

255
BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Original Application No. 10 of 2025

IN THE MATTER OF:

News Item titled "Districts with excess nitrates in groundwater at seven year high" appearing in the Hindu dated 01.01.2025

Index

Sr. No.	Particulars	Page No.
1.	Action taken report in O.A No. 10 of 2025, in compliance to Hon'ble NGT order dated 24.12.2025.	1-2
2.	Annexure- I A copy of Hon'ble NGT order dated 24.12.2025 in O.A. No.10 of 2025.	3-13
3.	Annexure- II A copy of letter dated 02.04.2026, issued by CPCB to all SPCBs/PCCs.	14
4.	Annexure- III A copy of letter dated 07.04.2026, issued by CPCB to Central Ground Water Authority.	15


Filed by Adv. Vikrant Nilesh Goyal
(On behalf on Central Pollution Control Board)
5, Prem Nagar Market, Tyagraj Nagar,
New Delhi 110003
E: vngoyal@gmail.com, M: 9953228888

Place: Delhi
Dated: 07.04.2026

Action taken Report in the matter of Original Application No. 10/2025 regarding News Item titled "Districts with excess nitrates in groundwater at seven year high" appearing in the Hindu dated 01.01.2025

1. BACKGROUND

This is in reference to Hon'ble NGT order dated 24.12.2025 in O.A No. 10/2025, regarding News Item Titled "Districts with excess nitrates in groundwater at seven years high" Appearing in the Hindu Dated 01.01.2025.

The Hon'ble NGT PB vide the afore-said order directed that: -

Para 10. Having regard to the disclosures made in the report, we are of the view that the CGWA and the concerned authorities including CPCB should duly look into these remedial measures and take appropriate steps for their implementation.

Para 13. CPCB is also directed to place on record the status and the action taken report at least one week before the next date of hearing.

Copy of Hon'ble NGT order dated 24.12.2025 is enclosed as **Annexure I.**

2. ACTION TAKEN BY CPCB

In compliance to the directions of Hon'ble NGT, CPCB has issued letter dated 02.04.2026 to all the SPCBs/PCCs and requested them that the Annual Ground Water Quality Report 2024 prepared by CGWB may be shared with the concerned departments in the State and the concerned ULBs for taking necessary action for implementation of the remedial measures as mentioned in the report, thereby ensuring compliance to the above-mentioned Hon'ble NGT matter. Copy of CPCB letter enclosed as **Annexure II.**

Further, CPCB vide letter dated 07.04.2026 has requested Central Ground Water Authority (CGWA) to convene a meeting, inviting the concerned stakeholders, to discuss the further required coordinated action for ensuring implementation of the remedial measures as mentioned in the report and compliance of directions of Hon'ble NGT. Copy of letter attached as **Annexure III.**



Nazimuddin
Scientist 'F'
Central Pollution Control Board
07.04.2026

Item No. 15

Court No. 1

**BEFORE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 10/2025

News Item Titled "Districts With Excess Nitrates In Groundwater At Seven-Year High" Appearing In The Hindu Dated 01.01.2025

Date of hearing: 24.12.2025

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: Suo Motu

Respondents: Mr. Gigi. C. George, Adv. for CGWA

ORDER

1. In this Original Application (OA), registered suo motu on the basis of the news item disclosing that excessive nitrate levels were found in the groundwater of 440 districts in India which was creating health hazard, particularly to the young children and is a source of environmental toxicity. The news item has disclosed that about 56% of India's districts have excessive nitrates.

2. The additional report dated 22.12.2025 has been filed by the CGWA enclosing therewith Annual Ground Water Quality Report 2024 prepared by the CGWA. This report discloses the ground water quality scenario in India as under:

"4. Ground Water Quality Scenario in India

Ground water samples were collected from 15,259 background monitoring network stations in May 2023. About 4982 groundwater samples were collected from trend stations for both pre-monsoon and post-monsoon analysis to assess the impact of monsoon recharge on groundwater quality. The goal of this extensive monitoring is to track seasonal variations in groundwater quality and to identify any emerging contamination issues.

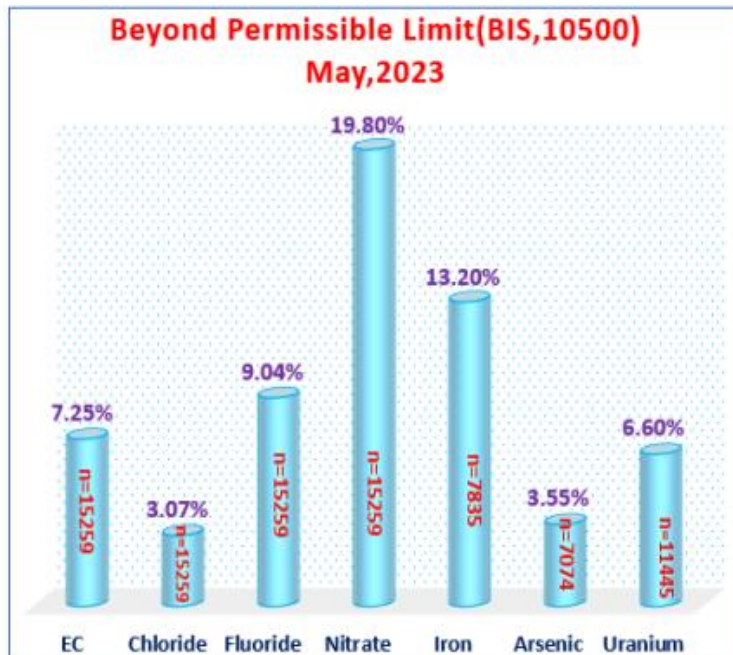


Figure 2: % of Groundwater samples beyond permissible limit as per BIS,10500.

The groundwater quality analysis in May 2023 (pre-monsoon) reveals several critical issues with nitrate, fluoride, iron, and arsenic concentrations exceeding permissible limits in a significant percentage of samples. The most significant concern appears to be nitrate contamination, with nearly 20% of the samples exceeding the permissible limit. Both fluoride (9.04%) and arsenic (3.35%) are exceeding permissible limits in a considerable portion of groundwater samples (Fig.2 & Table 4)). This is particularly worrying because long-term exposure to both contaminants can have severe health consequences, including fluorosis (for fluoride) and cancer or skin lesions (for arsenic). Iron contamination (13.20% of samples exceeding the limit) and EC (7.25% of samples exceeding the limit) is mostly a concern for aesthetic quality. The percentage of samples exceeding uranium limits is 6.60%, indicating that uranium contamination remains a concern in specific regions, especially those with granite or basement rock formations. Chronic exposure to uranium can lead to kidney damage.

Table 4: Summarized results of groundwater quality ranges, (May 2023).

Parameters	Range		No. of samples	% of samples
EC $\mu\text{s}/\text{cm}$ at 25 $^{\circ}\text{C}$	Fresh	< 750	6244	40.92
	Moderate	750- 3000	7908	51.83
	Highly mineralized	> 3000	1107	7.25
Chloride (mg/L)	Desirable limit	< 250	12808	83.93
	Permissible limit	251-1000	1983	13.00
	Beyond permissible limit	> 1000	468	3.07
Fluoride (mg/L)	Desirable limit	< 1.0	11959	78.37
	Permissible limit	1.0 - 1.5	1921	12.59
	Beyond permissible limit	>1.5	1379	9.04
Nitrate (mg/L)	Permissible limit	< 45	12238	80.20
	Beyond permissible limit	> 45	3021	19.80

- The report examines the status of presence of Uranium, Fluoride, Nitrate, Chloride, Iron, Arsenic etc., and also gives the remedial measures.

4. So far as Uranium is concerned, the remedial measures suggested in the report are as under:

“4.8.4. Remedial Measures

Finding a remedy for the uranium contaminated groundwater effectively and thoroughly, has become need of day. Remediation technologies can be classified into physical, chemical and biological methods. Bioremediation is divided into plant and microorganism methods. Each method consists of both advantages and disadvantages and the appropriate mitigation techniques should be need based. Adsorption has a high removal efficiency, but costs are also higher. The coagulation process is simple and comparatively economical, but the standard effluent concentration is hard to reach, so there is a need for follow-up treatment. Combined with adsorption, coagulation can remove 99% of U. The extraction process can remove effluent U concentrations of less than 0.05mg / L, but it will produce a lot of sludge. Reverse osmosis is referred as a best technology, but due to its high cost it cannot be used on community scale. The evaporation method is simple and effective, the removal rate is high, but there are high costs and sludge needs that must be dealt with. A review of various treatment technologies for Uranium removal from water and their technical achievability as reported by various researchers are given below in Table 25.

Table 25: Comparison of treatment methods for removal of Uranium

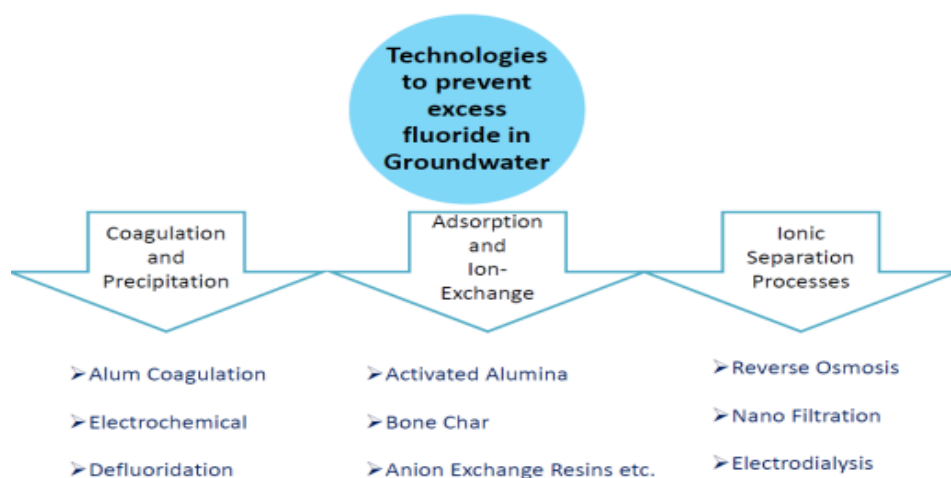
Treatment Method	Technical Achievability (%)
Coagulation/filtration at high pH (10+)	> 95
Lime softening	85-99
Anion exchange	99
Reverse osmosis	>95
Activated alumina	90
Coagulation/filtration	80-89

(Source: Hand Book for Drinking Water Treatment, JJM, Ministry of Jal Shakti, Gov. of India).

5. For Fluoride, the remedial measures are suggested in the report as follows:

“4.3.5 Remedial Measures for Fluoride

The fluoride remedial measures broadly adopted are ex-situ techniques. They can be classified into three major categories.



(a) *Adsorption and ion exchange* This technique functions on the adsorption of fluoride ions onto the surface of an active agent such as activated alumina, red mud, bone char, brick pieces column, mud pot and natural adsorbents where fluoride is removed by ion exchange or surface chemical reaction with the solid bed matrix. Amidst the commonly employed methods for fluoride removal, the adsorption approach provides a outstandingly effective and economical procedure for reducing fluoride levels from water within the permissible level of 1.5 mg/L. In adsorption process fluoride enriched water is passed through a contact bed of adsorbent used, the Fluoride gets adsorbed on adsorbent surface and easily gets removed by ion exchange or surface chemical reaction. After a period of operation, saturated adsorbents must be refilled or regenerated. Various adsorbents used for fluoride removal include Activated Alumina (AA), Bone char, Bauxite, Hematite, Magnesia, various rare earth materials, fly ash, limestone and clay, polymeric resins, granular ceramics.

(b) *Coagulation-precipitation* Precipitation methods are based on the addition of chemicals (coagulants and coagulant aids) and the subsequent precipitation of a sparingly soluble fluoride salt as insoluble. Fluoride removal is accomplished with separation of solids from liquid. Aluminium salts (eg. Alum), lime, Poly Aluminium Chloride, Poly Aluminium Hydroxy sulphate and Brushite are some of the frequently used materials in defluoridation by precipitation technique. The best example for this technique is the famous Nalgonda technique

Nalgonda Technique

Nalgonda technique involves addition of Aluminum salts, lime and bleaching powder followed by rapid mixing, flocculation, sedimentation, filtration and disinfection. It is opined that this technique is preferable at all levels because of the low price and ease of handling, is highly versatile and can be used in various scales from household level to community scale water supply. The Nalgonda technique can be used for raw water having fluoride concentration between 1.5 and 20 mg/L and the total dissolved solids should be < 600 mg/L. The alkalinity of the water to be treated must be sufficient to ensure complete hydrolysis of alum added to it and to retain a minimum residual alkalinity of 1 - 2 meq/L in the treated water to achieve a pH of 6.5 - 8.5 in treated water. Several researchers have attempted to improve the technique by increasing the removal efficiency of fluoride using Poly Aluminium Chloride (PAC) and Poly Aluminium Hydroxy Sulphate (PAHS). (c) *Ionic Separation Processes* Reverse osmosis, nanofiltration, dialysis and electro dialysis are physical methods that have been tested for defluoridation of water. Though they are effective in removing fluoride salts from water, however, there are certain procedural disadvantages that limit their usage on a large scale.”

6. For Nitrate, following remedial measures have been suggested:

“4.4.3 Remedial Measures for Nitrate

For removal of nitrate both non-treatment techniques like blending and treatment processes such as ion-exchange, reverse osmosis, biological denitrification and chemical reduction are useful. The most important thing is that neither of these methods is completely effective in removing all the nitrogen from the water.

a) *Methods involving no treatment: In order to use any of these options the nitrate problem must be local-scale. Common methods are –*

- *Raw water source substitution*
- *Blending with low nitrate waters This greatly reduces expenses and helps to provide safer drinking water to larger numbers of people.*

b) *Methods involving Treatment: They are as follows*

- *Adsorption/ Ion Exchange*
- *Reverse Osmosis*
- *Electrodialysis*
- *Bio-chemical Denitrification (By using denitrifying bacteria and microbes)*
- *Catalytic Reduction/ Denitrification (using hydrogen gas)*

The mechanism of nitrate pollution in subsurface porous unconfined/confined aquifer is governed by complex biogeochemical processes. Apart from recharge conditions, groundwater chemistry may be impacted by the mineral kinetics of water-rock interactions. Consequently, suitable nitrate removal technologies should be selected. Nitrate is a very soluble ion with limited potential for co-precipitation or adsorption. This makes it difficult such as chemical coagulation, lime softening and filtration which are commonly used for removing most of the chemical pollutants such as fluoride, arsenic and heavy metals. According to King et al., 2012 nitrate treatment technologies can be classified in two categories in two categories, i.e., nitrate reduction and nitrate removal options. Nitrate removal technologies involve physical processes that does not necessarily involve any alteration of the chemical state of nitrate ions. Bio-chemical reduction options aim to reduce nitrate ions to other states of nitrogen, e.g., ammonia, or a more innocuous form as nitrogen gas. In-situ bioremediation is also effectively used in used in nitrate treatment of contaminated groundwater. Reverse Osmosis, catalytic reduction and blending are effective methods for nitrate removal from groundwater. For nitrate removal, operating trans-membrane pressure of RO unit generally ranges from 20 to 100 bar.”

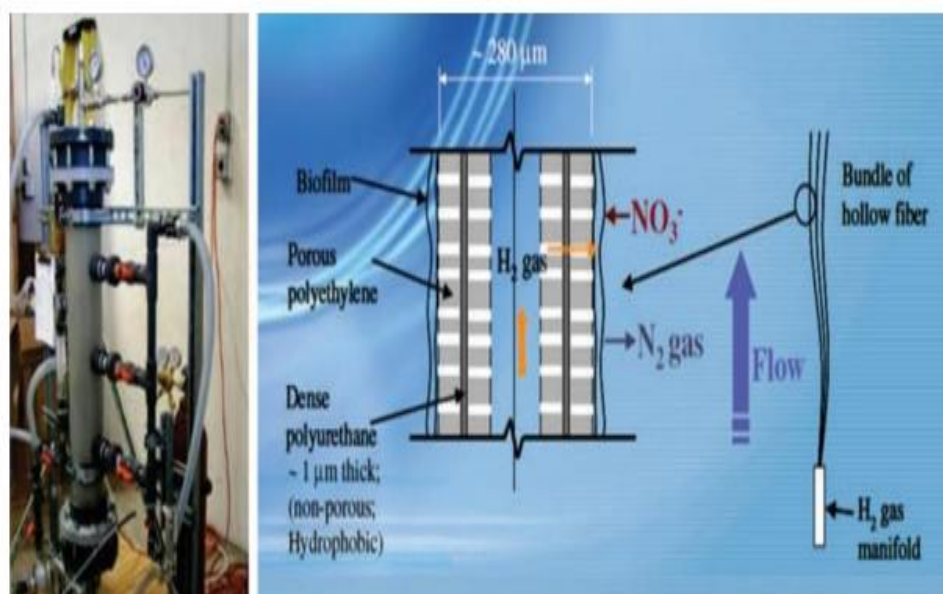


Figure 31: Advanced Nitrate Reduction Hollow Fiber Membrane Reactor (Source: Hand Book for Drinking Water Treatment, JJM, Ministry of Jal Shakti, Gov. of India)

7. For Chloride, the suggested remedial measures are as under:

“4.5.2 Techniques available for Removal of Salinity

Traditionally, distillation has been the method used for desalting water for human consumption or other use. Membrane methods have emerged through the last 50 years and now predominate among the desalination practices. The following describes each of the various methods used for water desalination treatment.

1. Distillation Methods

There are several variations in distillation technology used in desalination. They are all based on the vapourization of liquid water when brought to its boiling point. The nearly pure water vapour produced is condensed and collected for use, while dissolved salts remain behind in the remaining liquid feed water. Some of the methods by which distillation is practiced are as follows:

- *Multi-stage flash;*
- *Multiple effect;*
- *Vapour compression;*
- *Membrane distillation; and*
- *Solar humidification.*

2. Membrane Technologies *Membrane processes involve passing of impaired feed water through a semi-permeable material which can filter out unwanted dissolved or undissolved constituents, depending on the size and treatment of the openings. Membrane technologies identified include:*

- *Reverse Osmosis;*
- *Microfiltration/ Ultrafiltration/ Nanofiltration;*
- *Electrodialysis Reversal; and*
- *Forward Osmosis.*

3. Hybrid Technology: *A method of reducing overall costs of desalination can be the use of hybrid systems using both RO and distillation processes. Such a system could provide a more suitable match between power and water development needs.”*

8. For Iron, the remedial measures suggested are as under:

4.6.1 Remedial Measures for Iron

a) Oxidation and filtration: Before iron can be filtered, it needs to be oxidized to a state in which they can form insoluble complexes. Ferrous iron (Fe^{2+}) is oxidized to ferric iron (Fe^{3+}), which readily forms the insoluble iron hydroxide complex $Fe(OH)_3$. Manganese (Mn^{2+}) is oxidized to (Mn^{4+}), which forms insoluble (MnO_2). The common chemical oxidants in water treatment are chlorine, chlorine dioxide, potassium permanganate and ozone. The dose of potassium permanganate, however, must be carefully controlled. Too little permanganate will not oxidize all the iron and manganese, and too much will allow permanganate to enter the distribution system and cause a pink color. Ozone may be used for iron and manganese oxidation. Ozone may not be effective for oxidation in the presence of humic or fulvic materials. If not dosed carefully, ozone can oxidize reduced manganese to permanganate and result in pink water formation as well. Manganese dioxide particles, also formed by oxidation of reduced manganese, must be carefully coagulated to ensure their removal.

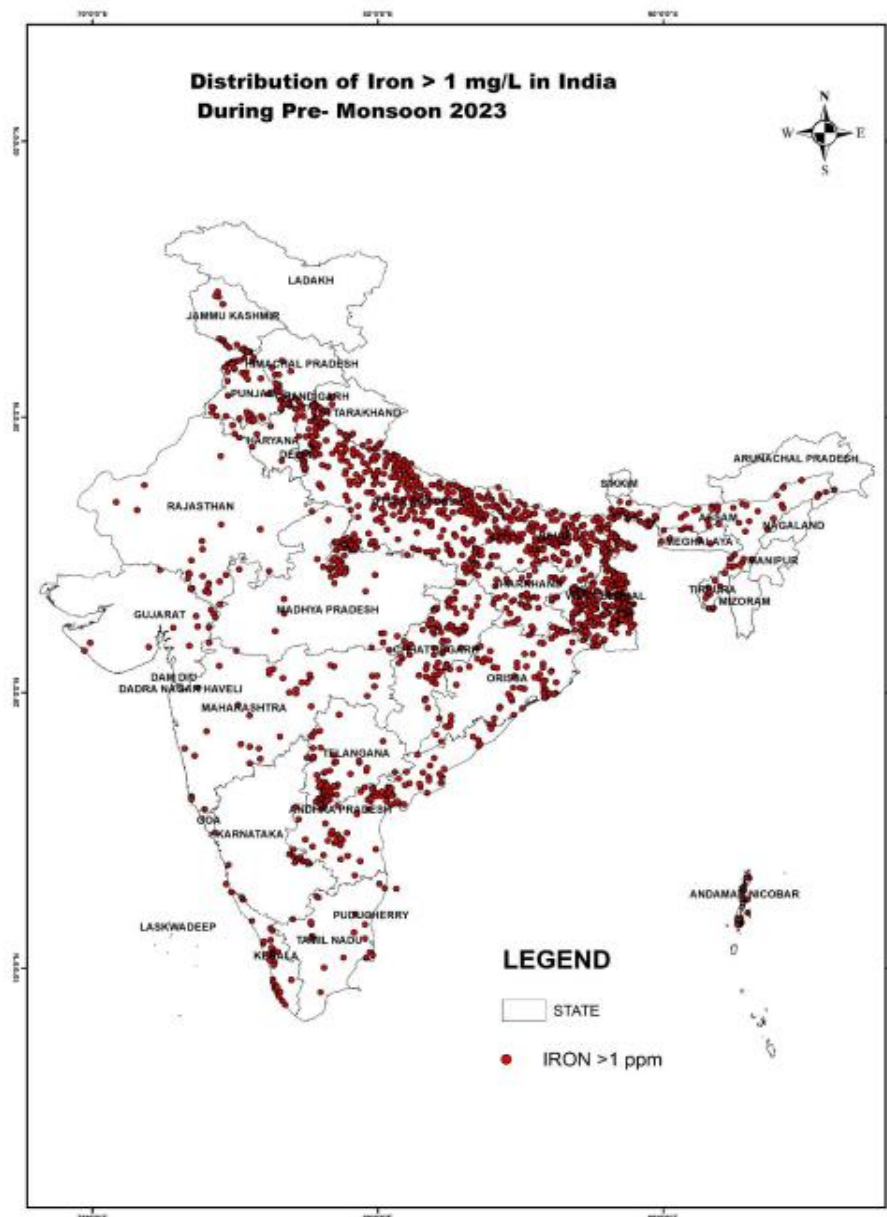


Figure 35: Map showing areas of Iron contaminated (>1.0mg/L) groundwater in India.

Table 20: Districts in which anomalous values of Iron ($Fe > 1\text{ mg / L}$) in Groundwater was detected at one or more location in different India.

State/UT	No. of Districts	Name of the District
Andhra Pradesh*	12	Ananthapur, Chittoor, East Godavari, Guntur, Kadapa, Krishna, Kurnool, Nellore, Prakasam, Srikakulam, Vizianagaram, West Godavari
Arunachal Pradesh	2	Changlang, Tirap
Assam	17	Baksa, Bongaigaon, Cachar, Dhemaji, East Karbi Anglong, Goalpara, Golaghat, Hailakandi, Jorhat, Kamrup, Karimganj, Lakhimpur, Nagaon, Sonitpur, Tinsukia, Udalguri, West Karbi Anglong
Bihar*	33	Araria, Banka, Begusarai, Bhabua, Bhagalpur, Bhojpur, Buxar, E. Champaran, Gaya, Gopalganj, Jamui, Katihar (Purnea), Khagaria, Kishanganj, Lakhisarai, Madhepura, Madhubani, Munger, Muzaffarpur, Nalanda, Nawada, Patna, Rohtas, Saharsa, Samastipur, Saran, Seikhpura, Sheohar, Sitamarhi, Siwan, Supaul, Vaishali, W. Champaran
Chattisgarh*	18	Balodabazar, Balrampur, Bastar, Bilaspur, Dhamtari, Durg, Gariyabandh, Janjgir-Champa, Kawardha, Kondagaon, Korba, Koriya, Mahasamund, Mungeli, Raipur, Rajnandgaon, Surajpur, Surguja
Delhi	3	East, Nazulland, South East

Gujarat	10	Anand, Banaskantha, Bharuch, Bhavnagar, Chhota Udepur, Dahod, Jamnagar, Panchmahal, Porbandar, Rajkot
Haryana	11	Ambala, Bhiwani, Faridabad, Hisar, Kaithal, Karnal, Palwal, Panchkula, Rewari, Sirsa, Yamunanagar
Himachal Pradesh*	5	Hamirpur, Kangra, Mandi, Sirmour, Una
Jammu & Kashmir	5	Baramulla, Jammu, Kathua, Kupwara, Samba
Jharkhand*	22	Bokaro, Chatra, Deoghar, Dhanbad, Dumka, E. Singhbhum, Giridih, Godda, Gumla, Hazaribagh, Jamtara, Khunti, Koderma, Latehar, Lohardaga, Pakur, Palamu, Ramgarh, Ranchi, Sahibganj, Simdega, W Singhbhum
Karnataka	3	Dakshina Kannada, Udupi, Uttara Kannada
Kerala*	10	Alappuzha, Ernakulam, Idukki, Kasarakode, Kollam, Kottayam, Kozhikode, Malappuram, Thrissur, Trivandrum
Madhya Pradesh	11	Ashok Nagar, Balaghat, Damoh, Gwalior, Khandwa, Neemuch, Panna, Sagar, Sehore, Shajapur, Tikamgarh
Maharashtra*	16	Ahmednagar, Beed, Buldhana, Chandrapur, Dhule, Gadchiroli, Latur, Nanded, Nandurbar, Nasik, Pune, Ratnagiri, Sindudurg, Solapur, Wardha, Wasim
Meghalaya	5	East Khasi Hills, North Garo Hills, South West Garo Hill, West Garo Hill, West Khasi Hills
Odisha	20	Anugul, Balangir, Baleswar, Bargarh, Cuttack, Dhenkanal, Gajapati, Ganjam, Jajapur, Kendrapara, Kendujhar, Khordha, Koraput, Malkangiri, Mayurbhanj, Nayagarh, Nuapada, Puri, Sambalpur, Sonapur
Punjab	18	Amritsar, Bathinda, Faridkot, Fatehgarh Sahib, Fazilka, Gurdaspur, Hoshiarpur, Kapurthala, Ludhiana, Mansa, Muktsar, Nawanshahr, Pathankot, Patiala, Rupnagar, Sangrur, Sas Nagar, Tarn Taran
Rajasthan*	11	Ajmer, Banswara, Churu, Dhaulpur, Dungaarpur, Jaisalmer, Jhalawar, Pratapgarh, Rajsamand, Tonk, Udaipur
Tamil Nadu*	14	Coimbatore, Cuddalore, Erode, Kancheepuram, Krishnagiri, Madurai, Nagapattinam, Nilgiri, Pudukkottai, Thanjavur, Tiruvallur, Tiruvarur, Tuticorin, Villupuram
Telangana*	8	Adilabad, Hyderabad, Mahabubnagar, Medak, Nalgonda, Nizamabad, Ranga Reddy, Warangal
Tripura	5	Dhalai, Gomti, Khowai, North Tripura, South Tripura
Uttar Pradesh	69	Allahabad/ Prayagraj, Ambedkar Nagar, Amethi, Amroha, Azamgarh, Bahraich, Ballia, Balrampur, Banda, Barabanki, Bareilly, Basti, Bijnor, Budaun, Bulandshahar, Chandauli, Chitrakoot, Deoria, Etawah, Faizabad / Ayodhya, Farrukhabad, Fatehpur, Ghaziabad, Ghazipur, Gonda, Gorakhpur, Hamirpur, Hapur, Hardoi, Hathras, Jalaun, Jaunpur, Jhansi, Kanpur Dehat, Kanpur Nagar, Kasganj, Kushinagar, Lakhimpur Kheri, Lalitpur, Lucknow, Maharajganj, Mahoba, Mainpuri, Maunath Bhanjan, Meerut, Mirzapur, Moradabad, Muzaffarnagar, Pilibhit, Pratapgarh, Raebareli, Rampur, Saharanpur, Sambhal, Sant Kabir Nagar, Sant Ravidas Nagar, Shahjahanpur, Shamli, Shrawasti, Siddharth Nagar, Sitapur, Sonbhadra, Unnao, Varanasi
Uttarakhand	7	Champawat, Dehradun, Haridwar, Nainital, Tehri Garhwal, Udham Singh Nagar, Uttarkashi
West Bengal	21	Alipurduar, Bankura, Birbhum, Cooch Behar, Dakshin Dinajpur, Darjeeling, Hooghly, Howrah, Jalpaiguri, Jhargram, Kolkata, Malda, Murshidabad, Nadia, North 24 Parganas, Paschim Bardhaman, Paschim Medinipur, Purba Bardhaman, Purba Medinipur, South 24 Parganas, Uttar Dinajpur

* Districts and locations affected in these states are based on sample collection and analysis of iron in the year 2019. While in the rest of the states, iron data employed was generated in the year 2023.

9. For Arsenic, the report suggested the following remedial measures:

4.7.1 Remedial Measures for Arsenic

a) Precipitation processes- includes coagulation/filtration, direct filtration, coagulation assisted microfiltration, enhanced coagulation, lime softening, and enhanced lime softening. Adsorption co-precipitation with hydrolyzing metals such as Al^{3+} and Fe^{3+} is the most common treatment technique for removing arsenic from water. Sedimentation followed by rapid sand filtration or direct filtration or microfiltration is used to remove the precipitate. Coagulation with iron and aluminium salts and lime softening is the most effective treatment process. To improve efficiency of this method, a priory oxidation of As (III) to As (V) is advisable. Hypochlorite and permanganate are commonly used for the oxidation. Atmospheric oxygen can also be used, but the reaction is very slow. The major techniques based on this process include; Bucket treatment unit, Fill and draw treatment unit, Tubewell attached arsenic treatment unit and Iron arsenic treatment unit.

b) Adsorptive processes- Adsorption on to activated alumina, activated carbon and iron/ manganese oxide based or coated filter media. Adsorptive processes involve the passage of water through a contact bed where arsenic is removed by surface chemical reactions. The activated alumina-based sorptive media are being used in Bangladesh and India. No chemicals are added during treatment and the process relies mainly on the active surface of the media for adsorption. Granular ferric hydroxide is a highly effective adsorbent used for the adsorptive removal of arsenate, arsenite, and phosphorous from natural water. In the Sono 3-Kolshi filter, used in Bangladesh and India zero valent iron fillings, sand, brick chips and wood coke are used as adsorbent to remove arsenic and other trace elements from groundwater.

c) Ion-exchange processes- This is similar to that of activated alumina, however, in this method the medium is synthetic resin of relatively well-defined ion exchange capacity. In these processes, ions held electrostatically on the surface of a solid phase are exchanged for ions of similar charge dissolved in water. Usually, a synthetic anion exchange resin is used as a solid. Ion exchange removes only negatively charged As (V) species. If As (III) is present, it is necessary to oxidise it.

d) Membrane processes- This includes nano-filtration, ultrafiltration, reverse osmosis and electrodialysis in which synthetic membranes are used for removal of many contaminants including arsenic. They remove arsenic through filtration, electric repulsion, and adsorption of arsenic-bearing compounds.

e) Arsenic safe alternate aquifers This technique advocates tapping of safe alternate aquifers right within the affected areas. In India except at Rajnandgaon in Chhattisgarh state, the vast affected areas in the Gangetic Plains covering Bihar and Uttar Pradesh as well as Deltaic Plains in West Bengal is marked by multiaquifer system. The sedimentary sequence is made up Quaternary deposits, where the aquifers made up of unconsolidated sands which are separated by clay/sandy clay, making the deeper aquifer/aquifers semi-confined to confined.

The contamination is confined in the upper slice of the sediments, within 80 m and affecting the shallow aquifer system. At places, like Maldah district of West Bengal single aquifer exists till the bed rock is encountered at 70-120 m bgl.

Detailed CGWB exploration, isotope and hydro-chemical modeling carried out by CGWB along with other agencies like BARC has indicated that the deep aquifers (>100 m bgl) underneath the contaminated shallow aquifer, have been normally found as arsenic free. Long duration pumping tests and isotopic studies in West Bengal and Bihar have indicated that there is limited hydraulic connection between the contaminated shallow and contamination free deep aquifers and the ground water belong to different age groups having different recharge mechanisms. The deep aquifers in West Bengal, Bihar and Uttar Pradesh have the potential to be used for community-based water supply.

10. Having regard to the disclosures made in the report, we are of the view that the CGWA and the concerned authorities including CPCB should duly look into these remedial measures and take appropriate steps for their implementation.

11. Learned Counsel appearing for the CGWA has also referred to the Paragraphs- 11 and 12 of the earlier report dated 14.10.2025 which are as under:

*“xxxx.....xxxx.....xxxx.....xxxx
11. That as part of the Standard Operating Procedure (SOP) implementation, during the pre-monsoon season of 2025, the Regional Offices of the Central Ground Water Board (CGWB) have collected approximately 24,000 groundwater samples from designated monitoring locations across India for Baseline Water Quality Assessment. The samples will be analyzed for key physico-chemical parameters including pH, Electrical Conductivity (EC), Total Dissolved Solids (TDS), major ions (such as Ca, Mg, Na, K+, Cl, SO₂, HCO₃, NO, F-) as well as 18 heavy metals including Arsenic (As), Uranium (U), Lead (Pb), Chromium (Cr), and others, in accordance with BIS 10500:2012 drinking water standards. Analytical procedures will be carried out using advanced instrumentation such as Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and Atomic Absorption Spectroscopy (AAS).*

12. The analysis is scheduled for completion by March 2026, and the consolidated national groundwater quality assessment report will be published by September 2026 and will be shared with the stake holders such as local government agencies (PHED, JJM, WRD, DoDW&S etc.), water management organizations, researchers, and environmental NGOs and District/State/UT administrations and suitable directions will be issued to the States/UTs to remediate the quality issues.”

12. Referring to the above paragraphs, he has submitted that a Baseline Water Quality Assessment is in progress which will be completed by March,

2026. Hence, the respondent no.3 is directed to place on record the report concerning Baseline Water Quality Assessment at least one week before the next date of hearing.

13. CPCB is also directed to place on record the status and the action taken report at least one week before the next date of hearing.

14. List on 08.04.2026.

Prakash Shrivastava, CP

Dr. A. Senthil Vel, EM

December 24, 2025
OA 10/2025
AM.

Speed Post / E-mail

F No. A-14011/1/2026 - WQM - I / 129

02.04.2026

To
The Member Secretary,
All SPCBs/PCCs

Sub: Hon'ble NGT order dated 24.12.2025 in Original Application No. 10/2025 News Item titled "Districts with excess nitrates in groundwater at seven year high" appearing in the Hindu dated 01.01.2025- **reg.**

Sir,

This is in reference to Hon'ble NGT order dated **24.12.2025** in Original Application No. 10/2025 News Item titled "Districts with excess nitrates in groundwater at seven year high" appearing in the Hindu dated 01.01.2025.

The said order refers to the additional report dated 22.12.2025 filed by the CGWA enclosing therewith Annual Ground Water Quality Report 2024 prepared by the CGWB which discloses the ground water quality scenario in India and the status of presence of Uranium, Fluoride, Nitrate, Chloride, Iron, Arsenic etc. in various areas (details enclosed), and also gives the remedial measures. (Copy of additional report dated 22.12.2025 filed by the CGWA enclosing therewith Annual Ground Water Quality Report 2024 is enclosed for ready reference).

The Hon'ble NGT vide order dated 24.12.2025 has directed as follows:

"Para 10. Having regard to the disclosures made in the report, we are of the view that the CGWA and the concerned authorities including CPCB should duly look into these remedial measures and take appropriate steps for their implementation." (Copy of NGT order is enclosed for ready reference).

In view of above, it is requested that the above report may be shared with the concerned departments in the State and the concerned ULBs for taking necessary action for implementation of the remedial measures as mentioned in the report, thereby ensuring compliance to the above-mentioned Hon'ble NGT matter.

Yours faithfully,



(Nazimuddin)

Divisional Head, WQM -I Div.

Encl: As above
(through E-mail)

o/c



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार.
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA.

Speed Post / E-mail

F No. A-14011/1/2026 - WQM - I

07.04.2026

To
The Member Secretary,
Central Ground Water Authority,
Ministry of Jal Shakti,
CSMRS Campus, Olof Palme Marg, Hauz Khas,
New Delhi-110016.
E mail-cgwa@nic.in

Sub: Request for convening meeting for ensuring compliance to Hon'ble NGT order dated 24.12.2025 in O.A No. 10/2025- **reg.**

Sir,

This is in reference to Hon'ble NGT order dated 24.12.2025 in O.A No. 10/2025, regarding News Item Titled "Districts with excess nitrates in groundwater at seven year high" Appearing In The Hindu Dated 01.01.2025.

The Hon'ble NGT PB vide the afore-said order directed that:-

- **10.** Having regard to the disclosures made in the report, we are of the view that the CGWA and the concerned authorities including CPCB should duly look into these remedial measures and take appropriate steps for their implementation.
- **13.** CPCB is also directed to place on record the status and the action taken report at least one week before the next date of hearing.

In compliance to directions of Hon'ble NGT, CPCB communicated to all the SPCBs/PCCs dated 02.04.2026 and requesting them that the Annual Ground Water Quality Report 2024 prepared by CGWB may be shared with the concerned departments in the State and the concerned ULBs for taking necessary action for implementation of the remedial measures as mentioned in the report, thereby ensuring compliance to the above-mentioned Hon'ble NGT matter.

In this regard, it is further requested to convene a meeting inviting the concerned stakeholders to discuss the further required coordinated action for ensuring implementation of the remedial measures as mentioned in the report and compliance of directions of Hon'ble NGT.

Yours faithfully,

(Nazimuddin)

Divisional Head, WQM - I Div.

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली - 110032.

Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष /Tel : 43102030, 22305792, वेबसाइट/Website: www.cpcb.nic.in