234

BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, AT NEW DELHI

MA No. 107/2019

IN

ORIGINAL APPLICATION. No.176 /2015

AND OTHER DISPOSED MATTERS

IN THE MATTER OF:

Mr. SHAILESH SINGH ...APPLICANT

VERSUS

HOTEL HOLIDAY REGENCY AND OTHERS ...RESPONDENT(S)

AFFIDAVIT ON BEHALF OF D/O WR,RD&GR, NEW DELHI

PAPER BOOK

INDEX

ADVOCATE FOR THE RESPONDENT No. 1 –ARDHENDUMAULI KUMAR PRASAD

A-52, Sector 17-A, Noida
U.P. 201301
mail@ardhendumauli.com
0120-2488800/01/02

Place: New Delhi

Date:16.03.2020

BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, AT NEW DELHI

MA No. 107/2019

IN

ORIGINAL APPLICATION. No.176 /2015

AND OTHER DISPOSED MATTERS

AFFIDAVIT FOR AND ON BEHALF OF THE MINISTRY OF JAL SHAKTI, DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION, NEW DELHI.

MOST RESPECTFULLY SHOWETH:

I, Dr. P. Nandakumaran, aged about 59 years, employed / appointed as Member(CGWA),In Central Ground Water Board/Authority under the Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation, functioning / officiating at New Delhi, do hereby solemnly affirm and declare as under:-

1. That I have gone through and understood the orders dated 11.09.2019 in OA No. 176/2015 of this Hon'ble NGT and other connected and disposed matters. I have been duly authorized by Department of Water Resources, River Development & Ganga Rejuvenation to file the present affidavit before this Hon'ble Tribunal, as I am well conversant with the facts, depose to hereinafter on behalf of D/o WR,RD&GR, New Delhi in the above matter.

2. That the deponent craves liberty to raise additional submissions or file additional affidavits in case need arises during the course of arguments.

NOTARY Rajendra Kumar Delhi Regd. No. 5780 Date of Expiry 27th April 2020 GOVT. OF INDIA

3. That the Hon'ble Tribunal passed the following directions under order dated 11.09.2019 in OA No. 176/2015:

"We conclude this order with the following directions:

(i) We constitute a Committee to go into the following questions:

(a) Steps required to be taken for preventing depletion of ground water.

(b) Robust monitoring mechanism to ensure that no ground water is unauthorizedly extracted, including review of manning and functioning of CGWA.

(c) Robust mechanism to monitor conditions laid down for grant of permission for extraction of ground water.

(d) Recommendations in the report of the CPCB dated 26.06.2019 referred to above.

(ii) The composition of the Committee will be as follows:-

(i) Joint Secretary, MoEF & CC

(ii) Concerned Joint Secretary, MoWR, dealing with the subject.

(iii) CGWB

(iv) National Institute of Hydrology, Roorkee

(v) National Remote Sensing Center, Hyderabad

(vi) CPCB

NOTARY
Rajendra Kumar
Delhi
Regd. No. 5780
Date of Expiry
27th April-2025
GOVT. OF INDIA

The nodal agency will be the Joint Secretary, MoWR for coordination and compliance. The Committee may look into the reports already submitted. The report may be furnished within two months by e-mail at judicialngt@gov.in."

Copy of order dated 11.09.2019 passed by this Hon'ble Tribunal is enclosed as **Annexure-R-1** for kind perusal.

4. That in compliance of directions of this Hon'ble Tribunal the report submitted by the Committee constituted by this Hon'ble Tribunal, received in the Ministry of Jal Shakti is enclosed as **Annexure-R-2** for kind perusal and further consideration. The committee report has been submitted to Hon'ble NGT vide CGWA e-mail dated 13 Mar 2020.

5. In para 9 of the order dated 03.01.2019, Hon'ble NGT observed as follows:

"Para-9: The fact that recharge is not taking place is acknowledged by categorisation of OCS (Over-exploited, Critical & Semi-critical) areas. In OCS areas, unregulated extraction of ground water further adds to the problem. There is nothing to show improvement in water tables in OCS areas on account of efforts or policies of the CGWA calling for review to achieve the goal of ground water conservation. There is a dire need for strict regulatory regime in OCS areas and not to permit use of ground water except for drinking water purposes where supply of drinking water is not otherwise available. Mere making of provision for recharge, without recharge actually happening will not justify grant of any permission for extraction of ground water on such impractical conditions."

6. Though observations in Order dated 03.01.2019 are not in the nature of directions by the Hon'ble NGT, CGWA has kept all new as well as renewal applications for 'No Objection Certificate' (NOC) in OCS areas on hold.

7. It is submitted here that currently, 2471 (Over Exploited - 1186, Critical- 313 and Semi-critical - 972) out of the total 6881 assessment units (Block/Taluk/Mandal/Watershed/Firka) in the country fall under the OCS categories (around 35%). The complete ban on ground water extraction in

such areas is likely to have an adverse impact on industrial production, employment opportunities and contribution to national GDP of some of the major States like Punjab, Haryana, Rajasthan, Tamil Nadu etc. in the country.

8. That the Hon'ble Tribunal has fixed the next date of hearing in the matter on 8.4.2020. The answering respondents seek early date of hearing for consideration of the report of the Committee co-ordinated by Department of Water Resources, RD & GR and for further adjudication.
9. In View of the submissions made above, following is prayed:-

   a. The hearing may kindly be rescheduled on an early convenient date.
   b. Order/observation dated 03.01.2019 of Hon'ble NGT for disallowing issue of NOC to industries (for abstraction of groundwater) in OCS areas may kindly be withdrawn/vacated.
   c. To allow issue of NOC to industries (for abstraction of groundwater) as per the guidelines now prepared and submitted by the committee.
   d. Till the new guidelines come into force, CGWA, being a statutory body created under Environment (Protection) Act 1986, may be allowed to issue NOC to all types of industries as per the existing guidelines dated 16.11.15 (Annexure enclosed) in all the areas.

In view of above submissions, the Hon'ble Tribunal is requested to kindly consider the committee report(s) on an early hearing date and dispose the matters with such other and further orders/directions as deemed fit and proper in the facts and circumstances of the case.

As per the directions under its order dated 11.09.2019, the report has been submitted through mail at: judicial-ngt@gov.in on 13.03.2020 and this affidavit is being filed with hard copy of the report and above submissions for further consideration and orders.

NOTARY Rajendra Kumar Delhi Regd. No. 5780 Date of Expiry 27th April-2022 GOVT. OF INDIA

डॉ. नन्दकुमारन पी. / Dr. Nandakumaran P.
उपसचिव / Director
केन्द्रीय भूमि जल प्राधिकरण / Central Ground Water Authority
जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय
Ministry of Water Resources, River Development, Ganga Rejuvenation
भारत सरकार / Government of India
जामनगर हाऊस मानसिंह रोड, नई दिल्ली–110011
Jamnagar House, Mansingh Road, New Delhi-11001

DEPONENT

VERIFICATION:

Verified at New Delhi, on this the 16th day of March, 2020 that the contents of the above Affidavit are true and correct to my knowledge. No part of it is false and nothing material has been concealed there from.

डॉ. नन्दकुमारन पी. / Dr. Nandakumaran P.
DEPONENT
केन्द्रीय भूमि जल प्राधिकरण / Central Ground Water Authority
जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय
Ministry of Water Resources, River Development, Ganga Rejuvenation
भारत सरकार / Government of India
जामनगर हाऊस मानसिंह रोड, नई दिल्ली–110011
Jamnagar House, Mansingh Road, New Delhi-11001

Place : New Delhi.
Dated : 16.03.2020

ATTESTED
RAJENDRA KUMAR
NOTARY, DELHI-R-5780
GOVERNMENT OF INDIA
SUPREME COURT OF INDIA
COMPOUND, NEW DELHI
Register Pg./Sl. No.
9899446209
16 MAR 2020

Through:

(ARDHENDUMAULI KUMAR PRASAD)
Advocate,

Place : New Delhi.
Dated :16.03.2020

NOTARY
Rajendra Kumar
Delhi
Regd. No. 5780
Date of Expiry
27th April-2023
GOVT. OF INDIA

RAJENDRA KUMAR, NOTARY, Reg. No. 5780
F No.-5(486)
EMPOWERED TO ADMINISTER THE OATH
SECTION 139 OF CPC 1908
SECTION 297 OF CRPC 1973
DELHI HIGH COURT RULES 1967
PART-6, CHAPTER XVIII-227
EVIDENCE BY AFFIDAVIT BEFORE NOTARY
SUPREME COURT RULES, 2013
ORDER IX-7

CERTIFIED THAT THE CONTENTS EXPLAINED TO THE DEPONENT EXECUTIVE WHO SEEMED PERFECT TO UNDERSTAND & AFFIRMED/DEPOSED BEFORE ME AT DELHI ON 16 MAR 2020 IDENTIFIED BY IDENTIFY THE EXECUTIVE / DEPONENT WHO HAS SIGNED IN MY PRESENCE

IDENTIFIED
A. KUMAR

Item No. 09 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 176/2015

Shailesh Singh Applicant(s)

Versus

Hotel Holiday Regency, Moradabad & Ors. Respondent(s)

Date of hearing: 23.08.2019
Date of uploading of order: 11.09.2019

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

ORDER

1. Remedial action against falling groundwater levels in the country is the subject matter of consideration before this Tribunal. Taking cognizance of news item under the caption "*Falling Groundwater Level Threatens City*", appearing in the *Indian Express* of 18.03.1996, the Hon'ble Supreme Court issued notice to the Central Groundwater Body and DPCC, Municipal Corporation of Delhi and Delhi Waterworks and Sewerage Disposal Undertaking (now DJB).[1] Suggestions were sought from NEERI and thereafter from Ministry of Water Resource. The MoWR acknowledged the problem and stated

[1] (1997) 11 SCC 312

that a Model Bill has been prepared to regulate and control the development of groundwater in their respective areas.

2. The Hon'ble Supreme Court thereafter observed that an authority needs to be constituted under Section 3(3) of the Environment (Protection) Act, 1986 (EP Act). It was also observed that in view of Entry 13 List I of Schedule VII read with Article 253 of the Constitution of India, the EP Act has overriding effect. As regards the plea that CGWB could not undertake additional burden, it was observed:

> "**5**.....*It is stated that the regulation and control of groundwater is the responsibility of the State Government, as water is a State subject. Keeping the present organisational status of the Board, it is stated that the Board will have to be expanded and strengthened adequately to enable it to discharge its added responsibilities. The exact infrastructure for this purpose will have to be worked out. The affidavit further states that the Central Groundwater Board will collaborate and coordinate with the State authorities in the regulation and control of groundwater development.*
>
> ***6.*** *Management of water resources to achieve overall aspirational goal of sustainable development warrants legal interventions based on the principles of inter and intra-generational equity, the precautionary principle, conservation of natural resources and environmental protection. There is thus adequate reason to take recourse to the Sections 3, 4 and 5 of the Environment (Protection) Act, 1986 for implementing holological approach to water resources management.*
>
> *In order to address the complex issues in water resource management it is prudent that the Central Government considers constituting an authority under the Environment (Protection) Act, 1986 and confers on this authority all the powers necessary to deal with the situation created by the depletion of groundwater levels, dwindling surface water resources, deterioration of surface and groundwater quality and haphazard land use. The authority should be headed by a retired (sic) with expertise in the field of hydrology, hydrogeology, information technology."*

3. The Hon'ble Supreme Court quoted with approval the recommendations of NEERI as follows:

"**7. Recommendations**: *A Central Water Resource Management Authority, with the composition as delineated in Section 6 above, with mandate for coordination and implementation of all activities of planning, development, allocation, implementation, research and monitoring of all water resources need to be established to promote intra and inter-generational equity, as also to operationalise the precautionary principle in sustainable water resource management. All the States need to constitute similar authorities with functions in the State as of the Central Authority. The mandate of the authority needs to include the following:*

* *To deploy river basins as the basis for regional planning for sustainable water resource management (along with commensurate land use)*
* *To prepare medium and long-term national land use plans inter alia including agricultural practices, human settlement patterns and industrial typology in consultation with Ministries/Departments concerned based on the regional water supportive capacity*
* *To assess the present irrigation practices and cropping patterns, with respect to high water consuming crops and lay down National Agricultural Water Use Policy to encourage judicious use of water resources*
* *To keep under review groundwater levels and quality, and surface water quantity and quality to devise and implement pragmatic strategies at plan and programme levels*
* *To ensure maintenance of minimum flows in the rivers so as to fulfil the riparian rights, to protect the flood plains, to as also to protect the vital ecological functions of the rivers*
* *To ensure techno-economic feasibility and to implement programmes on reuse of appropriately treated sewage for agriculture, reuse of industrial wastewaters as industrial process water, use of treated sewage in social forestry and public parks in municipal areas and reuse of treated wastewater in new housing complexes for non-consumptive usages*
* *To protect, conserve and augment traditional water retaining structures*
* *To protect, conserve and augment natural and manmade wetlands in the country*
* *To promote rain water harvesting in human settlement practices, particularly in cities with more than 10 lakh population in arid/semi-arid regions*
* *To promote and implement modern and traditional water harvesting technologies to*

ensure minimal expenditure in groundwater harnessing

* *To design and implement programmes to arrest alarming rates of decline in snowline in the country*
* *To ensure catchment area treatment, including construction of checkdams, contour bunding, control of river bank erosion and plantation of endemic fast-growing tree species to arrest soil and water loss in all river basins*
* *To ensure implementation of afforestation programmes for achieving a minimum of 33% forest cover as per the National Forest Policy, 1988*
* *To prepare and implement guidelines on water rate structure for various water usages commensurate with the production and scarcity value of the resource*
* *To ensure community participation with a view to harnessing traditional knowledge at all stages in the hological approach to water resource management."*

4. The Hon'ble Supreme Court directed:

> ***"9.*** *The Central Government in the Ministry of Environment and Forest shall constitute the Central Groundwater Board as an Authority under Section 3(3) of the Act. The Authority so constituted shall exercise all the powers under the Act necessary for the purpose of regulation and control of groundwater management and development. The Central Government shall confer on the Authority the power to give directions under Section 5 of the Act and also powers to take such measures or pass any orders in respect of all the matters referred to in sub-section (2, of Section 3 of the Act.*
> ***10.*** *We make it clear that the Board having been constituted an Authority under Section 3(3) of the Act, it can resort to the penal provisions contained in Sections 15 to 21 of the Act.*
> ***12.*** *The main object for the constitution of the Board as an Authority is the urgent need for regulating the indiscriminate boring and withdrawal of underground water in the country. We have no doubt that the Authority so constituted shall apply its mind to this urgent aspect of the matter and shall issue necessary regulatory directions with a view to preserve and protect the underground water. This aspect may be taken up by the Authority on an urgent basis."*

5. Even though 23 years have passed after the passing of the judgment of the Hon'ble Supreme Court, the situation of falling

groundwater level has not improved and has in fact further deteriorated. Unfortunately, in spite of clear directions of the Hon'ble Supreme Court, the CGWA is not willing to take the ownership of the subject and repeatedly takes the plea that it does not have the infrastructure or that the responsibility of dealing with the problem is of the States and not that of the said authority. It is high time that the working of the CGWA is reviewed and remedial measures are taken including assessment of suitability of the person to head it.

6. Petitions have been filed before this Tribunal from time to time with the grievance of illegal drawal of groundwater by hotels, industries and builders for commercial purposes. The grievance of the applicants in the present application is that there is fast depletion of ground water in NOIDA and Greater NOIDA, District Gautam Budh Nagar, U.P. There is large scale extraction of groundwater by various construction companies. Directions relating to the water harvesting are not complied with. No measures are properly adopted to stop the fast depleting ground water levels.

7. This Tribunal has ascertained facts and directed the regulatory authorities to take remedial action by way of closing such drawal, initiating prosecution and recovering compensation on 'Polluter Pays' principle.[2] A separate order is being passed in

[2] E.g. separate order passed today in Harinder Dhingra Vs. International Recreation & Amusement Ltd. & Ors O.A No. 458/2017.

several other matters on the same subject.[3] There is need for constant action by the regulatory authorities and mechanism for higher level review of working of such authorities to avoid unnecessary litigation.

8. We may now refer to some of the proceedings before this Tribunal in the present matter. Significant proceedings are reflected in orders dated 23.04.2015, 26.07.2018, 28.08.2018, 12.11.2018, 03.01.2019 and 07.05.2019. It was noted in the order dated 23.04.2015 that ground water level has gone down in NOIDA by 15 mtrs. between 2007-2014. On 26.07.2018, it was noted that even apart from NOIDA, Greater NOIDA, Delhi and NCR, the situation in OCS region calls for stringent regulation for ground water extraction. In the order dated 28.08.2018, the Tribunal directed the Ministry of Water Resource (MoWR), Government of India, in consultation with the Ministry of Environment, Forest and Climate Change (MoEF&CC) and Ministry of Agriculture (MoA), to review the existing mechanism for effective conservation of ground water resources in OCS. It was directed that the policy framework must include monitoring mechanism by way of provision for coercive measures, consistent with the mandate in the judgement of the Hon'ble Supreme Court of India in M.C Mehta (supra). The guidelines of CGWA that permission to extract ground water in over exploited, critical and semi-critical (OCS)

3 Original Application No. 59/2012 (M.A. No. 34/2016 & M.A. No. 190/2016), Original Application No. 108/2013, Original Application No. 179/2013 , Appeal No. 57/2015 , M.A. No. 107/2019, Original Application No. 484/2015 Original Application No. 327/2018 , Original Application No. 115/2017, Original Application No. 411/2018, Original Application No. 613/2017, Original Application No. 614/2017

areas is to be given only for drinking and domestic purposes were noted. OCS areas were identified and notified by the CGWA having regard to the depletion of groundwater level. OCS areas were further classified as 'notified' and 'non-notified' without any basis and 'non-notified' were not being regulated. The Tribunal directed remedial measures to be taken.

9. On 12.11.2018, the matter was further considered. After making reference to the 2012 Guidelines issued by the CGWA and Draft Guidelines dated 16.11.2015. the Tribunal noted following points:

i. CGWA was repeatedly disowning its responsibility on the plea that regulation of ground water was a State subject, contrary to the mandate in the judgement of the Hon'ble Supreme Court in M.C Mehta (Supra).

ii. CGWA was failing to regulate drawal of ground water in OCS on the ground that it had not issued a notification except for some areas, and without such notification, there was no need for regulating extraction of ground water even in OCS.

iii. Extraction of ground water for commercial purposes was being allowed in OCS just by a mechanical condition that the ground water will be recharged, without ensuring compliance of such condition.

iv. Underground water was being allowed to be extracted for illegal constructions, bottling plants, swimming pools etc.

without any impact study or effective steps for rain water harvesting for recharge of the ground water.

v. CGWA was repeatedly taking the plea that charges were being collected for permitting drawal of underground water for commercial purposes in OCS against the Precautionary Principle, Sustainable Development as well as Intergenerational Equity Principles.

vi. Difficulties of agriculturists needed to be addressed in a phased manner by persuading the agriculturists to switch over to less water consuming crops and to consider use of treated sewage water instead of extraction of fresh underground water, wherever viable.

vii. Untreated effluents are not to be discharged in the water.

10. Notification dated 12.12.2018 was issued by Ministry of Water Resources (MoWR) which was considered by this Tribunal vide order dated 03.01.2019. The Tribunal noted from the affidavit filed by the CGWA found that utilizable water in India is 1137 BCM which comprises of 690 BCM of surface water and 447 BCM of replenishable ground water resources. In the year 2009, about 2700 BCM of ground water was available in deeper aquifers, below the zone of water level fluctuations. Thus, ground water over exploitation is recommended to be restricted to sustainability of ground water by annual replenishment in order to facilitate long term sustainability of ground water. It is further stated that per year extraction is 253 BCM which is 25% of the global ground water extraction. Out of total 6,584 assessment units, 1,034 fall in over-exploited category (where

extraction is more than 100%of recharge), 253 fall in critical category (where extraction is 90-100% of the recharge), 681 fall under semi-critical category (where extraction is 70-100% of the recharge) and 4,520 are under safe category (where extraction is 90% of the recharge). About 90% extraction is for agricultural purposes, 10% for drinking, domestic and industrial purposes. Industrial use is 5%. Model building bye-laws 2016 include the provision of rain water harvesting in all new buildings on plots of 100 sq. mtrs. and above. Entire storm water is to be captured for water harvesting through suitable structures in all public and open spaces of more than 500 sq. mtrs. Buildings having minimum discharge of 10,000 liters and above are required to have waste water recycling system for horticulture purposes. 'Mission Water Conservation' has been introduced by the Ministry of Agriculture, Government of India. Inter-Ministerial Committee has been constituted under the chairmanship of the Secretary, Ministry of Water Resources, Government of India. The Ministry is also carrying out training programme and Information, Education & Communication (IEC) activities for awareness. The Department of Land Resources is implementing water-shed development projects. Certain States have taken initiatives including Punjab Preservation of Subsoil Water Act, 2009 which ban early sowing of paddy nursery and transplantation of saplings. Maharashtra Groundwater (Development and Management) Act, 2009 prohibits drilling of deep wells within for agriculture or industrial usage, pumping of ground water for deep well of

depth of 60 mtrs. or more. The CGWA has issued advisories and it requires taking of NOC for ground water withdrawal but the agriculture section is not subjected to ground water regulation on account of socio-economic implications. The steps taken by the CGWA include directions for rooftop rain water harvesting systems, ground water recharge measures along the National highways, State national highways, railway tracks, etc., artificial recharge in over-exploited areas, large and medium industries using ground water to take up the ground water conservation measures. CGWA imposes condition while granting NOC for withdrawal of ground water in States/UTs which do not have functional ground water authorities. NOCs are granted online in a user-friendly manner. Industries in safe category are exempted from NOC but in OCS areas, condition for grant of NOC is rain water harvesting/ground water recharge measures and NOCs are denied in over-exploited areas. Non-water intensive industries drawing ground water up to 100 m^3/day are exempted from NOC in critical areas, non-water intensive industries drawing up to 50 m^3/day are exempted from NOC. (In over-exploited areas, non-water intensive industries are exempted which are drawing ground water up to 25 m^3/day. Permitted water extraction is restricted to 60% of the proposed recharge. Ground water extraction should not be exceeded 1,500m^3/day for each unit. In semi-critical areas, ground water extraction is restricted to 200% and 100% of proposed recharge for non-water intensive and water intensive industries respectively. In critical areas,

ground water extraction is permitted up to 100% and 50% of proposed recharge for non-water intensive and water intensive industries respectively. In over-exploited areas, ground water extraction is permitted up to 50% of the proposed recharge). Till 2015, existing industries were not required to seek any NOC. In compliance of order of the Tribunal dated 15.04.2015, existing industries were brought within the purview of NOC with effect from 16.11.2015.

11. The Tribunal held that the Notification worsened the situation by liberalizing the extraction of ground water even for commercial purposes in violation of spirit of order of the Hon'ble Supreme Court. The objections against the Notification upheld by the Tribunal were:

> *"i. Liberally permitting extraction of ground water and justifying the same on the plea that charges have been prescribed even in OCS areas for commercial/industrial purposes.*
>
> *ii. Liberally permitting extraction of ground water on the ground that condition was imposed for rain water harvesting without any data of effective compliance of such conditions or even possibility of this being done.*
>
> *iii. Having exempted categories in OCS areas for purposes other than drinking water, including swimming pools, commercial and industrial uses. Reference has been made to the statistics to show deteriorating status of conservation of water and crises of access to water being available to the common man, as well as its requirement for ensuring e-flow in the rivers."*

12. It was observed:

> *"21. The provisions of the impugned notification show that drawal of ground water has been, for all practical purposes, made unregulated in all areas, including the OCS areas.*
> *22. The so-called regulation is illusory. The so-called conditions are incapable of meaningful monitoring, as shown by past experience also.*

23. The water conservation fee virtually gives licence to harness ground water to any extent even in OCS areas.
24. There is no institutional mechanism to monitor removal and replenishment of ground water.
25. Delegation provision is virtual abdication of authority.
26. There is no check on injection of pollutants in the ground water in the impugned notification. There is no provision with regard to check on water quality and its remediation, if there is contamination.
29. The MoEF&CC is directed to constitute an Expert Committee by including representatives from IIT Delhi, IIT Roorkee, IIM Ahmedabad, CPCB, NITI Ayog and any other concerned agency or department to examine the issue of appropriate policy for conservation of ground water with a robust institutional mechanism for surveillance and monitoring with a view to enhance access to ground water for drinking purposes in OCS areas by way of appropriate replenishment practices which can be properly accounted and measured for as well as to sustain the floodplains of rivers in terms of e-flows and other water bodies. The MoEF & CC and MoWR may finalize the issue of subject remain inter-se with regard to ground water reserve and its quality.
31. The Committee may also indicate the projection of its impact study in light of projected data for the next 50 years (in phased manner with action plan for each decade). Thereafter, fresh guidelines be issued by the concerned Ministry and the report furnished to the Tribunal on or before 30.04.2019.
32. The CPCB may constitute a mechanism to deal with individual cases of violations of norms, as existed prior to Notification of 12.12.2016, to determine the environment compensation to be recovered or other coercive measures to be taken, including prosecution for past illegal extraction of ground water, as per law. All the matters relating to illegal extraction of ground water by individuals are disposed of with these directions."

13. The Tribunal noted the relevant statistics on the subject as follows:

"2. As per publication of NITI Ayog, India is placed at 120th amongst 122 countries in water quality index. Most states have achieved less than 50% of the total score in augmentation of groundwater resources, highlighting a growing national crisis. 54% of India's ground water wells are decreasing in levels and 21 major cities across the country are expected to run out of ground water by 2020. Almost none of the States have built the infrastructure required to recharge groundwater in over exploited and critical areas. Several States such as U.P., Bihar, Rajasthan etc. have not put in place any regulatory framework for managing the groundwater. These states produce 20-30% of

India's agricultural output and groundwater accounts for 63% of all irrigation water. Therefore, unsustainable extraction in these states also poses a significant food security risk for the country. 3. About 60% of the irrigation needs, 85% of rural drinking water needs and 50% of urban water needs are met through ground water. The CGWB has categorised the areas into the following on the basis of availability of ground water resources:

Safe	(<=90%, No decline in water levels)
Critical	(>70% and <=100% decline in water levels)
Semi-critical	(<100%, decline in water levels)
Over-exploited	(>100%, decline in water levels)

4.As per another survey, India extracts most ground water. Globally, 25% of total annual global annual water is extracted in India. The extraction level is going up continuously
5. Depletion of ground water not only creates crisis for drinking water in absence of inadequate surface water being available in certain areas where there may be drought conditions, but also affects e-flow in rivers and can also increase salinity in soil."

14. The Tribunal accordingly held.

> *"27. We are satisfied that the Notification dated 12.12.2018 tested on the Precautionary Principle, Sustainable Development as well as Inter-generational Equity Principles is unsustainable in law and instead of conservation of ground water which is necessary for providing access to drinking water in OCS areas, as well also other needs of environment, including sustenance of rivers and other water bodies, it will result in fast depletion of ground water and damage to water bodies and will be destructive of the fundamental right to life under Article 21 of the Constitution of India.*
>
> *28. Accordingly, the impugned Notification may not be given effect to in view of serious shortcomings as pointed above so that an appropriate mechanism can be introduced consistent with the needs of environment."*

15. The matter was thereafter considered on 07.05.2019 and since the report was not furnished by the MoEF&CC, such report was required to be filed. Report of the CPCB filed on 30.04.2019 was found to be unsatisfactory and a fresh report was required to be filed for the following reasons:-

> *"(i) The OCS areas which need regulation for conservation of ground water cannot be further treated separately as notified or non-notified. Conservation of ground water in the said areas is of equal necessity. Depletion of ground water in the said areas affects the sub-terranean flow and results in contamination of ground water and also poses a potential danger for drying up of important natural resource in violation of established principle of 'Intergenerational Equity'.*
>
> *(ii) The compensation to be recovered for illegal extraction has to be deterrent specially when it is for commercial or industrial purpose and linked to the quantum of ground water extracted and the period for which such extraction takes place.*
>
> *(iii) Scenario analysis with robust scientific logic is required for all the classes considered in comparable terms which has not been done in the present report."*

16. Accordingly, affidavit filed by the MoEF&CC on 18.07.2019 and report of the CPCB dated 26.06.2019 have been put up for consideration today. We take up the said reports for consideration.

17. The report dated 18.07.2019 gives statistics as follows:-

> *"As per the latest assessment in categories of OCS areas Delhi is ranked first as 82% of total number of assessed units followed by Rajasthan (81%), Punjab (81%), Haryana (75%), and Tamil Nadu (50%)*
> *In order to regulate ground water abstraction in Over Exploited / Semi - Critical areas, CGWA*

notifies areas (blocks / talukas/ mandals/ firkas areas) under Environment (Protection) Act, 1986 for regulation of ground water development and management. In these notified areas, abstraction of ground water is not allowed for any purpose other than drinking and domestic use. For monitoring and supervision of notified area, CGWA has empowered district level authorities of State Government under Section 4 of the Environment (Protection) Act, 1986. CGWA has notified total 162 areas in the country till 2012 out of 1033 identified Over Exploited areas"

18. Apart from giving the above statistics the report deals with the review of institutional framework, gaps in groundwater management strategy and makes recommendations providing for levy of water conservation fee, criteria for extraction of groundwater in OCS area, registration of bore-wells, utilization of treated sewage water, shifting of cropping pattern and irrigation practices, optimal use of fresh water and best conservation practices. It is suggested that guidelines be prepared applicable pan India with liberty to lay down more stringent norms by the States depending on local conditions, making water resource estimation every two years, periodic assessment of OCS areas, inviting projects from experts for water management and preparation of decadal action plans.

19. The report remains deficient as the issue of preventing depletion of ground water has not been duly addressed. The effective enforcement mechanism of conditions subject to which groundwater extraction may be allowed in OCS areas has not been provided. Mere condition of recharge without clear strategy of enforcement is no safeguard for permitting

extraction of groundwater. The report leaves many issues to be dealt with by further studies. The need for immediate concrete action to prevent further depletion is not met by the report nor the effective safeguards against abuse of permission for extraction in violation of conditions for extraction and effective remedies against rampant illegal extractions have been suggested. This shows that further remedial action needs to be taken.

20. The report of CPCB dated 26.06.2019 deals with methodology for assessing environmental compensation (EC). Formula for Environmental Compensation for illegal extraction of ground water, Environmental Compensation Rate (ECRGw) which has been further dealt with in different categories, i.e. ECRGw for Drinking & Domestic use for household purposes and those for institutional activity, commercial complexes, townships etc., ECRGw for Packaged Drinking Water Units, ECRGw for Mining, Infrastructure and Dewatering Projects, ECRGw for Industrial Units, Deterrent factors to compensate losses and environmental damage (for packaging drinking water units, mining, industrial and commercial purposes) and Deterrent Factor . Formula for Environmental Compensation for illegal extraction of ground water is as follows:

> ***"5. Formula for Environmental Compensation for illegal extraction of ground water***
>
> *The committee recommended that the formula considering water consumption, use of different rates for imposing Environmental Compensation based on the purpose for illegal abstraction of ground water as well as the deterrent factor detailed below:-*

EC_{GW}= Water consumption per day x Environmental Compensation rate for illegal extraction of ground water (ECR_{GW}) x No. of Days x Deterrent Factor

Where, water consumption is in m3/day and ECRGw in Rs/m3"

All other details can be seen from the report which is available on the website of CPCB. The report also gives recommendations as follows:

21. The committee has given following recommendations

1. In case of fixation of liability, it always lies with current owner of the premises where illegal extraction of groundwater is taking place.

2. Violation duration may be assumed as at least one year in case where no evidence for period of installation of borewell could be established.

3. For illegal industrial ground water abstraction, where metering system is not availeble, water consumption may be estimated as per consent conditions imposed by SPCB/PCC.

4. Water intensive industries should only be permitted in safe, semi-critical and critical areas and shall not be allowed to establish new industries in overexploited area.

5. Water in over-exploited area should be permitted only for drinking purposes and industries established in this area without prior consent or NOC from CGWA or another concerned department must be closed down with immediate effect. No expansion in existing industrial activity should be permitted, irrespective of additional water demand arises or not.

6. Present categorization of area (Over-exploited, Critical and Semi-Critical), as per CGWA shall be considered for calculation of EC, regardless of the area category when the period of violation started.

7. In case of all existing cases having more than 5000 KLD ground water demand, permission may be given only after examining scientific assessment of water availability and assessing intergenerational equity by CGWA.

8. The industrial units should be directed to adopt State of the Art technologies, use of surface water, treated waste water and reduce specific water consumption, thereby ground water demand is reduced by 10% over three years' period. The industries also be encouraged to create facilities for storage of excess storm water and adequate measures such as groundwater recharge as well as restoration of lakes /ponds in the vicinity of the industry

9. In addition, all repeated violations will attract EC at 1.25 times the previous EC.

10. Authorities assigned for levy EC and taking penal action are listed below:

S. No.	Actions	Authority
1.	To seal illegal bore-well/tube-well to stop extraction of water and further closure of project	District Magistrate
2.	To levy EC_{GW} as per prescribed method	District Magistrate/ CGWA
3.	To levy EC on industries involved in illegal abstraction of Groundwater , as per the method prescribed in report of CPCB- "EC for industrial units"	CPCB/SPCB/PCC
4.	Prosecution of Violator	CGWA under Environment (Protection) Act,1986 (or)
		SPCB, PCC under Water (Prevention and Control of Pollution), Act 1974

22. CGWA shall maintain a separate account for collection and utilization of environmental compensation levied for illegal extraction of ground water on the violators. For easy understanding w.r.t levying of EC on violators as per the recommendation of CPCB, case studies given at **Annexure II** may please be referred.

23. The report may need further consideration by Committee that we propose to constitute, particularly permitting water intensive industries except in safe areas. This recommendation being against the order dated 03.01.2019 of this Tribunal may not be acted upon till further orders. The compensation aspect may be acted upon by the regulatory authorities as an interim measure on same pattern as in *O.A. No. 593/2017, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.*[4] and compensation recovered from the violators, for the period of violation, which may be assessed on case to case basis. Once violation is found, the burden of proving that there was no violation earlier, will be on the violator.

24. We conclude this order with the following directions:

(i) We constitute a Committee to go into the following questions:

(a) Steps required to be taken for preventing depletion of ground water.
(b) Robust monitoring mechanism to ensure that no ground water is unauthorizedly extracted, including review of manning and functioning of CGWA.
(c) Robust mechanism to monitor conditions laid down for grant of permission for extraction of ground water.
(d) Recommendations in the report of the CPCB dated 26.06.2019 referred to above.

(ii) The composition of the Committee will be as follows:-

(i) Joint Secretary, MoEF&CC
(ii) Concerned Joint Secretary, MoWR dealing with the subject
(iii) CGWB
(iv) National Institute of Hydrology, Roorkee
(v) National Remote Sensing Center, Hyderabad
(vi) CPCB

[4] Order dated 28.08.2019

The nodal agency will be the Joint Secretary, MoWR for coordination and compliance. The Committee may look into the reports already submitted. The report may be furnished within two months by e-mail at judicial-ngt@gov.in.

(iii) The report of CPCB with regard to compensation is accepted by way of an interim arrangement and the same may be acted upon by the regulatory authorities and compensation recovered from the violators, for the period of violation, which may be assessed on case to case basis. The report of CPCB that water intensive industries can be allowed even in semi-critical and critical area without any further safeguards may not be acted upon till further orders.

List for further consideration on 28.11.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

September 11, 2019
Original Application No. 176/2015

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RD & GR

REPORT SUBMITTED IN COMPLIANCE OF THE DIRECTIONS OF HON'BLE NGT IN O.A NO.176 OF 2015 DATED 11.09.2019 IN THE MATTER OF Mr. SHAILESH SINGH Vs. HOTEL HOLIDAY HOME & OTHERS

March, 2020

REPORT SUBMITTED IN COMPLIANCE OF THE DIRECTIONS OF HON'BLE NGT IN O.A NO.176 OF 2015 DATED 11.09.2019 IN THE MATTER OF Mr. SHAILESH SINGH Vs. HOTEL HOLIDAY HOME & OTHERS

INDEX

ANNEXURES

Annexure I:	List of States/ Union Territories where ground water development is being regulated by CGWA
Annexure II:	Glossary of technical terms used
Annexure III:	Estimation of water requirements for drinking and domestic use.
Annexure IV:	Guidelines construction of piezometers and monitoring of groundwater levels
Annexure V:	Measures to be adopted to ensure prevention from pollution in the plant premises of polluting industries/ projects
Annexure VI:	Outline of hydro-geological report for obtaining NOC for industries
Annexure VII:	Format of the Report on ground water conditions (for mining projects)
Annexure VIII:	Indicative list of Infrastructure projects
Annexure IX:	Supreme Court Order in Civil Writ petition 36 of 2009 regarding measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

REPORT SUBMITTED IN COMPLIANCE OF THE DIRECTIONS OF HON'BLE NGT IN O. A. NO.176 OF 2015 DATED 11.09.2019 IN THE MATTER OF Mr. SHAILESH SINGH Vs. HOTEL HOLIDAY HOME & OTHERS

1.0 Introduction

Water is essential for life, growth and livelihood. Sustainable development and efficient management of water is an increasingly complex challenge in India. Increasing population, growing urbanization and rapid industrialization combined with the need for increasing agricultural production generates competing demands for water.

Ground water is a resource which gets replenished every year through rainfall and other sources Ground water has played a significant role in the green revolution of the country, leading to self-sufficiency in food production and food security. It is critical for industrial growth and employment generation as well as ensuring drinking water to the general public.

Contribution of ground water is nearly 62% in irrigation, 85% in rural water supply and 45% in urban water supply (*Dynamic Groundwater Resources of India, 2017, Ministry of Jal Shakti, Department of Water Resources, RD & GR, Central Ground Water Board)*. Total ground water resource includes dynamic and static resources. Technically, dynamic ground water resource refers to the quantity of ground water available in the zone of water level fluctuation, which is recharged/ replenished annually. Static ground water resource is available beneath the zone of water level fluctuation. Sustainable development of ground water resources warrants precise quantitative assessment based on reasonably valid scientific principles.

The annual replenishable ground water resource availability, and abstraction have recently been assessed jointly by Central Ground Water Board and State Ground Water Organizations as on 2017 (Dynamic Ground Water Resources of India, 2017). In the assessment, the total annual ground water recharge has been estimated as 432 billion cubic metres (bcm). Keeping an allocation for natural discharge, the annual extractable ground water resource is 393 bcm. The total current annual ground water extraction (as on March, 2017) for various uses is 249 bcm. Nearly 89 % of this extraction is for irrigated agriculture and extraction for domestic and industrial uses account for the remaining 11 %. The average stage of ground water extraction for the country as a whole works out to be about 63 %.

Based on the stage of ground water extraction, the ground water resource assessment units (block/ mandal/ firka/ talukas) are categorized as 'Safe', 'Semi-critical', 'Critical' and 'Over-exploited' (OCS) areas. The criteria for categorization are given below.

Table 1.1: Criteria for Categorization of Assessment Units

Stage of Ground Water abstraction (%)	Category
<=70	Safe
>70 and ≤90	Semi-Critical
>90 and ≤100	Critical
> 100	Over-Exploited

Apart from the four categories mentioned above, assessment units in which the major part of ground water resources available is contaminated by Arsenic, Fluoride or salinity have been tagged as 'quality affected'.

Whereas overall, the annual extraction of ground water is well below the annual recharge, the extraction of ground water in different areas of the country has not been uniform and increasing abstraction in different zones has resulted in a gradual increase in the Over-

exploited areas over the years. As per Ground Water Resource Assessment (GWRA) - 2017, out of the total of 6881 assessment units (Blocks/ Mandals/ Talukas/Firkas) in the country, 1186 (17%) have been categorized as 'Over-Exploited' indicating ground water extraction exceeding the annually replenishable ground water resource. In these areas the percentage of ground water extraction is more than 100 %.

Water being a State subject, initiatives on water management including conservation and water harvesting in the Country is primarily States' responsibility. Further, to supplement the efforts of the State Governments, Government of India provides technical and financial assistance to encourage sustainable development and efficient management of water resources through various schemes and programmes.

In addition, a number of States have done notable work in the field of water conservation/harvesting. Of these, mention can be made of 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibar' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat, 'Mission Kakatiya' in Telangana, 'Neeru Chettu' in Andhra Pradesh, Jal Jeevan Hariyali in Bihar, 'Jal Hi Jeevan' in Haryana among others.

Further, Central Government has been working on conservation, management of ground water and effective implementation of rain water harvesting in the country through various centrally sponsored/central sector schemes/initiatives viz. Prime Minister Krishi Sinchayee Yojana (PMKSY) (Per Drop More Crop), Atal Bhujal Yojana, PMKSY-Watershed Development Component, Mahatma Gandhi National Rural employment Guarantee Scheme (MGNREGS), Jal Shakti Abhiyan etc. The details in this regard is given at succeeding paras.

Comparison of dynamic groundwater resources of 2013 and 2017 assessments indicates improvements in categories of 388 assessments units. While exact attribution is difficult, this is, most probably due to various management interventions by Central and State government brought out above.

2.0 Background

Central Ground Water Authority (CGWA), constituted by the Government of India vide notification No. S.O. 38 (E) dated 14.01.1997 under sub-section (3) of Section 3 of the Environment (Protection) Act, 1986 (29 of 1986), in pursuance of the Order of the Hon'ble Supreme Court of India in I.A. No. 32 in W.P. (C) No. 4677 of 1985, has been regulating ground water development and management in the country. The Authority has been vested with the following powers:

(i) Exercise of powers under Section 5 of the Environment (Protection) Act, 1986 for issuing directions and taking such measures in respect of all the matters referred to in sub-section (2) of section 3 of the said Act.

(ii) Resort to penal provisions contained in Sections 15 to 21 of the said Act.

(iii) Regulate and control, management and development of ground water in the country and to issue necessary regulatory directions for this purpose.

(iv) Exercise of powers under Section 4 of the Environment (Protection) Act, 1986, for appointment of officers.

List of States/ Union Territories, where ground water development is being regulated by Central Ground Water Authority is given in **Annexure-I.** The remaining States/ Union Territories are regulating ground water development, either through ground water legislations enacted by them or through Government Orders.

In exercise of powers conferred upon it, the CGWA regulates ground water extraction/development through various means including grant of No Objection Certificates (NOCs) for abstraction of ground water and issuing advisories, directions, notifications etc. as and when considered necessary. The Authority had been granting NOCs for withdrawal of groundwater by new industries and those under expansion/ infrastructure/ mining projects since 1999. CGWA had framed guidelines for grant of NOC for withdrawal of groundwater, which were revised from time to time. The guidelines were last revised in 2015 to bring existing industries/ infrastructure/ mining projects under the purview of NOC as per directions of the Hon'ble NGT vide order dated 15.04.2015 in the matter of Krishan Kant Singh Vs. M/s Deoria Paper Ltd., Hata Road, Narainpur, Deoria and other connected matters.

Further, pursuant to the directions of Hon'ble NGT in various OAs dealing with ground water, the guidelines were thoroughly revised and notified by CGWA vide Notification SO 6140(E) dated 12 Dec 2018. However, Hon'ble NGT, on 3.1.2019, directed not to give effect to the notification and constituted an Expert Committee to frame a comprehensive policy for regulation of ground water extraction co-ordinated by MoEF & CC. The Expert Committee submitted its report to the Hon'ble NGT. After going through the policy framework suggested by the committee, Hon'ble NGT constituted another committee vide its order dated 11.09.2019 in O.A No 176/2015 with officers from MoEF & CC, MoWR (now DoWR, RD & GR under Ministry of Jal Shakti), CGWB, NIH, NRSC, Hyderabad and CPCB.

3.0 Development of regulatory mechanism (Guidelines) by CGWA

CGWA has been regulating ground water extraction by Industries/ Infrastructure/ mining Projects through grant of No Objection Certificates (NOC) since its inception. The guidelines have been revised from time to time (01.01.1999, 20.10.2009, 15.11.2012 & 16.11.2015) to make them more comprehensive and inclusive. The last guidelines were notified by the Central Ground Water Authority on 12.12.2018. These guidelines could not be given effect to in pursuance of the NGT order dated 03.01.2019.

CGWA had designated 162 areas in the country as 'Notified Areas' for regulation of ground water extraction. In these areas, extraction of ground water for purposes other than drinking and domestic was not permitted. However, in view of various orders of the Hon'ble NGT mentioning that all overexploited areas should have the same regulatory framework, CGWA, in its 43rd meeting held on 27.12.2019 decided to do away with the notifications.

4.0 Directives of Hon'ble National Green Tribunal (NGT)

In Original Application No. 176 of 2015 (M.A. No. 1332/2015) in the matter of Shailesh Singh Vs Hotel Holiday Regency, Moradabad & Ors, the Hon'ble NGT, Principal Bench, vide its order dated 28.08.2018 observed that *there is no satisfactory framework to ensure rational use of ground water. There is no method of assessment of the capacity of the water to be used or for recovery of charges to ensure that the water is not wasted, regulation of the uses to which ground water should be put for ensuring reuse of treated water at least for certain purposes.* The NGT directed that "*Ministry of Water Resources, Government of India in consultation with the Ministry of Environment, Forests & Climate Change and Ministry of Agriculture to forthwith review the existing mechanism so as to ensure effective steps for*

conserving ground water at least in areas which are over-exploited, critical and semi-critical."

Hon'ble NGT vide its order dated 03.01.2019 constituted a Committee headed by MoEF&CC to come out with an appropriate policy consistent with the mandate of CGWA. The order also mentioned that being entrusted with the responsibility of protecting groundwater, the CGWA and all other authorities must cooperate and collaborate in the exercise of coming out with a policy which results in checking further depletion of groundwater and enhancing replenishment. Further, Hon'ble NGT vide its order 07.05.2019, directed Central Pollution Control Board (CPCB) to evolve a mechanism to deal with cases of violations, including prosecution and coercive measures to check illegal extraction, including scale of deterrent compensation.

The report submitted by the Committee constituted in MoEF&CC was considered by the Hon'ble NGT, which, vide its Order dated 11.09.2019 gave directions for the constitution of a Committee comprising Joint Secretary, MoEF&CC; Concerned Joint Secretary, MoWR, dealing with the subject; CGWB; National Institute of Hydrology, Roorkee; National Remote Sensing Center, Hyderabad and CPCB to go into the following questions:

(a) Steps required to be taken for preventing depletion of ground water.

(b) Robust monitoring mechanism to ensure that no ground water is unauthorizedly extracted, including review of manning and functioning of CGWA.

(c) Robust mechanism to monitor conditions laid down for grant of permission for extraction of ground water.

(d) Recommendations in the report of the CPCB dated 26.06.2019 referred to above.

In order to address the directions of Hon'ble NGT all the issues indicated by the court have been looked into and necessary measures for addressing the same have been deliberated upon by the committee.

During the discussions, it was observed that ground water is a replenishable resource and the aquifer zones from which ground water is extracted gets replenished every year from rainfall and other sources. Therefore, there is a need to extract groundwater by various users including industries/agriculture needs in safe, semi-criitcal and critical areas as space is to be created in the aquifers for replenishment of water through rainfall/other sources. It is pertinent to mention here that in case we do not allow extraction of ground-water in these areas the precious rainfall may be lost through run-off as the void in aquifers may not be available for recharge purposes through rainfall.

In safe, semi-critical and critical areas, annual ground water withdrawal is less than the annual ground water recharge and in over-exploited areas, it exceeds annual recharge. In view of this,, the Committee was of the view that it may not be appropriate to club semi-critical and critical with over-exploited assessment units, provided necessary measures to compensate the ground water withdrawal are ensured and at no point groundwater extraction exceeds 100% of recharge. Hence, the committee was of the opinion that two broad categories of assessment units namely i) over-exploited and ii) critical, semi-critical & safe be considered for framing the guidelines. Stricter regulatory regime was suggested for over-exploited assessment units to avoid further deterioration.

All efforts have been made by the committee to ensure that directions of Hon'ble NGT are suitably addressed in the new guidelines so that the regulation of ground water resources can be achieved in a realistic, scientific and sustainable manner. The guidelines have been

reframed keeping all the outcomes of the Committees' deliberations as constituted by Hon'ble NGT for effective and robust regulatory mechanism in respect of ground water. The new policy also takes into account all possible issues that need urgent attention for regulation of ground water and necessary mechanism for strengthening of CGWA. In this regard, the point-wise responses for the issues identified by the Hon'ble NGT are outlined below.

4.1 Action being taken for preventing depletion of groundwater and recharge

Ground water extraction in India is primarily for irrigation in agricultural sector, accounting for nearly 221 BCM, which amounts to 89% of the annual ground water extraction. The remaining 11% of extraction (28 BCM) is for drinking & domestic as well as industrial uses. Industrial use is estimated to account for only about 5% of the annual ground water extraction in the country.

The committee was of the view that ground water management requires a holistic approach. Ground water resource needs to be managed carefully with major focus on participatory ground water management through community participation and regulation by Government authorities which is enforceable and practical. It is pertinent to mention here that in India there is an estimated 30 Million groundwater abstraction structures and regulating each and every structure may not be practical and feasible.

The focus of this report is therefore to create a balanced approach, with emphasis on demand side management and practical regulation that does not impede development.

Committee was also apprised about the fact that Water being a State subject, initiatives on water management including conservation of ground water is primarily States' responsibility. However, Central government supplements the efforts of states Government through technical and financial assistance.

On detailed deliberations it came to notice that Government of India and a number of States are very conscious about groundwater scenario in the country and they have taken a number of steps for sustainable management of this precious resource. The committee took an overview of various measures being taken by various Ministries of Central Government and State Governments. Some of them are outlined below:

a. Ministry of Jal Shakti has been created for dealing with all matters relating to water at one place in an integrated manner with two separate departments viz Department of Water resources, RD & GR and Department of drinking Water & Sanitation.

b. Government of India launched Jal Shakti Abhiyan (JSA), a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India. In this regard, teams of officers from Central Government along-with technical officers from Ministry of Jal Shakti were deputed to visit water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions.

   Further, to promote water conservation and water resource management, five target interventions viz. water conservation & rainwater harvesting, renovation of traditional & other water-bodies/tanks, reuse and recharge of bore-wells, watershed development and intensive afforestation etc implemented. The JSA led to huge awareness generation among the stake-holders.

c. Government of India has approved Atal Bhujal Yojana (Atal Jal), a Rs. 6000 Crore Central Sector Scheme, for sustainable management of ground water resources with community participation. Atal Jal is being implemented in 78 water stressed districts of Seven States viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.

The main objective of this scheme is to encourage participation of communities and demand side management for sustainable management of groundwater resources.

d. Department of Agriculture Cooperation & Farmers' Welfare (DAC&FW) is implementing Per Drop More Crop component of PMKSY which is operational from 2015-16 in the country. The PMKSY- Per Drop More Crop mainly focuses on enhancing water use efficiency at farm level through precision/micro irrigation (Drip and Sprinkler Irrigation). Besides promoting precision irrigation and better on-farm water management practices to optimize the use of available water resources, this component also supports micro level water storage or water conservation/management activities to supplement Micro Irrigation.

e. The National Water Policy (2012) formulated by Ministry of Water Resources, RD & GR, inter-alia, advocates conservation, promotion and protection of water and highlights the need for augmenting the availability of water through rain water harvesting, direct use of rainfall and other management measures. The Policy has been forwarded to all the State Governments/UTs and concerned Ministries/Departments of Central Government for adoption.

f. Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for its regulation and development which includes provision of rain water harvesting. So far, 15 States/UTs have adopted and implemented the ground water legislation on the lines of Model bill.

g. Central Ground Water Board has taken up National Aquifer Mapping and Management (NAQUIM) Programme under the Scheme of Ground Water Management and Regulation. Aquifer Mapping is aimed at delineation of aquifer disposition and aquifer characterisation for preparation of aquifer and area specific ground water management plans. NAQUIM, inter-alia, provides scientific knowledge to facilitate sustainable ground water management including water conservation and artificial recharge to ground water. The reports of NAQUIM are being shared with the respective State Government agencies to help them plan scientific ground water management.

h. Model Building Bye Laws, 2016 circulated by Ministry of Urban Development (now Ministry of Housing and Urban Affairs) include the provision of Rainwater Harvesting. As per Model Building Bye Laws, water harvesting through storing of water runoff including rainwater in all new buildings on plots of 100 sq.mtrs. and above will be mandatory. It also stipulates capturing of entire storm water for effective water harvesting through suitable structures in all public open spaces of more than 500 sq. m. It also talks of constitution of rain water harvesting cells for enforcement and monitoring of provisions of rain water harvesting systems.

Barring the States/UT of Sikkim, Mizoram and Lakshadweep, all the States have incorporated the provisions in their respective building bye laws. The plans submitted to the local bodies shall indicate the system of storm water drainage along with points of collection of rain water in surface reservoirs or in recharge wells. Further, all buildings having a minimum discharge of 10,000 litre and above per day shall incorporate waste water recycling system. The recycled water should be used for horticultural purposes.

i. The Ministry of Rural Development in consultation and agreement with the Ministry of Water Resources, RD & GR and the Ministry of Agriculture & Farmers' Welfare has developed an actionable framework for Natural Resources Management (NRM), titled "Mission Water Conservation" to ensure gainful utilization of funds. The Framework strives to ensure synergies in Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Integrated Watershed Management Programme (IWMP)/PMKSY-Watershed Development component and Command Area Development & Water Management (CAD&WM), given their common objectives.

Types of common works undertaken under these programmes/schemes are water conservation and management, water harvesting, soil and moisture conservation, groundwater recharge, flood protection, land development, Command Area Development & Watershed Management. Under MGNREGS, a sizeable amount of funds are earmarked for blocks included in Mission Water Conservation, which fall mostly under Over-exploited and Critical categories.

j. The Government is laying considerable emphasis on water conservation. As per the decision taken by the Committee of Secretaries under the Chairmanship of Cabinet

Secretary, an Inter –Ministerial Committee on Water Conservation has been constituted under the Chairmanship of Secretary (WR, RD&GR). This Committee is meeting regularly to take forward the subject of 'Push on water conservation related activities for optimum utilisation of monsoon rainfall'. States have been requested to constitute similar committees under the Chairmanship of Chief Secretaries. Further, MIS for monitoring of implementation of water conservation activities has been developed by this Ministry.

k. DoWR, RD & GR, through its organisations, is also carrying out training programs and Information, Education & Communication (IEC) activities for capacity building and awareness creation among stakeholders on the importance of water conservation and rainwater harvesting for augmenting the ground water resources. Similarly DoWR, RD & GR are periodically directing organisations to take up cleanliness activities of water bodies on periodic basis to abate pollution in rivers and to showcase and motivate the public in this regard.

l. Department of Land Resources is implementing 8214 watershed development projects in 28 States covering an area of about 39.07 million ha. under the Watershed Development Component (WDC) of the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) principally for development of rainfed portions of net cultivated area and culturable wastelands. The major activities taken up under the WDC-PMKSY, inter-alia, include ridge area treatment, drainage line afforestation, soil and moisture conservation, rain water harvesting, horticulture, and pasture development etc.

m. With a view to improve water use efficiency in agriculture sector, various initiatives such as promotion of micro irrigation in Per Drop More Crop component of PMKSY, establishment of a Micro Irrigation Fund, promotion of irrigation through pipelines instead of open channels, etc. have been taken up.

n. The expenditure made on water related works taken up under MGNREGA during last three years and current year as uploaded by the States in the MIS after following due procedures of the Programme is as under:

Years	Rs in Cr
2016-17	23278.9
2017-18	19839.05

2018-19	19673.65
2019-20	16894.96

o. Funds released as Central share to States under PMKSY-WDC are as under:

Years	Rs in Cr
2016-17	1494.92
2017-18	1699.40
2018-19	1791.49
2019-20 (till 28.02.2020)	1302.98

p. Various States are also implementing schemes and initiated efforts aimed at water conservation and artificial recharge. Special mention can be made of 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibar' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat, 'Mission Kakatiya' in Telangana, Neeru Chettu' in Andhra Pradesh, Jal Jeevan Hariyali in Bihar, 'Jal Hi Jeevan' in Haryana among others. Some of them have been highlighted below.

(i) Government of Punjab has promulgated "Punjab Preservation of Subsoil Water Act, 2009" to ban early sowing of paddy nursery and transplantation of saplings. Similarly, voluntary scheme of "Pani Bachao, Paisa Kamao (PBPK)" has been launched by them to encourage farmers to save electricity and reduce the use of ground water.

(ii) The 'Maharashtra Groundwater Development and Management Act, 2009' has been given effect to prohibit drilling of deep wells within the notified and non-notified areas, for agriculture or industrial usage. It also imposes total prohibition on pumping of ground water from existing deep-wells of depth 60 meters or more in notified areas. However, permission to dig/drill deep well of more than 60 meters' depth in notified and non-notified areas for drinking water purpose may be granted by the Maharashtra Ground Water Authority.

(iii) **Sujalam Sufalam Jal Sanchay Abhiyan, Gujarat** – Gujarat launched Sujalam Sufalam Jal Sanchay Abhiyan to deepen water bodies in the State before monsoon to increase storage of rainwater to be used during times of scarcity. The scheme involves cleaning and desilting of river fronts, sprucing up of irrigation canals etc. The desilting work has

generated a huge amount of loose soil or clay which can be used by farmers to increase agricultural productivity.

(iv) **Neeru Chettu, Andhra Pradesh :** The Government of Andhra Pradesh has taken up Water Conservation Mission Neeru Chettu Sub-Mission under Primary Sector Mission with a vision to make the State a drought proof State and to eradicate the poverty and to reduce economic inequalities by better "water conservation and sustainable management". The work involved repairs and renovation of existing water harvesting structures and construction of new structures such as check dams, percolation tanks, MI tanks, sub-surface dams and farm ponds etc thereby increasing the ground water recharge.

(v) **Mission Kakatiya, Telangana** - The objective of Mission Kakatiya is to enhance the development of agriculture based income for small and marginal farmers, by accelerating the development of minor irrigation infrastructure, strengthening community based irrigation management and adopting a comprehensive programme for restoration of tanks.

(vi) **Jal Jeevan Hariyali, Bihar** – Jal Jeevan Hariyali Abhiyaan has been launched recently in Bihar. Aim of the scheme is identification and renovation of ponds and other traditional modes of water conservation like Aahar & Paaeens. The scheme is being implemented for a period of three years.

(vii) **Mukhya Mantri Jal Swawalamban Abhiyan, Rajasthan** - The Objectives of "Mukhya Mantri Jal Swawalamban Abhiyan" in Rajasthan is to find permanent solution of drinking water by making the village self-sufficient in terms of water availability and to increase the Irrigated area through water harvesting & conservation. The scheme involves effective implementation of water conservation and water harvesting related activities in rural areas through convergence of schemes of various departments keeping in view the existing guidelines. The stress of the Abhiyan was people's participation by motivating villagers & beneficiaries.

(viii) **Initiatives of Haryana Government:** "The Haryana State Preservation of Sub Soil Water Act, 2009" has been enacted which prohibits sowing and transplanting of paddy before 15th of May and 15th of June respectively. Further, Government of Haryana has launched 'Jal Hi Jeevan Yojana' for crop diversification intended to promote technological

innovation with sustainable agriculture and enable farmers to choose crop alternatives for increasing productivity and income.

4.2 Recommendations of the committee for addressing different issues raised by Hon'ble NGT

(a) Steps required to be taken for preventing depletion of groundwater:

Broad principles agreed by the Committee for sustainable management of water resources:

Agriculture: Although ground water is primarily extracted for agricultural purposes, regulation for sustainable ground water management in agriculture sector is complicated as the number of abstraction structures and land holdings are humongous and spread across the Country. Thus, regulation of ground water in agriculture sector through a 'command and control' strategy is not likely to yield the desired results. Hence, it was felt that sustainable ground water management initiatives in agriculture sector will require consultations with farmers and other stakeholders and are to be implemented with community participation through a bottom up approach, given the dependence of a large population on agriculture for livelihood and food security.

Concerned State Departments (Agriculture/ Irrigation/ Water Resources) shall be required to undertake suitable demand and supply side measures to ensure sustainability of ground-water sources. An indicative list of demand side measures is given below.

- Minimize conveyance losses by adopting surface /underground pipeline system.
- Promote and incentivize drip /sprinkler and other water saving irrigation methods /practices/techniques.
- Promote and incentivize crop diversification to less water intensive /consuming crops.
- Encourage farmers to pool their wells and try to bring in more area under cropping for protecting irrigation in selected rain-fed patches/ areas.
- Encourage farmers for developing on-farm water storage structures.
- Adoption of water use efficiency measures for water intensive crops.
- Promote conjunctive use of surface and ground water in command areas.
- Promote use /reuse of treated /recycled water.
- Provision for dedicated electricity feeders for agricultural pump sets and assured power for fixed hours.

Further, States/UTs shall be advised to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwa

Drinking Water:

Given the minimal quantum of water used for drinking purposes, no NOC will be required for drinking water supply projects in rural areas. All residential apartments/ group housing societies/ Government water supply agencies in urban areas shall be liable to pay ground water abstraction charges and seek NOC.

Industry, Infrastructure & Mining Projects:

Industrial sector, although utilizing only around 5% of overall ground water extraction may be responsible for over utilization of ground water resources in localized areas only.

As per the GWRA-2017, a total of 2471 out of the 6881 assessment units have been categorized as over-exploited, critical or semi-critical (OCS) throughout the country based on the stage of ground water extraction. As mentioned above, it is only in the over-exploited assessment units that annual water abstraction is more than the annual recharge. Since a substantial number of industries are already abstracting ground water in these areas, immediate stopping of such industries from ground water abstraction is likely to lead to large-scale unemployment and hamper the industrial development and economic growth of the country. In view of this, the committee suggested that efforts should be made to ensure that ground-water resources in these areas are not adversely affected, while allowing existing industries to continue their operations by gradually reducing their water footprint through suitable corrective and water efficient techniques. However, the Committee also felt that no new large industries should be allowed to come up in the OE blocks.

In order to address the issue of depleting ground water in the country, the following measures have been suggested

(i) Ground water extraction by new industries except for drinking/ domestic and green belt use, Mining, infrastructure and Medium, Small and Micro Enterprises (MSME) shall not be allowed in over-exploited assessment units as per latest Ground Water Resource Estimation.

(ii) Expansion of existing industries shall be allowed in over-exploited assessment units provided their groundwater consumption do not increase.

(iii) Since infrastructure and mining projects are location specific, there will be no ban on new infrastructure and mining projects in over-exploited assessment units.

(iv) The growths of industrial units are crucial for the employment generation, GDP growth and livelihood of the general public. Since, number of MSME industries are large and their requirements of water is not on higher side therefore, in the interest of the nation it has been recommended by the committee to allow extraction of ground water by MSME units in OE areas. However, they shall be liable to pay groundwater abstraction/water restoration charges.

(v) All mining/ infrastructure projects/MSME, tankers and existing industries drawing ground water in over-exploited assessment units seeking NOC shall be required to pay ground water restoration charges. The committee decided that the charges should be telescopic i.e. increased charges with increase in quantum of ground water withdrawal.

(vi) All industries, mining/ infrastructure projects and tankers drawing ground water in critical, semi-critical and safe assessment units seeking NOC shall be required to pay

ground water abstraction charges. The committee decided that the charges should be telescopic i.e. increased charges with increase in quantum of ground water withdrawal and increase in criticality of the assessment unit.

(vii) Since closing/ shifting of existing industries from water stressed areas may have serious socio-economic repercussions, committee decided to allow existing industries located in over-exploited assessment units. However, industries drawing ground water in excess of 100m^3/day shall be allowed to withdraw ground water with the condition to reduce ground water consumption by 20% over a period of three years by adopting state of the art technologies for water conservation and improving water use efficiency.

(viii) Except exempted categories, ground water extraction without valid NOC shall attract environmental compensation charges.

(ix) Violation of the conditions specified in the NOC shall attract payment of penalty at prescribed rates. Use of saline ground water in all categories of areas be encouraged because, it is otherwise not utilizable and the user has to incur treatment cost. Therefore, it was decided that users drawing saline water shall be exempted from payment of ground water abstraction / restoration charges. New users shall also be allowed to draw saline ground water in over-exploited assessment units.

(x) Since ground water is crucial for protection of wet land areas, the proponents located near wetland areas must obtain prior approval of Wet Land Authority.

(xi) All those proponents, who have been granted NOC as per prevailing guidelines before the date of effectiveness of new guidelines; and have not implemented recharge measures as specified in the NOC, even after elapse of six months, shall be liable to pay penalty and will be governed by the new guidelines.

Use of Groundwater Abstraction/Restoration charges: The water abstraction charges/water restoration charges collected while issuing the NOC (by CGWA) shall be utilized by Department of Water Resources, RD & GR for undertaking site specific supply side and demand side interventions through concerned State Governments.

(b) Robust monitoring mechanism to ensure that no ground water is unauthorizedly extracted, including review of manning and functioning of CGWA

In order to address the issue of robust monitoring mechanism for any unauthorized extraction of ground water and additional responsive role of CGWA, the following recommendations have been proposed:

(i) CGWA be restructured as an independent organisation, de-linked from CGWB having separate manpower exclusively dedicated to regulation of ground water extraction.

(ii) Strengthening of manpower of CGWA through hiring of Young Professionals.

(iii) District Industry/Revenue Officers be designated as Authorized Officers for ensuring that no project proponent abstracts illegal ground water without obtaining NOC from CGWA.

(iv) Given the large number of stakeholders associated with agriculture, appropriate levels of Agriculture / Revenue Officers be designated as Authorized Officers in consultation with the State Governments for implementation of the initiatives mentioned.

(c) Robust mechanism to monitor conditions laid down for grant of permission for extraction of ground water:

In order to ensure proper compliance of the NOC conditions laid down by CGWA, the following measures are proposed

(i) Development of a comprehensive MIS utilizing the latest technology for centralized monitoring of compliance.

(ii) Online monitoring of ground water extraction and water levels through installation of digital flow meters.

(iii) Designating all technical officers of CGWB/State Ground Water organization as authorized officers for periodic field inspection and monitoring of compliance.

(iv) Steep hike in penalties proposed for violation of NOC conditions.

(d) Recommendations in the report of the CPCB dated 26.06.2019

The report of CPCB for environmental compensation for illegal abstraction of ground water has been examined and comments of the Committee are as follows:

(i) CPCB report was examined and various measures suggested were analyzed and agreed in principle.

(ii) The Committee was of the view that Environmental Compensation (EC) charges in case of individual households drawing ground water for drinking/ domestic use may not be required in the present as in the guidelines finalized by the committee, such households are exempted from obtaining NOC. The Committee decided that those users who are exempted from obtaining NOC shall be exempted from Environmental Compensation.

(iii) In view of above decision, the minimum EC charge of Rs. 10,000 proposed for drinking/ domestic purpose for individual households shall not be applicable.

(iv) Recommendation of CPCB regarding setting up of water intensive industries in safe, semi-critical and critical areas was accepted in the backdrop of proposed policy by the Expert Committee.

(v) In the backdrop of the proposed policy by the committee, recommendation of CPCB regarding closing down of industries in over-exploited areas was not found to be appropriate.

(vi) Recommendation regarding permission for industries having more than 5000 KLD groundwater demand after scientific assessment of water availability and assessing intergenerational equity was not agreed, as the guidelines suggested by the committee provide for submission of hydro-geological study and impact assessment report and mandatory water audit for industries drawing in excess of 500 KLD in safe and semi-critical and 200 KLD in critical and over-exploited assessment units.

5.0 Guidelines to regulate and control Ground Water Extraction in India

These guidelines will come into force with effect from three months from the date of Gazette Notification and will supersede all the earlier guidelines issued by Central Ground Water Authority. These guidelines will have pan India applicability. Ground water development in States/ UTs which are not regulating ground water development shall continue to be regulated by Central Ground Water Authority. In States/ UTs where Ground Water Authorities have been created under Ground Water Legislation or States/ UTs which are regulating ground water development through government orders, CGWA guidelines will prevail. Wherever States/ UTs have come out with their own guidelines, which are inconsistent with CGWA guidelines, CGWA guidelines will prevail. But in case guidelines followed by such States/ UTs contain some more stringent provisions than CGWA guidelines, such provisions may also given effect by the State/ UT Authorities in addition to those contained in the CGWA guidelines. States may suggest additional conditions/ criteria based on the local hydrogeological situations which will be reviewed by CGWA/Ministry of Jal Shakti, Government of India before acceptance. The entire process of grant of NOC shall be online through a web based application system of CGWA, the URL of which shall be announced later.

Glossary of technical terms used in the guidelines is at **Annexure-II.** The words 'abstraction', 'extraction', 'drawal' and 'withdrawal' have been used interchangeably in this document to denote ground water development.

5.1 Use of groundwater by individual domestic consumers and Rural drinking water supply schemes

Individual domestic consumers shall be exempted from seeking NOC for groundwater abstraction for drinking water and domestic use purposes. Further, rural drinking water supply schemes shall also be exempted from NOC.

5.2 Ground water abstraction/ restoration charges

As per NGT order dated 13th July, 2017 in MA No. 200/2014 regarding Ganga matter, all users are required to pay for ground water extraction.

Accordingly, all residential apartments/ group housing societies/ Government water supply agencies shall be required to pay ground water abstraction charges.

All industries/mining/ infrastructure projects drawing ground water in safe, semi-critical and critical assessment units would have to pay ground water abstraction charges based on quantum of ground water extraction and category of assessment unit as per details given in this guideline.

All existing mining/ infrastructure projects and existing industries including MSME drawing ground water in over-exploited assessment units would have to pay ground water restoration charges based on quantum of ground water extraction. Further, new MSME, new infrastructure and new Mining projects in OE areas shall also be required to pay water restoration charges.

The rates of ground water abstraction/ restoration charges for various uses have been proposed to be telescopic. Rates increase with the increase in quantum of ground water

consumption and with the criticality of the assessment units. This provision has been kept so that it acts as deterrent for users having high demand of water.

The revenue generated from the proposed water abstraction/ restoration charges shall be kept in a separate fund to be invested by the State Government for implementation of site specific suitable demand/ supply side interventions.

5.3 Drinking & Domestic use for Residential apartments/ Group Housing Societies/ Government water supply agencies in Urban areas

For grant of NOC for ground water extraction, the project proponent has to furnish the details as per the guidelines issued by the CGWA in proper format as available in CGWA website (URL to be announced later). NOC for new /existing wells shall be granted only in such cases where the local Government water supply agency is unable to supply requisite amount of water in the area.

NOC shall be granted subject to the following specific conditions:

i) Installation of Sewage Treatment Plants shall be mandatory for all residential apartments/ Group Housing Societies where ground water requirement is more than 20 m^3/day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc.

ii) The NOC shall be valid for a period of 5 years from the date of issue or till such time local Government water supply is provided to the project area, whichever is earlier. In case the project proponent receives water supply from the concerned local Government Water Supply Agency during the validity of the NOC, intimation regarding availability of public water supply shall be sent by the project proponent to CGWA and NOC will be cancelled by the Authority. Otherwise, the project proponent will apply for renewal of NOC, 90 days before the expiry of NOC.

iii) Proponents shall be liable to pay ground water abstraction charges as per Table 6.1.

Documents to be submitted with the application

a) Details of water requirement computed as per National Building Code, 2016 **(Annexure III)**, taking into account recycling/ reuse of treated water for flushing etc.

b) Affidavit on non judicial stamp paper of Rs. 10/- by the applicant, confirming non/ inadequate availability of public water supply in case of users requiring ground water up to 10 m^3/ day for drinking/ domestic use.

c) Certificate of non-availability of water from local government water supply agency in case of infrastructure project/ industry/ mine requiring ground water in excess of 10 m^3/ day for drinking/ domestic use.

d) Water quality data of bore well/ tube well/ dug well in respect of existing projects from NABL accredited laboratory or Govt. approved laboratories.

e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

5.4 Agriculture Sector

Agriculture sector is the backbone of the Indian economy. As per Minor Irrigation Census 2013-14, 87.86% of wells are owned by marginal, small and semi-medium farmers having land holding up to 4 hectares (ha). Around 9.18 % of wells are owned by medium farmers having land holding 4 – 10 ha and 2.96% of the wells are owned by big farmers having land holding more than 10 ha.

Considering the number of ground water abstraction structures, regulation of ground water in agriculture sector through a 'command and control' strategy will prove to be an arduous task. Therefore, a participatory approach for sustainable ground water management would be more productive.

Government of India and a number of States have already initiated a number of steps for improving water use efficiency, use of Micro-irrigation, participatory groundwater management by the communities etc for reducing the use of groundwater in agriculture sector.

However, States/UTs are advised to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater.

Keeping in view of this, the Agriculture sector shall be exempted from obtaining NOC.

5.5 Industrial Use

In Over-exploited area, NOC shall not be granted for ground water abstraction to any new industry except those falling in the category of MSME in over-exploited assessment units. However, NOC for drinking/ domestic use for work force, green belt use by these new industries shall be permitted.

Expansion of existing industries involving increase in quantum of ground water abstraction in over-exploited assessment units shall not be permitted.

All existing industries irrespective of category of area shall be required to seek NOC. NOC to industries shall be granted subject to the following specific conditions:

i) NOC to industries shall be granted only for such cases where local government water supply agencies are not able to supply the desired quantity of water.

ii) All industries shall be required to adopt latest water use efficient technologies so as to reduce dependence on ground water resources.

iii) All industries abstracting ground water to the tune of 500 m^3/day or more in safe and semi critical and 200 m^3/day or more in critical and over-exploited assessment units shall be required to undertake water audit through CII/ FICCI/ NPC certified auditors and submit report within three months of completion of the same to CGWA through the web portal. The first audit shall be done within a year of grant of NOC. Subsequent audits shall be conducted once in 3 years for safe/ semi-critical/ critical assessment units and once in 2 years in over-exploited assessment units. In over-exploited assessment units, proponents drawing more than 100 m^3/day of ground water will have to gradually reduce their water requirement by 20% within a period of three years.

iv) Construction of observation well(s) (piezometers) within the premises, for monthly ground water level monitoring, shall be mandatory for industries drawing/ proposing to draw more than 10 m^3/day of ground water and water level monitoring shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 15 m from the bore well/production well. Depth and aquifer zone

tapped in the piezometer shall be the same as that of the pumping well/ wells. Detailed guidelines for construction of piezometers are given in **Annexure IV**. Monthly water level data shall be submitted to the CGWA through the web portal.

v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Recharge measures shall not be implemented in areas prone to water logging (water level within 5 metres below ground level). Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store rain water harvesting in surface storage tanks for use in the industry.

vi) Recharge/ injection of treated/ untreated waste water within/ outside the plant premises is strictly prohibited.

vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution **(Annexure V).**

viii) Existing industries, which have installed artificial recharge structures in compliance to the conditions prescribed in the guidelines prevailing at the time of grant of NOC or its renewal shall be eligible for a rebate of 50% in the ground water abstraction charges/water restoration charges as per the revised guidelines, subject to their satisfactory performance and verification by the concerned Regional Director of CGWB.

ix) All industries drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 6.2 A and 6.3 A.

x) All existing industries drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Tables 6.2 B and 6.3 B.

Documents to be submitted with the application

(a) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water supply from local government agencies in cases where ground water requirement is up to 10 m^3/day.

(b) Certificate regarding non/ partial availability of fresh water/ treated waste water supply from the local government water supply agency in cases where requirement of ground water is more than 10 m^3/day.

(c) Water quality data of bore well/ tube well/ dug well in respect of existing industries from NABL accredited laboratory.

(d) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

(e) ***Hydrogeology and Impact Assessment report:***

It has been noted that the projects that are abstracting substantial quantum of ground water are likely to have an impact on the ambient ground water regime both in terms of resource status and quality. Therefore all the projects that are abstracting/proposing to extract ground water in excess of 200 m^3/day in Over-exploited and Critical areas and 500 m^3/day in Semi-critical and Safe areas shall have to mandatorily submit report on the

impact of ground water withdrawal on the ground water regime including socio-economic aspect, prepared by accredited consultants. Proforma for hydrogeological report is given in **Annexure VI.**

5.6 Mining Projects

All existing as well as new mining projects would be required to obtain NOC for ground water abstraction. Since mining projects are location specific, there will be no ban on NOC for abstraction of ground water for such projects in over-exploited assessment units.

NOC for mining projects shall be granted subject to the following specific conditions:

i) It shall be mandatory for all the mining industries to ensure that water available from de-watering operations is properly treated and should be gainfully utilized for supply for irrigation, dust suppression, mining process, recharge in downstream and for maintaining e-flows in the river system.

ii) Construction of observation well(s) (piezometers) along the periphery in the premises, for monthly ground water level monitoring, shall be mandatory for mines drawing/ proposing to draw more than 10 m^3/day of ground water. Depth and aquifer zone tapped in the piezometer shall be commensurate with that of pumping well/ wells.

iii) In addition, the proponent shall monitor ground water levels by establishing key wells in the core and buffer zones as specified in the NOC.

iv) In case of coal and other base metal mining the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.

v) In addition to this, all mining units shall also monitor the water quality of mine seepage and mine discharge through NABL accredited/ Govt. approved laboratories and the same shall be submitted at the time of self compliance.

vi) All mining projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 6.4 A.

vii) All mining projects drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 6.4 B.

Documents to be submitted with the application

(a) Mining plan approved by the concerned Govt. agency/ department.

(b) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

(c) Comprehensive report prepared by NABET accredited consultant on ground water conditions in both core and buffer zones of the mine, depth wise and year wise mine seepage calculations, impact assessment of mining and dewatering, details of recycling, reuse and recharge, reduction of pumping with use of technology for mining and water

management to minimize and mitigate the adverse impact on ground water, based on local conditions. Format for report is given in **Annexure VII).**

5.7 Infrastructure projects

New infrastructure projects/ residential buildings may require dewatering during construction activity and/ or use ground water for construction. In both cases, applicants shall seek NOC from CGWA before commencement of work. Since infrastructure projects are location specific, grant of NOC to such projects located in over-exploited assessment units cannot be banned. However, in over-exploited assessment units, use of ground water for construction activity shall be permitted only if no treated sewage water is available within 10 km radius of the site. Infrastructure projects shall also be required to seek NOC for abstraction of ground water.

Further, no NOC shall be granted for extraction of groundwater for Water Park, Theme Park and Amusement Park in OE areas.

Indicative list of Infrastructure projects is given in Annexure VIII.

The NOC for ground water abstraction will be granted subject to the following specific conditions:

i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data through web portal. Monitoring records and results should be retained by the proponent for up to two years, for inspection or reporting as required by CGWA/ SGWA.

ii) Installation of Sewage Treatment Plants shall be mandatory for new projects, where ground water requirement is more than 20 m^3/day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc.

iii) For infrastructure dewatering/ construction activity, NOC shall be valid for the specific period as per the detailed proposal submitted by the project proponent.

iv) All infrastructure projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 6.4 A.

v) All infrastructure projects (new/ existing) drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 6.4 B.

Documents to be submitted with the application

(a) In cases where dewatering is involved submission of hydrogeological report prepared by NABET accredited consultant on the ground water situation in the area giving detailed plan of pumping, proposed usage of pumped water and comprehensive impact assessment of the same on the ground water regime shall be mandatory. The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues viz. land subsidence etc.

(b) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water from any other source in case water is required for construction in safe and semi critical areas.

(c) Certificate of non-availability of water from local government water supply agency for commercial use.

(d) Certificate from the government agency regarding non availability of treated sewage water for construction within 10 km radius of the site in critical and over-exploited areas.

(e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

(f) Details of water requirement computed as per National Building Code, 2016 **(Annexure III)**, taking into account recycling/ reuse of treated water for flushing etc. (in case of completed infrastructure projects for commercial use).

(g) Completion certificate from the concerned agency for infrastructure projects requiring water for commercial use.

6.0 Category wise water rates

I. **Drinking and domestic use for residential apartments/ group housing societies/ Government water supply agencies in Urban areas**

All residential apartments/ Group Housing Societies requiring water only for drinking/domestic use requiring NOC would pay ground water abstraction charges as per rates given below in **Table 6.1.**

Table 6.1 Ground Water Abstraction charges for Drinking & Domestic use.

Quantum of Groundwater withdrawal (m^3/month)	Rate of ground water abstraction charges (Rs. per m^3)
0-25	No charge
26-50	Re 1/-
>50	Rs 2/-

Government water supply agencies and Government infrastructure projects shall pay Ground water abstraction Charges @ Rs. 0.50 per m^3.

II. **Packaged Drinking Water units (drawing upto 50m^3/day) and other industries**

Rates of ground water abstraction charges for packaged drinking water units drawing upto 50 m^3/ day and other industries in safe, semi-critical and critical assessment units are given in Table 6.2 A and those for ground water restoration charges in case of packaged drinking eater drawing upto 50 m^3/ day and other industries in over-exploited assessment units are given in Table 6.2 B.

Table 6.2 A: Rates of ground water abstraction charges for packaged drinking water units drawing upto 50 m^3/ day and other industries (Rs. per m^3/ day)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Safe	1.00	2.00	3.00	5.00
2.	Semi-critical	2.00	3.00	5.00	8.00
3.	Critical	4.00	6.00	8.00	10.00

Table 6.2 B: Rates of ground water restoration charges for packaged drinking water units drawing upto 50 m^3/ day and other industries (Rs. per m^3/ day)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Over-exploited (existing industries only)	6.00	10.00	16.00	20.0

III. **Packaged Drinking Water units drawing more than 50 m^3/day and soft drinks/ beverages/ breweries/ distilleries**

Rates of **ground water abstraction charges** for packaged drinking water units (which are drawing more than 50 m^3/ day of ground water) and soft drinks/ beverages/ breweries/ distilleries in safe, semi-critical and critical assessment units are given in Table 6.3 A and those for **ground water restoration charges** in case of packaged drinking water units (which are drawing more than 50 m^3/ day of ground water) and soft drinks/ beverages/ breweries/ distilleries drawing ground water in over-exploited assessment units are given in Table 6.3 B.

Table 6.3A : Rates of ground water abstraction charges for packaged drinking water units drawing more than 50 m^3/ day and soft drinks/ beverages/ breweries/ distilleries (Rs. per m^3/ day)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Safe	3.00	5.00	8.00	10.00
2.	Semi-critical	5.00	10.00	15.00	20.00

3.	Critical	10.00	20.00	40.00	60.00

Table 6.3 B: Rates of ground water restoration charges for packaged drinking water units drawing more than 50 m^3/ day and soft drinks/ beverages/ breweries/ distilleries (Rs. per m^3/ day)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Over-exploited (existing industries only)	20.00	40.00	60.00	100.00

IV. **Mining/ infrastructure projects**

Rates of ground water abstraction charges for mining/ infrastructure projects, which are drawing ground water in safe, semi-critical and critical assessment units are given in Table 6.4 A and those for ground water restoration charges in case of projects drawing ground water in over-exploited assessment units are given in Table 6.4 B.

Table 6.4 A : Rates of ground water abstraction charges for mining and infrastructure projects (Rs. per m^3/ day)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Safe	1.00	2.00	2.50	3.00
2.	Semi-critical	2.00	2.50	3.00	4.00
3.	Critical	3.00	4.00	5.00	6.00

Table 6.4 B : Rates of ground water restoration charges for mining and infrastructure projects (Rs. per m^3/ day)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Over-exploited	4.00	5.00	6.00	7.00

6.1 Bulk/ Tanker Water Supplies

Throughout the country there is a practice of tanker water supplies specially during the period of water scarcity. Most of the tanker water suppliers are abstracting ground water and do not have permission/ NOC for abstraction of ground water from any of the agencies. In Municipal

Corporations of different states, there are authorized tanker water suppliers which are being monitored by the concerned Municipal authorities. But in addition to this, there are several private tankers that are operating for bulk water supplies to various institutes and infrastructure establishments. All these private tankers are operating on private basis and there is virtually no control on their ground water abstraction as these are not being regulated by any of the agencies.

All the private tankers which are abstracting ground water and use it for supply as bulk water suppliers need to be regulated and mandatorily obtain NOC for ground water abstraction. The bulk/water tanker suppliers drawing ground water in safe, semi-critical and critical assessment units shall pay the groundwater abstraction charges as per the **Table-6.5 A.** The bulk/water tanker suppliers drawing ground water in over-exploited assessment units shall pay the groundwater restoration charges as per the **Table-6.5 B.** All tankers will have to install GPS. Modalities for NOC for tankers shall be worked out in consultation with concerned State agencies and suitable guidelines will be framed for the same.

Table-6.5A: Groundwater abstraction charges for Tanker/Bulk Supplier	
Category	Rate per m3 (in Rs.)
Safe	**10**
Semi Critical	**20**
Critical	**25**

Table-6.5B: Groundwater restoration charges for Tanker/Bulk Supplier	
Category	Rate per m3 (in Rs.)
Over Exploited	**35**

7.0 Abstraction of Saline ground water

Abstraction of saline ground water in areas having either saline ground water at all depths or pockets of saline ground water in an otherwise fresh water area for use by industries/ dewatering by infrastructure/ mining projects including those located in over-exploited areas would be encouraged. **Such industries shall be exempted from paying ground water abstraction charges**. The list of such assessment units having saline ground water at all depths as per the latest assessment of dynamic ground water resources will be made available by the Authority in the web based application system. However, due care should be taken in respect of disposal of effluents by the units so as to protect the water bodies and the aquifers from pollution. Detail guidelines would be prepared separately.

8.0 Protection of Wetland Areas

The wet land areas in the country are very crucial as they are direct reflection of the presence of ground water in such areas. The protection of the wetland areas is being separately handled by the Wetland Authority. Since ground water is very crucial for the survival of the wetland area, any excessive ground water development within the zone of wetland area would affect the volume of water in that wetland. Projects falling in and around wetland area shall mandatorily submit a detailed proposal indicating that any ground water abstraction by the project proponent does not affect the protected wetland areas. Furthermore, before seeking permission from CGWA, the projects shall take consent from Wetland Authority to establish their projects in the area.

9.0 General compliance conditions in NOC

I. Installation of digital water flow meter (conforming to BIS/ IS standards) having telemetry system in the abstraction structure(s) shall be mandatory for all users seeking NOC and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of NOC through the web-portal.

II. Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.

III. Proponents shall install roof top rain water harvesting & recharge system in the project area, wherever the ground water level is deeper than 5 metres below ground level during post-monsoon period. In shallow water level areas (water levels within 5 mbgl during post-monsoon period) the water harvested shall be stored in sumps/ surface storage tanks for direct use.

IV. Proponents shall pay Ground Water Abstraction/ Restoration Charges based on quantum of ground water extraction as applicable as per the rates given in Section 6.

V. Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 12. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in **Annexure-IV.**

VI. Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.

VII. If the existing well becomes defunct due to mechanical failure within the validity period of NOC, the user can construct a replacement well under intimation to CGWA on web portal. The defunct well shall be properly sealed **(Refer Annexure IX).** The user will be required to submit documentary proof in this regard. However, if the existing abstraction structures fails to yield water and he proponent desires to drill another tubewell in the same premises, prior permission of the Authority shall be required. If the replacement well is to be drilled in some different place, the proponent shall obtain fresh NOC .

VIII. The proponent/ authorised representative of the occupants of the infrastructure project shall apply for renewal of NOC within 90 days prior to expiry of its validity.

IX. Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.

X. In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the NOC with documentary proof within 60 days of taking over possession of the premises.

10.0 Compliance Monitoring of NOC Conditions

It has been pointed out by the Hon'ble NGT that CGWA must develop a robust mechanism for monitoring of the compliance conditions of the NOC. In this regard, necessary self compliance system through online system has been developed. An MIS will be developed for

compliance monitoring. Enforcement viz. sealing of ground water abstraction structures, seizure of drilling rigs, disconnection of electricity, prosecution etc. shall be implemented by the concerned DC/DM. Committee recommended designating all technical officers of CGWB and state groundwater organizations as authorized officers for periodic inspection and monitoring. In case of violation of any of the NOC conditions, the firm shall pay the penalty as per **Table 14.1.**

11.0 Delegation of powers to take action in case of illegal withdrawal

Central Ground Water Authority has appointed the District Magistrate/ District Collector/ Sub Divisional Magistrates of each Revenue District and through Public Notice as Authorized Officers, who have been delegated the power to seal illegal wells, seize drilling rigs, disconnect electricity supply to the energised well, launch prosecution against offenders etc. including grievance redressal related to ground water. In order to further decentralize and strengthen the mechanism for monitoring compliance, it is proposed to appoint officials of Departments of Revenue and Industries of the State at appropriate levels as Authorised Officers in consultation with the State Governments.

A copy each of the NOC issued by the CGWA in the NOCAP system will be forwarded to the respective District Magistrate/ District Collector. In case of any violation of the directions of Central Ground Water Authority and conditions laid down in the NOC, the Authorised Officers will file cases under sections 15 to 21 of the Environment (Protection) Act, 1986 in appropriate Courts.

12.0 Ground Water Level Monitoring

All the project proponents (drawing ground water more than 10 cum/d) have to mandatorily construct Piezometers (observation wells) within their premises for monitoring of the ground water levels. Such a mechanism of compliance conditions has been made to ensure that every month the ground water level in the project area can be monitored and observed. In this regard the necessary criteria for monitoring of water levels through piezometers by the project proponents is given in **Table 12.1**.

Table 12.1 No. of Piezometers to be constructed & Type of Water Level Monitoring Mechanism

S.No.	Quantum of Ground water withdrawal (cum/d)	No. of piezometer required	Monitoring mechanism		
			Manual	DWLR	DWLR with Telemetry
1	<10	0	0	0	0
2	11-50	1	1	0	0
3	51-500	1	0	1	0
4	>500	2	0	1	1

The piezometer shall be suitably located to ensure that zone of aquifer tapped in the piezometer is the same as that of the pumping well.

13.0 Environmental Compensation

CPCB report was examined and various measures suggested were analyzed and agreed in principle.

14.0 Provision of Penalty

It has been observed that apart from illegal abstraction of ground water, there have been several incidents of violation of NOC conditions laid down by CGWA to the project proponents. In this regard it has been proposed that for each type of violation of NOC conditions, necessary penalty needs to be imposed on the project proponents for not fulfilling the compliance conditions of NOC of CGWA. Rates of penalty proposed for non-compliance of various conditions of NOC are given in **Table 14.1.** The rates of the penalty/fine shall be linked with prevailing cost/inflation index rate and shall be reviewed every 2 years.

There are few instances where the project proponent has not made proper disclosure of their ground water abstraction structures. In this regard, it is proposed that all the abstraction structures shall be geo-tagged and necessary mobile/web applications in this regard shall be devised for ensuring such measures. It has been suggested that any ground water abstraction structure which has not been disclosed by industries shall invite penalty and for such cases.

It is also proposed to levy charges for correction/modification in the existing issued NOC letter. The list of different charges is given in **Table 14.2.**

Table 14.1: Proposed Fine/Penalty provision for non Compliance of CGWA NOC conditions

S. No.	Items	Charges in Rs.
1	Non Installation/Defunct Digital water Flow meter with telemetry	200000
2	Non disclosure/ construction of additional groundwater abstraction structures a) Functional @per structure Defunct/Abandoned @per structure	200000 100000
3	Reporting of fresh water zones as Brackish / Saline zones in application	200000
4	Non Installation of Piezometer	200000
5	Non Installation/faulty of DWLR/Telemetry	100000
6	Non Construction/Inadequate of Recharge Structure/ pond/ drip/ sprinklers	500000
7	Non maintenance of Recharge structure	200000
8	Injection of contaminated water into the aquifer. In addition to penalty, the proponent shall have to bear the cost of aquifer remediation as per provisions under EPA.	200000
9	Non Submission of Water level/Water quality Data	50000
10	Not maintaining of log book of daily withdrawal/non submission of Groundwater abstraction data	50000
11	Non submission of photograph of recharge structure	50000
12	Non Submission of Self Compliance report	100000
13	Construction of groundwater abstraction structures by un authorized/unregistered Drilling Rigs (per structures)	100000
14	Tankers- no registration- seizure of tankers and penalty imposed	500000
15	Rig- no registration- seizure of rig with penalty imposed	1000000
16	Submission of False information/ undertaking	100000

Table 14.2: Proposed Charges for correction/Modification in the existing issued NOC

S. No.	Items	Charges in Rs.
1	Change in recharge quantum	10000
2	Change in USER ID	5000
3	Change in firm Name	5000
4	Extension of NOC	5000
5	Issuance of duplicate NOC	5000
6	Issuance of corrigendum of NOC	5000
7	Any other items/correction	5000

15.0 Other Conditions (Applicable for all cases):

i. Sale of ground water by a person/ agency not having valid NOC from CGWA is not permitted.

ii. In infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other measures to ensure groundwater infiltration.

iii. In case of Infrastructure projects, the firm shall ensure implementation of dual water supply system in the projects. Compliance of the same shall be submitted through the web portal.

iv. Non-compliance of conditions mentioned in the NOC may be taken as sufficient reason for cancellation of NOC accorded/ non-renewal of NOC.

v. No application shall be entertained without supporting documents as specified in relevant sections.

vi. Abstraction structure(s) should be located inside the premises of project property.

vii. Self compliance of conditions laid down in the NOC shall be reported by the users online in the web portal of CGWA.

viii. Processing fee prescribed, if any, from time to time shall be charged for various services.

Note:

1. **Guidelines are subject to modification from time to time.**

Annexure - I

List of States/ Union Territories where ground water development is being regulated by Central Ground Water Authority

Sl. No.	States/ UTs
1	Andhra Pradesh*
2	Arunachal Pradesh
3	Assam
4	Bihar
5	Chhattisgarh
6	Gujarat
7	Haryana
8	Jharkhand
9	Madhya Pradesh
10	Maharashtra
11	Manipur
12	Meghalaya
13	Mizoram
14	Nagaland
15	Odisha
16	Punjab
17	Rajasthan
18	Sikkim
19	Tripura
20	Uttar Pradesh
21	Uttarakhand
22	Andaman & Nicobar Islands
23	Dadra & Nagar Haveli
24	Daman & Diu

* NOC is issued by CGWA for mining projects only

Annexure- II

Glossary of Technical Terms used:

1. **Safe area**: Area categorized as SAFE from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
2. **Semi-critical area**: Area categorized as SEMI-CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
3. **Critical area**: Area categorized as CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
4. **Over-exploited area**: Area categorized as OVER-EXPLOITED from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
5. **Aquifer**: Geological formation capable of storing and transmitting ground water.
6. **Deeper Aquifer**: In areas having multiple aquifer system, the aquifer/s occurring below the uppermost aquifer.
7. **Well**: Any structure used for the extraction of groundwater, 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.
8. **Government Agency**: May be Central or State Government body.
9. **Supplier**: Government/ Government approved Water Supply Agency.
10. **Mine**: Area where mining activity is taking place, or area abandoned after mining.
11. **Illegal Ground Water abstraction Structure**: Any energized abstraction structure viz. dugwell, tubewell, borewell which is being used to withdraw ground water without valid NOC from Central Ground Water Authority.
12. **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 groundwater.
13. **Mining Project**: Project which involves mining activity either open cast or underground or both.
14. **Ground Water Draft**: Quantum of ground water withdrawal.

15. **Saline Water**: Water having salinity in excess of 2500 µsiemens/cm at 25^0C.
16. **Water Table Intersection**: Intersection of the water table on excavation of the overlying material due to mining or other activities.
17. **Drinking & domestic use**: Besides drinking & domestic use of households, this category will cover drinking requirement of industries not requiring water for industrial process; drinking, washing, cleaning use etc. in case of hospitals, hotels, malls & multiplexes, institutions, offices, banquet halls, fire stations, metro stations, railway stations, airports, sea ports, stadia etc.
18. **Recycle/Reuse**: Using treated waste water for various purposes/ putting water to multiple uses.
19. **Government Department:** Either Central or State.
20. **Municipality:** Municipality, a Municipal Corporation or similar body of local urban governance by any other name.
21. **Groundwater:** 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;
22. **Bgl:** Below Ground Level.
23. **BCM :** Billion cubic metres.
24. **Groundwater Abstraction structure:** Structure used to withdraw groundwater like bore well / tube well / dug well / dug cum bore well/tunnel well.
25. **Observation well or 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 groundwater abstraction.
26. **Water Audit:**A method of quantifying water use in simple or complex systems, with a view to reducing water usage and often saving money on otherwise unnecessary water use.
27. **Ground water pollution:** If concentration of any parameter in ground water exceeds the maximum permissible limit for drinking water prescribed by the Bureau of Indian Standards.
28. **Cooperative Group Housing Societies/ Builder flats**: A Housing Society is a society formed by house owners within a residential complex. The housing society formed must be formally registered with registrar of co-operatives.

Annexure III

Estimation of Water Requirements for drinking and domestic use
(Source: National Building Code 2016, BIS)

a) Residential Buildings:

Accommodations	Population
1 Bedroom dwelling unit	4
2 Bedroom dwelling unit	5
3 Bedroom dwelling unit	6
4 Bedroom dwelling unit and above	7

Notes:

1) The above figures consider a domestic household including support personnel, wherever applicable.
2) For plotted development, the population may be arrived at after due consideration of the expected number and type of domestic household units.
3) Dwelling unit under EWS category shall have population requirement of 4 and studio apartment shall have population requirement of 2.

As a general rule the following rates per capita per day may be considered for domestic and non-domestic needs:

a) For communities with populations up to 20,000:

1)	Water supply through stand post:	40 lphd (Min)
2)	Water supply through house service: connection	70 to 100 lphd

b) For communities with: population 20,000 to 100,00 together with full flushing system — 100 to 135 lphd

c) For communities with population: above 100,000 together with full flushing system — 150 to 200 lphd

Note—The value of water supply given as 150 to 200 litre per head per day may be reduced to 135 litre per head per day for houses for Medium Income Group (MIG) and Low Income Groups (LIG) and Economically Weaker Section of Society (EWS), depending upon prevailing conditions and availability of water.

Out of the 150 to 200 litre per head per day, 45 litre per head per day may be taken for flushing requirements and the remaining quantity for other domestic purposes.

A. Water Requirements for Buildings Other than Residences

Sl No.	Type of Building	Domestic litres per head/ day	Flushing Litres per head/ day	Total Consumption Litres per head/ day
1.	Factories including canteen where bath rooms are required to be provided	30	15	45
2.	Factories including canteen where no bath rooms are required to be provided	20	10	30
3.	Hospital (excluding laundry and kitchen): a) Number of beds not exceeding 100	230	110	340
	b) Number of beds exceeding 100	300	150	450
	c) Out Patient Department (OPD)	10	5	15
4.	Nurses' homes and medical quarters	90	45	135
5.	Hostels	90	45	135
6.	Hotels (up to 3 star) excluding laundry, kitchen, staff and water bodies	120	60	180
7.	Hotels (4 star and above) excluding laundry, kitchen, staff and water bodies	260	60	320
8.	Offices (including canteen)	25	20	45
9.	Restaurants and food court including water requirement for kitchen: a) Restaurants	55 per seat	15 per seat	70 per seat
	b) Food Court	25 per seat	10 per seat	35 per seat
10.	Clubhouse	25	20	45
11.	Stadiums	4	6	10
12.	Cinemas, concert halls and theatres and multiplex	5 per seat	10 per seat	15 per seat
13.	Schools/Educational institutions: a) Without boarding facilities	25	20	45
	b) With boarding facilities	90	45	135

Sl No.	Type of Building	Domestic Per Day	Flushing Per Day	Total Consumption Per Day
14.	Shopping and retail (mall) a) Staff	25	20	45
	b) Visitors	5	10	15
15.	Traffic Terminal stations a) Airports	40	30	70
	b) Railway stations (Junction) with bathing facility	40	30	70
	c) Railway stations (Junction) without bathing facility	30	15	45
	d) Railway stations (Intermediate) with bathing facility	25	20	45
	e) Railway stations (Intermediate) without bathing facility	15	10	25
	f) Interstate bus terminals	25	20	45
	g) Intrastate Bus Terminals/Metro Stations	10	5	15

Notes:

1. For calculating water demand for visitors, consumption of 15 litre per head per day may be taken.
2. The water demand includes requirement of patients, attendants, visitors and staff. Additional water demand for kitchen, laundry and clinical water shall be computed as per actual requirements.
3. The number of persons shall be determined by average number of passengers handled by stations, with due considerations given to the staff and vendors who are using these facilities.
4. Consideration should be given for seasonal average peak requirements.
5. The hospitals may be categorized as Category A (25 to 50 beds), Category B(51 to 100 beds), Category C (101 to 300 beds), Category D (301 to 500) and Category E (501 to 750 beds).

Annexure IV

Guidelines For Installation of Piezometers and Monitoring of Ground Water Levels and Quality

Piezometer is a borewell/tubewell used only for measuring the water level by lowering a tape/sounder or automatic / digital 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:

- The piezometer is to be installed/constructed at the minimum distance of 50 m 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 the same as that of the pumping well from which ground water is being abstracted. If, more than one pumping wells are constructed tapping aquifers at different depths, more than one piezometers shall be required to be constructed tapping different aquifers as in the pumping wells.
- 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.
- The ground water quality has to be monitored once in a year during pre-monsoon (April/ May) period by industries and mines drawing ground water. Samples of ground water should be analyzed from NABL accredited laboratory.
- 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.

Annexure V

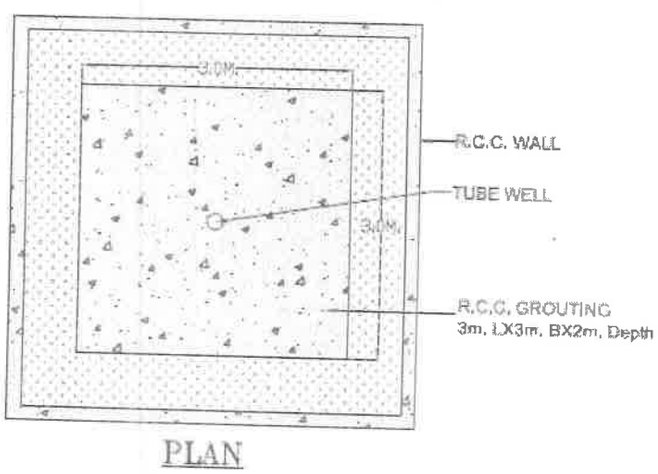
Well Head Protection Measures to be adopted to ensure prevention from pollution in the plant premises of industries/ projects which have potential to pollute

It has been observed that ground water in and around polluting industries like Tannery, Slaughter Houses, Dye, Chemical, Coal washery, other hazardous units, etc., is polluted. In order to prevent further deterioration of ground water quality, it is essential to take all necessary measures for well head protection. All industries/ projects falling under this category are hereby directed to follow the under mentioned procedure both for existing and new category.

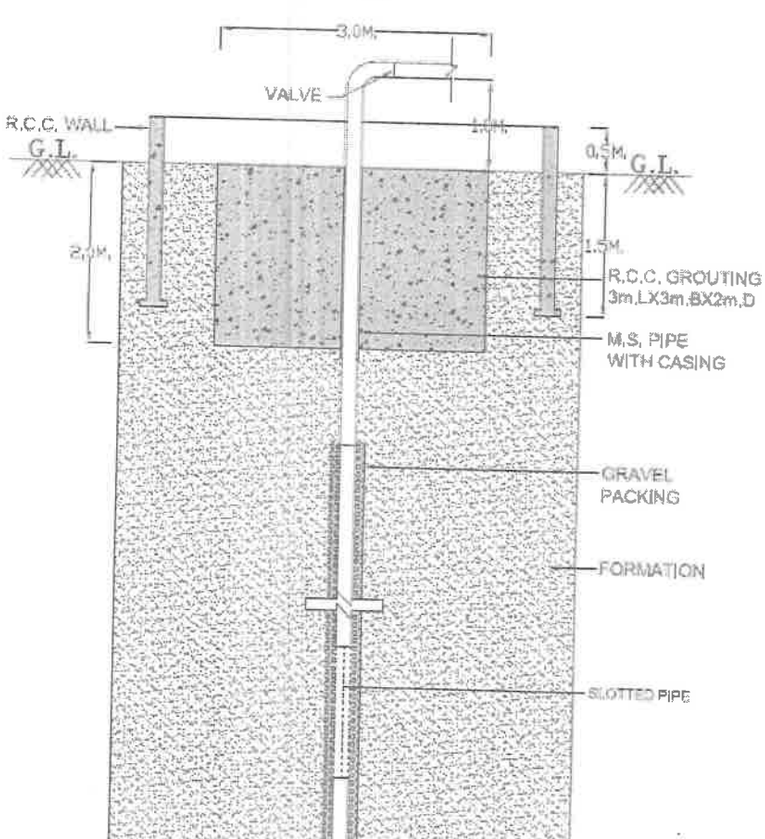
1. No tube well/ bore well / dug well should be constructed in the vicinity of the processing unit. Tube well/ bore well should be constructed at the place which is hygienically maintained.
2. Only Mild Steel pipe should be used for assembly/ casing and PVC (Poly Vinyl Chloride) or similar pipes should not be used. The tube well/ bore well having PVC or similar pipes should be abandoned and filled back.
3. Around the tube well/ bore well, RCC (Reinforced Concrete Cement) grouting of 3 meters (length) x 3 meters (width) x 2 meters (depth) must be provided. The pipe of the tube well/ bore well must be raised 1 meter above ground level (1 magl). The tube well/ bore well must be surrounded by RCC wall of 0.5 meter height and 1.5 meter depth to prevent any surface contamination to enter the constructed tube well/ bore well. **Plan/Sectional diagram is enclosed for reference (Appendix 1 and 2).**
3. The tube well/ bore well must be fitted with NRV (Non Return Valve) in order to ensure that the constructed tube well/ bore well is exclusively used for abstraction of ground water only.
4. At no point of time there should be any injection of any water or fluid into the constructed tube well/ bore well/ Piezometer.
5. The industries/ projects under this category should not implement any recharge measures within the plant premises.
6. Any tube well/ bore well located/ constructed in the vicinity of STP (Sewage Treatment Plant) or ETP (Effluent Treatment Plant) should be abandoned and filled back.
7. The piezometer to be constructed for monitoring purpose should follow the same procedure as that for tube well/ bore well for such industries/ projects.

Appendix 1

Plan/ Sectional diagram showing well head protection



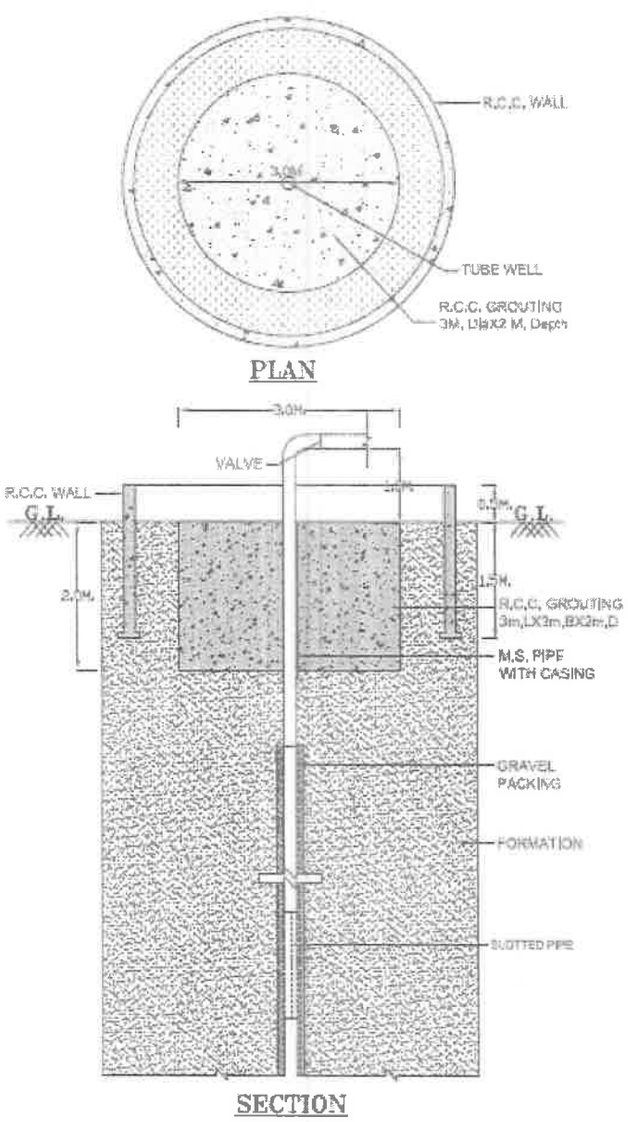
PLAN



SECTION

Appendix 2

Plan/ Sectional diagram showing well head protection



Annexure-VI

Outline of Hydrogeological Report for obtaining NOC for industries

1. Brief about the proposed project giving location details, coordinates, google/ toposheet maps, etc. demarcating the project area.
2. Ground water situation in and around the project area including water level and quality data and maps along with quality issues, if any. In case of mines, ground water conditions in both core and buffer zone should be described.
3. Details of the tubewells/ borewells proposed to be constructed. This includes the drilling depth, diameter, tentative lithological log, details of pump to be lowered, H.P. of pump, tentative discharge of tubewells/ borewells, etc. Locations to be marked on the site plan/ map. Location of proposed piezometers.
4. Details of Geophysical studies carried out in and around the project area. Ground water resources computation of the block in which the project falls.
5. Approved Mine plan and detailed dewatering plan in case of mines.
6. Proposed usage of pumped water in case of mining/ infrastructure dewatering projects.
7. Comprehensive assessment of the impact on the ground water regime in and around the project area highlighting the risks and proposed management strategies proposed to overcome any significant environmental issues.
8. Proposed measures for disposal of waste water by industries drawing saline water.
9. Measures to be adopted for water conservation which include recycling, reuse, treatment, etc. This includes the water balance chart being adopted by the firm along with details of water conservation methods to be adopted.
   - Brief write up along with capacity and flow chart of STP/ ETP/ CEPT existing/ proposed within the project.
   - Details of water conservation measures to be adopted to reduce/ save the ground water.
   - Total water balance chart showing the usage of water for various processes.
10. Any other details pertaining to the project.

Annexure VII

Format of the Report on ground water conditions (for mining projects)

Introduction

Project description

Background

Objectives and scope

Regional setting

- Location
- Landuse
- Climate
- Topography and drainage
- Geology –Regional and Local

General Hydrogeology (aquifer types, aquifer depth, zone tapped etc.)

- Groundwater condition (In core and buffer zones)
- Spatial and temporal variations in water levels Groundwater quality (Shallow and deep aquifer)

Impact of groundwater extraction on local groundwater

- Hydrograph of water level/piezometer in monitoring wells
- Trend analysis of historical water levels Flow net analysis (groundwater flow direction)
- Year wise/ bench wise mine dewatering computation as per approved mine plan

Conclusions

Annexure VIII

Indicative list of Infrastructure projects

Residential townships including commercial buildings
Office building
School
College
University
SEZ
Metro Station
Railway Station
Bus Depot
Airport
Seaport
Highway infrastructure
Fire station
Warehouse
Business Plaza
Malls & Multiplex
Hospitals
Nursing Homes
Resort
Hotel/ Restaurant/ Food Plaza
Holiday home/Guest house/ Hostels
Banquet Hall/ Marriage Gardens
IT Complex
Logistics & Cargo
Clubs
Trade Centre

Annexure -IX

IN THE SUPREME COURT OF INDIA
CIVIL ORIGINAL JURISDICTION
WRIT PETITION (c) NO. 36 OF 2009

In Re: Measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

Union of India and Ors.

Respondents(s)

ORDER

With this Court issuing requisite guidelines vide order dated 11th February, 2010, subject to slight modifications, nothing survives in the present writ petition.

That modification is as follows:

(i) The owner of the land/ premises, before taking any steps for constructing bore well/ tube well must inform in writing to the concerned authorities in the area, i.e., District Collector/ District Magistrate/ Sarpanch of the Gram Panchayat/ any other Statutory Authority/ concerned officers of the Department of Ground Water/ Public Health/ Municipal Corporation, as the case may be , about the construction of bore well/ tube well.

(ii) Registration of all the drilling agencies, namely, Government/ Semi Government, Private etc. should be mandatory with the district administration/ Statutory Authority wherever applicable.

(iii) Erection of signboard at the time of construction near the well with the following details:-
   (a) Complete address of the drilling agency at the time of construction/ rehabilitation of well.
   (b) Complete address of the user agency/ owner of the well.

(iv) Erection of barbed wire fencing or any other suitable barrier around the well during construction.

(v) Construction of cement/ concrete platform measuring 0.50x0.50x0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.

(vi) Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.

(vii) In case of pump repair, the tube well should not be left uncovered.

(viii) Filling of mud pits and channels after completion of works.

(ix) Filling up abandoned bore wells by clay/ sand/ boulders/ pebbles/ drill cuttings etc. from bottom to ground level.

(x) On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.

(xi) District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of bore holes/ tube wells are being taken care through the concerned state/ Central Government agencies.

(xii) District/ Block/ Village wise status of bore wells/ tube wells drilled viz. No. of wells in use, No. of abandoned bore wells/ tube wells found open, No. of abandoned bore wells/ tube wells properly filled up to ground level and balance number of abandoned bore wells/ tube wells to be filled up to ground level is to be maintained at District Level.

In rural areas, the monitoring of the above is to be done through VillageSarpanch and the Executive from the Agriculture Department.

In case of urban areas, the monitoring of the above is to be done through Junior Engineer and the Executive from the concerned Department of Ground Water / Public Health/ Municipal Corporation etc.

(xiii) If a bore well/ tube well is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water/ Public Health/ Municipal Corporation/ Private Contractor etc. must be obtained by the aforesaid agencies that the 'Abandoned' bore well/ tube well is properly filled upto the ground level. Random inspection of the abandoned wells is also to be done by the Executive of the concerned agency/ department. Information on all such data on the above are to b maintained in the District Collector/ Block Development Office of the State.

We are informed that the last paragraph of the earlier order dated 11th February, 2010, concerning publicity has been duly complied with.

Subject to the above, the writ petition is disposed of.

.....CJI.
[S.H. KAPADIA]

.....J.
[K.S. RADHAKRISHNANA]

.....J.
[SWATANTER KUMAR]

New Delhi,
August 6, 2010

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)

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

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

INDEX

ITEM **Page No.**

ANNEXURE

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

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

(With effect from 16/11/2015)

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

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. 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).

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.

Category*	**Mandatory Recycle/Reuse (for various purposes except recharge to ground water)**	**Withdrawal permitted (% of proposed recharge) #**
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:

Category	**Ground Water Withdrawal Limit**
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 ay 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

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.

Annexure-I

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 µmhos/cm at 25^0C.
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

S. No.	STATE / UT	LOCATION	Date of Notification
1	Andhra Pradesh	Tirupathi (Rural) Mandal of Chittor 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 & Ballabhgarh	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	Sidlaghhatta 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	Pakhowal 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	Sanchore block of Jalore District	13.08.2011
133	Rajasthan	Nawalgarh block of Jhunjhunu District	13.08.2011
134	Rajasthan	Udaipurwati block of Jhunjhunu District	13.08.2011
135	Rajasthan	Jhunjhunu block of Jhunjhunu 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 Madauri 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 Distict	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)

Annexure-IV

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

Annexure: V

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

Annexure VI

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-monsson 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.

BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH AT NEW DELHI

O.A. No. 176 **Of** 2015

IN THE MATTER OF:-

SHAILESH SINGH ....APPLICANT

Versus

HOTEL HOLIDAY REGENCY & ORS. ...RESPONDENTS

PROOF OF SERVICE

S.NO.	ADVOCATE NAME	SIGNATURES
1	Applicant	
2	CBCB	..
3	UPPCB	..
4	R2 & R4	..