MINDORO PURSUANT TO THE DENR-DPWH-DILG-DOTR JOINT MEMORANDUM CIRCULAR NO. 1 SERIES OF 2019**

Pursuant to Section 2, Article XII of the 1987 Constitution, the Department's mandate under Executive Order No. 292 or the Administrative Code of the Philippines, and Section 5.4 of DENR-DPWH-DILG-DOTr Joint Memorandum Circular No. 2019-01, in order to protect and properly manage the disposition of sand as well as restore the natural state and water flow of the heavily-silted river channels in the Province of Oriental Mindoro, the following guidelines are hereby prescribed:

I.

GENERAL PROVISIONS

Section 1. ***Coverage***. This Order shall cover the implementation of the DENR River Restoration thru Dredging Activities as embodied in Section 5.4 of the DENR-DPWH-DILG-DOTr Joint Memorandum Circular No. 2019-01 in the heavily-silted river channels in the Province of Oriental Mindoro.

Section 2. ***Scope of Operations.*** In order to open heavily-silted river channels of Oriental Mindoro, the areas starting from the coastline of river deltas extending all the way upstream, as may be determined by the Provincial Government in accordance with the DPWH Dredging Master Plan, are hereby declared exclusive River Dredging Zones (RDZ). Only dredging activities shall be allowed within the RDZ, quarrying is strictly prohibited.

Section 3. ***Rationale and Objectives***

a) The flow of materials and sediment from the upland that flank down the major river systems thereby causing its aggradation became the long-term direct culprit of massive flooding in the various barangays and municipalities of the province of Oriental Mindoro.

b) It is necessary to protect and properly manage the utilization of the sand and gravel in the province of Oriental Mindoro to improve the water flows of its river systems, ensure the integrity of the various protective dikes and infrastructures, thereby reduce risks to lives and properties.

c) In order to restore the natural state and water flow of the heavily-silted river systems and improve its hydraulic capacity thereby eliminate flooding, large-scale dredging and desilting operations, based on a comprehensive dredging plan, must be implemented.

Section 4. ***Declaration of Policies***

a) The exclusive authority of the province to issue permit to extract sand, gravel and other quarry resources, pursuant to the ordinance of the Sangguniang Panlalawigan, under Republic Act No. 7160 is covered by Section 5.1 of JMC 2019-01 or the Dredging with Commercial Utilization of Dredged Materials in favor of a mining permit holder under the Industrial Sand and Gravel (ISAG) or Commercial Sand and Gravel (CSAG) quarry permit.

b) River Restoration through Dredging Activities under Section 5.4 of JMC 2019-01 does not cover an ISAG or CSAG regime since the activity to be undertaken is dredging and

not quarrying. This will not preclude, however, the entitlement of the province of Oriental Mindoro to the share from the commercial disposal of the dredged material in addition to the undertaking of the permit holder to restore the river thru dredging.

c) Local Government Units are entitled to their equitable share derived from the utilization and development of the national wealth within their respective areas under the Section 138 of the Local Government Code of 1991.

d) The State is allowed by the Constitution to enter into agreements with private sector entities to bolster the national economy through the sustainable utilization of minerals.

e) Disposal of dredged or extracted materials under this Order shall be governed by the principle according to which the government expects a reasonable return for its utilization, while holders of dredging clearance expect a reasonable return for its dredging operations while restoring the river to its original state.

Section 5. *No Funding from the Government.* No funding from the government shall be made for the conduct of dredging activities by the private sector. Holders of Dredging Clearance shall provide the financing, technology, management and personnel necessary to implement dredging activities within the exclusive RDZ.

II.

QUALIFICATIONS OF LARGE-SCALE DREDGING OPERATORS

Section 1. *Who May Apply.* Any citizen of the Philippines or a SEC-registered corporation, partnership, or association established to engage in construction, and development and/or dredging operations, with technical and financial capability to undertake large-scale flood control dredging and desilting operation in the Province of Oriental Mindoro. To implement efficient and cost-effective large-scale dredging operations, individual corporations may pool their resources, organize themselves and apply as a consortium.

Section 2. *Financial Capacity.* Applicants must possess the following:

a) Individual applicants must possess the financial capacity by showing proof of not less than P250,000,000.00 in asset value through the submission of an Audited Financial Statement, credit lines and/or income tax returns for the preceding three (3) years and other documents that may be required by the concerned DENR agency;

b) For a corporation, partnership, association or a consortium, its capital must be at least sixty per centum (60%) owned by citizens of the Philippines with a minimum authorized capital stock of One Billion Pesos (₱ 1,000,000,000.00), twenty-five percent (25%) of which is subscribed and twenty-five percent (25%) of that subscribed is paid-up. In no case shall the paid up capital be less than P250,000,000.00. For consortiums, one of its members must possess these qualifications.

Section 3. *Technical Competence.* In addition to the above requirements, only applicants capable of implementing large-scale dredging activities for flood mitigation or prevention purposes in the heavily-silted river channels within the Province of Oriental Mindoro, based on their technical knowledge and verifiable previous track record conducting such activities, as properly vetted, duly certified and approved by the appropriate DENR and DPWH offices.

Section 4. *Other requirements.* In addition to the above-stated requirements, the proponent shall:

a) Deploy all their equipment within 30 days from the Notice to Proceed (NTP) to be issued by the Provincial Government and the equipment shall be under the name of the company, either chartered or leased, and capable of undertaking large scale dredging activity.

b) Post a Cash Bond in the amount of Twenty Million Pesos (₱ 20,000,000.00), to be held in an account in the Province of Oriental Mindoro, to ensure compliance with this Order and other applicable environmental laws, rules and regulations.

c) Secure the required clearances from the appropriate government office including a certification of no pending case relating to compliance with existing environmental laws, rules and regulations, and an undertaking that it will never be involved in such.

d) Undertake protection of the rivers banks from erosion and provide necessary engineering intervention to support the vital infrastructures along the river, pursuant to the dredging clearance approved by the DPWH.

e) Secure the necessary permit from the Provincial Government and pay the required National and Local Tax as required by law.

III.

DENR RIVER RESTORATION THROUGH DREDGING ACTIVITIES

Section 1. ***Prior Determination of Mineral Contents.*** Upon determination of the RDZ, the Mines and Geosciences Bureau (MGB) shall conduct a survey of the non-metallic and metallic resources on the RDZ. Once a prior determination of the metallic and other valuable materials in economic quantities is established, the proponent shall, in addition to the payment of taxes, pay the corresponding fees prescribed by the MGB.

Section 2. ***Application for Issuance of Dredging Clearance.*** The application for the issuance of Dredging Clearance must be accompanied by the endorsement of the Governor and shall be governed by this Order and other applicable DENR laws, rules and issuances.

Section 3. ***Prescribed Extraction Method.*** Holders of dredging clearance under this Order shall adopt the sequence and mode of extraction approved by the DPWH and implement the same in accordance with the duly approved work program in order to ensure a systematic and responsible extraction/utilization/disposition of sand and gravel from river channels.

Section 4. ***Prescribed Dredging Method.*** In order to restore the natural state and flow of the river and taking into consideration the essential role played by constant sand replenishment, all dredging activities shall be initially conducted at deltas of heavily-silted river channels of Oriental Mindoro, for a period of six (6) months, with the objective of creating navigational channel and providing more depth for passage of dredging vessel/s to implement true flood control measures within the RDZ.

IV.

ENVIRONMENTAL MANAGEMENT

Section 1. ***Environmental Compliance.*** All holders of dredging clearance shall comply with the pertinent laws, rules and regulations on environmental protection, the allocation of funds for environment-related expenditures, environmental impact assessment, and setting up of the contingent liability and rehabilitation fund, among others.

Section 2. Programmatic Environmental Impact Assessment or Strategic Environmental Assessment per River Channel. In view of the required issuance of ECC on the one (1) Master Dredging Plan per river channel to be issued/approved by the DPWH for the heavily-silted river channels in Oriental Mindoro, the EMB RO IV-B shall conduct the Programmatic EIA or SEA for each river system in coordination with MGB, DPWH and the Provincial Government. The Provincial Government may be the proponent for the Programmatic EIA and SEA.

Section 3. ***Application for Issuance of ECC.*** Upon endorsement of the Provincial Governor, all ECC applications for large-scale dredging in heavily-silted river channels in Oriental Mindoro shall be filed with the EMB RO IV-B.

Section 4. ***Extraction Limit.*** In view of the large-scale river dredging operations involving the heavily-silted river channels in Oriental Mindoro within the RDZ from the river delta extending all the way upstream and its high replenishment rate/s, the issuance of ECC per river channel shall not be subject to any extraction limit, provided that:

a) The extraction activities conform with the approved work program in accordance with the DPWH Dredging Master Plan;

b) Assessment of the river systems shall be done by the team composed of representatives from PENRO, CENRO and the MGB every two (2) years; and

c) The maximum allowable extraction conforms to the designated mitigating measures based on the environmental impact assessment.

V.

MEMORANDUM OF AGREEMENT WITH DENR

Section 1. ***Authority to Dispose.*** A holder of an approved Dredging Clearance shall enter into a Memorandum of Agreement (MOA) with the DENR – Regional Office (RO) IV-B wherein the holder is granted the authority to dispose materials extracted from the RDZ.

Section 2. ***Accreditation as Trader.*** All holders of dredging clearance issued by the DPWH or entities duly authorized or contracted by holders of dredging clearance to market and/or commercially dispose dredged or extracted materials should be accredited as traders/retailers/dealers. The Certificate of Accreditation shall be issued by the DENR through the MGB RO IV-B.

Section 3. ***Transport Permit.*** Ore Transport Permit (OTP) and/or Mineral Ore Export Permit (MOEP) shall be included in the MOA executed between the DENR RO IV-B and the holder of the dredging clearance who has been accredited as a trader. *Provided*, that a written notice prior to shipment or transport of dredged and/or extracted suitable materials shall be furnished to the MGB RO IV-B for the purpose of monitoring dredging activities in the RDZ.

Section 4. ***Excise Tax.*** The excise tax on locally extracted or produced non-metallic minerals and quarry resources will be based on the actual market value of the gross output thereof at the time of removal. The Excise Tax shall be timely and completely paid to the nearest Bureau of Internal Revenue Office in the province concerned.

Section 5. ***Work Deviation.*** Any deviation of more than 15% from the approved work program in any of the activities involved, without the prior concurrence of the DPWH in coordination with the DENR through the MGB RO IV-B shall be sufficient ground for the suspension/cancellation of pertinent permits and clearances.

VI.

OPERATIONS PERMIT WITH THE LOCAL GOVERNMENT

Section 1. ***Operations Permit.*** No Operations Permit, Notice of Award and Notice to Proceed shall be issued by the Provincial Government pursuant to this Order, unless the applicant has a valid MOA with DENR RO IV-B, has been duly accredited as a trader, and has secured a dredging clearance for flood control dredging and desilting activities in RDZ from the Secretary of the DPWH or its authorized representative based on DPWH-issued one river-specific Dredging Master Plan.

Section 2. ***Monitoring and Supervision Fee.*** A monitoring and supervision fee which shall not be less than five percent (5%) of the market value of the gross output of the materials

extracted from the covered area within the RDZ, exclusive of all other taxes, shall be paid to the provincial government for purposes of monitoring and ensuring compliance with this Order and other related issuances.

Section 3. *Extraction Fee*. Suitable materials for commercial disposition shall be subject to extraction fee, to be collected by the Provincial Government of Oriental Mindoro, in accordance with the Local Government Code.

VII.

MONITORING AND ENFORCEMENT

Section 1. *Creation of Inter-Agency Committee.* An inter-agency committee shall be created, composed of the following:

a) Governor of the Province of Oriental Mindoro as Chairperson;
b) DENR Regional Executive Director IV-B as Vice-Chairperson;
c) DPWH Regional Director IV-B Director as Member;
d) MGB Regional Director IV-B as Member; and
e) EMB Regional Director IV-B, as Member.

Section 2. *Powers and Functions of the Inter-Agency Committee.* The inter-agency committee shall have the following powers and functions:

a) Serve as oversight for the implementation of this Administrative Order and monitoring of the dredging operations;
b) Shall recommend the suspension and/or cancellation of permits and/or clearances; and
c) Shall propose policies and programs to rationalize the dredging operations.

VIII.

FINAL PROVISIONS

Section 1. *Subjectivity to Other Laws*. This Order shall be subject to the Constitution, and all pertinent laws, guidelines and issuances.

Section 2. *Repealing Clause*. All Orders, issuances, rules and regulations, or parts thereof which are inconsistent with this Order are hereby repealed or modified accordingly.

Section 3. *Separability*. The provisions of this Order are hereby declared to be separable. If any part or provision of this Order shall be declared invalid, the remaining portions or provisions shall not be affected thereby and shall be construed as if it did not contain the particular invalid term or provision.

Section 4. *Suppletory Clause*. In case of violation and/or non-compliance with the provisions of this Administrative Order, the pertinent penal provisions under R.A. 7942, Presidential Decree No. 1586 and other applicable laws, rules and regulation shall be applied suppletory hereto.

Section 5. *Effectivity*. This Administrative Order shall take effect fifteen (15) days following its complete publication in a newspaper of general circulation and registration with the Office of the Administrative Register.

Issued on NOV 0 4 2019, in Quezon City.

ROY A. CIMATU
Secretary

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR057491

PUBLICATION: Inquirer Bandera
December 06, 2019
ACKNOWLEDGEMENT: U.P. LAW CENTER
December 12, 2019

Annex 3: IAC Resolution No. 02-2023

Republic of the Philippines
PROVINCIAL GOVERNMENT OF ORIENTAL MINDORO
Provincial Capitol Complex, Calapan City, Oriental Mindoro

INTER-AGENCY COMMITTEE FOR RIVER RESTORATION AND DREDGING ACTIVITIES

IAC RESOLUTION NO. 02 - 2023

A RESOLUTION OPENING THE SUBMISSION OF LETTERS OF INTENT, AND PROOF OF FINANCIAL AND TECHNICAL CAPACITIES OF INTERESTED APPLICANTS FOR LONGOS RIVER, ALAG RIVER, SUBAANG RIVER, WASIG RIVER, CAGANKAN RIVER, MANSALAY RIVER, PULA RIVER, MAUJAO RIVER, AND CAWACAT RIVER

WHEREAS, DENR-DPWH-DILG-DOTr Joint Memorandum Circular No. 01, Series of 2019 (JMC 1-2019) provides for the *"Guidelines on the Issuance of Clearance and/or Permit for Dredging Within Waterways or Other Inland Bodies of Water"* as the primary basis to promote the government's flood control efforts.

WHEREAS, in accordance with the mandate of DENR Department Administrative Order No. 14, Series of 2019 (DAO 14-2019), the Inter-Agency Committee (IAC) shall propose policies and programs to rationalize the dredging operations in the Province of Oriental Mindoro.

WHEREAS, by virtue of IAC Resolution No. 01-2023 dated 30 March 2023, the IAC cancelled the Notices of Award / Pre-Qualification of Bataan Aggregates Corporation Joint Venture Anglo Philippine Holdings Corporation, and Vibranium Land Development Technology, OPC for Longos River; and River Delta Development Corporation, for Alag River.

WHEREAS, based on the two (2) studies conducted by Mines and Geosciences Bureau (hereinafter, "MGB") Region IV-B MIMAROPA Report on the Identified River Dredging Zones (RDZs) in the Province of Oriental Mindoro, and recent flooding incidents the following river systems are recommended large scale dredging activities:

1. Longos River (Barangay San Andres, Baco, Or. Mindoro).
2. Alag River (Barangay Water, Baco, Or. Mindoro).
3. Subaang River (Barangay Lumangbayan, San Teodoro, Or. Mindoro).
4. Wasig River (Barangay Wasig, Mansalay, Or. Mindoro).
5. Cagankan River (Barangay Don Pedro, Mansalay, Or. Mindoro).
6. Mansalay River (Barangay Poblacion, Mansalay, Or. Mindoro).
7. Pula River (Barangay Calima, Pola, Or. Mindoro);
8. Maujao River (Barangay Maujao, Bulalacao, Or. Mindoro); and
9. Cawacat River (Barangay Campaasan, Bulalacao, Or. Mindoro).

NOW THEREFORE, resolved as it is hereby resolved:

Resolved, to invite interested proponents willing to undertake River Restoration through Large-Scale Dredging Activities to submit respective Letters of Intent, and Proof of Financial and Capacities to the Secretariat for River Restoration and Dredging Activities in the Province of Oriental Mindoro, from 31 March 2023, until 14 April 2023, for the following river systems:

1. Cluster of Alag River and Longos River, in Baco, Oriental Mindoro;
2. Cluster of Wasig River, Cagankan River, Mansalay River, in Mansalay, Oriental Mindoro;
3. Cluster of Maujao River and Cawacat River, in Bulalacao, Oriental Mindoro;
4. Subaang River, in San Teodoro, Oriental Mindoro; and

5. Pula River, in Pola, Oriental Mindoro.

Resolved further, the IAC hereby agreed to adopt the following schedule of activities:

Posting of Notices	01 April 2023 – 14 April 2023
Evaluation	15 April 2023 – 21 April 2023
Award	Between 24 April 2023 – 28 April 2023

ENACTED during the IAC meeting held on the 30th day of March 2023 at the Office of the Governor, 2nd Floor Provincial Capitol Complex, Governor Ignacio St., Barangay Camilmil, Calapan City, Oriental Mindoro

REFERENDUM

	APPROVED	DISAPPROVED	REMARKS
GOV. HUMERLITO A. DOLOR, MPA, PH.D.			
RED LORMELYN E. CLAUDIO, CESO IV DENR-MIMAROPA REGION			
RD GERALD A. PACANAN, CESO III DPWH – REGION IV-B			
RD GLENN MARCELO C. NOBLE MGB - MIMAROPA			
RD JOE AMIL M. SALINO EMB-MIMAROPA			

x----------x

CERTIFICATION

I hereby certify that the abovementioned resolution was duly approved by the Inter-Agency Committee during its meeting on the 30th day of March 2023 at the Office of the Governor, 2nd Floor Provincial Capitol Complex, Governor Ignacio St., Barangay Camilmil, Calapan City, Oriental Mindoro.

ATTY. EARL LIGORIO R. TURANO II
Provincial Legal Officer,
Secretariat for River Restoration and Dredging Activities in the Province of Oriental Mindoro

Annex 4: Provincial Government of Oriental Mindoro Public Notice

Republic of the Philippines
PROVINCE OF ORIENTAL MINDORO

PROVINCIAL ADMINISTRATOR'S OFFICE

NOTICE TO THE PUBLIC
31 March 2023

NOTICE IS HEREBY GIVEN, that pursuant to the provisions of DPWH-DENR-DILG – DOTr Joint Memorandum Circular No. 1, Series of 2019, DENR Department Administrative Order No. 14 Series of 2019; and the Inter-Agency Committee (IAC) on Rationalizing Dredging Activities in the Heavily Silted River Channels within the Province of Oriental Mindoro's Resolution Nos. 01-2023 and 02-2023, issued on 30 March 2023, the Provincial Government of Oriental Mindoro (PGOM) is now accepting ***Letters of Intent and/ or Proposals*** from private sector proponents who are willing, and financially and technically capable to undertake river restoration, through large-scale dredging activities, in the following river systems:

1. **Alag River (Barangay Water, Baco, Or. Mindoro)**
2. **Longos River (Barangay San Andres, Baco, Or. Mindoro)**
3. **Subaang River (Barangay Lumangbayan, San Teodoro, Or. Mindoro)**
4. **Wasig River (Barangay Wasig, Mansalay, Or. Mindoro)**
5. **Cagankan River (Barangay Don Pedro, Mansalay, Or. Mindoro)**
6. **Mansalay River (Barangay Poblacion, Mansalay, Or. Mindoro)**
7. **Pula River (Barangay Calima, Pola, Or. Mindoro)**
8. **Maujao River (Barangay Maujao, Bulalacao, Or. Mindoro); and**
9. **Cawacat River (Barangay Campaasan, Bulalacao, Or. Mindoro).**

The aforementioned river systems shall form clusters on the basis of the following classifications:

1. **Cluster of Alag River and Longos River, in Baco, Oriental Mindoro;**
2. **Cluster of Wasig River, Cagankan River, Mansalay River, in Mansalay, Oriental Mindoro;**
3. **Cluster of Maujao River and Cawacat River, in Bulalacao, Oriental Mindoro;**
4. **Subaang River, in San Teodoro, Oriental Mindoro; and**
5. **Pula River, in Pola, Oriental Mindoro.**

Interested parties shall submit the following documents pursuant to Chapter II (Qualification of Large-Scale Dredging Operators) DENR DAO No. 14, Series of 2019, to wit:

1. **Letter of Intent**

2. **Business Registration**

3. **Proof of Financial Capacity:**

   For Individual Applicants –not less than P250,000,000.00 in asset value through the submission of an Audited Financial Statement, credit lines and/or income tax returns for the preceding three (3) years and other documents that may be required by the concerned DENR agency.

Provincial Capitol Complex, Barangay Camilmil,
Calapan City 5200, Oriental Mindoro
(043) 288 7333
pa@ormindoro.gov.ph

For Corporation, Partnership, Association or a Consortium - capital must be at least sixty per centum (60%) owned by citizens of the Philippines with a minimum authorized capital stock of One Billion Pesos (P 1,000,000,000.00), twenty-five percent (25%) of which is subscribed and twenty-five percent (25%) of that subscribed is paid up. In no case shall the paid up capital be less than P250,000,000.00. For consortiums, one of its members must possess these qualifications.

4.Proof of Technical Capacity:

Only applicants capable of large-scale dredging activities for flood mitigation or prevention purposes in the heavily-silted river channels within the Province of Oriental Mindoro, based on their technical knowledge and verifiable previous track record conducting such activities, as properly vetted, duly certified and approved by the appropriate DENR and DPWH offices.

5. Pre-feasibility Study

6. List of Equipment

7.Verifiable list of previously completed or on-going river dredging contracts.

The aforementioned documentary requirements will only be accepted from **01 April 2023** to **15 April 2023** to the Inter-Agency Committee Secretariat, Ground Floor, Main Building, Provincial Capitol Complex, Barangay Camilmil, Calapan City, Oriental Mindoro. Kindly look for **MARK DANIEL M. NICASIO** and **MARIA AIZA D. LIBUDAN**, or contact the Secretariat at **(043) 441-1074**, or **0917-114-8017** for inquiries.

Please take note that the submitted documents shall be further subject to the review and approval of the Inter-Agency Committee, and in accordance with existing laws, rules and regulations.

DR. HUBBERT CHRISTOPHER A. DOLOR, MPA, MHA, PAR
Provincial Administrator
Chairperson, Technical Working Group and Financial Working Group for River Restoration and Dredging Activities in the Province of Oriental Mindoro

Annex 5: Provincial Government of Oriental Mindoro Certification Letter

Republic of the Philippines
PROVINCE OF ORIENTAL MINDORO

PROVINCIAL LEGAL OFFICE
Provincial Capitol Complex, Camilmil, Calapan City 5200, Oriental Mindoro
+63 43 286 7062/ 286 7558 +63 43 441 1074 plo@ormindoro.gov.ph

17 May 2023

MR. ALFREDO R. TOLENTINO, JR.
Chairperson and President
Bird's Nest Resources Corporation
Room 402 Bencom Bldg., 146 West Avenue, Brgy. Phil-Am,
Quezon City

Dear **Mr. Tolentino:**

On 09 May 2023, during the the Inter-Agency Committee (IAC) on Rationalizing Dredging Activities in the Heavily-Silted River Channels within the Province of Oriental Mindoro meeting, Bird's Nest Resources Corporation (Bird's Nest) has been conferred the status as a pre-qualified proponent to undertake River Restoration through Large-Scale Dredging Activities in the Cluster of **Alag River** (Barangay Water, Baco, Oriental Mindoro), and **Longos River** (Barangay San Andres, Baco, Oriental Mindoro).

Furthermore, this is to certify that on the same date, the IAC authorized Bird's Nest to conduct public scoping and to submit the draft Dredging Master Plan within sixty (60) days thereof. Hence, the preliminary studies for the approval of the Dredging Master Plan and the application process for the issuance of the Environmental Compliance Certificate (ECC) may now commence in accordance with Department of Environment and Natural Resources Department Administrative Order (DAO) No. 14-2019.

Issued this 17th day of May, 2023.

Very truly yours,

ATTY. EARL LIGORIO R. TUKANO II
Provincial Legal Officer
Secretariat for River Restoration and Dredging Activities
in the Province of Oriental Mindoro