

W-11011/31/2022-JJM.III-DDWS  
**Government of India**  
**Ministry of Jal Shakti**  
**Department of Drinking Water and Sanitation**  
**National Jal Jeevan Mission**

4<sup>th</sup> Floor, 'Antyodaya' Bhawan  
CGO Complex, Lodhi Road,  
New Delhi-110 003  
Date: 26<sup>th</sup> December, 2022

To

**The Additional Chief Secretary/ Principal Secretary/ Secretary,**  
Public Health Engineering/ Rural Water Supply Department,  
All States/ UTs.

**Subject:** Geographic Information System (GIS) mapping of the pipe networks under Jal Jeevan Mission schemes.

**Madam/ Sir,**

As you are aware, during the implementation of JJM the major components of the water supply system are procuring and laying of pipe networks and accessories, construction of intakes, treatment units, storage structures, etc., commencing from source to household tap. Given the spread of rural water supply schemes, successful service delivery under the Mission is only possible if pipe networks and other infrastructure are constantly monitored using digital inventory.

2. Jal Jeevan Mission guidelines in para 8.4, mention about the use of GIS for inventory management and monitoring of water supply scheme assets. Use of GIS to map the pipe networks from as-built drawings of the PWS would help to maintain a digital geo-mapped inventory of various assets of the pipe network viz., length, area spread, material use, diameter, type of valves/ regulatory control used, etc. In future, it can be used as an excellent planning tool for both the O&M and for expanding/ upgrading/ modernising the pipe networks.

3. Central Public Health Engineering Organisation (CPHEEO) under Ministry of Housing and Urban Affairs has published an Advisory "*GIS mapping of water supply and sewerage infrastructure*" that can be downloaded from the weblink given below<sup>1</sup>. This document would help the State to get a first hand understanding of the subject and way forward for taking up the work. Those States/ UTs that have achieved *Har Ghar Jal* status need to expeditiously take

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<sup>1</sup><https://mohua.gov.in%2Fpdf%2F624eb1fca44e9Advisory-on-GIS-Mapping-of-Water-Supply-and-Sewerage-Infrastructure.pdf&psig=AOvVaw0ToKggzWQA06IJ5GQuHQ-a&ust=1671710285198455>

up this important work of digitising their created water supply infrastructure and its attributes for efficient monitoring of functionality of the water supply schemes ensuring service delivery under the Mission.

4. A dedicated team may be formed at State level to prioritise various schemes where this work can be taken up and a timeline for completion may be worked out, preferably within the Mission period. The team working on IoT systems may also be assigned this task. The funding for such initiatives can be under the support component of Jal Jeevan Mission.

Yours sincerely,

  
**(Arunkumar Kembhavi)**

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Copy for kind information and necessary action to:

- i.) Mission Directors, State Jal Jeevan Missions, All States/ UTs.
- ii.) Engineer-in-Chief / Chief Engineers, Public Health Engineering/ Rural Water Supply Department, all States/ UTs.