2022-2023

DLI #1 VERIFICATION PROTOCOL

(4th ROUND OF VERIFICATION)

Atal Bhujal Yojana

4th 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, three rounds of verification have been conducted for DLI#1.

The 1st round was conducted in December 2020, 2nd round was conducted in October 2021 and the reassessment of 2nd round was conducted in April 2022. The 3rd round of verification was conducted in August 2022. A comprehensive verification protocol was developed for the each round and was followed during the desktop as well as the field verification by QCI.

The protocol for 4th 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 (4th Round)

Description of DLI-1	A State is verified to have achieved the DLI if the monitoring and disclosure of ground water-related data has improved.
Scalability of Disbursements (Yes/No)	Yes
Data Source/Agency	State and Central (e.g., CGWB) Governments records and data verification
Verification Entity	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 Gram Panchayat level through different modes/mechanism at regular intervals*** **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[1]

a) For the 1st, 2nd [2] & 3rd round 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

[1] Disclosure of data specific to Water level, Water Quality and HGR to be available in public domain.
[2] 2nd round of verification includes the reassessment of the 2nd round held in April 2022.

2.0 Protocol for Verification towards DLI#1 - 4th 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 **30th November, 2022**, in the prescribed formats given in annexures for:-

(a) Annexure – 1.1, 1.2 and 1.3 (Template for WL Data)

(b) Annexure – 2.1, 2.2 & 2.3 (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, 1.2 & 1.3)

The updation of water level data for pre and post-monsoon period of 2022 for at least 90% of observation wells which were disclosed and meeting the respective verification protocols in the first, second & third round of verification (Annexure IA) shall be mandatory and will be considered for evaluating state performances

a. Updation of the existing observation wells with historical data from 2015, which have already been disclosed and were meeting the respective verification protocols, to be submitted with both pre and post-monsoon data of 2022 mandatorily (Annexure 1.1)

b. Observation wells with historical data from 2015, which has not yet been disclosed and had not met the verification protocols in the previous rounds to be submitted with 10 out of 14 pre and post-monsoon data from 2015-2021 and 2 pre and post monsoon data points of 2022 mandatorily updated. The year of establishment of such wells must also be mentioned (Annexure 1.2)

c. New observation wells, essentially including piezometers constructed/established after May 2021 can also be disclosed with pre-monsoon 2021 data (if available) sand mandatory pre and post-monsoon data of 2022. Detail of the year of establishment to be mandatorily provided. (Annexure 1.3)

2. Water Quality (Format is provided in Annexure – 2.1, 2.2 & 2.3)

The Updation of water quality data of 2022 for at least 90% of observation wells which were disclosed and meeting the respective verification protocols after the first, second & third round of verification (Annexure 2.1) shall be mandatory and will be considered for evaluating state performances

a. Updation of the existing observation wells with historical data from 2015, which has already been disclosed and were meeting the respective verification protocol, to be submitted with the data of pH, EC/TDS, Ca, Mg, Na, K, CO_3/ HCO_3/Total Hardness, Cl, SO_4, NO_3 and F for the year 2022 mandatorily updated. (Annexure 2.1)

b. Observation wells with historical data from 2015, which has not yet been disclosed and had not met the verification protocols in the previous rounds to be submitted with the data of pH, EC/TDS, Ca, Mg, Na, K, CO3/ HCO3/Total Hardness, Cl, SO4, NO3 and F for any 4 out of 7 years between 2015-21 and mandatorily for the year 2022. (Annexure 2.2)

c. New observation wells established after May 2021 can also be disclosed with data of pH, EC / TDS, Ca, Mg, Na, K, CO3/HCO3/Total Hardness, Cl, SO4, NO3 and F for the year 2022. Details of the year of establishment to be mandatorily provided. (Annexure 2.3)

3. 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 were not as per the protocols in previous round of verification

For the purpose of 4th 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 to be updated for the year 2022 and should be consistent with the data uploaded by the States on the MIS

(b) The Hydrogeological reports already disclosed during the first, second and third round of verification are to be updated for water level and quality data for the year 2022 and uploaded on the MIS

(c) The maps in the Hydrogeological reports should be updated for the pre and post monsoon for 2022

4. 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.

5. 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 where the data is being recorded shall be collected as proof. The register is to be maintained by DPMU and 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 in the form of geo-tagged photographs

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	Online Disclosure	• Atal Jal portal • Web portals of states	Semi-annual	Checking the disclosure semi-annually
2	Fixed Displays	• Gram Panchayat office notice boards • Posters/Flexes • Boards near observation wells on Water Levels and Water Quality. Boards to also indicate if water is potable or not.	Monthly/ Continuous basis	Geotagged images
3	Print	• Pamphlets/Leaflets	Semi-annual	Images of pamphlets / leaflets
4	Social Media	• Creating GP specific Groups on Facebook/WhatsApp/Twitter and any other Social Media Platform	Continuous basis	Link
5	Public meetings	• Gram Sabha meetings	Continuous basis	Minutes of the meeting

In addition to the above indicators, QCI team shall observe the awareness generated through the IEC materials. Two types of forms shall be employed, namely – the Random Citizen Feedback form and Random Observation Wells form, which would aid in assessing the awareness of the Community about the scheme.

Annexure – 1.1

Template For Uploading updation of Water Level Data for Observation Wells

- Template for uploading updation of Water Level Data for Observation Wells is attached for the reference in an Excel format separately in Email Annexure – 1.1.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
S. No.	Well Disclosed Category	State	District	Block	GP	Village	TYPE	SOURCE	Well ID	Site_Name	Latitude	Longitude	Well Depth	Aquifier	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	Post_2021	Pre_2022	Post_2022
1	Added in 2019 with Historic Data	Gujarat	Banaskantha	Deesa	Nesda Juna	Nesda Juna		SGWB	HPII_BK_003		24.2	71.98	68.7	Confined	118.50	114.80	116.20	116.80	121.60	119.00	121.00	128.20	121.15	119.10	120.60	118.80	128.2	126.5		
2	Added in 2020 with Historic Data	Gujarat	Mehsana	Visnagar	Visnagar	Visnagar	Dug Well	SGWB	MSH-017A	Visnagar	23.7005556	72.55	10.5	Unconfined	2.30	1.50	2.45	1.30	2.10	1.10	1.80	2.10	2.70	0.80	1.40	0.60	2.9	1.8		
3	Added in 2021 with Historic Data	Gujarat	Banaskantha	Dantiwada	Akoli	Akoli	Tube Well	SGWB	G_1_BK_018	Akoli	24.4969444	72.3838889	60	Unconfined	15.4	18.7	24.7	22.2	31.2	8.1	15.8	21.3	55.6	49.4	57.1	34.1	61.2	49.45		

Annexure – 1.2

Template For Uploading Water Level data for Observation Wells with Historical Data

- Template for uploading Water Level Data for Observation Wells with historical data is attached for the reference in an Excel format separately in Email Annexure – 1.2.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
S. No.	State	District	Block	GP	Village	TYPE	SOURCE	Well ID	Year of Well Establishment	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	Post_2021	Pre_2022	Post_2022
1																														
2																														
3																														
4																														
5																														

Annexure – 1.3

Template For Uploading Water Level data for New Observation Wells

- Template for uploading Water Level Data for New Observation Wells is attached for the reference in an Excel format separately in Email Annexure – 1.3.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
S. No.	**State**	**District**	**Block**	**GP**	**Village**	**TYPE**	**SOURCE**	**Well ID**	**Year of Well Establishment**	**Site_Name**	**Latitude**	**Longitude**	**Well Depth**	**Aquifier**	**Pst_2021**	**Pre_2022**	**Post_2022**
1																	
2																	
3																	
4																	
5																	

Annexure – 2.1

Template For Uploading Water Quality data for Observation Wells

- Template for uploading updation of Water Quality Data for Observation Wells is attached for the reference in an Excel format separately in Email Annexure – 2.1.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
S. No.	Well Disclosed Category	State	District	Block	GP	Village	Site_Name	Type of well	Source	Well ID	Latitude	Longitude	Well Depth	Aquifier type/ formation	Year	pH	EC	TDS	Total Hardness	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulphate	Chloride	Fluoride	Nitrate
1	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2015	8.20	960.00	538.00	275.00	52.00	35.00	92.00	23.00	0.00	378.00	86.00	43.00	18.00	2.72
2	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2016	8.40	830.00	531.00	240.00	42.00	33.00	90.00	26.00	24.00	366.00	14.00	35.00	84.00	2.72
3	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2017	8.30	900.00	507.39	255.00	40.08	37.70	75.87	19.94	12.02	353.92	38.42	42.54	63.86	0.76
4	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2018	8.90	#######	#######	300.00	50.10	42.56	257.49	8.60	24.04	195.26	134.48	304.87	137.02	1.06
5	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2019	8.20	450.00	310.81	105.00	30.06	7.30	79.78	5.47	0.00	183.06	0.00	63.81	32.86	1.72
6	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2020	8.00	440	268	96	12.00	23.00	59.00	4.00	0.00	146.00	38.00	28.00	1.40	30.00
7	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2021	8.20	1240	737	210	40.08	26.75	205.76	12.90	0.00	488.16	0.00	177.25	1.30	29.76
8	Added in 2019 with Historic Data	Rajasthan	Ajmer	Ajmer Rural		Ajaysar			SGWB		26.4230	74.5930			2022														
9	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2015														
10	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2016	7.9	1000	650	180	40	19.5	144	10	0	220	140	121	0.7	9
11	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2017	8.4	1110	722	140	28	17.05	189	10.8	72	354	43	50	0.66	40.76
12	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2018	7.8	307	200	140	28	17.05	5.6	3	0	122	13	28	0.5	0
13	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2019	8.5	1110	722	165	43	14.03	209	12.8	72	364	85	60	0.76	46
14	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2020	8.5	1110	722	165	43	14.03	209	12.8	72	364	85	60	0.76	46
15	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2021	7.77	#######	#######	330.00	56.00	46.21	590.00	8.00	0.00	350.00	390.00	650.00	1.68	6.20
16	Added in 2020 with Historic Data	Rajasthan	Hanumangarh	Sangaria	Ratanpura	Ratanpura	RATANPURA	DW	CGWB	W295100074270001	29.85	74.45	50.97	Younger Alluvium	2022														
17	Added in 2020 without Previous Data	Rajasthan	Dholpur	Dholpur	PACHGAON	PACHGAON	PACHGAON	DW	SGWD	DHOLPURWL_113	26.71742	77.84499	16.5	SANDSTONE	2020	8.9	3100	1836	230	10	50	618	6	120	952	82	326	2.96	148
18	Added in 2020 without Previous Data	Rajasthan	Dholpur	Dholpur	PACHGAON	PACHGAON	PACHGAON	DW	SGWD	DHOLPURWL_113	26.71742	77.84499	16.5	SANDSTONE	2021	8.00	770	448	175	38.08	19.46	100.93	6.26	0.00	219.67	100.86	70.90	0.26	1.86
19	Added in 2020 without Previous Data	Rajasthan	Dholpur	Dholpur	PACHGAON	PACHGAON	PACHGAON	DW	SGWD	DHOLPURWL_113	26.71742	77.84499	16.5	SANDSTONE	2022														

Annexure – 2.2

Template For Uploading Water Quality data for Observation Wells with Historical Data

- Template for uploading Water Quality Data for Observation Wells with historical data is attached for the reference in an Excel format separately in Email Annexure – 2.2.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
S. No.	Well Disclosed Category	State	District	Block	GP	Village	Site_Name	Type of well	Source	Well ID	Year of Well Establishment	Latitude	Longitude	Well Depth	Aquifier type/ formation	Year	pH	EC	TDS	Total Hardness	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulphate	Chloride	Fluoride	Nitrate
1																2015														
2																2016														
3																2017														
4																2018														
5																2019														
6																2020														
7																2021														
8																2022														
9																2015														
10																2016														
11																2017														
12																2018														
13																2019														
14																2020														
15																2021														
16																2022														

Annexure – 2.3

Template For Uploading Water Level data for New Observation Wells

- Template for uploading Water Quality Data for New Observation Wells is attached for the reference in an Excel format separately in Email Annexure – 2.3.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
S. No.	State	District	Block	GP	Village	Site_Name	Type of well	Source	Well ID	Year of Well Establishment	Latitude	Longitude	Well Depth	Aquifer type/ formation	Year	pH	EC	TDS	Total Hardness	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulphate	Chloride	Fluoride	Nitrate
1															2022														
2															2022														

Annexure – 3

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**

Annexure – 4

Template For Uploading Data in Respect of Water / Energy Meters

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

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 (web portals of states, fixed displays, print media, social media & public meetings)
E.g.	Tumakuru	Tiptur	Honnavalli	Print Media- pamphlets/leaflets
E.g.	Dhaulpur	Dhaulpur	Firozpur	Social Media – WhatsApp groups

Name of Officer: _____

Designation of Officer: _____

State: _____

District: _____

DPMU Office address: _____

Seal and Signature of authorised SPMU official: Date: _____ Time: _____