

**DLI #1 VERIFICATION PROTOCOL**

**(5<sup>th</sup> ROUND OF VERIFICATION)**

# Atal Bhujal Yojana

## 5<sup>th</sup> Round of DLI#1 – Verification Protocols

### **1.0 Background:**

Disbursements under the incentive component are linked to the performance of states against the identified Disbursement Linked Indicators (DLIs), duly verified by an independent Third-Party Government Verification Agency (TPGVA). To carry out independent verification of results in respect of the DLIs, M/s Quality Council of India (QCI) has been engaged as the TPGVA by the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, Government of India.

DLI#1 incentivizes improvement in the overall quality of groundwater monitoring and data dissemination by the participating States. Till now, four rounds of verification have been conducted for DLI#1 between December 2020 and December 2022.

A comprehensive verification protocol was developed for each round and was followed during the desktop as well as the field verification by QCI.

The protocol for 5<sup>th</sup> round of verification of achievements against DLI#1, has been developed based on the Program Guidelines Ver.1.1 and the Program Appraisal Document of the World Bank and incorporating the observations and feedback from previous verifications.

**Table 1: Verification protocol for DLI #1 (5<sup>th</sup> Round)**

<b>Description of DLI-1</b>	A State is verified to have achieved the DLI if the monitoring and disclosure of ground water-related data has improved.
<b>Scalability of Disbursements (Yes/No)</b>	Yes
<b>Data Source/Agency</b>	State and Central (e.g., CGWB) Governments records and data verification
<b>Verification Entity</b>	TPGVA

### Verification for DLI-1

Only the selected states/blocks/GP will be considered for the DLI. For a given state/block/GP the achievement of the DLI will be measured using following sub-indicators on:

#### **Disbursing indicators:**

- (a) The number of observation wells for which water level monitoring data are available and disclosed
- (b) The number of observation wells for which water quality monitoring data are available and disclosed
- (c) The number of program blocks for which 'Hydrogeological Reports' with information pertaining to groundwater level and water quality monitoring is available

*The above mentioned indicators are subject to Public Disclosure of data at regular intervals at Gram Panchayat level through different fixed display modes/mechanism.*

#### **Non-Disbursing indicators:**

- (d) The number of State-level accredited groundwater quality laboratories
- (e) The number of wells equipped with functional meters for measuring energy consumption or volumetric groundwater usage
- (f) Public disclosure of data by States through different modes/mechanism<sup>1</sup>

- a) For all four rounds of verifications of DLI#1, separate verification protocols were developed and shared with the IAs (which also forms part of the final TPGVA reports)
- b) Non-disbursing indicators would be considered for arriving at overall performance of state based on qualitative analysis
- c) This protocol shall be read in continuation of the protocol developed for previous rounds of verification of DLI#1

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<sup>1</sup> Disclosure of data specific to Water level, Water Quality and HGR to be available in public domain.

## **2.0 Protocol for Verification towards DLI#1 - 5<sup>th</sup> Round:**

**2.1** SPMU will upload the data in respect of all the sub-indicators of DLI#1 on 'DLI Verification module' of Ataljal MIS (ataljal.mowr.gov.in) by **25<sup>th</sup> November, 2023**, in the prescribed formats given in annexures for:-

- (a) Annexure – 1.1 and 1.2 (Template for WL Data)
- (b) Annexure – 2.1 and 2.2 (Template for WQ Data)

**2.2** For this round of verification for achievement of DLI -1, the criteria of qualifying with respect to each sub-indicator is as follows:

### **1. Water Level (Format is provided in Annexure – 1.1 and 1.2)**

- a. The updation of water level data for pre and post-monsoon period of 2023 for at least 90% of observation wells which were disclosed and meeting the respective verification protocols in the first, second, third & fourth round of verification (Annexure 1.1) shall be mandatory and will be considered for evaluating state performances.
- b. New observation wells established from 2022 onwards essentially including piezometers constructed under Atal Bhujal can also be disclosed with both pre and post-monsoon data of 2023. Detail of the year of establishment to be mandatorily provided. (Annexure 1.2)

### **Water Quality (Format is provided in Annexure – 2.1 and 2.2)**

- a. The Updation of water quality data of 2023 for at least 90% of observation wells which were disclosed and meeting the respective verification protocols after the first, second, third & fourth round of verification (Annexure 2.1) shall be mandatory and will be considered for evaluating state performances
- b. New observation wells established from 2022 onwards can also be disclosed with mandatory data of pH, EC / TDS, Ca, Mg, Na, K, CO<sub>3</sub>/HCO<sub>3</sub>/Total Hardness, Cl, SO<sub>4</sub>, NO<sub>3</sub> and F for the year 2023. Details of the year of establishment to be mandatorily provided. (Annexure 2.2)

## **2. Hydrogeological Reports**

As regards to the block wise Hydrogeological reports, the SPMU to undertake:

- a. Updation of Hydrogeological reports, which were disclosed after meeting the protocols in the previous rounds of verification to be mandatorily updated and will be considered for evaluating state performances
- b. Uploading of additional block wise Hydrogeological reports can also be disclosed, which could not qualify as per the protocols in previous rounds of verification

For the purpose of 5<sup>th</sup> round of verification, the criteria for qualifying with respect to this sub-indicator is as follows:

- (a)** Adherence to the template shared with the states shall be the basis for verification of block-wise hydrogeological reports for water level and water quality monitoring information. Each report submitted by the states shall be evaluated for
  - a. Completeness of basic information,
  - b. Availability of six (6) maps (Location map, Hydrogeological map, location of observation wells for monitoring water levels and water quality, updated pre-and post-monsoon water level maps, map showing distribution of Specific Electrical Conductance. The map showing cross-section of sub surface regional aquifer system is optional and may be included if available
  - c. Availability of three (3) Tables - (Basic data of WL/WQ observation wells, ground water level data and ground water quality data. It may be ensured that the water level and water quality data in the Hydrogeological reports is updated for the year 2023 and should be consistent with the data uploaded by the States on the MIS
- (b)** The Hydrogeological reports already disclosed during the first, second, third and fourth round of verification are to be updated for water level and quality data for the year 2023 and uploaded on the MIS
- (c)** The maps in the Hydrogeological reports should be updated for the pre and post monsoon for 2023

### **3. Water Quality Testing Laboratory (Format is provided in Annexure – 3)**

The data in respect of Water Quality Testing Laboratories accredited and equipped with modern groundwater quality monitoring systems shall be uploaded by SPMU in the prescribed format on the MIS (DLI Verification Protocol).

The accreditation of the Water Quality Testing Laboratories shall be verified through the accreditation certificate issued by the accrediting agency (NABL, etc.) to be enclosed with Annexure 3.

### **4. Wells with functional energy consumption / volumetric groundwater usage meter (Format is provided in Annexure – 4)**

The data in respect of wells fitted with functional energy consumption / volumetric groundwater usage meter, shall be uploaded by the SPMU in the prescribed format on the MIS (DLI Verification Protocol).

These wells shall be verified based on availability of proof of the existence of the meter(s) in the form of geotagged photographs.

- a. In the case of wells with energy meters, proof in the form of electricity bills for the last 6 months shall be mandatory
- b. In case of water meters, records of register/ Mobile App Atal Bhujal/ MIS where the data is being recorded shall be collected as proof. The register is to be maintained by DPMU and is to be produced during verification.

### **Public Disclosure (Format is provided in Annexure –5.1 and 5.2)**

Public disclosure of data must be done by States at Gram Panchayat level at regular intervals through different modes/mechanism. Proof of such disclosure at GP level shall be maintained at the level of SPMU, in the form of geo-tagged photographs for all the GPs.

This shall be authenticated through declaration forms to be filled by SPMU (Annexure 5.1) and DPMU (Annexure 5.2) at state and district level respectively.

#### **Mode of Disclosure:**

For the benefit of the community, the data needs to be made public through various means such as placing on state web portals, putting notice boards with data at appropriate places including Panchayat office, posters, banners, printed booklets, pamphlets/leaflets, holding public meetings as well as using social media platforms, and other means.

For verifying the public disclosure of data, the following modes of disclosure are accepted for verification:

**Table 2: Acceptable modes of public disclosure under DLI #1**

S No	Mode of Public Disclosure	Details	Frequency of Disclosure	Verification Methodology
1	Permanent Fixed Displays	<ul style="list-style-type: none"> <li>• Gram Panchayat office notice boards</li> <li>• Digital Display</li> <li>• Boards near observation wells on Water Levels and Water Quality. Boards to also indicate if water is potable or not.</li> <li>• Wall Paintings</li> <li>• Iron Boards</li> </ul>	Updated on Regular basis	Geotagged images
2	Print	<ul style="list-style-type: none"> <li>• Pamphlets/Leaflets</li> </ul>	Semi-annual	Images of pamphlets / leaflets
3	Social Media	<ul style="list-style-type: none"> <li>• Creating GP specific Groups on Facebook/WhatsApp/Twitter and any other Social Media Platform</li> </ul>	Continuous basis	Link
4	Public meetings	<ul style="list-style-type: none"> <li>• Gram Sabha meetings</li> </ul>	Continuous basis	Minutes of the meeting
5	Online Disclosure	<ul style="list-style-type: none"> <li>• Atal Jal portal</li> <li>• Web portals of states</li> <li>• Mobile App</li> </ul>	Continuous	Checking the disclosure semi-annually

*Based on the above categories, permanent fixed display to be mandatorily present for the field verification. In addition to the above indicators, QCI team shall observe the water related awareness generated through the above. The on-field assessment shall cover presence of public disclosure mechanism at Gram Panchayat level and awareness amongst the citizen for the same.*

### Template for updation of Water Level Data for Observation Wells

S.No.	State	District	Block	GP	Village	TYPE	SOURCE	Well ID	Site Name	Latitude	Longitude	Well Depth	Aquifer	Pre_2015	Pst_2015	Pre_2016	Pst_2016	Pre_2017	Pst_2017	Pre_2018	Pst_2018	Pre_2019	Pst_2019	Pre_2020	Pst_2020	Pre_2021	Pst_2021	Pre_2022	Pst_2022	Pre_2023	Pst_2023
1	Maharashtra	Ahmednagar	Karjat	Akhoni	Akhoni.	Dug wells	SGWB	W182345074514501	Akhoni.	18.395834	74.862503	12	Basah	8.9	4.2	9.2	2.8	11	3.2	8.2	7.5	11.5	3.2	8.55	2.9	9.3	3.1	6.8	4.1		
2	Maharashtra	Ahmednagar	Karjat	Babulgaon	Babulgaon Khalasa	Dug wells	SGWB	W184110075030001	Babulgaon Khalasa	18.686111	75.050003	12	Basah	10.2	Dry	Dry	3.3	Dry	1.3	6	5.3	11.7	8.2	11.95	0.95	11.8	1.8	6.7	4.1		
3	Maharashtra	Ahmednagar	Karjat	Bahirobawadi	Bahirobawadi.	Dug wells	SGWB	W183550075001501	Bahirobawadi.	18.597221	75.004166	14.9	Basah	14.5	13.5	14	3.8	14.5	6.5	13.2	11.2	14.5	12.5	14.5	3.9	14.5	2.5	6.9	4.2		
4	Maharashtra	Ahmednagar	Karjat	Baradgaon	Baradgaon Sudrik.	Dug wells	SGWB	W1826507490001	Baradgaon Sudrik.	18.448610	74.816666	11	Basah	8.1	4.5	7.2	3	5.5	1.8	6.5	5.6	10.5	1.52	6.25	1.35	4.9	2.3	6.8	3.9		
5	Maharashtra	Ahmednagar	Karjat	Chincholi	Chincholi Kaldat.	Dug wells	SGWB	W183825075014501	Chincholi Kaldat.	18.640278	75.029167	13.5	Basah	12.1	10.6	13	3.15	Dry	4.3	8.9	8.5	13	5.5	11.8	3.2	13.2	3.4	6.6	5.1		
6	Maharashtra	Ahmednagar	Karjat	Jalapur	Jalapur.	Dug wells	SGWB	W182845074440501	Jalapur.	18.479166	74.734726	10.5	Basah	9.6	5.2	8.4	2.8	6.2	1.8	6.2	2.5	8.25	2.5	3.85	1.25	5.1	1.7	7.1	3.8		

**Template For Uploading Water Level data for New Observation Wells**

S. No.	State	District	Block	GP	Village	TYPE	SOURCE	Well ID	Year of Well Establishment	Site_Name	Latitude	Longitude	Well Depth	Aquifer	Pst_2022	Pre_2023	Pst_2023

### Template for updation of Water Quality data for Observation Wells

S.No.	State	District	Block	GP	Village	Site_Name	Type of well	Source	Well ID	Latitude	Longitude	Well Depth	Aquifer type/ formation	Year	Year (Created)	pH	EC	TDS	Total Hardness	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulphate	Chloride	Fluoride	Nitrate	
1	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2015	2015	7.69	3890	2381	988	218	111	428	12		529	480	658	0.31	104	
2	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2016	2016	8.12	650	394	196	45	21	58	1		186	29	90	0.38	20	
3	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2017	2017	7.52	3400	2095	896	198	100	360	10		500	440	532	0.35	104	
4	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2018	2018	7.67	1710	1040	520	112	60	150	2		431	148	224	0.38	40	
5	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2019	2019	7.73	1480	898	452	101	50	130	2		402	100	196	0.36	38	
6	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2020	2020	8.63	740	440	224	45	28	65	2	10	152	100	78	0.44	20	
7	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2021	2021	7.85	1224	832	530	117.8	57					80	172	0.06	38	
8	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2022	2022	7.05	575	314	142.69	34.92	13.48	0.46	99.66		356	12	83.38	0.24	52.88	
9	Karnataka	Belgaum	Athni	Gundewadi	Gundewadi	Gundewadi	PZ	SGWB	020109b	16.8169	75.0941	45	Basalt	2023																
10	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2015	2015	7.91	850	516	260	59	28	74	1		225	64	112	0.35	20	
11	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2016	2016	8.04	940	568	276	62	30	88			245	58	134	0.58	24	
12	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2017	2017	7.91	1130	686	336	75	37	102	2		304	74	151	0.38	32	
13	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2018	2018	7.62	1510	915	468	104	52	128	2		402	120	196	0.44	32	
14	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2019	2019	7.73	1490	902	460	101	52	128	2		397	112	196	0.42	34	
15	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2020	2020	8.2	1425	860	508	90	71	90	2		73	164	280	0.39	110	
16	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2021	2021	7.25	1456	990	588	141	69					68	212	0.02	34	
17	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2022	2022	7.54	1339	730	388.43	96.82	35.62	1.03	90.58		154.368	13.99	236.24	0.25	32.45	
18	Karnataka	Belgaum	Athni	Jambagi	Jambagi	Jambagi	PZ	SGWB	020116a	16.8441	75.0075	96.34	Basalt	2023																

**Template for Uploading Water quality data for New Observation Wells**

Sr.No	State	District	Block	GP	Village	Site Name	Well Type	Source	Well ID	Year of Well Establishment	Latitude	Longitude	Well Depth	Aquifer	Year	pH	EC	TDS	Total Hardness	Ca	Mg	Na	K	CO3	HCO3	SO4	Cl	F	NO3	
															2023															
															2023															
															2023															

## Details of Accreditation of Water Quality Testing Laboratories

WATER TESTING LAB									
State	Name of Accredited Water Testing Lab	Laboratory ID	Accreditation Certificate No.	Lab Address	Ownership (Government/Semi-Govt)	Name of the Accrediting Body	Date of Accreditation (dd/mm/yyyy)	Accreditation Valid up to (dd/mm/yyyy)	No. of samples analysed annually

**Template for Uploading Data in Respect of Water / Energy Meters**

<b>OBSERVATION WELL WITH ENERGY / WATER METER</b>													
<b>Please note : All the photographs uploaded should have a unique ID with respect to Meter/Owner's name</b>													
<b>State</b>	<b>District</b>	<b>Block</b>	<b>GP</b>	<b>Village</b>	<b>Name of the Owner of the Well</b>	<b>Type of well (Tube well/Dug well/Bore well etc.)</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Type of Meter Installed {Energy</b>	<b>Energy/Water Meter Geotagged Photograph</b>	<b>Date of Installation (DD/MM/YYYY)</b>	<b>*Photograph of Energy Consumption Meter (energy meter) Bill</b>	<b>*Photograph of Energy Consumption Meter (energy meter) Bill</b>

**Please note:** Copy this template in a word document/Excel file and fill in the required information/data as per the headings given in the template and upload the same on the MIS (DLI verification protocol)

\*Insert the photograph inside the table in the Jpeg format

SPMU DECLARATION

Annexure – 5.1

I, \_\_\_\_\_ (Name), \_\_\_\_\_ (Designation), authorised representative under State Program Management Unit (SPMU) declare that the information related to ground water data/information and reports under DLI#1 were publicly disclosed in \_\_\_\_\_ (count of) Gram Panchayat

It is hereby confirmed that the name of the Gram Panchayats mentioned below in which public disclosure of ground water data/information and reports available is vetted & approved by the undersigned officer

S.NO.	DISTRICT	BLOCK	GRAM PANCHAYAT
E.g.	Tumakuru	Tiptur	Honnavalli

Name of Officer: \_\_\_\_\_

Designation of Officer: \_\_\_\_\_

State: \_\_\_\_\_

District: \_\_\_\_\_

SPMU Office address: \_\_\_\_\_

Seal and Signature of authorised DPMU official:

Date: \_\_\_\_\_ Time: \_\_\_\_\_

DPMU DECLARATION

Annexure – 5.2

I, \_\_\_\_\_ (Name), \_\_\_\_\_ (Designation), authorised representative under District Program Management Unit (DPMU) declare that information related to ground water data/information and reports under DLI#1 were publicly disclosed in \_\_\_\_\_ (count of) Gram Panchayat of \_\_\_\_\_ District

It is hereby confirmed that the name of the Gram Panchayats mentioned below in which public disclosure of ground water data/information and reports available is vetted & approved by the undersigned officer

S.NO.	DISTRICT	BLOCK	GRAM PANCHAYAT	MODE OF PUBLIC DISCLOSURE

Name of Officer: \_\_\_\_\_

Designation of Officer: \_\_\_\_\_

State: \_\_\_\_\_

District: \_\_\_\_\_

DPMU Office address: \_\_\_\_\_

Seal and Signature of authorised SPMU official:

Date: \_\_\_\_\_ Time: \_\_\_\_\_