GOVERNMENT OF MEGHALAYA

PLANNING INVESTMENT PROMOTION & SUSTAINABLE DEVELOPMENT DEPARTMENT

No.PLR.33/2022/Pt - II/362

Dated: Shillong, the <u>21</u>St November, 2024.

To,

The Principal Secretary / Commissioner & Secretary / Secretary to the Government of Meghalaya, Public Health Engineering / Soil & Water Conservation / Water Resources Department.

Subject: Model Standard Operating Procedure (SOP) for Mapping Data Layers on the State Master Plan (SMP) portal

Sir,

I am directed to refer to the subject above and to inform you that the PM GatiShakti (PMGS) National Master Plan (NMP) plays a critical role in the integration of economic and infrastructural planning with socio-economic development, improving both Ease of Living and Ease of Doing Business. In order to ensure accurate and integrated planning using the NMP, it is essential for the State Departments to define and upload necessary **data layers / attributes in a standardized manner** along with metadata.

In this connection, a model **Standard Operating Procedure** (SOP) has been developed by DPIIT for the State Master Plan (SMP) portal and the same is enclosed herewith. This SOP includes **data management standards, formats, validation, and update frequencies**, serving as a guideline for states / departments in developing their own SOPs to enhance clarity, collaboration, and efficient data management practices.

Based on the Standard Operating Procedure provided by DPIIT, you are hereby requested to kindly provide Spatial data for "**Water Supply Network**" Mandatory layer in Google Earth (.KML or .KMZ) / AutoCAD Drawing (.CADD) / ESRI GIS Shape file (.SHP) format and the feature attributes as per Annexure – I in Microsoft Excel file (.XLSX) format on the e-mail address: <u>meghalayaeodb@gmail.com</u>.

Further, keeping the verification of the spatial data and attached attributes in view, a **Maker-Checker-Approver mechanism** needs to be adopted. You are therefore requested to nominate such officers from each PM GatiShakti Cell under your Department:

- Data Maker Equivalent to Field Engineer (~ Upto Superintending Engineer)
- Data Checker Equivalent to Head of the Cell / Branch (~Upto to Chief Engineer)
- Approver –Equivalent to Head of the Directorate / Agency (~Director or above)

For any queries, you may contact EoDB PMU Team members Mr. Navay Gulati (contact number-9911995689) / Mr Akshay S. (contact number-8714348044) / Mr. Lakshman R. (contact number-7073351972).

Enclo: As stated above.

Yours faithfully,

[R.D.H. Kharlukhi] Senior Monitoring Officer & *ex-officio* Deputy Secretary to the Govt. of Meghalaya Planning, Investment Promotion & Sustainable Development Department.

Memo No.PLR.33/2022/Pt - II/362-A

Dated: Shillong, the 21^{st} November, 2024.

Copy to:-

- 1. The P.S. to the Chief Secretary to the Government of Meghalaya, for kind information of the Chief Secretary.
- 2. The Commissioner & Secretary to the Government of Meghalaya, Planning Investment Promotion & Sustainable Development Department for kind information.
- 3. The Director, Soil & Water Conservation, Meghalaya, Shillong for kind information and necessary action.
- 4. The Chief Engineer, Public Health Engineering / Water Resources, Meghalaya, Shillong for kind information and necessary action.

By order etc.,

1-

Senior Monitoring Officer & *ex-officio* Deputy Secretary to the Govt. of Meghalaya Planning, Investment Promotion & Sustainable Development Department.

Annexure – I

 Meghalaya instance of PM GatiShakti - National Master Plan can be accessed at https://meghalaya.pmgatishakti.gov.in/stategatishakti/login







Nominated Makers, Checkers and Approvers are requested to submit the following credentials to the e-mail address <u>meghalayaeodb@gmail.com</u> to obtain a distinct login ID for PM GatiShakti Master Plan:

| Name | as per Government records |
|---------------|--|
| Phone | +91 12345 67890 (required for OTP-based login) |
| e-mail | Official Government e-mail ID only (.gov.in or .nic.in) |
| Department | P.H.E. / Soil & Water Conservation / Water Resources Department. |
| Designation | Please mention Directorate / cell as applicable |
| Access Rights | Notified Maker / Notified Checker / Notified Approver |

The above information will be utilized to create a distinct login instance from BISAG-N

2. Sample Format for mapping of "Water Supply Network" Mandatory layer (Point and Polyline geometry):

Mapping of Layer Geometry: Point (Water structures)

| Sl. No. | Water Supply ID | Type of Water | Town Name | District Name | State | Capacity | Nature of Water | Latitude (Y) | Longitude (X) |
|---------|------------------|-----------------------------|--------------|------------------------|-----------|---|--------------------|---|---|
| | | Structure | | | | | Structure | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| sample | EKH_Mylliem_0001 | Water treatment plant | Shillong | East Khasi Hills | Meghalaya | Quantity with relevant unit of measurement | Existing | 25°34'00.7"N or 25.56686289472471 | 91°53'25.1"E or 91.89029616811044 |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| • | | | | | | | | | |
| | | | | | | | | | |

Reference for filling the data requirement:

- A. Options for "Type of Water Structure (3)", please mention classification as:
 - i. Water Treatment Plant
 - ii. Water Pumping Station
 - iii. Ground Level Reservoir
 - iv. Supply Valve
 - v. Over Head Tank
 - vi. Public Stand Post
 - vii. Tube Well
 - viii. Hand Pump
 - ix. Storm Water Ven
 - x. Others, please specify.
- B. Options for "Capacity (7)", please mention current capacity in relevant units respective to the structures.
- C. Options for "Nature of Water Structure (8)", please mention:
 - i. Existing
 - ii. Proposed
- D. Procedure to manually capture geographic co-ordinates (Latitude and Longitude) is as follows:
 - i. Open an internet browser (Google Chrome/Microsoft Internet Explorer/Microsoft Edge/Mozilla Firefox) and go to Google Maps website- www.maps.google.com/
 - ii. Pan and Zoom to the location. Place the mouse cursor at the location of the water structure and click the right mouse button.
 - iii. As the side menu opens, use the left mouse button to click on the first option denoted with the co-ordinates. These co-ordinates are decimal numbers and will automatically be copied to the system.
 - iv. Use the right mouse button to paste the copied co-ordinates to the soft copy table within respective rows for Latitude and Longitude. Number format and range of co-ordinates is given below:

| a) | Latitude | from: | 25.02253375416164 (25°01'21.12151") |
|----|-----------|-------|--|
| | | to | 26.12109622477314 (26°07'15 . 94641") |
| b) | Longitude | from: | 89.80590801378818 (89°48'21.26885") |
| | | to | 92.80377633093802 (92°48 ' 13•59479") |

v. While capturing, it is to be ensured that latitude and longitudinal values are accurately mentioned up to 5 decimal places and height of the asset to 2 decimal places.

Mapping of Layer Geometry: Polyline (Water supply lines)

| SI.No. | Water Supply ID | Type of Water Line | Town Name | District Name | State | Construction Material | Diameter of the pipe (m) | Length of the pipe (m) | Nature of Water Line |
|--------|------------------|-----------------------|--------------|---------------------|-----------|--------------------------|--------------------------|------------------------|-------------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| sample | EKH_Mylliem_0001 | Pumping line | Shillong | East Khasi Hills | Meghalaya | PVC | 0.02 | 444 | Mainline |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| | | | | | | | | | |
| • | | | | | | | | | |

Note – Mapped layer and attribute information to be provided for each pipe originating from any water structure /source.

- A. Options for "Type of Water Line (3)", please mention classification as:
 - i. Raw Water Main Pipeline
 - ii. Pumping Line
 - iii. Distribution Pipeline
 - iv. Service Pipeline
 - v. Storm Water Drain
 - vi. Others, please specify.
- B. Options for "Construction Material ()", please mention:
 - i. PSC
 - ii. DI
 - iii. HDPE
 - iv. MS
 - v. RCC
 - vi. Gl
 - vii. AC
 - viii. Cl
 - ix. PVC
 - x. Others, please specify.

C. Options for "Nature of Water Structure (8)", please mention:

- i. Existing
- ii. Proposed
- iii. Doubling
- iv. Feeder
- v. Main line
- vi. Minor Line
- vii. Others, please specify.
- D. Procedure to create a polygon shape in Google Earth software:
 - i. Open Google Earth software on desktop / laptop computer (Visit https://www.google.com/earth/about/versions/#earth-pro for download instructions) or open Google Earth on web from an internet explorer (Google Chrome/Microsoft Internet Explorer/Microsoft Edge/Mozilla Firefox) at https://earth.google.com/ and sign in.
 - ii. Pan and Zoom to the desired location (location of the start point of the water line) on Google Earth platform.
 - iii. On the sidebar, go to "Places" tab. Right-click on "My Places" icon. Within the pop-up, click on "Add" and then click on "Folder" to add a new folder. Rename the newly created folder to the name of the layer to be mapped "Water Supply Network".
 - iv. Right-click on the newly created folder. From the pop-up, click on "add" and then click on "path" to start creating a polyline shape.
 - v. Start creating the shape by marking the centre line of the "water line" by clicking / placing the points on the alignment of the pipe.
 - vi. Use the double left-click to complete marking the path shape. Rename the path to the name of the water line mapped.
 - vii. Once the path shape for the water line is mapped, right-click on the master folder created in step (iii) and click on "Save place as".
 - viii. On the prompt, save the file with appropriate name and date of mapping. The file will be saved in a ".KML" or a ".KMZ" format, which is compatible with PM GatiShakti National Master Plan.