

BUREAU OF INDIAN STANDARDS AGENDA

Ground Water and Related Investigations Sectional Committee, WRD 03	26th Meeting
--	--------------------------------

Day and Date	Time	Venue	Contact details
29 th Nov 2024	10: 30AM	BIS HQ, New Delhi Click here: Meeting Link	wrd@bis.gov.in

CHAIRPERSON WRD 03: Dr. A. Ashokan, Member (HQ) Central Ground Water Board, Faridabad	MEMBER SECRETARY: Sh. Ajay Meena, Scientist – B/Assistant Director, WRD
--	--

ITEM 0 WELCOME AND INTRODUCTORY REMARKS

ITEM 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

The 25th meeting of WRD 03 was held on 20 May 2024, and the minutes, duly approved by the Chairperson, were circulated to the members via BIS email dated 22 May 2024.

However, no comments have been received on the circulated minutes.

The Committee may CONFIRM the minutes as circulated.

ITEM 2 COMPOSITION OF SECTIONAL COMMITTEE WRD 03

2.1 The present composition and attendance details of the last three sectional committee meetings of WRD 03 are provided in **ANNEX I**.

The Committee may NOTE.

2.2 In the last meeting, the committee decided to write to the HODs of organizations that neither attended nor contributed to the last three meetings.

A nomination has been received from the **Tamil Nadu Water Supply and Drainage**

For BIS Use Only

Board, Chennai; however, no replies have been received so far from the **Water Resources Department, Government of Punjab, Chandigarh, and the Water Resources Department, Government of Maharashtra.**

SL. NO.	ORGANIZATION	STATUS
1.	Tamil Nadu Water Supply and Drainage Board, Chennai	Shri. P. Natarajan, B.E., Engineering Director Shri. R. Ganapathi, Hydrogeologist (a/c)
2.	Water Resources Department, Govt. of Punjab, Chandigarh	The nominations are still awaited.
3.	Water Resources Department, Govt. of Maharashtra	

The Committee may CONSIDER and DECIDE.

2.3 As informed by Mr. Dhaval Pandya, Mr. D. B. Vyas expressed his interest to participate in Sectional Committee. The CV of the Mr. D. B. Vyas is attached at **ANNEX II.**

Committee may CONSIDER.

2.4 Shri Shyam Lal Kapil has expressed a desire to participate in Sectional Committee as in Personal Capacity.

2.5 As discussed in the last meeting, Shri Vachaspati Pandey from NHPC Limited provided the details of a resource person from the Wadia Institute of Himalayan Geology, Dehradun. Subsequently, an email requesting the nomination was sent.

However, the nomination is still awaited.

The Committee may NOTE and DECIDE.

2.6 In the last meeting, the Committee decided to co-opt the following organizations. Accordingly, BIS has written to them; however, no replies have been received so far.

SL. NO.	ORGANIZATION	STATUS
1.	Uttar Pradesh Ground Water Department, Uttar Pradesh	The nominations are still awaited.
2.	Water Resources Department, Rajasthan	

The Committee may CONSIDER.

For BIS Use Only

2.7 The fresh nomination has been received as given below:

SL. No.	Organization	Status
1.	India Meteorological Department, New Delhi	SHRI RAHUL SAXENA, SCIENTIST G SHRI ASOK RAJA, SCIENTIST D (Alternate)

Committee may CONSIDER.

ITEM 3 SCOPE AND ACTIVITIES OF WRD 03

3.1 The Programme of work of Sectional Committee is given in **ANNEX III**.

The Committee may NOTE.

3.2 Review for Published Standards due for reaffirmation during 2024-25.

There are no Standards due for reaffirmation in 2024-25.

3.3 Review of Pre-2000 Indian Standards

It is to submit before the Committee that the Competent Authority of BIS has desired for the priority revision of all those standards which are formulated before 2000 (Pre-2000). Following standards which have been formulated by this Sectional Committee are Pre-2000.

SL. NO.	IS NO.	TITLE	STATUS
1.	IS 4410 Part 11 Sec 1: 1972	Glossary of terms relating to river valley projects Part 11 hydrology Sec 1 general terms	The document is under printing.
2.	IS 4410 Part 11 Sec 2: 1972	Glossary of terms relating to river valley projects Part 11 hydrology Sec 2 precipitation and run off	Draft document from Prof. B. K. Yadav is still awaited.
3.	IS 4410 Part 11 Sec 3: 1973	Glossary of terms relating to river valley projects Part 11 hydrology Sec 3 infiltration and water losses	Draft documents from Prof. A. K. Keshari are still awaited.

For BIS Use Only

4.	IS 4410 Part 11 Sec 4: 1973	Glossary of terms relating to river valley projects Part 11 hydrology Sec 4 hydrographs	
5.	IS 14476 Part 1 to 9: 1998	Test pumping of water wells - Code of practice	The document is under printing.

The Committee may NOTE and DECIDE.

3.4 Standards National Action Plan (2022 – 27)

In the last meeting, the Committee decided that groundwater flow monitoring has been replaced with groundwater flow modelling.

BIS has taken a proactive and progressive approach for formulation of Indian Standards by developing a Standards National Action Plan (SNAP) as part of Indian National Strategy for Standardization (INSS). Under this plan, BIS has identified key standardization areas for development of new standards by extensive consultation with various stakeholders.

Such subject area identified under the sector 'Water Resources', which could be under the purview of WRD 03 are:

- a) Aquifer Storage and Recovery Techniques
- b) Guidelines for aquifer mapping
- c) Impact assessment techniques for artificial recharge structures
- d) Guidelines for surface runoff harvesting using small structures
- e) Groundwater harvesting using unconventional methods
- f) Groundwater flow modelling

The Committee may NOTE & DECIDE.

ITEM 4 DRAFT DOCUMENTS UNDER P- CIRCULATION

For BIS Use Only

4.1 Doc. No. (25504) Impact Assessment Techniques for Artificial Recharge Structures

In the last meeting, the Committee decided to place the document at the Preliminary Draft (P-Draft) stage, after which it would be circulated among the Committee Members for their review and inputs.

However, it has been observed that no comments have been received on the document.

The Committee may DISCUSS.

ITEM 5 DRAFTS DOCUMENTS UNDER WIDE CIRCULATION

5.1 Doc. No. 21909 Hydrometry – Geophysical logging of boreholes for hydrogeological purposes – Considerations and guidelines for making measurements (IS 15755: 2007)

In the last meeting, during deliberations, the Committee agreed to the comments of Shri Govind Panvalkar, directing the Member Secretary to include the definition as per existing Indian Standards.

Additionally, the Committee requested that the comments of Shri Naresh Gor be re-circulated for detailed study. These comments were circulated along with the minutes.

However, no feedback has been received on the circulated comments.

The Committee may NOTE and DECIDE.

5.2 Doc. No. 17098 Guidelines for Aquifer Mapping

In the last meeting, the committee constituted a working group for the development of the new subjects:

SL. NO.	ORGANIZATION	STATUS
1.	Centre for Water Resources Development and Management (CWRDM)	The nominations are still awaited.
2.	Central Ground Water Board (CGWB)	

The document is in WC stage since March, 2021, However, It has been observed that the document has not received any comments and requires an update.

The Committee may NOTE and DECIDE.

ITEM 6 DRAFT STANDARDS UNDER PREPARATION

6.1 Sub-Surface Dykes / Ground Water Dams – Guidelines

For BIS Use Only

As discussed during the last meeting of the sectional committee, a working group was constituted for the development of this new subject, consisting of the following members:

- 1) Shri Kartik P Dondre (CGWB)
- 2) Dr. Sanjay Marwaha
- 3) Shri Manoj P. Samuel (CWRDM)
- 4) Dr. M Senthil Kumar (CGWB, TN)

The working group prepared the base draft document and submitted it to the BIS Secretariat. The document was then submitted to KATS, ISO/TC 113/SC 08 for registration as a new project.

However, the ballot did not meet the required criteria. The BIS Secretariat has requested the Korean Secretariat to circulate the ballot once again to gather the necessary support from member countries.

The Committee may NOTE and DECIDE.

ITEM 7: DOCUMENT FINALIZED

7.1 Doc. No. 16962, Revision of IS 14476: 1998 – Test pumping of water wells (Part 1 to 9)

The Committee finalized the document in the previous meeting of this Sectional Committee. Now, the document is under printing.

The Committee may NOTE.

7.2 Doc. No. 21368, IS 4410 (Part 11/ Sec 1): 1972 Glossary of terms relating to river valley projects Part 11 hydrology Sec 1 general terms

The Committee finalized the document in the previous meeting of this Sectional Committee. Now, the document is under printing.

The Committee may NOTE.

ITEM 10 The Committee may decide date and venue for the next Meeting.

ITEM 11 ANY OTHER BUSINESS:

ANNEX I

(Clause 2.1)

**COMPOSITION OF GROUND WATER AND RELATED INVESTIGATIONS
SECTIONAL COMMITTEE, WRD 03**

Scope: a) Standardization of all aspects of groundwater resources, related investigations, water harvesting and recharge for ground water b) Co- ordination with work of ISO/TC 113/ SC 8

Last 3 meetings		23 rd meeting – 02 Feb 2024	24 th meeting 2024 – 12 April 2024	25 th Meeting - 20 May 2024		
SL. No.	NAME OF THE ORGANIZATION	REPRESENTED BY	MEETINGS ATTENDED			
			23 rd	24 th	25 th	
1.	CENTRAL GROUND WATER BOARD, FARIDABAD	MEMBER (HQ) [Presently: DR. A. ASHOKAN, MEMBER, MEMBER (HQ), CGWB]	Y	Y	Y	
2.	CENTRAL ELECTRICITY AUTHORITY, NEW DELHI	SH BALWAN KUMAR, DIRECTOR SMT ARPITA UPADHYAY, DEPUTY DIRECTOR (Alternate)	Y	Y	X	
3.	CENTRAL GROUND WATER BOARD, FARIDABAD	SHRI SANJEEV MEHROTRA, SCIENTIST D MS. RUMI MUKHERJEE, SCIENTIST D	Y	Y	Y	
4.	CENTRAL POLLUTION CONTROL BOARD, NEW DELHI	SMT. SUNITI PARASHAR, SCIENTIST C, WATER QUALITY MANAGEMENT DIVISION	Y	X	X	
5.	CENTRAL WATER AND POWER RESEARCH STATION, PUNE	DR. MANDIRA MAJUMDER, SCIENTIST C DR. SUNITHA NAIDU, SCIENTIST B(Alternate 1) SHRI G.A. PANVALKAR, SCIENTIST B (Alternate 2)	Y	Y	Y	
6.	CENTRAL WATER COMMISSION, NEW DELHI	SH. AJAY KUMAR, SUPERINTENDING ENGINEER (PLANNING CIRCLE) SHRI VIMAL KUMAR, DIRECTOR (WM) (Alternate)	Y	X	X	
7.	CENTRE FOR WATER RESOURCES DEVELOPMENT AND MANAGEMENT, KOZHIKODE	Dr. C.P. PRIJU, SENIOR SCIENTIST Dr. ARUN P.R., SENIOR SCIENTIST (Alternate)	Y	Y	X	
8.	CSIR - NATIONAL GEOPHYSICAL RESEARCH INSTITUTE, HYDERABAD	DR. M. J. NANDAN PRINCIPAL SCIENTIST & HEAD	X	Y	X	

For BIS Use Only

9.	G B PANT INSTITUTE OF HIMALAYAN ENVIRONMENT AND DEVELOPMENT, KOSI	SHRI VAIBHAV EKNATH GOSAVI SCIENTIST-C	Y	Y	Y
10.	GEOLOGICAL SURVEY OF INDIA, NEW DELHI	SHRI SANTOSH KUMAR TRIPATHI, DEPUTY DIRECTOR GENERAL (Promoted) SHRI SANJEEV SHARMA (Alternate)	Y	X	X
11.	GROUNDWATER SURVEYS AND DEVELOPMENT AGENCY, PUNE	DR VIJAT PAKHMODE DEPUTY DIRECTOR (Promoted)	Y	Y	X
12.	GUJARAT ENGINEERING RESEARCH INSTITUTE, VADODARA	SHRI N. R. MAKWANA, JOINT DIRECTOR (IRRIGATION) SHRI R.K.CHAUHAN, SENIOR GEOLOGIST, ENGINEERING GEOLOGY DIVISION (Alternate)	Y	X	X
13.	GUJARAT WATER SUPPLY & SEWERAGE BOARD, GUJARAT	SHRI NARESH MANISHANKAR GOR, HYDROLOGIST SHRI ROHIT LALJIBHAI CHAUDHARI, HYDROLOGIST (Alternate)	Y	X	Y
14.	ICAR-INDIAN INSTITUTE SOIL & WATER CONSERVATION RESEARCH & TRAINING INSTITUTE, DEHRADUN	DR. P R OJASVI, P. SCIENTIST & HOD (H&E) DR. SHAKIR ALI, P. SCIENTIST (Alternate)	Y	Y	Y
15.	ICAR-CENTRAL SOIL SALINITY RESEARCH INSTITUTE, KARNAL	DR. M. J. KALEDHONKAR, PROJECT COORDINATOR (TRANSFERRED)	X	X	X
16.	INDIA METEOROLOGICAL DEPARTMENT, NEW DELHI	SHRI RAHUL SAXENA, SCIENTIST G SHRI ASOK RAJA, SCIENTIST D (Alternate)	X	X	X
17.	INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE	PROF. DEEPAK KHARE, DEPTT. OF WRDM PROF. BRIJESH KUMAR YADAV, DEPTT. OF HYDROLOGY (Alternate)	Y	Y	X
18.	MINISTRY OF ENVIRONMENT FOREST AND CLIMATE CHANGE, NEW DELHI	SHRI YOGENDRA PAL SINGH, SCIENTIST E DR. SOURABH UPADHYAY, (Alternate 1) SHRI SOURABH KUMAR (Alternate 2)	X	X	X
19.	NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT, MUMBAI	SHRI JAY NIGAM, DEPUTY GENERAL MANAGER SHRI SANJAY KUMAR SONI, DEPUTY GENERAL MANAGER (Alternate)	Y	Y	Y
20.	NATIONAL HYDROELECTRIC POWER CORPORATION, FARIDABAD (NHPC)	SHRI SHYAM LAL KAPIL, EXECUTIVE DIRECTOR SH. VACHASPATI PANDEY, DEPUTY GENERAL MANAGER SHRI VIPUL NAGAR, SENIOR MANAGER (GEOPHYSICS), (Alternate)	Y	Y	Y

For BIS Use Only

21.	NATIONAL INSTITUTE OF HYDROLOGY, ROORKEE	DR. ANUPAMA SHARMA SCIENTIST 'G' DR. SURJEET SINGH, SCIENTIST D (Alternate)	Y	Y	Y
22.	NATIONAL REMOTE SENSING CENTRE, HYDERABAD	DR. I C DAS, SCIENTIST 'SG', HEAD HYDRO GEOLOGY DIVISION DR. BIDYUT KUMAR BHADRA, SCIENTIST 'SG (RETIRED)' (Alternate)	X	Y	Y
23.	NORTH EASTERN REGIONAL INSTITUTE OF WATER AND LAND MANAGEMENT, TEZPUR	DR. AMULYA CHANDRA DEBNATH ASSOCIATE PROFESSOR DR. UZZAL MANI HAZARIKA (Alternate)	Y	X	Y
24.	TAMIL NADU WATER SUPPLY AND DRAINAGE BOARD, CHENNAI	ENGINEERING DIRECTOR SENIOR HYDROGEOLOGIST (Alternate)	X	X	Y
25.	UTTARAKHAND IRRIGATION DEPARTMENT	SHRI DINESH CHANDRA CHIEF ENGINEER LEVEL- 1 (RETIRED) SHRI SHANKAR KUMAR SAHA (Alternate)	Y	Y	X
26.	WADIA INSTITUTE OF HIMALAYAN GEOLOGY, DEHRADUN	NOMINATION AWAITED	NR	NR	NR
27.	WATER RESOURCES DEPARTMENT, GOVERNMENT OF MAHARASHTRA	SHRI B. J. GADE Superintending Engineer SHRI M. R. AWALAGNOKAR (Alternate)		X	X
28.	WATER RESOURCES DEPARTMENT, PUNJAB, CHANDIGARH	SHRI VIJAY KUMAR GARG, SUPERINTENDING ENGINEER SHRI TUSHAR GOYAL, EXECUTIVE ENGINEER (Alternate)	X	X	X
29.	IN PERSONAL CAPACITY	DR. A. K. KESARI PROFESSOR, IIT, DELHI	Y	Y	Y
30.	IN PERSONAL CAPACITY	SHRI SANJAY MARWAHA	Y	Y	Y
31.	IN PERSONAL CAPACITY	SHRI DHAVAL PANDYA	Y	Y	Y

ANNEX III
(Item 3.1)

PROGRAMME OF WORK

WRD 3: GROUND WATER AND RELATED INVESTIGATIONS

SCOPE: a) Standardization of all aspects of ground water resources, related investigations, water harvesting and recharge for ground water b) Co- ordination with work of ISO/TC 113 / SC 8

SI. No.	IS No.	TITLE
1.	IS 4410 Part 11 Sec 1: 1972	Glossary of terms relating to river valley projects Part 11 hydrology Sec 1 general terms
2.	IS 4410 Part 11 Sec 2: 1972	Glossary of terms relating to river valley projects Part 11 hydrology Sec 2 precipitation and run off
3.	IS 4410 Part 11 Sec 3: 1973	Glossary of terms relating to river valley projects Part 11 hydrology Sec 3 infiltration and water losses
4.	IS 4410 Part 11 Sec 4: 1973	Glossary of terms relating to river valley projects Part 11 hydrology Sec 4 hydrographs
5.	IS 4410 Part 11 Sec 6: 2018	Glossary of terms relating to river valley projects Part 11 hydrology Sec 6 groundwater Second Revision
6.	IS 4410 Part 11 Sec 7: 1984	Glossary of terms relating to river valley projects Part 11 hydrology Sec 7 quality of water
7.	IS 14476 Part 1 to 9: 1998	Test pumping of water wells - Code of practice

For BIS Use Only

8.	IS 15755: 2007	Hydrometry - Geophysical logging of boreholes for hydrogeological purposes - Considerations and guidelines for making measurements
9.	IS 15792: 2008	Artificial recharge to ground water guidelines
10.	IS 15797: 2008	Roof top rainwater harvesting - Guidelines
11.	IS 15896: 2011	Manual methods for measurement of ground water level in a well
12.	IS 15897: 2011	Surface geophysical surveys for hydro geological studies
13.	IS 16094: 2018	Hydrometry - Measuring the water level in a well using automated pressure transducer methods - Guidelines