

No. W.11011/27/97/TM-II
Ministry of Drinking Water and Sanitation
(Water Quality Division)

9th Floor, Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003.

Dated the 10th February, 2014.

To

- 1) The Engineer-in-Chiefs in-charge of RWS in the States of West Bengal, Uttar Pradesh, Assam, Meghalaya, Tripura, Mizoram, Manipur, Nagaland, Arunachal Pradesh, Haryana, Odisha, Bihar, Chhattisgarh, Andhra Pradesh, Kerala, Madhya Pradesh, Punjab, Uttarakhand, Rajasthan, Jharkhand and Himachal Pradesh.
- 2.) The Regional Heads/in-charge of State Remote Sensing Centres of the States of West Bengal, Uttar Pradesh, Assam, Meghalaya, Tripura, Mizoram, Manipur, Nagaland, Arunachal Pradesh, Haryana, Odisha, Bihar, Chhattisgarh, Andhra Pradesh, Kerala, Madhya Pradesh, Punjab, Uttarakhand, Rajasthan, Jharkhand and Himachal Pradesh.

Subject :- RGNDWM Phase-IV Progress Review Meeting on Ground Water Quality (GWQ) Mapping Project held on 30th January, 2014 at NRSC, Hyderabad – Fixing of VC thereof.

Sir,

Please find enclosed herewith a copy of the minutes of the meeting held at NRSC, Hyderabad on 30th January, 2014 to review RGNDWM Phase – IV Progress on Ground Water Quality (GWQ) Mapping Project. You are requested to take immediate action and an action taken note may be sent to this Ministry within two weeks.

It may also be noted that Joint Secretary(Water) along with Deputy Adviser (Water Quality) will take a video conferencing meeting with State Chief Engineers along with Chemists in-charge of Rural Water Supply and Heads of State Remote Sensing Centres who are involved in preparation of HGM maps between 11.00 a.m. and 01.00 p.m. on 12th February, 2014 and from 4.00 p.m. to 5.30 p.m. on 13th February, 2014.. It is requested that all concerned officers are requested to participate in the above VC. The details of the VC relating to time and States involved are given below.

Date	Time	Names of the States to participate in the VC
12.02/2014	11.00 a.m. to 12.00 Noon	1-Assam, 2-Bihar, 3-Himachal Pradesh, 4-Meghalaya, 5-Manipur, 6-Nagaland, 7-Rajasthan, 8-Tripura,
12.02.2014	12.00 Noon to 1.00	1-Chhattisgarh, 2-Jharkhand, 3-Madhya

	p.m.	Pradesh, 4 West Bengal
13.02.2014	4.00 p.m. to 5.30 p.m.	1-Andhra Pradesh, 2-Arunachal Pradesh, 3-Kerala, 4Mizoram, 5-Odisha, 6-Punjab, 7-Uttarakhand, 8-Haryana, 9-Uttar Pradesh.

Heads of State Remote Sensing Centres should contact State PHED / State NIC Office for further co-ordination.

A Senior Officer from NRSC, Hyderabad will also be present in the Ministry for this video conferencing meeting.

Thanking you,

Yours faithfully,



(P.N. Ashtamoorthy)
Consultant

Encl : As above.

Copy to:-

Deputy Director, NRSC, Hyderabad

PS to JS(Water), MDWS

Deputy Adviser (WQ), MDWS)

Shri Shanmugasundaram, (PHE), NRC Consultant

✓ TD, NIC, MDWS ----- with the request to host on the web-site.

Minutes of the meeting

RGNDWM Phase-IV progress review meeting on Ground water quality (GWQ) mapping project 30TH January, 2014, NRSC, Hyderabad

At the outset Dr. P. G. Diwakar, Deputy Director, RSA welcomed Joint Secretary, MDWS, all the delegates from the state Remote Sensing Centers including PIs, Officials from ministry of DWS, External quality check experts including NRSC colleagues. (List of Participants attached) He gave a brief background and outlined the importance of RGNDWM Phase-IV activity especially ground water quality (GWQ) mapping.

Mr. Satyabarata Sahu, Joint Secretary, MoDWS in his opening remarks apprised the PIs about the importance of the GWQ mapping project. He also emphasized that the gap should be bridged between the State Remote Sensing Application centers (SRSAC and respective PHEDs for collection of GWQ data and effective use of ground water prospects (GWP) maps. SRSACs should take a pro active role in collecting the GWQ data from PHEDs. He opined that the HGM maps in PDF form should be available with respective line departments in the states.

Dr. S. K. Subramanian, Group Director, briefly outlined the major objective of the workshop especially to review the progress and the issues of GWQ mapping project. He clarified that the HGM maps are available in different formats like hard copy maps and PDFs with the state nodal agencies. He also declared that except Meghalaya, A&N and Lakshadweep islands, the Phase-IV HGM mapping is completed for entire country.

After the inaugural session quickly followed the presentations from partner Institutions regarding the progress and the issues of GWQ mapping.

West Bengal: (WBRSC)- GWP mapping for entire West Bengal is completed in 2013. Data gap is the main reason for not completing GWQ mapping project in time. By engaging the SWET Govt. of WB, the WQ data is being collected and it is expected to be completed by June 2014.

Karnataka: (KRSAC)- The coordination among different departments like PRD, Mines and Geology in the state helped in collecting required GWQ data for mapping the entire state. Data analysis in progress and mapping is proposed to be completed by March, 2014.

Uttar Pradesh: (UPRSAC)- GWP mapping for entire state in Phase-IV is completed. GWQ data organization is in progress. Data gap observed in 4-5 districts. Mapping is proposed to complete by March, 2014 for the districts having sufficient data.

Assam/Meghalaya/Tripura/Mizoram/Manipur/Nagaland/Arunachal Pradesh:- GWQ data is not available / sufficient to take up mapping. Lack of coordination among state RS centers and PHED.

Sikkim:- No problem of GWQ in the state as the drinking water sources are springs and surface water bodies. However the drinking water sources quality data to be analysed for generation of the GWQ maps. It is also reemphasized that all the hilly regions like J&K, HP, NE states where the sources are from

mainly springs and surface water, the map title can be Drinking Water Quality Map instead of GWQ Map.

Tamil Nadu: (TWAD)- Validation of GWP maps was undertaken with 4000 wells drilled during 2013. For GWQ mapping, 19,200 well information on quality is available with TWAD. GWQ mapping will be completed in 2 months time from now. The feedback on the usage of HGM maps will be sent by Feb 2014.

Odisha: (ORSAC)- Data gap is the main reason for not completing GWQ mapping. Partial mapping is taken up (15 out of total 30 districts) where sufficient amount of data is available. Conversion of geodatabase from Phase-2 to Phase-4 under progress. Proposed to complete by March, 2014 for 15 dists.

Bihar: (ORSAC+JSAC) GWP mapping for entire Bihar is completed in 2013. Data availability and large data gap are the main reason for not taking up GWQ mapping project.

Jammu and Kashmir: (JKRSC + Kashmir University)- Ground and surface water quality data organized for entire state. Mapping will be completed by March 2014.

Chhattisgarh (CCOST)- Data gap is the main reason for not completing GWQ mapping. Partial mapping will be taken up in those districts where sufficient amount of data is available. Conversion of geodatabase from Phase-1 to Phase-4 under progress. Proposed to complete by March, 2014.

Andhra Pradesh: (APSRAC) Data gap is the main reason for the delay of GWQ mapping. 60% of the state of Recent quality data generated by PRE-D, RWS AP is provided to APSRAC. Conversion of geodatabase from Phase-1 to Phase-4 under progress. Proposed to complete by March, 2014. Other 40% data will be provided by RWS Department, Andhra Pradesh.

Kerala: (KRSAC)- Data gap is the main reason for the delay of GWQ mapping. Conversion of geodatabase from Phase-1 to Phase-4 under progress. Proposed to complete by March, 2014.

Gujarat: (BISAG) GWQ data organized for entire state. Map preparation will be taken up in Feb-March 2014.

Madhya Pradesh: (MPCST+BITS, Ranchi) Data gap is the main reason for not completing GWQ mapping. Partial mapping will be taken up in those districts where sufficient amount of data is available. Conversion of geodatabase from Phase-1 to Phase-4 will be taken up in January, 2014.

Punjab (PRSC) -For GWQ mapping, sufficient well information on quality (total 7200 out of 11,000 habitations) is available in IMIS website. GWQ mapping will be completed by March, 2014.

Maharashtra: (MRSAC)- As a pilot study, GWQ mapping for Amravati district is completed. Data organization is in progress for other districts. All the required data from GSDA is received. GWQ mapping will be completed by March, 2014.

Uttarakhand: (USAC)- Data availability is the main reason for not completing GWQ mapping. Partial mapping will be taken up in those districts where sufficient amount of data is available.

Rajasthan: (RSRSAC)- GWQ data organization in progress. EQC team to visit RSRSAC to assess the GWQ data available with the state centre and further action towards GWQ map preparation.

Jharkhand- No District Labs established and no ground water quality data collected. Quality mapping yet to commence.

Himachal Pradesh- Water quality data nearing completion and quality mapping yet to commence.

Opinion of EQC experts :

Mr. Jeyakumar, former CGWB official, opined that in several states there are ground water department which monitor the GWQ for their routine analysis and such data can be collected by PIs to supplement the available data from IMIS site of ministry. The GWQ data available on CGWB sites also to be used. Mr. Natesan, former TVAD official, emphasized about the availability of GWQ data in different state departments and lack of coordination among the departments is the main hurdle for the GWQ map preparation. Mr. Sambandham, former GSI official, advised to explore other sources beyond CGWB and PHED for GWQ data as other departments in various states also collect the ground water quality parameters and they also maintain some observation wells. Dr. P. Chakraborty, former WBRSC official, advised to form a "implementation team" by the state PHE Departments and State Rs centers to facilitate the completion of task entrusted by Ministry.

At the end, the JS(Water&Admn), MDWS emphasized on the preparation of District ATLAS for all the districts of India as per the earlier commitment by NRSC. He has also requested NRSC to take up R&D proposal on multi-village water supply scheme using terrain information and Digital Elevation Model. He has asked NRSC to submit funds utilization certificate for release of the second installment.

ACTION ITEMS EMERGED

- 1) A video conference has to be arranged at MDWS to review the status of supply of water quality data to all SRSACs. For this conference, Dr. S.K Subramaniam Group Director NRSC is asked to be present at MDWS. A request letter will be sent to Group Director, HGG, NRSC intimating date and time of VC to inform all SRSACs/Pis to be present
(Action: MDWS)
- 2) The only remaining Regional level workshops on usage of HGM maps to be conducted for northern states in association with IIRS, Dehradun. Ministry to communicate to each of the states for sending the list of participants and the date of the training program.
(Action :NRSC&MDWS)
- 3) Water quality testing details including geo coordinates should be provided to NRSC/SRSACs by all Departments dealing with Rural Water Supply for a specific set of

- sources uniformly distributed in each Block/District during both pre and post monsoon seasons in one year (Action : MDWS)
- 4) Some of the states are relying upon water quality data obtained using FTK. This data should not be used for generating water quality layer A communication needs to be sent from Ministry (Action : MDWS)
 - 5) Some states Ground Water Department demanding charges for sharing details to SRSAC. This is related to sharing of data from one Government Department to another Government Department, Ministry may consider issuing letter to Water Resource Ministry on this. (Action : MDWS)
 - 6) Regular feedback on HGM maps to be provided twice a year by the state user departments (PHED, FRED, RWSS etc.) to Ministry and NRSC, and State RS centers will facilitate this activity. (Action: NRSC, All state RS Application centers.)
 - 7) Fund utilization certificate from NRSC for Phase-IV activities to be submitted to Ministry for second installment immediately and the next installment to SRSACs to be sent by NRSC. (Action: GD, HGG, NRSC.)
 - 8) District HGM map ATLAS will be prepared and supplied to each district and funding will be provided by the ministry. The soft copy will be provided by all SRSACs and printing will be done at NRSC. Wherever the GWQ is completed both GWP and GWQ will be incorporated as per the sample Atlas provided, otherwise only GWP maps will be used for Atlas. A proposal for funding from NRSC to go to MDWS in this regard. (Action: GD, HGG, NRSC and State RS centers.)
 - 9) Creation of geo-database and conversion of GWP maps from Phase-1 to Phase-4 and Ground Water Information System to be completed as per the project proposal. A meeting to be organized by DA and Mrs. Geetha of MDWS to finalise the requirement of Ministry with NRSC in this regard. (Action: GD, HGG, NRSC.)

[Faint handwritten notes or scribbles]

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27/11/14
A. G. Srinivasan
Director (GMD)/NRSC