

# **CENTRAL GROUND WATER AUTHORITY**

(Constituted under sub-section (3) of section 3 of the Environment (Protection) Act, 1986)

## **Guidelines/Criteria for evaluation of proposals/requests for ground water abstraction**

**(With effect from 16.11.2015)**

As per the National Green Tribunal directions and for further betterment of groundwater regulatory processes the guidelines of Central Ground Water Authority have been revised and placed below. The same would be available in this website for period of 1 month for inviting feedbacks, comments, and suggestions at [cgwa@nic.in](mailto:cgwa@nic.in).

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**Central Ground Water Authority  
Ministry of Water Resources,  
River Development & Ganga Rejuvenation  
Government of India**



**Government of India**  
**CENTRAL GROUND WATER AUTHORITY**  
**Ministry of Water Resources, River Development & Ganga Rejuvenation**  
**West Block 2, Wing 3, R K Puram, Sector 1, New Delhi-110066**

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**INDEX**

<b>ITEM</b>	<b>Page No.</b>
1. SCOPE & OBJECTIVE.....	1
2. NOTIFIED AREAS .....	2
2. 1. Drinking & Domestic purposes: .....	2
2. 1. 1. Individual households: .....	2
2. 1. 2. Other than Individual households .....	3
3. NON-NOTIFIED AREAS .....	4
3. 1. Criteria for Industries/Infrastructure/Mining Projects .....	4
3. 1. 1. Industries:.....	4
3.1.1. (b). Water Intensive Industries.....	5
3. 1. 2. Infrastructure projects .....	5
3. 1. 3. Mining and De-watering projects .....	6
4. ABSTRACTION OF SALINE GROUND WATER.....	6
5. CHANGE IN LAND USE .....	7
6. OTHER CONDITIONS (Applicable for all cases): .....	8
7. ISSUANCE/ RENEWAL OF NOC.....	9
8. ISSUANCE OF NOC TO EXISTING INDUSTRIES .....	9
9. PROCESSING FEE .....	10

**ANNEXURE**

Annexure I: Explanations for the technical terms used:

Annexure II: List of areas notified by CGWA

Annexure III: Format of the undertaking to be submitted to the Authorised Officer

**Annexure IV: List of Infrastructure Projects**

**Annexure V: List of Water Intensive Industries.**

**Annexure VI: Guidelines for Installation of Piezometers and their Monitoring.**

**Government of India**  
**CENTRAL GROUND WATER AUTHORITY**  
**Ministry of Water Resources, River Development & Ganga Rejuvenation**  
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## 1. SCOPE & OBJECTIVE

The prime objective of the guidelines for evaluation of proposals/requests for the withdrawal of ground water, is to focus on a specific part of ground water management viz. ensuring sustainability of ground water both in terms of quantity & quality and also focus on land based management of ground water resources, looking into the variations of availability of water in different climatic regions and diverse hydrogeological conditions in various states of the country. Explanation for different technical terms used in this document is given in *Annexure I*.

The annual replenishable ground water resources availability plays an important role in defining the guidelines. These are re-assessed from time to time and the latest assessment, as applicable to these guidelines are available on [www.cgwb.gov.in](http://www.cgwb.gov.in)

The latest assessment of the state wise ground water resources as on 31.03.2011 is available at the Central Ground Water Board (CGWB) web site (<http://cgwb.gov.in/documents/Dynamic%20GW%20Resources%20-2011.pdf>). As per the ground water resource estimates of 2011, out of the 6607 assessment units (Blocks, Mandals, Talukas, districts), 1071 over-exploited units, 217 critical units, 697 semi-critical units, 4580 safe units and 92 saline units have been identified across the country by Central Ground Water Board. The Annual replenishable ground water resources have been estimated as 433 Billion Cubic Metres (bcm). The Net Ground Water Availability is 398 bcm and the overall stage of ground water development of the country is 62%. The present guidelines will follow the assessment as on GWRE 2011 till it is revised.

Central Ground Water Authority (CGWA) so far has notified 162 areas (<http://cgwb.gov.in>) the areas are for the purpose of regulation of ground water development. More areas are notified periodically and the up dated list as applicable to these guidelines is available on [www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in). The District Administrative Heads (Deputy Commissioner/District Magistrate/District Collector) in case of Administrative Block or Taluka, or the Head of the Municipality (in case of Municipal Area) of the notified areas in the country have been appointed as 'Authorized Officers' by Central Ground Water Authority under Section 4 of the Environmental Protection Act (EPA) (1986).

Regulation of Ground Water development in Notified areas is through district administrative heads assisted by Advisory Committees under the provisions of Section 4 of the EPA, 1986. All issues pertaining to granting of NOC's for ground water

withdrawal, checking violations, sealing of ground water abstraction structures, launching of prosecution against offenders, attending to complaints, etc., are to be addressed by the Authorized Officers.

- i. These guidelines supersede all the earlier guidelines with effect from 16/11/2015. The guidelines for abstraction of ground water in Notified/Non-Notified areas for various users are given below.

## 2. NOTIFIED AREAS

Permission to abstract ground water through any energized means will not be accorded for any purpose other than drinking water. The permission would be granted by the Authorised Officer in consultation with the advisory committee constituted for this purpose. The list of notified areas, is given in *Annexure II* and also available on the web-site ([www.cgwb.gov.in](http://www.cgwb.gov.in)).

### 2. 1. Drinking & Domestic purposes:

NOC can be accorded for construction of ground water abstraction structures/ replacement of existing defunct well for drinking and domestic purposes only. Government Water supplying agencies can be accorded NOC as per their requirement. NOC for infrastructure projects will be considered after issue of completion certificate from competent Authority as per Govt. norms for drinking and domestic purposes. NOC for ground water withdrawal will be considered only if Water Supplying Department is not providing adequate water in the area/premises. Proof for this is to be produced from the concerned authority by the applicant.

#### 2. 1. 1. Individual households:

The conditions for granting the NOC to individual households in notified areas are given below:

- a. Permission to be granted only for such cases where public water supply system does not exist. The permission shall be valid only till such time there is no public water supply provided. In that case, the abstraction structure shall be exclusively utilized for artificial recharge to ground water or sealed.
- b. A certificate from the water supply agency regarding non-availability of government water supply to the area/individual is to be submitted by the applicant.
- c. The premises should have only one ground water abstraction structure (either existing or new) to meet the drinking and domestic requirements. No tube-well/bore-well will be constructed, if any working tube-well already exists. In case the existing well has become non-functional and is to be replaced, it should be converted into recharge well, if possible or, properly sealed and no water be pumped from it. An undertaking as per *Annexure III* is to be submitted by individual.
- d. The person(s) intending to construct new tube-well will seek permission from the Authorized officer/Advisory Committee, at least 30 days in

advance along with the name and address of the drilling agency, which will undertake construction of tube-well. Authorities/Nodal Agency can ask the user to supply additional information.

- e. The maximum diameter of the tube-well should be restricted to 4" only and the capacity of the pump should not exceed 1HP. In case of deep water level the capacity/dia of the structure will be decided by the Authority based on the site specific recommendations.
- f. Concurrent with the construction of ground water abstraction structure, the owner of the tube-well shall undertake artificial recharge to ground water through rainwater harvesting in the premises.
- g. The water from the tube-well/bore-well will be used exclusively for drinking and domestic purposes only within the premises.
- h. All details of the drilling like rock formations encountered, the depth and diameter of the constructed tube-well, (Fracture zones encountered/zones tapped) type of pipes used in tube well, yield of bore well/tube well and ground water quality etc., shall be kept for record and are to be provided at the time of inspection.
- i. Any violation of the above conditions will attract legal action under section 15 of the Environment (Protection) Act, 1986.

### 2. 1. 2. **Other than Individual households**

The list of infrastructure projects, other than individual households is given in *Annexure IV*. The conditions for granting the NOC to such categories in notified areas are given below:

- a. Maximum diameter of the ground water abstraction structures should be restricted to 150 mm (6 inches) only and capacity of the pump should not exceed 5 HP. In case of Government water supply agencies, housing societies, tube well size/dia. & HP of prime mover can be more depending on the ground water availability and requirement. The authorised officers in consultation with the advisory committee would decide on standards for the area/ district under their jurisdiction
- b. Concurrent with the construction of ground water abstraction structures, the organization shall undertake artificial recharge to ground water through rain water harvesting structure in the premises within 45 days of issuance of NOC and will confirm to the Authorized Officer for verification.
- c. Water meter installation in the abstraction structure is mandatory and confirmation of water meter installation shall be given to the Authorized Officer under intimation to the concerned Regional office of CGWB immediately after construction. The daily water meter reading should be maintained and quarterly report should be submitted to Authorized Officer.
- d. The water from the ground water abstraction structures will be used for drinking and domestic purposes only.



- e. All details of the drilling like location of well (Lat./Long.), formations encountered, the depth and diameter of the constructed ground water abstraction structures, type of pipes used, yield of bore well/ tube well (Fracture zones encountered/zones tapped) and ground water quality, etc., have to be furnished to the nodal agency authorized and to CGWB Regional Office within 15 days of the completion of the construction.
- f. The permission for construction of ground water abstraction structure would be valid for a period of six months from the date of issue of NOC. If the structure is not constructed within validity period, the NOC would be deemed to have been cancelled.
- g. The NOC issued would be non-transferable.
- h. Permission to be granted only for such cases where public water supply system does not exist. The permission shall be valid only till such time there is no public water supply provided. In that case, the abstraction structure shall be exclusively utilized for artificial recharge to ground water or sealed.
- i. Any violation of the above conditions will attract legal action under section 15 of the Environment (Protection) Act, 1986.

Guidelines for granting of NOC by Central Ground Water Authority for saline ground water withdrawal to industries/projects in Notified areas underlain by Saline Ground Water is mentioned under Section 4.

In case the notified area is de-notified subsequently, the conditions pertaining to “non-notified areas” shall be followed.

### 3. NON-NOTIFIED AREAS

NOC for ground water withdrawal will be considered for Industries / Infrastructure / Mining projects as per the criteria given below.

#### 3. 1. Criteria for Industries/Infrastructure/Mining Projects

##### 3. 1. 1. Industries:

Category*	Mandatory Recycle/Reuse (for various purposes except recharge to ground water)	Withdrawal permitted (% of proposed recharge) #
Safe	Major and Medium Industries to recycle and reuse at least 40% of the waste water	NOC is required for ground water withdrawal subject to adoption of artificial recharge to ground water.
Semi-critical	Major and Medium Industries to recycle and reuse at least 50% of the waste water	Withdrawal may be permitted subject to undertaking of ground water recharge** measures. The withdrawal should not exceed 200% of the recharged quantity.

<b>Category*</b>	<b>Mandatory Recycle/Reuse (for various purposes except recharge to ground water)</b>	<b>Withdrawal permitted (% of proposed recharge) #</b>
Critical	Major and Medium industries should fully recycle and reuse the waste water	Withdrawal may be permitted subject to undertaking of ground water recharge** measures. The withdrawal should not exceed 100% of the recharged quantity.
Over-exploited	All Industries to fully recycle and reuse the waste water	Withdrawal may be permitted subject to undertaking of ground water recharge** measures. The withdrawal should not exceed 50% of the recharged quantity.

\* The guidelines will follow the assessment as on Ground Water Resource Estimation (GWRE) 2011 till further revision.

# Refer section 3.1.1.b for recharge criteria for Water Intensive Industry

\*\*The recharge should be implemented within the premises and/or same water shed/assessment unit. Detail project proposal shall be included along with the application for NOC.

### 3.1.1. (b). Water Intensive Industries

Industries using ground water as raw material/water intensive industries shall not be granted NOC for ground water withdrawal in Over-Exploited areas. A list of different industries categorised as water intensive is given in *Annexure V*. In Safe, Semi-Critical & Critical areas NOC for ground water withdrawal is mandatory for these industries as per Section 3,1. However, ground water withdrawal will be limited as follows:

<b>Category</b>	<b>Ground Water Withdrawal Limit</b>
Safe	Withdrawal limited to 200% of ground water recharge.
Semi- Critical	Withdrawal limited to 100% of ground water recharge.
Critical	Withdrawal limited to 50% of ground water recharge.
Over- Exploited	No permission for Industries under this category.

### 3. 1. 2. Infrastructure projects

The application for the infrastructure projects would be considered depending on the type of infrastructure project as per the *Annexure IV*.

- a. Run-off from the entire project area is to be utilized either for artificial recharge to ground water unless risk of contamination exists or area is water logged or for storage for utilization or both.
- b. The quantum of ground water for usage other than drinking/ domestic shall not exceed 25% of total ground water abstraction in case of Housing projects/Residential Townships.
- c. Proponents are to submit a status report stating the quantum of water required and the quantity that would be provided by the Government Water Supplying agency. This should be supported by a letter from the agency.

### **3. 1. 3. Mining and De-watering projects**

Abstraction of ground water by mining industries intersecting water table for de-watering of mine pit water, and de- watering ground water for basement construction of buildings, etc., may be permitted subject to the following conditions.

- a. Conditions for recharge and recycle/reuse would be similar to those given in case of industries for withdrawal of ground water (Section 3.1). Project proponent has to submit mining plan with mine seepage computation/modelling studies carried out by them.
- b. The de-watered quantum of water is to be put to gainful use. This may include water supply and provide to water supply agencies, agriculture, dust suppression by the industry, utilization by the mining industry, utilization for artificial recharge to ground water, etc.
- c. Piezometers for monitoring the ground water level of de-watered aquifers are to be mandatorily installed within the premises and in peripheral areas having adequate depth range. The record of water level data be maintained and to be provided periodically or whenever demanded by the regulating agency.
- d. Wherever the mines/de-watering project is situated in the coastal area special care should be taken to prevent sea water ingress. This should be supported by a technical evaluation report.
- e. In case of mining projects detailed and continuous study on the ground water regime, including ground water modelling should be carried out and the results should be submitted to the Regional Directorate of CGWB periodically.

## **4. ABSTRACTION OF SALINE GROUND WATER**

Any Industry/project desirous of utilizing saline ground water, including from areas falling under over-exploited and Notified categories, would be permitted to extract saline ground water. However, due care to be taken in respect of disposal of the effluents by the units so as to protect the water bodies and the aquifers from pollution. Proposals pertaining to such cases must have a detailed project report elucidating the mechanism of handling the effluent water and its various uses. All precautions must be taken for protection of environment especially fresh water

aquifers in and around the area. Large scale recharge mechanism should be adopted wherever feasible in such cases to improve the ground water conditions in the region.

- (I) In Notified areas, withdrawal of saline water from deeper aquifers can be permitted subject to the following conditions.
  - (a) Saline water withdrawal shall not contaminate the fresh water aquifers while transporting or using.
  - (b) No brine or waste disposal should occur in that area.
  - (c) The withdrawal of saline water or pumping of the saline aquifer by industries/organizations, should not affect the fresh water aquifer, if any in the area.
  - (d) Piezometers should be constructed and monitored regularly for piezometric level & quality, of the aquifer from which the saline water is pumped, as well as, the adjacent/overlying/underlying fresh water aquifers, if any.
  - (e) The data generated has to be submitted to the respective Regional Director of CGWB periodically.
  - (f) CGWA has right to withdraw the permission at any time without assigning any reason.
  - (g) Adequate Rain Water Harvesting/Artificial Recharge/Water conservation measures should be adopted in consultation with Regional Director of CGWB.
  
- (II) In case of saline/contaminated water occurring within the phreatic zone or water logged area occurring as a pocket in notified area, withdrawal may be permitted for uses other than domestic use subject to:-
  - (a) The area shall be clearly demarcated and the respective Regional Director of CGWB shall give clear recommendation on the quantity which can be withdrawn.
  
  - (b) The withdrawal should not have any impact on the fresh water aquifer and this has to be ascertained by the concerned Regional Director, CGWB.
  
  - (c) Other conditions shall remain same as (1) above.

## **5. CHANGE IN LAND USE**

Industries/ Infrastructure/Mining projects coming up in agricultural land or any other land after change in land use shall have to submit all documents endorsing the change of land use from competent authority. Withdrawal of ground water from existing abstraction structures, if any, after change in land use in the area can be done

only after approval from the Central Ground Water Authority. Cases would be processed as per changed land use.

## **6. OTHER CONDITIONS (Applicable for all cases):**

- a) Sale and supply of raw/unprocessed/untreated ground water by unauthorized agencies for commercial use is not permitted.
- b) Non-compliance of conditions mentioned in the NOC may be taken as sufficient reason for cancellation of NOC accorded/ non-renewal of NOC.
- c) Wherever State Government Authorities are in existence to manage and control ground water regimes, the Ground water Regulation would be done by them. The State Ground Water Authority (SGWA) shall send a quarterly progress report to CGWA for records.
- d) In case of any delay in executing the project for bonafide reasons within the set time, for which NOC has been granted, the firm shall apply to CGWA for extension. CGWA may consider extension based on its merits. Any proposal to extend the validity of NOC would be considered for a similar period with recharge conditions applicable as per guidelines in force, provided no ground water abstraction has been made.
- e) No application for NOC shall be entertained without referral letters from the statutory authority (Central and State Govt. Departments and Agencies like State Pollution Control Board, Industries Department, Industrial Development Authority).
- f) The referral letter shall contain verification on the quantum of water for the industry/project with detailed break up of ground water consumption, recycle & reuse of the waste water, so that the wastage of the precious resource can be avoided. In case this is not given by the referral authority, applicant should obtain a letter from the Industries Dept/Project Sanctioning Authority/ local municipal authority in urban areas on the same lines.
- g) The CRZA rules and regulation shall be applicable wherever in vogue.
- h) No permission required for withdrawal of ground water from any area if withdrawal is done through non-energized means.
- i) Mandatory clause on Artificial Recharge to ground water may be relaxed in case of water logged/shallow water level (< 5 m bgl during pre monsoon) areas.
- j) Relaxation in the quantity of ground water withdrawal in over-exploited areas, and/or quantity of recharge being affected by the firm can be permitted by CGWA if it feels it absolutely necessary in national interest.
- k) The artificial recharge proposals are required to be vetted by any competent authority of State/Centre.
- l) Treated water shall not be used for recharge to ground water, since it may contain heavy metals & other toxic elements. The treated waters shall be fully used by the proponent or any other agency, who can utilize it without contaminating the underlying aquifer / water bodies.
- m) NOC issued is non-transferable.

- n) Abstraction structure should be located inside the premises of project property.
- o) The general guidelines for the ground water level monitoring and construction of piezometers for this purpose are annexed as *Annexure VI*.

## **7. ISSUANCE/ RENEWAL OF NOC**

- a) NOC will be accorded in non notified areas for a period of two years initially and will be renewed for a period of three years, subject to compliance of conditions mentioned in the NOC. Thereafter, NOC's shall be renewed every five years subject to the compliance of the conditions mentioned in the renewed NOC.
- b) Renewal of NOC's issued earlier to industries/projects in non-notified areas and where the area has subsequently become notified, will be done by CGWA for every two (2) years. The Authorized officer will forward the application to the concerned Regional Director of CGWB with his recommendations for processing and forwarding to CGWA.
- c) In case of change in category of the area, renewals would be granted with conditions as laid down for such new category areas. In case it is difficult to comply with the conditions the applicant should satisfy the authority for granting exemption/alternative measure. The condition of recharge may be relaxed for OE blocks at par with Critical blocks and for Critical blocks at par with semi-critical blocks.
- d) In case it is found that some of the conditions stipulated during the issuance NOC have not been implemented in certain localities it may be relaxed by CGWA based on the recommendations of the concerned Regional Director for specific areas as per site specific condition.
- e) Categorization of certain industries as 'Water intensive industry' have been made with effect from 15.11.2012. Since then ground water withdrawal by such industries is not permitted in OE areas. Renewal of NOC for those water intensive industries to which NOC was issued for ground water withdrawal prior to 15.11.2012 and are now falling in Over-exploited and Notified areas will be done by CGWA initially for two years and subsequently for every three years. For Notified areas, the authorized officer shall forward his recommendations to the Regional Director who in turn would send the same alongwith his recommendations to CGWA. The renewal would be limited to 50% of the recharge quantity or the earlier permitted quantity whichever is less.
- f) Processing fee prescribed if any, from time to time shall be charged for issuance and renewal of NOC.

## **8. ISSUANCE OF NOC TO EXISTING INDUSTRIES**

All existing Industries/projects which are drawing ground water and have not obtained NOC for ground water withdrawal from Central Ground Water Authority, either due to its coming into existence prior to formation of CGWA or due to

Central Ground Water Authority, Government of India

exemption from obtaining NOC as per earlier guidelines, shall apply to CGWA for NOC for ground water withdrawal with immediate effect. This would be applicable to States/UT's in which regulation of ground water withdrawal is being done by CGWA. The application has to be submitted online. The grant of NOC would be considered as per prevailing guidelines.

It would be mandatory for these industries/projects to submit water quality report of effluents, if any, vetted by competent authority. The industry/project should have valid EC or 'consent to operate' under water act or referral letter issued by the State/ Central regulatory authority.

## **9. PROCESSING FEE**

A Processing fee of Rs. 1000/- per new NOC and Rs. 500/- per renewal of NOC shall be applicable for issuance of NOC or its renewal.

**Note: Guidelines** are subject to modification from time to time.

**Explanations for the Technical Terms used:**

1. **Notified Area:** Areas notified by Central Ground Water Authority for the purpose of Regulation of Ground Water development through Public Notices.
2. **Non-notified area:** Areas other than Notified areas for ground water regulation.
3. **EPA 1986:** Environmental Protection Act (1986).
4. **Safe area:** Area categorized as SAFE from the ground water resources point of view, based on the ground water resources estimation 2009 or the latest estimation carried out by CGWB.
5. **Semi-critical area:** Area categorized as SEMI-CRITICAL from the ground water resources point of view, based on the ground water resources estimation 2009 or the latest estimation carried out by CGWB.
6. **Critical area:** Area categorized as CRITICAL from the ground water resources point of view, based on the ground water resources estimation 2009 or the latest estimation carried out by CGWB.
7. **Over-exploited area:** Area categorized as OVER-EXPLOITED from the ground water resources point of view, based on the ground water resources estimation 2009 or the latest estimation carried out by CGWB.
8. **Aquifer:** Geological formation capable of storing and transmitting ground water.
9. **Deeper Aquifer:** In areas having multiple aquifer system, the aquifer/s occurring below the uppermost aquifer.
10. **Well:** Any structure sunk for the search or extraction of ground water, including open wells, dug wells, bore wells, dug-cum-bore wells, tube wells, filter points, collector wells, infiltration galleries, recharge wells, or any of their combinations or variations.
11. **Tube Well; Bore Well; Dug Well:** Ground Water abstraction structures.
12. **Government Agency:** May be Central or State Government body.
13. **Mine:** Area where mining activity is taking place, or area abandoned after mining.
14. **Ground Water Recharge:** Augmenting the ground water resources of aquifer/s.
15. **Rainwater Harvesting:** The technique or system of collection and storage of rainwater, at micro watershed scale, including roof-top harvesting, for future use or for recharge of ground water.
16. **Roof Top Rain Water Harvesting:** Collection and storage of rain water from the roof top of buildings.
17. **Artificial Recharge to ground water:** Augmenting the ground water reservoir through artificial means.
18. **Infrastructure Project:** Housing, Township, SEZ, Hotel, Educational Institutions, Roads and Bridges, Commercial establishments, Offices, Airport, Transport terminus, Hospitals, others.



19. **Mining Project:** Project which involves mining activity either open cast or underground or both.
20. **Ground Water Draft:** Quantum of ground water withdrawal.
21. **Saline Water:** Water having salinity in excess of 2500  $\mu\text{mhos/cm}$  at  $25^{\circ}\text{C}$ .
22. **Water Table Intersection:** Intersection of the Water Table on excavation of the overlying material due to mining or other activities.
23. **Recycle/Reuse:** Purifying waste water for using again/ putting water to multiple uses.
24. **Schools/College/Universities:** Educational Institutions/universities approved/recognized by State / Central Government.
25. **Hospitals:** Institutions providing medical facilities/treatment approved by State / Central Government.
26. **Bhawan:** Raj Bhawan or any other Central / State Government office complex or building.
27. **Government Department:** Either Central or State.
28. **Municipality:** Municipality, a Municipal Corporation or similar body of local urban governance by any other name.
29. **Ground water:** Water, which exists below the surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers;
30. **Bgl:** Below Ground Level.
31. **BCM (bcm):** Billion cubic metres.
32. **Ground water Abstraction structure:** Structure used to withdraw ground water like bore well / tube well / dug well / dug cum bore well/tunnel well.
33. **Piezometer:** A bore well/tube well used only for measuring the water level/piezometric head and to take water sample periodically but not used for ground water abstraction.
34. **Water Audit:** A numerical assessment quantity of water in any process, giving a detailed input and output in every stage.

**Annexure II****List of 162 areas notified by CGWA**

<b>S. No.</b>	<b>STATE / UT</b>	<b>LOCATION</b>	<b>Date of Notification</b>
1	Andhra Pradesh	Tirupathi (Rural) Mandal of Chittoor District	5.12.2005
2	Andhra Pradesh	Vempalli Mandal of Cuddapah District	5.12.2005
3	Andhra Pradesh	Chilmathur Mandal of Anantapur District	27.11.2012
4	Andhra Pradesh	Narpala (NC) Mandal of Anantapur District	27.11.2012
5	Andhra Pradesh	Giddaluru Mandal of Prakasam District	27.11.2012
6	Diu	Union Territory of Diu	14.10.1998
7	Gujarat	Gandhinagar taluka (aquifer below 200 mbgl declared as notified for meeting drinking and domestic requirements), District Gandhinagar	2.09.2000
8	Gujarat	Kalol taluk of Gandhinagar district	27.11.2012
9	Gujarat	Mansa taluk of Gandhinagar district	27.11.2012
10	Gujarat	Mahesana taluk of Mahesana district	27.11.2012
11	Haryana	Municipal Corporation of Faridabad & Ballabgarh	14.10.1998
12	Haryana	Shahbad Block of Kurukshetra District	2.12.2006
13	Haryana	Nangal Chowdhary Block of Mahendragarh District	2.12.2006
14	Haryana	Narnaul Block of Mahendragarh District	2.12.2006
15	Haryana	Samalkha Block of Panipat District	2.12.2006
16	Haryana	Karnal Block of Karnal District	2.12.2006
17	Haryana	Khol Block of Rewari District	2.12.2006
18	Haryana	Entire Gurgaon District	13.08.2011
19	Haryana	Badra block of Bhiwani District	13.08.2011
20	Haryana	Ladwa block of Kurukshetra District	13.08.2011
21	Haryana	Pehowa block of Kurukshetra District	13.08.2011
22	Haryana	Rania block of Sirsa District	13.08.2011
23	Haryana	Tohana block of Fatehabad District	13.08.2011
24	Haryana	Gulha block of Kaithal District	13.08.2011
25	Haryana	Bapoli block of Panipath District	13.08.2011
26	Haryana	Rajaund block of Kaithal District	27.11.2012
27	Haryana	Ellenabad block of Sirsa District	27.11.2012
28	Karnataka	Badami taluka of Bagalkote District	27.11.2012
29	Karnataka	Bagalkote(P) taluka of Bagalkote District	27.11.2012
30	Karnataka	Anekal taluka of Bangalore (U) District	27.11.2012
31	Karnataka	Bangalore (N) taluka of Bangalore (U) District	27.11.2012
32	Karnataka	Bangalore (S) taluka of Bangalore (U) District	27.11.2012

33	Karnataka	Devanhalli taluka of Bangalore (R) District	27.11.2012
34	Karnataka	Dod Ballapur taluka of Bangalore (R) District	27.11.2012
35	Karnataka	Hoskote taluka of Bangalore (R) District	27.11.2012
36	Karnataka	Nelamangala(P) taluka of Bangalore (R) District	27.11.2012
37	Karnataka	Ramdurg taluka of Belgaum District	27.11.2012
38	Karnataka	Raybag(P) taluka of Belgaum District	27.11.2012
39	Karnataka	Gadag(NC) taluka of Gadag District	27.11.2012
40	Karnataka	Bangarapet taluka of Kolar District	27.11.2012
41	Karnataka	Chikballapur taluka of Chikballapur District	27.11.2012
42	Karnataka	Chintamani taluka of Chikballapur District	27.11.2012
43	Karnataka	Gauribidanur taluka of Chikballapur District	27.11.2012
44	Karnataka	Gudibanda taluka of Chikballapur District	27.11.2012
45	Karnataka	Malur taluka of Kolar District	27.11.2012
46	Karnataka	Mulbagal taluka of Kolar District	27.11.2012
47	Karnataka	Sidlaghatta taluka of Chikballapur District	27.11.2012
48	Karnataka	Koratagere(P) taluka of Tumkur District	27.11.2012
49	Karnataka	Madhugiri(P) taluka of Tumkur District	27.11.2012
50	Madhya Pradesh	Dhar Block of Dhar District	2.12.2006
51	Madhya Pradesh	Manawar Block of Dhar District	2.12.2006
52	Madhya Pradesh	Mandsaur Block of Mandsaur District	2.12.2006
53	Madhya Pradesh	Sitamau Block of Mandsaur District	2.12.2006
54	Madhya Pradesh	Neemuch Block of Neemuch District	2.12.2006
55	Madhya Pradesh	Jaora Block of Ratlam District	2.12.2006
56	Madhya Pradesh	Indore Municipal Corporation	2.12.2006
57	NCT, Delhi	South District	15.08.2000
58	NCT, Delhi	South West District	15.08.2000
59	NCT, Delhi	Yamuna Flood Plain Area	2.09.2000
60	Puducherry UT	Puducherry UT	27.11.2012
61	Punjab	Ludhiana City, Ludhiana District	11.12.1998
62	Punjab	Moga-I Block of Moga District	2.12.2006
63	Punjab	Moga-II Block of Moga District	2.12.2006
64	Punjab	Sangrur Block of Sangrur District	2.12.2006
65	Punjab	Mahal Kalan Block of Barnala District	2.12.2006
66	Punjab	Ahmedgarh Block of Sangrur District	2.12.2006
67	Punjab	Nakodar block of Jalandhar District	13.08.2011
68	Punjab	Shahkot block of Jalandhar District	13.08.2011

69	Punjab	Lohian block of Jalandhar District	13.08.2011
70	Punjab	Pattran block of Patiala District	13.08.2011
71	Punjab	Phagwara block of Kapurthala District	13.08.2011
72	Punjab	Nihalsinghwala block of Moga District	13.08.2011
73	Punjab	Dhuri block of Sangrur District	13.08.2011
74	Punjab	Sunam block of Sangrur District	13.08.2011
75	Punjab	Barnala block of Barnala District	13.08.2011
76	Punjab	Sherpur block of Sangrur District	13.08.2011
77	Punjab	Malerkotla block of Sangrur District	13.08.2011
78	Punjab	Khanna block of Ludhiana District	13.08.2011
79	Punjab	Ajnala block of Amritsar District	27.11.2012
80	Punjab	Patti Block of Taran Taran District	27.12.2012
81	Punjab	Taran Taran Block of Taran Taran District	27.12.2012
82	Punjab	Amloh block of Fatehgarh District	27.11.2012
83	Punjab	Khamano block of Fatehgarh District	27.11.2012
84	Punjab	Khera block of Fatehgarh District	27.11.2012
85	Punjab	Tanda block of Hoshiarpur District	27.11.2012
86	Punjab	Bhogpur block of Jalandhar District	27.11.2012
87	Punjab	Goraya/Rurka kalan block of Jalandhar District	27.11.2012
88	Punjab	Jalandhar east block of Jalandhar District	27.11.2012
89	Punjab	Jalandhar west block of Jalandhar District	27.11.2012
90	Punjab	Nurmahal block of Jalandhar District	27.11.2012
91	Punjab	Phillaur block of Jalandhar District	27.11.2012
92	Punjab	Nadala block of Kapurthala District	27.11.2012
93	Punjab	Dhilwan block of Kapurthala District	27.11.2012
94	Punjab	Kapurthala block of Kapurthala District	27.11.2012
95	Punjab	Sultanpur block of Kapurthala District	27.11.2012
96	Punjab	Pakhawal block of Ludhiana District	27.11.2012
97	Punjab	Bhikhi block of Mansa District	27.11.2012
98	Punjab	Budhlada block of Mansa District	27.11.2012
99	Punjab	Sardulgarh block of Mansa District	27.11.2012
100	Punjab	Aur block of Nawanshahr District	27.11.2012
101	Punjab	Banga block of Nawanshahr District	27.11.2012
102	Punjab	Patiala block of Patiala District	27.11.2012
103	Punjab	Sanaur block of Patiala District	27.11.2012
104	Punjab	Morinda block of Ropar District	27.11.2012
105	Punjab	Bhawaniagarh block of Sangrur District	27.11.2012
106	Rajasthan	Jhotwara block, Jaipur District	27.11.2012
107	Rajasthan	Pushkar Valley, Ajmer District	5.12.2005
108	Rajasthan	Jalore block, Jalore District	5.12.2005
109	Rajasthan	Raniwara block, Jalore District	5.12.2005

110	Rajasthan	Budhana block, Jhunjunu District	5.12.2005
111	Rajasthan	Chirawa block, Jhunjunu District	5.12.2005
112	Rajasthan	Mundwa block, Nagaur District	5.12.2005
113	Rajasthan	Surajgarh Block, Jhunjunu District	2.12.2006
114	Rajasthan	Dhod Block, Sikar District	2.12.2006
115	Rajasthan	Shri Madhopur Block, Sikar District	2.12.2006
116	Rajasthan	Behror Block, Alwar District	2.12.2006
117	Rajasthan	Bhinmal Block, Jalore District	2.12.2006
118	Rajasthan	Rajgarh block of Churu District	13.08.2011
119	Rajasthan	Osian block of Jodhpur District	13.08.2011
120	Rajasthan	Bhopalgarh block of Jodhpur District	13.08.2011
121	Rajasthan	Bilara block of Jodhpur District	13.08.2011
122	Rajasthan	Merta block of Nagaur District	13.08.2011
123	Rajasthan	Baetu block of Barmer District	13.08.2011
124	Rajasthan	Sambher block of Jaipur District	13.08.2011
125	Rajasthan	Govindgarh block of Jaipur District	13.08.2011
126	Rajasthan	Sanganer block of Jaipur District	13.08.2011
127	Rajasthan	Bassi block of Jaipur District	13.08.2011
128	Rajasthan	Amer block of Jaipur District	13.08.2011
129	Rajasthan	Shahpura block of Jaipur District	13.08.2011
130	Rajasthan	Mandore block of Jodhpur District	13.08.2011
131	Rajasthan	Sayala block of Jalore District	13.08.2011
132	Rajasthan	Sanchole block of Jalore District	13.08.2011
133	Rajasthan	Nawalgarh block of Jhunjunu District	13.08.2011
134	Rajasthan	Udaipurwati block of Jhunjunu District	13.08.2011
135	Rajasthan	Jhunjunu block of Jhunjunu District	13.08.2011
136	Rajasthan	Todabhim block of Karauli District	13.08.2011
137	Rajasthan	Pisangan block of Ajmer District	13.08.2011
138	Rajasthan	Chittorgarh block of Chittorgarh District	27.11.2012
139	Rajasthan	Nimbahera Block of Chittorgarh District	27.11.2012
140	Rajasthan	Kuchaman block of Nagaur District	27.11.2012
141	Tamil Nadu	Pollachi S block of Coimbatore District	27.11.2012
142	Tamil Nadu	Morappur block Dharmapuri District	27.11.2012
143	Tamil Nadu	Pappireddipatti block of Dharmapuri District	27.11.2012
144	Tamil Nadu	Usilampatti block of Madurai District	27.11.2012
145	Tamil Nadu	Kuttalam block of Nagapattinam District	27.11.2012
146	Tamil Nadu	Rasipuram block of Namakkal District	27.11.2012
147	Tamil Nadu	Attur-S block of Salem District	27.11.2012
148	Tamil Nadu	Gangavalli block of Salem District	27.11.2012
149	Tamil Nadu	Panamaruthupatti block of Salem District	27.11.2012
150	Tamil Nadu	Talaivasal block of Salem District	27.11.2012
151	Tamil Nadu	Veerapandi block of Salem District	27.11.2012
152	Tamil Nadu	Chengam block of Tiruvannamalai	27.11.2012

		District	
153	Tamil Nadu	Valangaiman block of Tiruvarur District	27.11.2012
154	Tamil Nadu	Udangudi block of Thoothukudi District	27.11.2012
155	Tamil Nadu	Gudiyatham block of Vellore District	27.11.2012
156	Tamil Nadu	Jolarpet block of Vellore District	27.11.2012
157	Tamil Nadu	Pernampet block of Vellore District	27.11.2012
158	Tamil Nadu	Tiruppathur block of Vellore District	27.11.2012
159	Telangana	Midjil Mandal of Mahabubnagar District	5.12.2005
160	Telangana	Vailpoor (NC) Mandal of Nizamabad District	27.11.2012
161	Uttar Pradesh	Municipal Corporation of Ghaziabad, Ghaziabad District	04.04.1998
162	West Bengal	Haldia Industrial complex (aquifer below 120 mbgl), Haldia, district East Medinipur	15.08.2000

**Annexure-III**

**UNDERTAKING TO BE SUBMITTED BY INDIVIDUALS FOR CONSTRUCTION OF GROUND WATER ABSTRACTION STRUCTURE FOR DRINKING AND DOMESTIC PURPOSES IN NOTIFIED AREA ON NON-JUDICIAL STAMP PAPER AS PER THE STAMP VALUE IN VOGUE.**

I, ..... resident of .....

do hereby solemnly affirm and declare as under:

1. That I am the owner/lease of premises of .....
2. That in the above said premises/ building there is no supply of water by the Municipality/Govt. Agency/(ies) in the premises /area.
3. That I/we intend to install bore-well for abstraction of ground water for drinking/domestic use only. In the event of installing bore-well, the maximum diameter shall be restricted to 110 mm (four & half inches) and the capacity of the pump shall not exceed 1 H.P.
4. That I/we undertake that in the event of any instructions/directions from the Central Ground Water Authority/Deputy Commissioner/District Collector or any other authorized officer(s) of the Govt., we shall discontinue the usage of the said dug well/bore-well/tubewell if so required.
5. That I/we further undertake that I/we shall be held liable for any such civil/criminal action that may be initiated against me /us for violation of any of the terms and conditions of this Undertaking.

**(DEPONENT)**

**VERIFICATION:**

Verified at ..... on this day of ..... that the contents of the above Undertaking are correct to the best of my knowledge and belief and nothing has been suppressed.

**(DEPONENT)**

**List of Infrastructure Projects**

Residential apartment
Residential township
Business Plaza
Malls & Multiplex
Hospitals
Office building
School
College
University
Resort
Hotel
Holiday home/Guest house
Industrial Area (Non-Industrial use)
SEZ (Non Industrial use)
Banquet Hall
Metro Station
Railway Station
Bus Depot
Airport
Seaport
Highway infrastructure
Fire station
Warehouse
IT Complex
Logistics & Cargo



**List of Water Intensive Industries**

Packaged drinking water
Mineral water plant
Tannery
Distillery
Brewery
Soft drink
Paper & pulp
Fertilizer
Textile Dyeing
Textile Printing
Textile spinning
Sugar
Dairy Product
Water park & amusement center

### **Guidelines For Installation of Piezometers and their Monitoring**

Piezometer is a borewell/ tubewell used only for measuring the water level by lowering the tape/sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing whenever needed. General guidelines for installation of piezometers are as follows for compliance of NOC:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4” to 6”.
- The depth of the piezometer should be same as in case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- The measuring frequency should be monthly and accuracy of measurement should be up to cm. The reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or Automatic Water Level Recorder (AWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tubewells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone tapped and assembly lowered should be provided for bringing the piezometer into the National Hydrograph Monitoring System of Central Ground Water Board, and for its validation.
- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) of ground water collected during pre-monsoon after proper packing may be sent to the concerned Regional Director, Central Ground Water Board, for chemical analysis.
- A permanent display board should be installed at Piezometer/ Tubewell site for providing the location, piezometer/ tubewell number, depth and zone tapped of piezometer/tubewell for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care off.