



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila

097.13 DPWH
12-01-2014

DEC 01 2014

DEPARTMENT ORDER)
NO. 139)
Series of 2014)

**SUBJECT: GUIDELINES ON RIVER DREDGING
OPERATIONS FOR FLOOD CONTROL**

Consistent with Section 23 of the amended IRR of the Water Code of the Philippines (PD 1067)¹ and the Mining Industry Coordinating Council Resolution No. 4 dated 30 May 2014, providing, among others, that in the case of river and/or delta dredging activities, the DPWH shall have direct control and supervision.

Hence, this Department Order shall set the guidelines on standardizing the implementation of all DPWH flood control dredging projects with exemption on the scope of remediation options for the treatment of contaminated dredged materials, in order to achieve the positive impact of a dredging project as to increasing the conveyance capacity of rivers as well as mitigating flood damages. Its specifications are as follows:

1. Surveys

The survey works shall include actual on-site bathymetric, topographic and hydrographic surveys in accordance with the survey requirements as called for in the DPWH Design Guidelines Criteria and Standards for Public Works and Highways, Volume I, Part I. Survey and Investigation.

2. Soil Investigation

Any riverbed excavation may cause changes in the river morphology. A reduction in sediment transport from the upstream affects the sediment balance resulting to bed elevation degradation and may cause aggradation in the other reaches, which will be critical in the protection of public structures such as bridges and river structures, hence, sediment yield and transport analysis is necessary. On the other hand, dredging works may introduce the risk for instability of the excavated side slopes and the slopes of existing banks, hence, slope stability analysis shall be undertaken.

In order to be able to establish the representative riverbed material gradation as well as soil parameters at the banks, soil investigation shall be conducted. Soil investigation shall be in accordance with the requirements as called for in the DPWH Design Guidelines Criteria and Standards for Public Works and Highways, Volume I, Part I. Survey and Investigation for slope stability analysis while shallow borings (about 3.0 to 5.0 m) be undertaken along the riverbed at a minimum of every 200 m intervals for the necessary determination of the representative riverbed material gradation for sediment transport analysis.

¹ "Plans and specifications of structures and devices that affect the direction or level of materials in rivers, lakes and in maritime waters shall be approved by the DPWH, except for irrigation projects", Section 23 of PD 1067

3. Environmental Clearances

Environmental clearances, either a Certificate of Non-Coverage (CNC) or Environmental Compliance Certificate (ECC) for dredging projects shall be secured from the DENR - Environmental Management Bureau.

4. Design and Related Reports

a. The design report shall contain the following:

- Project Impact Analysis
- Purpose and necessity of the dredging project
- Methodology of the hydrologic, hydraulic, sediment yield and transport, scouring and slope stability analyses.
- Hydrologic analysis using HEC-HMS and other acceptable rainfall-runoff analysis
- Hydraulic analysis to determine the existing capacity of the river and water surface profile for with and without dredging works using HEC-RAS in accordance with the memorandum of the Secretary dated June 21, 2011 re: "Upgrades on Flood Control and Road Drainage Standards"
- Sediment yield and transport analysis
- Scouring analysis
- Slope stability analysis

b. Geotechnical investigation report

c. Quantity calculation report

d. Construction methodology report which includes, among others but not limited to the mitigating measures to minimize if not avoid turbidity, spillage and other environmental impacts of dredging works.

e. Identification and designation of disposal areas in accordance with DENR requirements

5. Plan

The plans for dredging works shall contain, but not limited to the following:

- Cover sheet
- Index of drawings
- Location map and vicinity map
- Plan showing location of dumpsite for dredge materials
- General notes, legends/abbreviation and symbols and technical specifications
- Geotechnical investigation
- Typical drawings
- Plan and longitudinal profile and
- Cross sections

6. Standard Requirements

a. The proposed dredging works shall comply with the existing rules and regulations of the Water Code of the Philippines and Section 79.a of DENR Administration Order (DAO) No. 2010-21 which states "No extraction, removal and/or disposition of materials shall be allowed within a distance of one (1) kilometer from the boundaries of reservoirs established for public water supply, archaeological and historical sites or of any public or private works or structures, unless prior clearance from the Government agency(ies) concerned or owner is obtained. No

extraction, removal and/or disposition of materials shall likewise be allowed in offshore areas within five hundred (500) meters distance from the coast to two hundred (200) meters from the mean low tide."

- b. The proposed dredging works shall likewise comply with Section 19.b of RA 7942 (Philippine Mining Act of 1995) and Section 15.b.2. of DENR Administration Order (DAO) No. 2010-21, pertaining to one of the areas close to mining applications, which states "near or under public or private buildings, cemeteries, archaeological and historical sites, bridges, highways, waterways, railroads, dams or other infrastructure projects or public or private works including plantations or valuable crops except upon written consent of the Government agency or private entity concerned".
- c. The proposed dredging works shall be in accordance with the approved plan and specifications. Note that top edge of dredging works shall not be closer than 10 meters from existing riverbanks and/or river structures such as dikes, revetment, spur dikes and other river training structures.
- d. The necessary permits shall be secured from/and paid to the proper Government Agency/(ies).
- e. In case where a dredging proponent is concerned, any damage to the existing private and public utilities adjacent to the proposed dredging works, including the loss of lives, if any that may result shall be the sole responsibility of the dredging proponent. Such damages to the existing private and public utilities shall be reconstructed/repared to its original form in accordance with the DPWH standards and specifications at the expense of the proponent.
- f. The DPWH through its regional offices shall supervise and monitor the dredging activities.
- g. "As-Built" plan shall be prepared upon the completion of the dredging project.

Any violation thereof, particularly on the aforementioned provisions of the Standard Requirements should be reported to the LGU or DENR concerned for their appropriate action or possible revocation of permits especially when the dredging operation threatens the stability of any DPWH infrastructure project.

7. Approval of Plan and Permits

Approval of plan and the requested permit to dredge shall be issued by the concerned DPWH offices in accordance with its delegated authorities, upon clearance from the DENR.

This Department Order supersedes all other issuances inconsistent herewith and shall take effect immediately.

Please be guided accordingly.


ROGELIO L. SINGSON
Secretary

Department of Public Works and Highways
Office of the Secretary



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