



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

097-13 DPWH

08-16-2022

AUG 12 2022

DEPARTMENT ORDER)

NO. 183)

Series of 2022)

8/16/2022

SUBJECT: Amended Guidelines on the Annual Submission of Updated Naturally Occurring Materials Sources Maps and Related Reports

In order to further optimize the utilization of available naturally occurring and marginal construction materials and production plants that manufacture construction materials such as aggregate processing and crushing plants, and concrete and asphalt batching plants nationwide, the guidelines in the annual updating and submission of all new and existing materials sources is hereby amended as prescribed in the attached Guidelines on the Annual Submission of Updated Naturally Occurring Materials Sources Maps and Related Reports (Annex "A").

The maps and reports shall be submitted by the District Engineering Offices (DEOs) to their respective Regional Offices (ROs) for consolidation by the end of November each year. The ROs shall forward the consolidated maps and reports to the Bureau of Research and Standards (BRS) on or before the end of January of the succeeding year.

This Order supersedes Department Order No. 41, Series of 2006 and shall take effect immediately.

MANUEL M. BONOAN
Secretary

Department of Public Works and Highways
Office of the Secretary



WIN2W02209

- Encl:
- 1.) Guidelines on the Submission of Updated Material Sources Maps and Data, Annex "A"
 - 2.) Naturally Occurring Material Sources Field Data Sheet, Annex "B"
 - 3.) Aggregate Processing (Crushing & Screening) Plants and Concrete/Asphalt Batching Plants Field Data Sheet, Annex "C"
 - 4.) Summary of Naturally Occurring Material Sources, Annex "D"
 - 5.) Summary of and Aggregate Processing (Crushing & Screening) Plants and Concrete/Asphalt Batching Plants, Annex "E"
 - 6.) Sample Format for Geotagged Photos, Annex "F"
 - 7.) Sample Format for Material Sources Map, Annex "G"
 - 8.) Instructions for Digital Compilation of Material Sources Maps and Reports, Annex "H"


14.1.4 RPF/MLC/MMB

GUIDELINES ON THE ANNUAL SUBMISSION OF UPDATED NATURALLY OCCURRING MATERIALS SOURCES MAPS AND RELATED REPORTS

1. The naturally occurring material sources and aggregate processing plants and concrete/asphalt batching plants within the area of jurisdiction of all District Engineering Offices (DEOs) shall be inspected on a yearly basis to ensure that the volume/quantity is sufficient and readily available for use. The concerned DEOs shall schedule the exploration works in such a manner that it will not disrupt their regular work activities.
2. The DEOs shall accomplish the field data sheet for each source as stipulated in **Annexes B-C**. The field data sheets shall be maintained on file and be made available during field verification by the Bureau of Research and Standards (BRS). For uniformity in the submission of updated material sources, the information from the field data sheet shall be encoded and summarized using the attached form under **Annexes D-E**.
3. Each material source shall be geotagged (process of adding geographic data to various media such as photos) to identify the current and exact location of the source and shall be incorporated in the materials map (**Annexes F-G**).
4. The submission of additional documentary requirements such as Quarry Permits and/or Environmental Compliance Certificate (ECC) for river/mountain quarries and BRS Certificate of Accreditation for concrete/asphalt batching plants shall be included to ensure that extraction of construction materials in a particular area is legal and compliant with the existing rules and regulation of other government agencies (e.g., LGUs, DENR).
5. The material sources shall also undergo the following Quality Tests in accordance with DPWH Standard Specifications:

QUALITY TEST	MATERIALS TO BE TESTED
Sieve Analysis of Soils (AASHTO T 88)	SOIL AND SOIL AGGREGATES
Liquid Limit and Plastic Limit of Soils (AASHTO T 89 and T 90-16)	
Moisture Content (AASHTO T 265)	
Specific Gravity of Soil by Water Pycnometer (AASHTO T 100)	
Shrinkage Limit of Soil (AASHTO T 92)	
Moisture Density Relation (AASHTO T 180)	
California Bearing Ratio (AASHTO T 193)	
AASHTO Soil Classification	
Sieve Analysis of Coarse and Fine Aggregates (AASHTO T 27)	CONCRETE AND ASPHALT AGGREGATES
Bulk Specific Gravity and Absorption (AASHTO T 84 and T 85)	
Abrasion (AASHTO T 96)	
Unit Weight (AASHTO T 19M)	
Soundness (AASHTO T 104)	
Organic Impurities of Fine Aggregates (AASHTO T 21M)	
Clay Lumps and Friable Particles in Aggregate (AASHTO T 112)	

6. Once completed, **the DEOs shall submit by the end of November each year** the updated field data sheets, materials maps, geotagged photos, laboratory test reports and other additional documentary requirements to their respective Regional Offices (ROs) for consolidation. The ROs shall compile the submitted data in digital format (**Annex H**).
7. The ROs shall then forward to the BRS the Memorandum signed by the Regional Director and the consolidated documents thru Google Drive by accessing the link (https://drive.google.com/drive/folders/1UbDrQk5m_WeWNJfFRK3aV4wYrfZj0eZd?usp=sharing) **on or before the end of January of the succeeding year.**
8. The BRS shall conduct field verification to validate the accuracy of the submitted materials sources map/information whenever necessary prior to final inclusion in the materials sources databank.

	DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS	Doc. Code	:	DPWH-QMSP-26-01
	BUREAU OF RESEARCH AND STANDARDS	Revision No.	:	00
		Page No.	:	Page 1 of 1
NATURALLY OCCURRING MATERIAL SOURCES FIELD DATA SHEET				

REGIONAL OFFICE : _____
DISTRICT ENGINEERING OFFICE : _____

NAME OF SOURCE : _____
LOCATION : _____

- a. Distance from the source to the nearest National/Provincial Road : _____
 b. Geographic Coordinates : _____
 c. Station (Kilometer Post) : _____
 d. Barangay : _____
 e. Municipality/City : _____
 f. Province : _____

TYPE OF SOURCE:

() River () Mountain Quarry () Beach () Cutting () Natural Exposure

MATERIAL TYPE	DESCRIPTION	ESTIMATED QTY. (m ³)
1. Sand		
2. Gravel		
3. Cobbles/Boulders		
4. Soft Rock		
5. Hard Rock		
6. Others		


POTENTIAL USE/S:

- () Borrow/Fill/Selected Fill () Sub-Base [Item 200] () Base Course [Item 201]
 () Crushed Aggregate Base Course [Item 202] () Aggregate Surface Course [Item 300]
 () Riprap [Item 505] () Stone Masonry [Item 506] () Gabions [Item 511]
 () Fine/Coarse Aggregates for Bituminous Mix [Item 306/307/310]
 () Fine/Coarse Aggregates for Concrete Mix [Item 311 and Item 405]

GENERAL REMARKS:

- () Plant on Site (Grizzly, Screen and Conveyors, Crusher etc.): _____
 () Quarry Permit (indicate name of owner/permittee): _____
 () Renewable Source (replenishable during heavy rains / high floods)
 () Non-renewable Source (if considered depleted, to be removed from materials map)
 () Means of Access (indicate the type of access road, etc.): _____
 () Others: _____

Assessed/Verified: _____ Date and Time Verified: _____

	DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BUREAU OF RESEARCH AND STANDARDS	Doc. Code	:	DPWH-QMSP-26-02
		Revision No.	:	00
		Page No.	:	Page 1 of 1
	AGGREGATE PROCESSING (CRUSHING & SCREENING) PLANTS AND CONCRETE/ASPHALT PLANTS FIELD DATA SHEET			

REGIONAL OFFICE : _____
DISTRICT ENGINEERING OFFICE : _____

NAME OF PLANT : _____
LOCATION/OFFICE ADDRESS : _____

a. Street Address : _____
b. Barangay : _____
c. Municipality/City : _____
d. Geographic Coordinates : _____
e. Station (Kilometer Post) : _____

LIST OF PRODUCT AND PRODUCTION OUTPUT

(e.g., G1 aggregate, 3/8 aggregate, S1 aggregate, Ready mix concrete, Hot-mix asphalt, etc.)

PRODUCT	PRODUCTION OUTPUT (m ³ /month)

NAME OF SOURCE OF AGGREGATES/RAW MATERIALS

(e.g., river, mountain quarry, crushing plant, cement plant etc.)

RECORD OF OWNERSHIP

☐ Private Name of Owner: _____
Contact Information: _____

☐ Government Name of Office/Head: _____
Contact Information: _____

REMARKS:

☐ BRS Certificate of Accreditation (if concrete/asphalt batching plant): _____
☐ Environmental Compliance Certificate (ECC): _____
☐ Others: _____

Assessed/Verified: _____ Date and Time Verified: _____



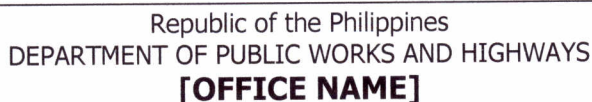
Doc. Code	:	DPWH-QMSP-26-03
Revision No.	:	00
Page No.	:	Page 1 of 1

SUMMARY OF NATURALLY OCCURRING MATERIAL SOURCES FOR C.Y. [YEAR]

With grizzly screener on site; Quarry Permit (QP-13-19); Renewable source; Can be accessible by barangay road; Currently utilized in vertical and road construction projects.

Approved:

[NAME]
[POSITION]



Doc. Code	:	DPWH-QMSP-26-04
Revision No.	:	00
Page No.	:	Page 1 of 1

SUMMARY OF AGGREGATE PROCESSING (CRUSHING & SCREENING) PLANTS AND CONCRETE/ASPHALT PLANTS FOR C.Y. [YEAR]

Prepared:

Approved:

[NAME]
[POSITION]

[NAME]
[POSITION]

SAMPLE FORMAT FOR GEOTAGGED PHOTOS



The timestamp, location tag, and geographic coordinates must be embedded in the actual photograph.

SAMPLE FORMAT FOR MATERIAL SOURCES MAP



Actual geotagged
photograph of the
source

Name of
Source

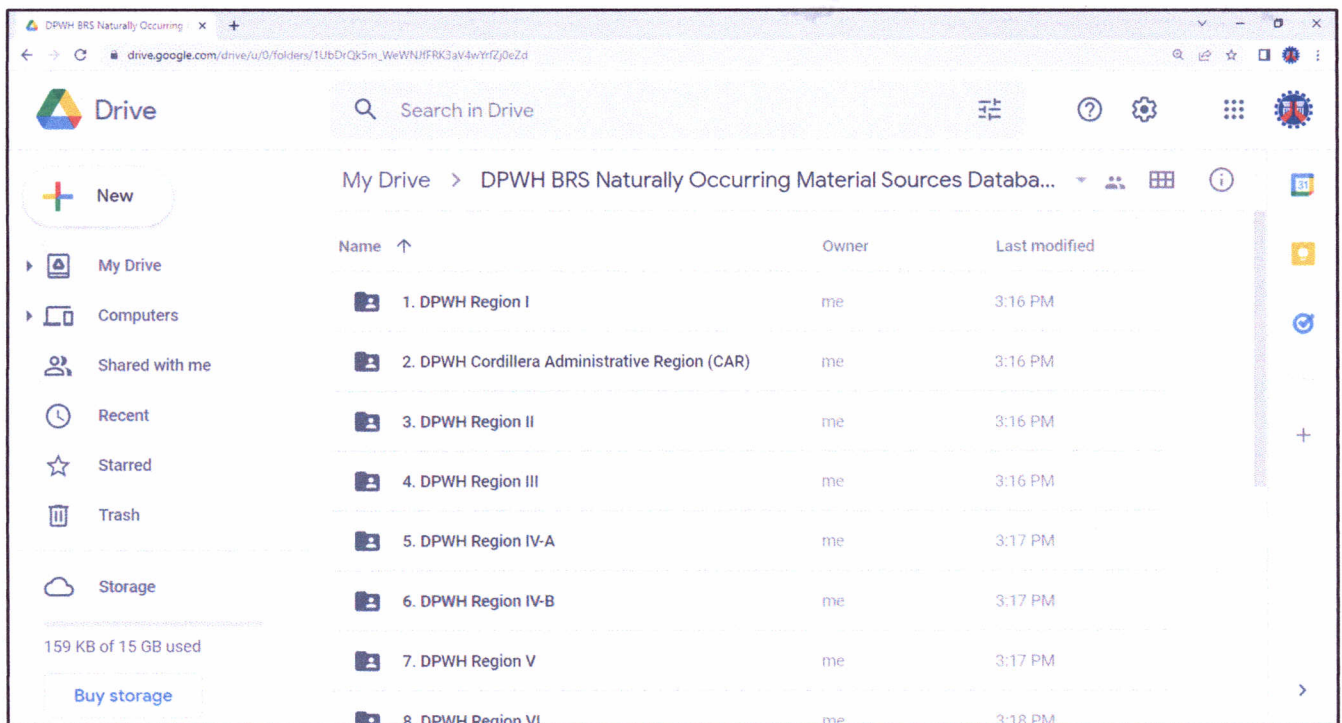
Geographic
Coordinates

The materials map shall be produce using AutoCAD/GIS software and shall indicate the following information:

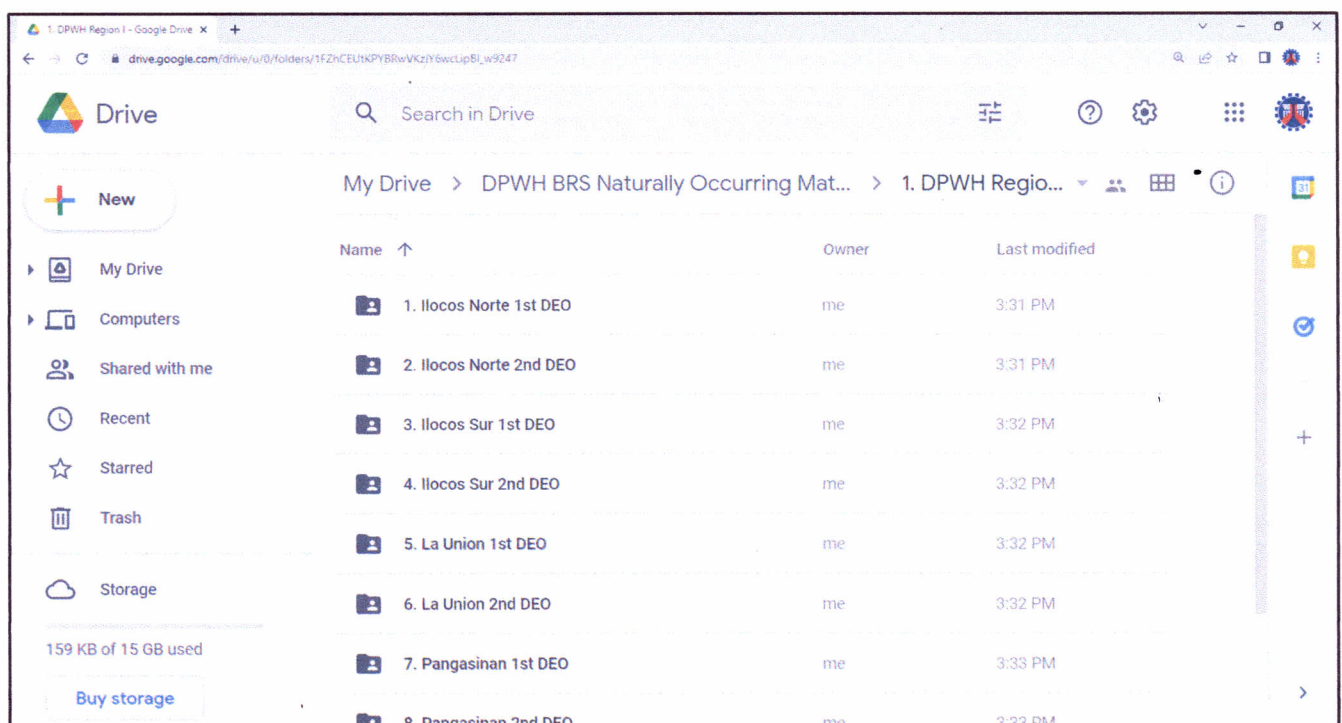
1. Name of Source
2. Actual Geotagged Photo of the Source
3. Geographic Coordinates

INSTRUCTIONS FOR THE DIGITAL COMPILATION OF MATERIAL SOURCES MAPS AND REPORTS

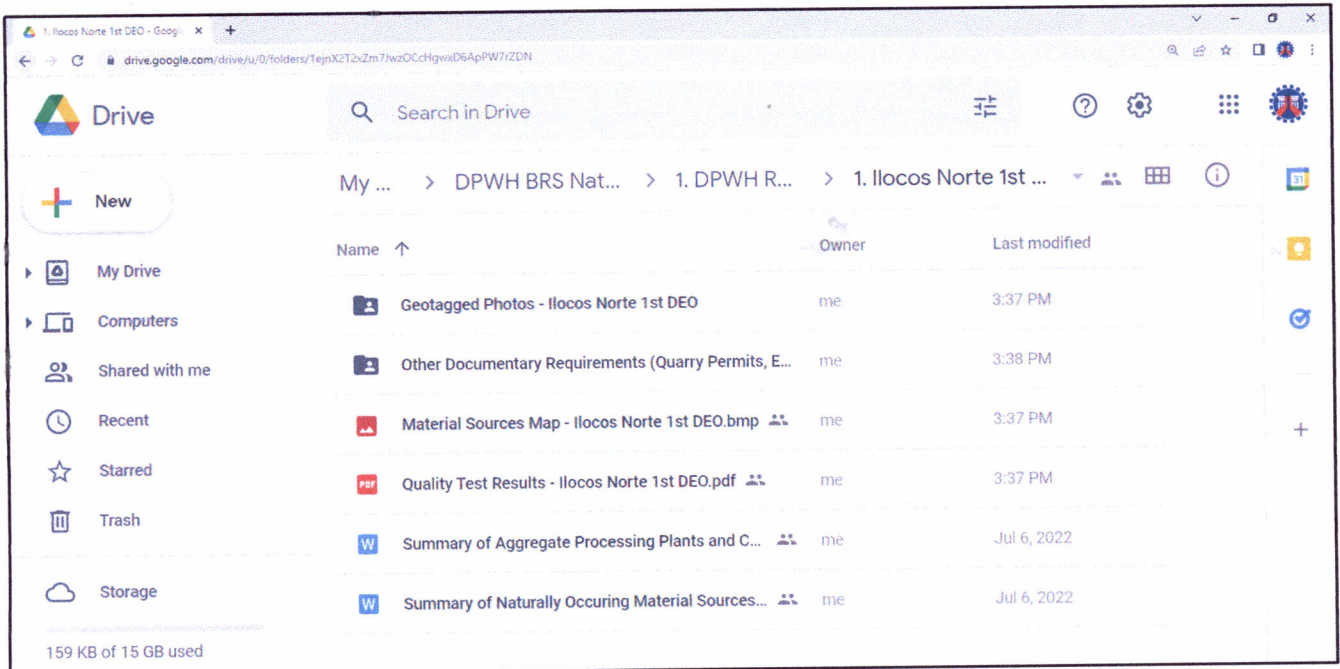
The Regional Offices (ROs) shall consolidate/compile and upload the digital copies of the material sources reports and maps thru Google Drive link (https://drive.google.com/drive/folders/1UbDrQk5m_WeWNJfFRK3aV4wYrfZj0eZd?usp=sharing) as shown below:



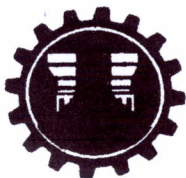
BRS-TSD Google Drive for Naturally Occurring Material Sources Database consisting of all DPWH Regional Offices



Google Drive folder showing the different District Engineering Offices (DEOs) per Regional Office



Sample Google Drive folder of a DEO showing the consolidated/compile digital copies of Summary of Naturally Occurring Material Sources, Summary of Aggregate Processing Plants & Concrete/Asphalt Batching Plants, Geotagged Photos, Material Sources Map, Copies of Additional Documentary Requirements, and Quality Test Reports.



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
MANILA

097.13DPWH

09-09-2006

SEP 06 2006

DEPARTMENT ORDER)

No.

Series of 2006

41)

09-09-06

SUBJECT: Annual Submission of Updated
Naturally Occurring Materials Sources
Maps and Other Related Reports to the
Bureau of Research and Standards (BRS)

It has been observed that the submission of updated materials map in compliance with Ministry of Public Works and Highways (MPWH) Memorandum Circular No. 69, Series of 1982 has not been diligently complied with by most of the Regional and District Offices of the Department. What were submitted were mostly reproduction of the old materials map containing the same statistical information. There are some instances that new materials sources are being utilized in DPWH projects that are not reflected in the submitted materials map.

In view of the foregoing and in order to optimize the utilization of available naturally occurring and marginal construction materials nationwide, all Regional and District Offices of the Department are hereby directed to conduct an extensive exploration of all existing naturally occurring and marginal materials sources within their area of responsibility. The concerned offices should schedule the exploration works in such a manner that it will not disrupt the regular work activities and implementation of infrastructure projects and should be included in the yearly program of activities to ensure that it will be carried out accordingly.

In order to have uniformity in the submission of updated materials sources map, it must indicate the following information for each source:

A. Naturally Occurring Materials

1. Name and location of sources (referred to road stationing)
2. Kind of materials available (e.g. Sand, Gravel, Cobbles, Limestone, etc.)
3. Approximate quantity available (m³)
4. Accessibility of sources
5. Record of ownership of sources
6. Potential use (e.g. Base Course, Sub-base)

B. Production Plants that manufacture construction materials, Aggregates Processing and Crushing Plants and Concrete and Asphalt Plants

1. Name of office/plant address or location
2. List of product and production output
3. Record of ownership (private and government)
4. Location and name of source (sources of raw materials, aggregates, etc.)

C. Field data containing the following information:

1. Region
2. District
3. Name of Source
4. Location
 - 4.1 Distance from source to nearest National/Provincial Road
 - 4.2 Station (km post)
 - 4.3 Municipality/City
5. Type of Source (River, Quarry, Beach, Pit, Cutting and Natural Exposure)
6. Plant on Site (Grizzly, Screen and Conveyors, Crusher, None, if any specify)
7. Kind of Material/Deposit and Estimated Quantity in m³
8. Potential use/s (Selected Fill, Base Course, Subbase Course, etc.)
9. General Remarks (name of project utilizing the source, distance from the project and other pertinent information)

The district materials exploration team shall submit at the end of November each year the updated materials map containing the aforementioned information including the accomplished field data sheets to the Regional Office for consolidation and evaluation.

The Regional Office shall then forward the consolidated reports and other pertinent documents on or before the end of January of each year to BRS. The BRS will conduct field verification/validation of the submitted materials sources map/information whenever necessary prior to final inclusion in the materials sources data bank to ensure the accuracy of data.

For strict compliance.

HERMOGENES E. ERDANE, JR.
Acting Secretary



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