

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Action Taken Report in compliance of

order dated 26.07.2023 passed by

the Hon'ble National Green Tribunal, Principal Bench, New Delhi

In matter of: In re : News item published in The Tribune dated 16.01.2023 titled
"Joshimath disaster a warning for Mussoorie"

INDEX

Sr. No.	Description of Documents	Page No(s)
1.	Index	1 - 1
2.	Action Taken Report.	2 - 24
3.	ANNEXURE-1: Copy of minutes of meeting held on 11.09.2023.	25 - 30
4.	ANNEXURE-2: Copy of Minutes of meeting held on 26.10.2023.	31 - 33
5.	ANNEXURE-3: Performance monitoring of STPs.	34 - 36

Date: 08.11.2023

Place: Dehradun

Filed by,

Signature:

Name: Dr. Rajendra Singh

Scientific Officer.

Uttarakhand Pollution

Control Board, Dehradun.

Action Taken Report

In matter of

Original Application No. 51 of 2023

In matter of: In re :

News item published in The Tribune dated 16.01.2023 titled “Joshimath disaster a warning for Mussoorie”

I. Background

1. That the Hon’ble National Green Tribunal, Principal Bench, New Delhi, in matter of Original Application No. 51/2023, In re: News item published in The Tribune dated 16.01.2023 titled “Joshimath disaster a warning for Mussoorie”, pleased to direct *inter alia* following directions on dated 26.07.2023:

“

16. State of Uttarakhand is required to take necessary steps and to ensure that the remedial measures which have been suggested by Committee shall be taken on priority basis in a time bound manner for which an action plan identifying issue, remedial action to be taken and agencies accounted for implementation/execution will be prepared. The entire action plan needs to be monitored by the Chief Secretary on quarterly basis and monthly reviewed by the senior Nodal Officer to be deputed by Chief Secretary. Action Taken Report to these effects be filed within three months.

.....”

- II.** In compliance of the above directions, a meeting was held on 11.09.2023 under the Chairmanship of Chief Secretary, Government of Uttarakhand. After the due discussions and deliberations, following decision were taken: -
- a) The Principal Secretary/Secretary, Environment Protection and Climate Change, Government of Uttarakhand has been designated as the “Nodal Officer” for reviewing progress made by the concern departments with regards prescribed “Preventive and Remedial Measures”.
 - b) All the concerned departments were directed to ensure immediate action regarding their respective Preventive and Remedial Measures and submit their action taken as well as proposed action plan. Copy of the same be furnished to the Uttarakhand Pollution Control Board.

Copy of the Minutes of Meeting held on dated 11.09.2023 is enclosed as **Annexure-1.**

- III.** Further review meeting was held on 26.10.2023 under the chairmanship of Principal Secretary, Environment Conservation & Climate Change, Government of Uttarakhand. Point wise discussion was made and all concerned departments were directed to submit their action taken as well as proposed action plan. Copy of Minutes of Meeting held on 26.10.2023 is enclosed as **Annexure-2.**
- IV.** That based on information submitted by the concern department, compliance status as well as proposed activities are summarized as given below:

Preventive & Remedial Measures	Action Taken / Proposed Action
<p>1. For tunnel and major civil structures projects like hotel, hospital etc. it is suggested that detailed engineering geological and geotechnical investigations should be done as per BIS Codes and construction permission should only be granted after clearance of the report from the State/Centre appointed Statutory Body.</p>	<p>Public Work Department:</p> <ul style="list-style-type: none"> ▪ Site selection and construction of major civil structures like- tunnel, flyovers etc. are made only after intensive geological investigation through departmental geologist and external specialized agencies. ▪ Tunnel are made in accordance of IRC SP-91-2010 (Code for Practice for Subsurface Investigation for Foundation) guidelines. Standards prescribed by BIS are followed. ▪ Provisions of National Building code is being followed. ▪ Sub-surface investigation are being carried out as per guidelines prescribed in IS Code 1892 1979. ▪ Foundation design are made as per guidelines prescribed in IS code 8009:1975 (Code of Practice for calculation of Settlement of Foundation).

<p>2. The MDDA should develop a GIS based Decision Support System (DSS) for the use of the decision makers, planners, managers and administrators, by putting all the data/information (i.e. geological, geomorphological, hydrological, environmental and developed infrastructures) of the Mussoorie Town area in an integrated high resolution (i.e., 1:10,000) common geospatial web-based platform, viz., geoportal.</p>	<p>Mussoorie Dehradun Development Authority (MDDA):</p> <p>The Master Plan of Mussoorie is being prepared by the Town and Country Planning Department.</p> <p>However, development of GIS based Decision Support System (DSS) is also under preparation which includes – Slop Analysis, Disaster Prone Area, Geological characteristics, Forest notified & de-notified area. MDDA has requested to Director, Geological Survey of India, Dehradun for providing information about slop analysis and landslide prone areas.</p>
<p>3. Proper examination of existing building and it may be necessary to strengthen the retrofitting of structures to prevent them from sliding or collapsing. This could involve underpinning or adding reinforcement to the foundations. Technical auditing of multi-story buildings (≥ 3) by experts on annual</p>	<p>Nagar Palika Parisad (NPP), Mussoorie:</p> <p>Nagar Palika Parisad, Mussoorie has identified a total of 19 building structures which have been categorized as unsafe. Notices have been served to residents/owners for demolition of these unsafe structures.</p>

<p>or biennial basis can be conducted at MDDA level to know about the health of the building.</p>	<p>Mussoorie Dehradun Development Authority (MDDA):</p> <p>In order to ascertain proper examination of existing building and retrofitting of structures along with technical auditing of multi-story buildings, MDDA has requested to Central Building Research Institute (CBRI), Roorkee for the same.</p>
<p>4. When repairing roads or building structures, it was recommended that the boulders not be removed by digging or blasting the hillsides. In landslide prone areas, stones and boulders should not be removed from the bottom of the hill because this would remove toe support, increasing the likelihood of landslides. It is necessary to fill in any cracks that have appeared on the slopes.</p>	<p>Uttarakhand Pey Jal Nigam (UKPJN):</p> <p>Laying of drinking water lines in Landour area of Mussoorie is to be done in roads/pedestrian only. Drinking water lines and sewer line will be laid on existing road/path only. In case of unsafe area, digging will be avoided and said work will be carried out with protective measures like construction of pillars and anchoring.</p>
<p>5. Provision of effective drainage system should be ensured. Due to the lack of proper surface draining system, the rainwater of most of the</p>	<p>Irrigation Department:</p> <p>Irrigation Department has submitted a proposal for Preparation of DPR for GIS based Master Drainage Plan of</p>

<p>buildings is being infiltrated into the ground which generates sub-surface flow and accelerates the process of land creeping resulting in damage to buildings and other properties causing economic and environmental disruptions. For safeguarding the buildings and environmental conservation, it is necessary to ensure that the rainwater of each building roof is being drained out properly into the nearest natural drainage line.</p>	<p>Mussoorie to the State Government approval.</p> <p>After necessary approval tendering process to be carried out within 2 month and DPR / Drainage Plan will be prepared within 6 month.</p> <p>After approval of DPR/Drainage Plan of Mussoorie, execution of Drainage plan will be completed within 18 months.</p>
<p>6. Phytoremediation of degraded slopes can be initiated, that can help to anchor the soil and prevent erosion. Broad leaved native trees can be promoted for stabilizing slopes, especially in the landslide prone areas.</p>	<p>Mussoorie Forest Division, Mussoorie:</p> <p>Identification of degraded slope / landslide prone areas is being carried out by Mussoorie Forest Division. So far 08 locations has been identified. Detailed Action Plan will be prepared after identification of all degraded slope / landslide prone areas.</p>

	<p>Department of Disaster Management and Landslide Treatment:</p> <p>The Department of Disaster Management has the mandate of assessing the treat of various hazards that includes slope instability or landslides and undertaking preventive and mitigation measures where the same poses threat to human interests.</p> <ul style="list-style-type: none"> ▪ Requisite Experience of the Department: <p>The Department of Disaster Management has the requisite experience and expertise of treating the slopes destabilised by landslides and has put in place a dedicated institution for undertaking these works – Uttarakhand Landslide Mitigation and Management Centre (ULMMC) for particularly addressing the issues related to landslides.</p>
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	<p>Besides undertaking comprehensive treatment of Varunavat landslide in Uttarkashi has, with the financial assistance of World Bank, implemented treatment works in 8 disturbed slopes. Road protection sub-projects have also been executed as a part of Uttarakhand Disaster Recovery Project - Additional Financing (UDRP-AF). Various slope stabilization techniques have been utilized in the above mentioned treatment works.</p> <p>Around 12 road protection sub-projects are to be taken up under the Uttarakhand Disaster Preparedness and Resilience Project (U- PREPARE), to be funded by the World Bank. Bioengineering as also conventional engineering techniques are to be employed for the treatment of these slopes.</p> <ul style="list-style-type: none"> ▪ Proposal For Treating Landslide Prone Areas Around Mussoorie
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	<p>Assessment: Large scale topographic mapping of the area would be carried out using Total Station so as to facilitate large scale geological mapping.</p> <p>A multi-institutional team comprising experts from GSI, IIRS, WIHG and IIT-R would be mobilized by ULMMC to assess the landslide threat around Mussoorie. Besides geology, geomorphology and landuse all active and dormant landslide zones around Mussoorie would be mapped through ground survey. Assistance of appropriate satellite imagery would also be taken for this work.</p> <p>Based on the data set so generated landslide hazard around Mussoorie would be assessed and active landslides to be treated would be identified.</p> <ul style="list-style-type: none"> ▪ DPR for treatment: Based on the landslides identified by the multi-institutional team ULMMC would
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	<p>be engaging technical agency for preparing the DPR for slope treatment. It would be clearly specified in the terms of reference of the technical agency that preference be given to bio-engineering measures and in particular native plant species.</p> <ul style="list-style-type: none"> ▪ Agency for Treatment: Suitable department of the State Government would be nominated for executing the works suggested in the DPR and the required budgetary provision would be made for treating the identified slopes. ▪ Post Treatment Monitoring: ULMMC would undertake post-treatment monitoring so as to ensure that there is no instability and the treated slope is stable.
<p>7. Water availability concerning to current demand in summer and winter months should be maintained and proper supply system to be ensured. Recharge /</p>	<p>Uttarakhand Pey Jal Nigam (UKPJN): A total of 20 Natural water sources have been tapped for supply of drinking water to Mussoorie town.</p>

<p>rejuvenation of natural springs should be explored with scientific intervention. Natural spring in the region should be monitored and recharge activities (proper plantation) can be initiated on proper scientific basis. Springs (act as natural piezometers) are good indicators for any change in the groundwater in the mountainous area. Therefore, there is an urgent need to inventories all springs located in the vicinity/periphery of Mussoorie towns. Their periodic monitoring may be a good tool for detecting any natural calamities events in advance in the mountainous regions.</p>	<p>Additional water supply is being provided through Yamuna Pumping Scheme, which is designed for supply of 11.70 MLD drinking water in order to meet drinking water demand till 2052.</p> <p>Mussoorie Forest Division, Mussoorie:</p> <p>9 springs of water sources have been identified under Mussoorie Forest Division. In order to ensure recharge of natural springs, Springshed Treatment Plan will be prepared.</p>
<p>8. Spring-shed rejuvenation and management activities can be initiated on proper scientific basis for safeguarding and augmentation of the discharge of the springs and subsequently the local streams fed by springs. Since most of the water supply schemes of Mussoorie town</p>	<p>Uttarakhand Jal Sansthan (UJS):</p> <p>A total of 20 springs/natural water sources have been trapped for supply of drinking water to Mussoorie. In order to recharge spring water/groundwater, Uttarakhand Jal Sansthan has made about 35 <i>Chal-</i></p>

<p>are from the local springs/brooklet, incentive-based mechanism (IBM) can be adopted for effective protection and preservation of the springs/brooklet. Beside that recharge zones shall also increase soil moisture content which will help in enriching biodiversity through natural regeneration of trees, shrubs and grasses, etc. and shall increase both flora and fauna in the forest. On the other hand, due to increase in soil moisture content on forest land the incidences of forest fire, which are causing irreparable loss to environment and the entire ecosystem will be controlled as a result of this mitigation measure.</p>	<p><i>khal</i> (water recharging structures) in the area.</p> <p>Mussoorie Forest Division, Mussoorie:</p> <p>A pilot project for rejuvenation of catchment area of Bhilaru pumping station, which is fed by five springs, is being presently carried out with assistance of GIZ. On the basis of outcomes of said pilot study, action plan will be prepared for treatment of other springs.</p> <p>Uttarakhand Pey Jal Nigam (UKPJN):</p> <p>20 Natural water sources have been trapped for supply of drinking water to Mussoorie. Additional water supply have been provided through Yamuna Pumping Scheme. Based on drinking water demand for 2052, said pumping scheme will provide 11.70 MLD drinking water to Mussoorie.</p>
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<p>9. Roof top Rain water harvesting can be promoted to meet the deficit water demand, at least in the peak tourist period.</p>	<p>Mussoorie Dehradun Development Authority (MDDA):</p> <p>As per the Uttarakhand Building Construction and Development Byelaws, 2011 (as amended 2015), provision of rain water harvesting is mandatory in construction of more than 125 Sq. meter land covered area. Maps are being approved with rainwater harvesting provisions.</p>
<p>10. Open rain water seepage must be stopped through the construction of a pucca drainage system. Water should not be allowed to accumulate in any depression; instead, drains should be built to transport it to safe areas.</p>	<p>Irrigation Department:</p> <p>Irrigation Department has submitted a proposal for Preparation of DPR for GIS based Master Drainage Plan of Mussoorie to the State Government approval.</p> <p>After necessary approval tendering process to be carried out within 2 month and DPR / Drainage Plan will be prepared within 6 month.</p> <p>After approval of DPR/Drainage Plan of Mussoorie, execution of Drainage</p>

	plan will be completed within 18 months.
<p>11. Proper sewerage network and appropriate treatment facilities should be ensured. The sewage water should not be allowed to percolate or connect with natural ground water. Feasibility of reuse of treated water for secondary uses can be explored.</p>	<p>Uttarakhand Pey Jal Nigam (UKPJN):</p> <ul style="list-style-type: none"> ▪ A total of 72.33 Km. sewerage networking has been assessed for Mussoorie town, out of which 66.73 Km. sewer lines has been laid down. Construction of balance 4.8 Km. sewer line is under progress. ▪ 10 Nos. of Sewage Treatment Plants (STPs) of 10.57 MLD capacities at various locations were assessed for Mussoorie town. ▪ 05 STPs namely at Kulri-0.90 MLD, Landhour North-0.80 MLD, Bhattafall-3.12 MLD, Happy Valley-1.20 MLD and Landhour South-1.30 MLD have been established and are functional. ▪ Establishment of 05 STPs, namely at Library-Bhiladu-1.10 MLD; Dhobughat-0.05 MLD, Kamelback-0.70 MLD, Company

	<p>Garden-0.70 MLD and Arcedia-0.70 MLD are under construction and it is targeted to complete establishment by July, 2024.</p> <ul style="list-style-type: none"> ▪ Additional 10.80 Km. sewer line is also sanctioned and out of which 6.0 KM. sewer line has been completed. <p>Uttarakhand Pollution Control Board (UKPCB):</p> <ul style="list-style-type: none"> ▪ Performance monitoring of operational STPs is being carried out by the Uttarakhand Pollution Control Board on monthly basis. ▪ Performance data of functional STPs for last six month is attached as Annexure-3.
<p>12. Construction of new buildings are already restricted. Further, the new /additional construction related extension should be properly monitored. All the building foundations should be mapped by a competent engineering geologist to</p>	<p>Mussoorie Dehradun Development Authority (MDDA):</p> <p>The MDDA is competent authority for approval of maps for new constructions in Mussoorie area. Soil testing report, structural drawing of houses and geological report of site</p>

<p>know about the safe bearing capacity of the foundation and treatment of cut slope. In consultation with the designer, type of foundation (footing, strip, raft) and height of building can be finalized. Then only after this, the map can be submitted to MDDA for approval.</p>	<p>are mandatory requirement for consideration of maps in Mussoorie area. Apart from above, NOC from Mining department, Forest department and Uttarakhand Jal Sansthan is also required.</p>
<p>13. The regulations related to waste management should be strictly followed. Dumping sites around water bodies should be strictly restricted to prevent pollution threats on the important sources of drinking water of the city. QR code based Digital Direct Refund System should be implemented for management of plastic waste. IEC activities to be promoted amongst visiting tourist towards solid waste and plastic waste management.</p>	<p>Uttarakhand Pollution Control Board (UKPCB):</p> <ul style="list-style-type: none"> i. Regulation for Waste Management: The provisions of Solid Waste Management Rules, 2016; Plastic Waste Management Rules, 2016 and notification related to banned SUPs is being followed. ii. SUPs Grievance Portal: CPCB's SUPs grievance portal is being monitored and public complaints are duly redressed. Such activities are ongoing. iii. Waste Dump Sites near Water Bodies: At present, no dump site near water body is observed. Strict

monitoring and vigilance is being observed from time to time to ensure that dump sites around water bodies do not emerge. In case such scenario is reported, then penal provisions against concerned agencies shall be pursued, vigorously.

- iv. **IEC Activities:** Under the IEC activities, Uttarakhand Pollution Control Board has undertaken awareness campaign at Municipal P.G. College, Mussoorie on dated 31.05.2023 under “Mission LiFE” program.



The Program include- introduction and objectives of “Mission LiFE”,

	<p>Pledge for “Mission LiFE” and exhibition on waste minimization and recycling of various types of waste. Such activities will be continued.</p> <p>v. Digital Direct Refund System: Digital Direct Refund System Rule, 2023 has been drafted. It is now under the process of stakeholder consultation after which the said rules will be considered by the State Government for implementation.</p>
<p>14. Strict measures should be made to promote the usage of biodegradable materials and ban on use of Single Use Plastics (SUPs) items should be strictly enforced.</p>	<p>Uttarakhand Pollution Control Board (UKPCB):</p> <p>i. Special drives at market places, <i>Mandis</i> etc. were undertaken against uses of banned Single Use Plastic (SUPs) items at various places of Dehradun. Activity includes, imposition of penalties and seizure of banned plastic items.</p> <p>ii. Special drives against use of Single Use Plastics (SUPs) items</p>

	<p>are carried out in Mussoorie and nearby areas jointly with urban local body. Emphasis is given in market places, wholesalers, <i>Sabji Mandis</i> etc. In case of non-compliance, penalty and Environmental compensation to be levied as per State Government Notification and CPCB guidelines, respectively. This activity is ongoing.</p> <p>iii. IEC activities with Schools/Colleges/Hotellers etc. shall be continued.</p> <p>Nagar Palika Parisad (NPP), Mussoorie:</p> <p>i. Public notices were issued regarding banned SUPs and penal action against defaulters.</p> <p>ii. Extensive IEC activities including rallies with school children were undertaken by NPP, Mussoorie for discouraging banned SUPs.</p>
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	<p>iii. A total of 146 challans were made and imposed penalty of Rs. 88,400.00 against violators.</p> <p>iv. Such IEC and enforcement activities will be continued.</p>
<p>15. Local people should be involved in the Environmental Conservation programs and awareness/training on landslides, mountain risks, etc. to be initiated.</p>	<p>Uttarakhand Pollution Control Board (UKPCB):</p> <p>IEC Activities: Under the IEC activities, Uttarakhand Pollution Control Board has undertaken awareness campaign at Municipal P.G. College, Mussoorie on dated 31.05.2023 under “Mission LiFE” program. The program include- introduction and objectives of “Mission LiFE”, Pledge for “Mission LiFE” and exhibition on waste minimization and recycling of various types of waste. Such activities with involvement of local people will be continued.</p>

	<p>Mussoorie Forest Division, Mussoorie:</p> <p>Mussoorie Forest Division has undertaken extensive mass awareness and cleanliness activities under “Mission LiFE” program. A total of 745 activities have been organized and about 18000 participant were attended the various activities.</p>
<p>16. Registration of tourists should be done according to carrying capacity of the area, especially the available parking space, guest room availability, etc. Tourist can be charged for visiting the Mussoorie area and the payment can be utilized for managing waste and cleanliness.</p>	<p>Department of Tourism:</p> <p>Based on Carrying Capacity of Mussoorie, the Department of Tourism has started the registration of tourist coming to Mussoorie.</p>
<p>17. New construction can be allowed for land owners/local inhabitants as per plan and by-laws of building construction of MDDA and carrying capacity with a specific control on height of the building,</p>	<p>Mussoorie Dehradun Development Authority (MDDA):</p> <p>In order to restrict the new construction, the Government has earmarked the Mussoorie area into Freeze Zone and non-Freeze Zone. Approval of maps up to 100 Sq. Meter</p>

<p>slope percentage, drainage and control construction in freeze zone.</p>	<p>covered area with in Freeze zone and 150 Sq. Meter outside the Freeze zone area are being considered with restrictions of 30⁰ slope and permitted height. Moreover, such approval is being accorded to the permanent resident of Mussoorie, only.</p>
<p>18. At present, the preparation of Master Plan of Mussoorie is in progress. The mitigation and preventive measures can be incorporated in the Master Plan for sustainable development.</p>	<p>Mussoorie Dehradun Development Authority (MDDA): The Master Plan of Mussoorie is being prepared by the Town and Country Planning Department. MDDA has requested to the Town and Country Planning Department for incorporation of “Preventive and Mitigation measures” as suggested in the Master Plan of Mussoorie.</p>
<p>19. For the smooth traffic management and to avoid traffic congestion the total number of permissible vehicles may not be exceeded beyond the capacity of parking facility provided by Nagar Palika,</p>	<p>Uttarakhand Traffic Police: Uttarakhand Traffic Police has developed Traffic Plan for Mussoorie in order to manage traffic load and avoid congestion.</p>

<p>Mussoorie, Tourism Department, MDDA, Hotels, Dhramshalas, Gurudwaras etc. The road side parking may be allowed subject to free flow of traffic as managed by the local police.</p>	<p>Traffic Police has also assessed available parking space in the City and accordingly Traffic plans - Plan-‘A’, Plan-‘B’, Plan-‘C’ and Plan-‘D’ have been prepared.</p> <p>Traffic Plan(s) will be executed as per graded response or situation.</p>
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मा.राष्ट्रीय हरित प्राधिकरण, नई दिल्ली में योजित मूल आवेदन संख्या-51/2023 के संबंध में दिनांक 26.07.2023 को पारित आदेश के अनुपालनार्थ मुख्य सचिव, उत्तराखण्ड शासन की अध्यक्षता में दिनांक 11 सितम्बर, 2023 को सम्पन्न बैठक का कार्यवृत्त:-

उपस्थिति:-

- (1) श्री आनन्द बर्द्धन, अपर मुख्य सचिव, उत्तराखण्ड शासन।
- (2) श्री रमेश कुमार सुधांशु, प्रमुख सचिव, पर्यावरण संरक्षण एवं जलवायु परिवर्तन विभाग, उत्तराखण्ड शासन।
- (3) श्री सचिन कुर्वे, सचिव, पर्यटन विभाग, उत्तराखण्ड शासन।
- (4) श्री अरविन्द सिंह ह्याँकी, सचिव, पेयजल विभाग, उत्तराखण्ड शासन।
- (5) श्री एच.सी.सेमवाल, सचिव, सिंचाई विभाग, उत्तराखण्ड शासन।
- (6) श्री विनीत कुमार, अपर सचिव, लोक निर्माण विभाग, उत्तराखण्ड शासन।
- (7) सुरी कहकशां नसीम, अपर सचिव, वन एवं पर्यावरण विभाग, उत्तराखण्ड शासन।
- (8) श्रीमती सोनिका, जिलाधिकारी, देहरादून।
- (9) श्री दलीप सिंह, वरिष्ठ पुलिस अधीक्षक, देहरादून।
- (10) श्री एस.पी.सुबुद्धि, निदेशक, राज्य पर्यावरण संरक्षण एवं जलवायु परिवर्तन निदेशालय, उत्तराखण्ड।
- (11) श्री सुशांत पटनायक, सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, देहरादून।
- (12) श्री एन.पी.सिंह, सी.ई., लोक निर्माण विभाग, देहरादून।
- (13) श्री सुरेश चन्द्र पंत, प्रबन्ध निदेशक, पेयजल निगम, देहरादून।
- (14) श्रीमती नीलीमा गर्ग, मुख्य महाप्रबन्धक, पेयजल संस्थान, उत्तराखण्ड।
- (15) श्री दिनेश कुमार बिष्ट, एस.ई., पेयजल निगम, देहरादून।
- (16) श्री अतुल गुप्ता, अधिशासी अभियन्ता, MDDA, देहरादून।
- (17) श्री एस.सरकार, निदेशक, उत्तराखण्ड भू-स्खलन शमन एवं प्रबन्धन केन्द्र, केन्द्रीय भवन अनुसंधान संस्थान, रुड़की।
- (18) श्री पियूष रौतेला, ई.डी. यू.एस.डी.एम., देहरादून।

सर्वप्रथम बैठक में उपस्थित समस्त प्रतिभागियों का स्वागत करते हुए बैठक का शुभारम्भ किया गया। बैठक में सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड द्वारा अवगत कराया गया कि मा.एन.जी.टी. द्वारा दिनांक 31.01.2023 को पारित आदेश के क्रम में मुख्य सचिव, उत्तराखण्ड शासन की अध्यक्षता में गठित समिति के अनुमोदनोपरान्त Carrying Capacity of Mussoorie के सम्बन्ध में रिपोर्ट मा.एन.जी.टी. में दाखिल की गयी। मा.एन.जी.टी. द्वारा दिनांक 26.07.2023 को पारित आदेश में सुझाये गये "Preventive and Remedial Measures" के अनुपालन में सम्बन्धित विभागों को चिन्हित कर कार्ययोजना तैयार कर प्राथमिकता के आधार पर समयवद्ध रूप से कार्यवाही की जानी है।

मा.एन.जी.टी. यह भी निर्देश दिये गये हैं कि मुख्य सचिव, उत्तराखण्ड शासन द्वारा उक्त विभागों द्वारा की गई कार्यवाही की समीक्षा किये जाने हेतु एक नोडल अधिकारी नामित किया जाय। नोडल अधिकारी द्वारा उक्त कार्ययोजना के क्रियान्वयन की प्रत्येक माह समीक्षा की जाय एवं मुख्य सचिव, उत्तराखण्ड शासन द्वारा प्रत्येक तीन माह में समीक्षा की जाय।

6	Phytoremediation of degraded slopes can be initiated, that can help to anchor the soil and prevent erosion. Broad leaved native trees can be promoted for stabilizing slopes, especially in the landslide prone areas.	कार्यवाही हेतु वन विभाग एवं आपदा प्रबंधन विभाग द्वारा की जानी है। सम्बन्धित विभाग समयवद्ध कार्ययोजना तैयार कर क्रियान्वयन सुनिश्चित करें।
7	Water availability concerning to current demand in summer and winter months should be maintained and proper supply system to be ensured. Recharge / rejuvenation of natural springs should be explored with scientific intervention. Natural spring in the region should be monitored and re-charge activities (proper plantation) can be initiated on proper scientific basis. Springs (act as natural piezometers) are good indicators for any change in the groundwater in the mountainous area. Therefore, there is an urgent need to inventories all springs located in the vicinity/periphery of Mussoorie towns. Their periodic monitoring may be a good tool for detecting any natural calamities events in advance in the mountainous regions.	कार्यवाही पेयजल विभाग, वन विभाग एवं जलागम विभाग से अपेक्षित है। सम्बन्धित विभाग समयवद्ध कार्ययोजना तैयार कर क्रियान्वयन सुनिश्चित करें।
8	Spring-shed rejuvenation and management activities can be initiated on proper scientific basis for safeguarding and augmentation of the discharge of the springs and subsequently the local streams fed by springs. Since most of the water supply schemes of Mussoorie town are from the local springs/brooklet, incentive-based mechanism (IBM) can be adopted for effective protection and preservation of the springs/brooklet. Beside that recharge zones shall also increase soil moisture content which will help in enriching biodiversity through natural regeneration of trees, shrubs and grasses, etc. and shall increase both flora and fauna in the forest. On the other hand, due to increase in soil moisture content on forest land the incidences of forest fire, which are causing irreparable loss to environment and the entire ecosystem will be controlled as a result of this mitigation measure.	कार्यवाही पेयजल विभाग, वन विभाग एवं जलागम विभाग से अपेक्षित है। सम्बन्धित विभाग समयवद्ध कार्ययोजना तैयार कर क्रियान्वयन सुनिश्चित करें।
9	Roof top Rain water harvesting can be promoted to meet the deficit water demand, at least in the peak tourist period.	कार्यवाही एम0डी0डी0ए0 द्वारा की जानी है। Rain water harvesting के अन्तर्गत वर्षा जल को पक्के टैंक में एकत्र कर प्रयोग किये जाने को प्रोत्साहित किया जाना है। उक्त सम्बन्ध में सम्बन्धित विभाग कार्यवाही सुनिश्चित करें।
10	Open rain water seepage must be stopped through the construction of a pucca drainage system. Water should not be allowed to accumulate in any depression; instead, drains should be built to transport it to safe areas.	बिन्दु पर कार्यवाही हेतु प्रमुख सचिव, वन एवं पर्यावरण की ओर से आवश्यक निर्देश निर्गत जायें। सिंचाई विभाग द्वारा मसूरी शहर का ड्रेनेज प्लान तैयार किये जाने के सम्बन्ध में कार्यवाही सुनिश्चित करें।
11	Proper sewerage network and appropriate treatment facilities should be ensured. The sewage water should	कार्यवाही पेयजल विभाग से अपेक्षित है। सम्बन्धित विभाग सीवरेज नेटवर्क के

	not be allowed to percolate or connect with natural ground water. Feasibility of reuse of treated water for secondary uses can be explored.	सम्बन्ध में कार्ययोजना एवं उसके क्रियान्वयन का प्रस्ताव तैयार करें। सीवेज ट्रीटमेंट प्लांट द्वारा शुद्धीकृत उत्प्रवाह के प्रयोग के सम्बन्ध में कार्ययोजना प्रस्तुत करें।
12	Construction of new buildings are already restricted. Further, the new /additional construction related extension should be properly monitored. All the building foundations should be mapped by a competent engineering geologist to know about the safe bearing capacity of the foundation and treatment of cut slope. In consultation with the designer, type of foundation (footing, strip, raft) and height of building can be finalized. Then only after this, the map can be submitted to MDDA for approval.	मसूरी क्षेत्र में नये निर्माण कार्यों के सम्बन्ध में पूर्व से ही कतिपय प्रतिबंध लागू हैं। आवास विभाग एवं एम0डी0डी0ए0 द्वारा उक्त प्रतिबंधों को लागू करते हुए Building safety assessment plan and accordingly approval process plan को उपलब्ध कराया जाय।
13	The regulations related to waste management should be strictly followed. Dumping sites around water bodies should be strictly restricted to prevent pollution threats on the important sources of drinking water of the city. QR code based Digital Direct Refund System should be implemented for management of plastic waste. IEC activities to be promoted amongst visiting tourist towards solid waste and plastic waste management.	कार्यवाही शहरी विकास विभाग, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड एवं नगर पालिका परिषद मसूरी के स्तर से की जानी है। सम्बन्धित विभाग अद्यतन स्थिति के साथ कार्ययोजना तैयार कर क्रियान्वयन सुनिश्चित करें।
14	Strict measures should be made to promote the usage of biodegradable materials and ban on use of Single Use Plastics (SUPs) items should be strictly enforced.	कार्यवाही शहरी विकास विभाग, नगर पालिका परिषद मसूरी एवं उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड द्वारा की जानी है। SUPs प्रतिबंध के सम्बन्ध में उक्त विभागों द्वारा संचालित विभिन्न गतिविधियों के संबंध में Status Report प्रस्तुत की जायेगी।
15	Local people should be involved in the Environmental Conservation programs and awareness/training on landslides, mountain risks, etc. to be initiated.	कार्यवाही शहरी विकास विभाग, राज्य प्रदूषण नियंत्रण बोर्ड, वन विभाग द्वारा की जानी है। सम्बन्धित विभाग कार्ययोजना का विवरण एवं क्रियान्वयन सुनिश्चित करेंगे।
16	Registration of tourists should be done according to carrying capacity of the area, especially the available parking space, guest room availability, etc. Tourist can be charged for visiting the Mussoorie area and the payment can be utilized for managing waste and cleanliness.	कार्यवाही पर्यटन विभाग एवं शहरी विकास विभाग द्वारा की जानी है। उक्त सम्बन्ध में सम्बन्धित विभाग कार्ययोजना एवं क्रियान्वयन का प्रस्ताव तैयार करेंगे।
17	New construction can be allowed for land owners/local inhabitants as per plan and by-laws of building construction of MDDA and carrying capacity with a specific control on height of the building, slope percentage, drainage and control construction in freeze zone.	कार्यवाही आवास विभाग/ एम0डी0डी0ए0 से अपेक्षित है। सम्बन्धित विभाग अविलम्ब आवश्यक Action Plan प्रस्तुत करें।
18	At present, the preparation of Master Plan of	कार्यवाही आवास विभाग/

	Mussoorie is in progress. The mitigation and preventive measures can be incorporated in the Master Plan for sustainable development.	एम0डी0डी0ए0 से अपेक्षित है। सम्बन्धित विभाग आवश्यक कार्यवाही सुनिश्चित करें।
19	For the smooth traffic management and to avoid traffic congestion the total number of permissible vehicles may not be exceeded beyond the capacity of parking facility provided by Nagar Palika, Mussoorie, Tourism Department, MDDA, Hotels, Dhramshalas, Gurudwaras etc. The road side parking may be allowed subject to free flow of traffic as managed by the local police.	कार्यवाही जिला प्रशासन एवं पुलिस विभाग से अपेक्षित है। सम्बन्धित विभाग कार्ययोजना तैयार कर क्रियान्वयन सम्बन्धी प्रस्ताव तैयार कर अवगत कराये।

3- बैठक में उपस्थित समस्त प्रतिभागियों के साथ गहन विचार-विमर्शपरान्त मुख्य सचिव महोदय द्वारा निम्नानुसार निर्देश दिये गये :-

1. मा.एन.जी.टी. में दाखिल समिति की रिपोर्ट में सुझाये गये Preventive and Remedial Measures के सम्बन्ध में उक्त प्रस्तर-2 की तालिका में उल्लिखितों विभागों द्वारा की जाने वाली कार्यवाही की समीक्षा किये जाने हेतु प्रमुख सचिव/सचिव, पर्यावरण संरक्षण एवं जलवायु परिवर्तन विभाग, उत्तराखण्ड शासन को 'नोडल अधिकारी' नामित किया जाता है।
2. सभी संबंधित विभागों द्वारा अपने-अपने से संबंधित Preventive and Remedial Measures के संबंध में अवलम्ब कार्यवाही सुनिश्चित की जाय।
3. Preventive and Remedial Measures से संबंधित जिन बिन्दुओं पर समयबद्ध कार्ययोजना तैयार की जानी है, संबंधित विभागों द्वारा अपने-अपने विभाग में तत्संबन्धी कार्ययोजना विलम्बतम 01 सप्ताह के भीतर तैयार कर ली जाय एवं कार्ययोजना की प्रति सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड को उपलब्ध करायी जाय।

अन्त में सभी प्रतिभागियों का धन्यवाद ज्ञापित करते हुए बैठक का समापन किया गया।

Signed by Ramesh Kumar
Sudhanshu

Date: 10-10-2023 17:18:22

(रमेश कुमार सुधांशु)
प्रमुख सचिव।

उत्तराखण्ड शासन

पर्यावरण, संरक्षण एवं जलवायु परिवर्तन अनुभाग

संख्या- 160582/XXXVIII-1-2023

देहरादून: दिनांक:- 10 सितम्बर, 2023
अवधूषर

प्रतिलिपि:- निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित-

- (1) अपर मुख्य सचिव/प्रमुख सचिव/सचिव, जलागम विभाग, लोक निर्माण विभाग, पर्यटन विभाग, कृषि विभाग, आवास विभाग, शहरी विकास विभाग, पेयजल विभाग, सिंचाई विभाग, वन विभाग, आपदा प्रबन्धन विभाग, पर्यावरण संरक्षण एवं जलवायु परिवर्तन विभाग, उत्तराखण्ड शासन।

312

- (2) जिलाधिकारी, देहरादून।
- (3) पुलिस महानिदेशक, उत्तराखण्ड।
- (4) वरिष्ठ पुलिस अधीक्षक, देहरादून।
- (5) निदेशक, राज्य पर्यावरण संरक्षण एवं जलवायु परिवर्तन निदेशालय, उत्तराखण्ड।
- (6) सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, देहरादून।
- (7) मुख्य अभियन्ता, लोक निर्माण विभाग, देहरादून।
- (8) प्रबन्ध निदेशक, पेयजल निगम, देहरादून।
- (9) मुख्य महाप्रबन्धक, पेयजल संस्थान, उत्तराखण्ड।
- (10) मुख्य अभियन्ता, पेयजल निगम, देहरादून।
- (11) अधिशासी अभियन्ता, MDDA, देहरादून।
- (12) निदेशक, उत्तराखण्ड भू-स्खलन शमन एवं प्रबन्धन केन्द्र, केन्द्रीय भवन अनुसंधान संस्थान, रूड़की।
- (13) क्षेत्रीय अधिकारी, भारतीय राष्ट्रीय राजमार्ग प्राधिकरण, देहरादून।
- (14) श्री पियूष रौतेला, ई.डी. यू.एस.डी.एम., देहरादून।
- (15) गार्ड फाइल।

आज्ञा से,

**Signed by Kahkashan
Naseem**

Date: 11-10-2023 10:42:50

(कहकशां नसीम)

अपर सचिव।

मा.राष्ट्रीय हरित प्राधिकरण, नई दिल्ली में योजित मूल आवेदन संख्या-51/2023 Suo Moto in Re: News Items published in the newspaper the Tribune, dated 16.01.2023 entitled "Joshimath Disaster a warning for Mussoorie" के संबंध में कार्यवृत्त संख्या-160582/2023, दिनांक 10.10.2023 के क्रम में प्रमुख सचिव, पर्यावरण संरक्षण एवं जलवायु परिवर्तन विभाग, उत्तराखण्ड शासन की अध्यक्षता में दिनांक 26.10.2023 को सम्पन्न बैठक का कार्यवृत्त:-

उपस्थिति:-

1. श्री नितीन भदौरिया, अपर सचिव, शहरी विकास विभाग, उत्तराखण्ड शासन।
2. श्री विनीत कुमार, अपर सचिव, लोक निर्माण विभाग, उत्तराखण्ड शासन।
3. डॉ.पूजा गर्ब्याल, अपर सचिव, पर्यटन विभाग, उत्तराखण्ड शासन।
4. सुश्री कहकशां नसीम, अपर सचिव, पर्या., संरक्षण एवं जलवायु परिवर्तन विभाग, उत्तराखण्ड शासन।
5. श्री अतर सिंह, अपर सचिव, आवास विभाग, उत्तराखण्ड शासन।
6. श्री उमेश नारायण पाण्डे, अपर सचिव, सिंचाई विभाग, उत्तराखण्ड शासन।
7. श्री प्रदीप जोशी, संयुक्त सचिव, जलागम विभाग, उत्तराखण्ड शासन।
8. श्री कपिल जोशी, अपर प्रमुख वन संरक्षक, पर्यावरण, उत्तराखण्ड।
9. श्री सुशांत पटनायक, सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, देहरादून।
10. श्री जयपालन सिंह, विभागाध्यक्ष, सिंचाई विभाग, उत्तराखण्ड।
11. डा.एस.सी.पंत, प्रबन्ध निदेशक, पेयजल निगम, उत्तराखण्ड।
12. श्री डी.के.यादव, लोक निर्माण विभाग, देहरादून।
13. श्री एन.पी.सिंह, सी.ई., लोक निर्माण विभाग, देहरादून।
14. श्री विशाल गुप्ता, CLM(T)&RD, NHAI, देहरादून।
15. श्री एस.के.गुप्ता, Sec(Admin), उत्तराखण्ड जल संस्थान, देहरादून।
16. श्री वाई.के.गंगवार, संयुक्त निदेशक, टूरिज्म विभाग, उत्तराखण्ड।
17. श्री संजीव कुमार श्रीवास्तव, एस.ई., सिंचाई विभाग, उत्तराखण्ड।
18. श्री अतुल गुप्ता, अधिशासी अभियन्ता, MDDA, देहरादून।
19. श्री पियूष रौतेला, ई.डी. यू.एस.डी.एम., देहरादून।

सर्वप्रथम बैठक में उपस्थित समस्त प्रतिभागियों का स्वागत करते हुए बैठक का शुभारम्भ किया गया। बैठक में सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड द्वारा अवगत कराया गया कि प्रश्नगत मूल आवेदन संख्या-51/2023 में मा.प्राधिकरण द्वारा दिनांक 31.01.2023 को पारित आदेश के क्रम में मुख्य सचिव, उत्तराखण्ड शासन की अध्यक्षता में गठित समिति के अनुमोदनोपरान्त मा.प्राधिकरण में दाखिल Status Report on "Carrying Capacity of Mussoorie" रिपोर्ट के Preventive and Remedial Measures एवं मा.प्राधिकरण द्वारा दिनांक 26.07.2023 को पारित आदेश के क्रम में मुख्य सचिव, उत्तराखण्ड शासन की अध्यक्षता में दिनांक 11.09.2023 को सम्पन्न बैठक के कार्यवृत्त संख्या-160582/2023, दिनांक 10.10.2023 में संबंधित विभागों से

अपने-अपने विभाग में Preventive and Remedial Measures के अनुसार कार्ययोजना का तैयार करते हुए, विलम्बतम 01 सप्ताह के भीतर उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड को उपलब्ध कराने के निर्देश दिये गये थे, जिसके क्रम में संबंधित विभागों द्वारा प्रकरण पर आतिथि तक की गई कार्यवाही की सूचना अप्राप्त है।

2- प्रमुख सचिव महोदय द्वारा बैठक में उपस्थित समस्त अधिकारीगणों के साथ विभागवार एवं बिन्दुवार समीक्षा की गई। समीक्षा के दौरान उपस्थित अधिकारीगणों द्वारा अवगत कराया गया कि उक्त कार्यवृत्त दिनांक 10.10.2023 में प्रदत्त निर्देशों के संबंध में कार्यवाही विभाग स्तर पर गतिमान है, जिसमें कुछ और समय लगने की संभावना है।

3- बैठक में उपस्थित अधिकारियों के साथ गहन विचार-विमर्शोपरान्त प्रमुख सचिव महोदय द्वारा सभी विभागों को यह निर्देश दिये गये कि उक्त कार्यवृत्त दिनांक 10.10.2023 में लिए गये निर्णय/प्रदत्त निर्देशों के क्रम में Preventive and Remedial Measures के अनुसार अपने-अपने विभाग की कार्ययोजना का ड्राफ्ट **Word Formate** एवं **PDF** दोनों में तैयार करते हुए, तत्संबंधी सूचना दिनांक 31.10.2023 तक प्रत्येक दशा में उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, देहरादून (E-mail:- msukpcb@yahoo.com) को उपलब्ध कराना सुनिश्चित करें।

अन्त में सभी प्रतिभागियों का धन्यवाद ज्ञापित करते हुए बैठक का समापन किया गया।

**Signed by Kahkashan
Naseem**

Date: 02-11-2023 11:53:09

(कहकशां नसीम)

अपर सचिव।

उत्तराखण्ड शासन

पर्यावरण, संरक्षण एवं जलवायु परिवर्तन अनुभाग

संख्या-1/166200/XXXVIII-1-2023

देहरादून: दिनांक:- 02 अक्टूबर, 2023

प्रतिलिपि:- निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:-

अपर मुख्य सचिव/प्रमुख सचिव/सचिव, जलागम विभाग, लोक निर्माण विभाग, पर्यटन विभाग, कृषि विभाग, आवास विभाग, शहरी विकास विभाग, पेयजल विभाग, सिंचाई विभाग, वन विभाग एवं आपदा प्रबन्धन विभाग, उत्तराखण्ड शासन।

1. जिलाधिकारी, देहरादून।
2. पुलिस महानिदेशक, उत्तराखण्ड।
3. अपर प्रमुख वन संरक्षक, पर्यावरण, उत्तराखण्ड।
4. सदस्य सचिव, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, देहरादून।
5. विभागाध्यक्ष, सिंचाई विभाग, उत्तराखण्ड।
6. प्रबन्ध निदेशक, पेयजल निगम, उत्तराखण्ड।

7. श्री एन.पी.सिंह, सी.ई., लोक निर्माण विभाग, देहरादून।
8. श्री एस.के.गुप्ता, Sec(Admin), उत्तराखण्ड जल संस्थान, देहरादून।
9. श्री वाई.के.गंगवार, संयुक्त निदेशक, टूरिज्म विभाग, उत्तराखण्ड।
10. श्री संजीव कुमार श्रीवास्तव, एस.ई. सिंचाई विभाग, उत्तराखण्ड।
11. श्री अतुल गुप्ता, अधिशासी अभियन्ता, MDDA, देहरादून।
12. श्री पियूष रौतेला, ई.डी. यू.एस.डी.एम., देहरादून।

आज्ञा से,



(आशुतोष शुक्ल)

उप सचिव।

Uttarakhand Pollution Control Board

Performance Monitoring of STPs located in Mussoorie (Dehradun)

S.No.	Name of the Sewage Treatment Plant (With Capacity)	Sampling Point						
		Inlet of STP			Outlet of STP			
		pH	BOD	TSS	pH	BOD	TSS	Fecal Coliform
APRIL- 2023								
1	3.12 MLD STP at Bhatta fall, Mussoorie	7.20	160	156	8.10	9.2	10	94
2	0.8 MLD STP at Landour (N), Mussoorie	7.10	180	175	7.40	8.4	09	84
3	0.9 MLD STP at Kurli Bazaar, Mussoorie	6.95	195	189	7.80	8.8	09	79
4	1.3 MLD STP at Landour (S), Mussoorie	STP found non-operational as plant was under maintenance work. (Date of Inspection: 01-04-2023).)						
5	1.2 MLD STP at Happy Valley, Mussoorie	STP found non-operational at the time of inspection. (Date of Inspection: 01-04-2023).						
MAY, 2023								
1	1.3 MLD STP at Landour (S), Mussoorie.	7.20	180	178	7.70	9.2	10	350
2	3.12 MLD STP at Bhatta fall, Mussoorie.	6.90	165	163	7.14	9.6	11	170
3	0.8 MLD STP at Landour (N), Mussoorie.	7.14	185	181	8.30	8.8	10	540
4	1.2 MLD STP at Happy Valley, Mussoorie.	7.05	195	199	7.80	10	13	16×10 ²
5	0.9 MLD STP at Kurli Bazaar, Mussoorie.	6.70	200	196	7.09	9.2	10	110

June, 2023								
1	1.3 MLD STP at Landour (S), Mussoorie.	6.90	170	166	8.01	8.4	09	170
2	3.12 MLD STP at Bhatta fall, Mussoorie.	7.20	160	155	7.50	9.2	10	84
3	0.8 MLD STP at Landour (N), Mussoorie.	7.60	180	175	7.90	8.4	09	220
4	1.2 MLD STP at Happy Valley, Mussoorie.	7.01	190	192	7.40	9.2	11	140
5	0.9 MLD STP at Kurli Bazaar, Mussoorie.	6.80	195	193	7.30	10	12	280
July, 2023								
1	1.3 MLD STP at Landour (S), Mussoorie.	7.05	165	163	8.80	9.2	11	120
2	3.12 MLD STP at Bhatta fall, Mussoorie.	7.08	155	151	7.90	8.8	09	79
3	0.8 MLD STP at Landour (N), Mussoorie.	7.30	175	172	8.60	9.6	11	150
4	0.9 MLD STP at Kurli Bazaar, Mussoorie.	6.60	190	186	8.20	9.6	10	240
5	1.2 MLD STP at Happy Valley, Mussoorie.	STP was found closed and non-operational at the time of visit and also no any representative was present there. (Date of inspection: 10-07-2023).						
August, 2023								
1	1.3 MLD STP at Landour (S), Mussoorie.	7.30	160	156	7.45	8.8	10	170
2	3.12 MLD STP at Bhatta fall, Mussoorie.	6.80	150	148	7.50	9.6	11	210
3	0.8 MLD STP at Landour (N), Mussoorie.	6.90	165	163	8.20	8.8	10	170

4	1.2 MLD STP at Happy Valley, Mussoorie.	7.10	180	185	7.40	10	14	210
5	0.9 MLD STP at Kurli Bazaar, Mussoorie.	7.50	180	178	7.90	8.8	09	1600
September, 2023								
1	1.3 MLD STP at Landour (S), Mussoorie.	7.27	165	163	7.84	9.2	10	210
2	3.12 MLD STP at Bhatta fall, Mussoorie.	7.35	155	151	7.89	9.6	09	170
3	0.8 MLD STP at Landour (N), Mussoorie.	7.45	175	173	7.96	9.2	10	220
4	1.2 MLD STP at Happy Valley, Mussoorie.	7.25	185	189	7.90	10	12	920
5	0.9 MLD STP at Kurli Bazaar, Mussoorie.	6.34	190	192	7.86	9.6	11	170
Sewage Treatment final effluent standards (As Notified by MoEF&CC).					6.5-9.0	30	<100	<1000
Note: All values are in mg/l except pH, Fecal coliform (MPN Per 100 ml).								
