

**BEFORE THE NATIONAL GREEN TRIBUNAL**  
**PRINCIPAL BENCH , NEW DELHI**  
**(Through Video Conferencing)**  
**Original Application No.197/2017(WZ)**

**Vanshakti & Anr.**

**--- Applicants**

**Versus**

**Municipal Corporation of Greater Mumbai & Ors**

**---Respondents**

**Compliance Report on behalf of MPCB in compliance of the Hon'ble NGT order dated 14/10/2020**

The Vanshakti & Anr has filed an Original Application bearing No.197/2017 against MCGM & Ors before the Hon'ble National Green Tribunal regarding discharge of untreated waste from the storm water drains (nallas) directly into the sea, creeks, coastal wetlands and beaches in Mumbai.

In compliance of the order dtd 14/10/2020 passed by this Hon'ble Tribunal , the MPCB had issued directions to MCGM vide letter dated 09/12/2020, MCGM has submitted its replies vide letter dtd 22/01/2021 and 06/04/2021. Copies of the replies dated 22/01/2021 and 06/04/2021 are enclosed and marked as an **Annexure-'A'**.

A statement showing the compliance of directions is as under:

<b>Sr. No.</b>	<b>Directions issued by MPCB in compliance of Hon'ble NGT Order dtd.14/10/2020</b>	<b>Present Status</b>	<b>Compliance</b>
1.	Bioremediation and/or phytoremediation or any other remediation measures for treatment of sewage water if not taken by the Municipal Corporation, compensation at the rate of Rs. 5 lakhs per month per drain is to be deposited with the CPCB by the Municipal Corporation. This, however, is not to be taken as an excuse to delay the installation of STP or not doing anything and discharging the untreated water into the water bodies.	MCGM is having total 8 numbers of STPs in Mumbai, only 1 STP is located at Colaba having full-fledged treatment comprising SBBR technology, Worli, Bandra having only primary treatment. Varsova, Ghatkopar, Bandup, Malad STP comprising oxidation pond and aeration tank. Charkop STP is having primary, secondary treatment. MCGM has plan to upgrade and expand their existing STP and one new	As per the information submitted by MCGM, there are 93 Nos of drains discharging sewerage effluent into creek and sea.  As per directions issued by the Hon'ble NGT, MCGM has not submitted Environment Compensation.  MCGM has informed that being aggrieved by the Hon'ble NGT order, they have filed Civil

		<p>STP will be installed at Dharavi. At present tendering process for modification &amp; expansion of the existing STPs and new STP are completed. It will be required 4 to 5 years for completion of these STPs. The STP of 8 MLD capacity at Powai work is under progress, it will consist of SBBR technology 70 % work of this STP is completed. It will be commissioned in December 2021. MCGM currently has a sewer network of 2015 Km duly commissioned which serves about 84% of the developed area and 68.15% population of the Greater Mumbai.</p> <p>An action plan for providing and laying new sewer lines for covering of entire city and suburbs has been prepared. The work of providing sewerage network with drainage zones and sewerage infrastructure development plan so as to provide 100% sewer connectivity is being implemented under Mumbai Sewerage Improvement Program (MSIP). As per the information submitted by MCGM there are 93 Nos of drains discharging sewerage effluent into creek and sea.</p>	<p>Appeal bearing No.923/2021 before the Hon'ble Supreme Court.</p>
2	<p>Where the operational deficiencies of the existing STPs has not been rectified and untreated is being discharged into the water bodies, the environmental compensation at the rate of Rs. 10 lakhs per month per STP be deposited to the CPCB.</p>	<p>CPCB and MPCB jointly visited 8 STPs in Mumbai and collected the JVS samples on 10/11/2020 &amp; 11/11/2020. Except Colaba STP, all seven STPs, JVS results exceeding the prescribed norms.</p>	<p>In continuation with the observation and analysis reports Board had issued Show cause Notice's on 3/3/2021 towards non-complied STP's. Out of 8 STP's only one STP located at Colaba is complying with the norms. MPCB is carrying out monthly monitoring of all 8 STP's in Mumbai.</p> <p>MCGM has informed that being aggrieved by the Hon'ble NGT order, they have filed Civil Appeal bearing No.923/2021 before the Hon'ble Supreme Court.</p>

3	<p>With regard to the situation where works with regard to STP, sewerage network and its connectivity not yet started, the Mumbai Municipal Corporation has to pay an environmental compensation at the rate of Rs. 10 lakhs per month per STP, sewerage network and its connectivity after 31.12.2020 for the delay in setting up of the same. It will be open to the Municipal Corporation to recover the said amount from the erring officers/contractors.</p>	<p>MCGM currently has a sewer network of 2015 Km duly commissioned which serves about 84% of the developed area and 68.15% population of the Greater Mumbai.</p> <p>In conformity with drainage zones and sewerage infrastructure development plan so as to provide 100% sewer connectivity is being implemented under Mumbai Sewerage Improvement Program (MSIP). It will require 4 to 5 years' time for completion.</p>	<p>As per the submission made by MCGM, it may require 4 to 5 years' time for completion of STP.</p> <p>MCGM has informed that being aggrieved by the Hon'ble NGT order, they have filed Civil Appeal bearing No.923/2021 before the Hon'ble Supreme Court.</p>
4	<p>Remedial measures submitted by Divisional Forest Officer of Maharashtra PCB is accepted and Municipal Corporation of Greater Mumbai is directed to ensure the compliance and execution of the report submitted by the Joint Committee"</p> <p>Municipal Corporation of Greater Mumbai should ensure the mangrove area is kept to plastic free zone. It is recommended to install Trash Boom or Trash Trap for collection of floating plastic and other wastes &amp; its disposal.</p> <p>All sewage should be treated at the source and then release into Creek via streams. This will be taken up by Municipal Corporation of Greater Mumbai for implementation. It will be the responsibility of Municipal Corporation of Greater Mumbai to ensure proper functioning of treatment plants &amp; release treated sewage water to the Creek.</p> <p>Natural streams used as sewage canals should be stopped immediately and restoration should be carried out to recover the beauty of mangroves of Mumbai and adjoining Thane District.</p>	<p>MCGM has planned to install the thrash booms/back rack screens at below mentioned drains/rivers.</p> <p>The Work of design, fabrication, installation and commissioning of Heavy Duty Back Rake type Mechanical Screen across the Mogra nalla and Mahul nalla for arresting of floating material flowing towards sea has been included in the proposed work of Mogra SWPS and Mahul SWPS. Tender is invited for Mogra SWPS and Tender documents are under preparation for Mahul SWPS.</p>	<p>MCGM has taken measures to protect the mangroves from plastic and other wastes and the work is in progress.</p>
5	<p>The report submitted by IIT Mumbai for MTHL project regarding pollution level is</p>	<p>Time bound action plan from MCGM, MMRDA, Navi</p>	<p>Time bound action plan not yet submitted by the MCGM.</p>

	<p>accepted. The respondent and the Municipal Corporation are directed strictly to comply and execute it and a time bound action plan be implemented. The technology which has been suggested by IIT Mumbai should be implemented by Municipal Corporation of Greater Mumbai, Navi Mumbai Municipal Corporation on priority basis. For the protection of mangroves, the direction issued from the Bombay High Court in Writ Petition No. 87 of 2016 as mentioned above must be strictly followed. The provision as contained in the Wetland (Conservation and Management) Rules, 2017 must be complied with.</p>	<p>Mumbai Municipal Corporation, is awaited.</p>	
6	<p>Respondent no. 1 is directed to implement the Maharashtra Non-biodegradable Garbage (Control) Act, 2006 and to install nets in sewage storm water discharge drains to stop sewage solid waste from entering the sea along with the solid waste and to ensure that no untreated water being discharged into the sea level. Respondent no. 1 is also directed to install mobile public toilets after identifying the areas close to beaches where open defecation is rampant.</p>	<p>MCGM provides services of cleanliness and toilets at beaches. MCGM has proposed to provide 27 nos. of toilets with 189 no. of seats. Tendering for the same is under progress. Mobile Toilet Unit consisting of 3 seats for Gents, 3 seats for Ladies and 1 seat for Handicapped is proposed. Proposals are under process. Time target is 6 months. In MCGM jurisdiction, at 323 locations 468 nos. of receptacles are placed for deposition of non-biodegradable garbage, which are regularly attended. During the period of 1 January 2020 to 31 March 2021, the no. of cases registered for the offence of throwing garbage in Nallas is 1789 nos. and fine of Rs.7,86,400/- is recovered. MCGM have deployed 96 nos. of vehicles exclusively to collect dry waste which is transported to 46 nos. of Dry Waste Segregation Centres. The dry waste is segregated into different types of dry waste such as plastic, metal,</p>	<p>Partly complied.</p>

		glass etc. The segregated plastic is sent to the waste recyclers by the sansthas operating these Dry Waste Segregation Centres.	
7	The pipelines which are directly releasing domestic sewage in the water bodies, creeks and wet land without treatment must be removed or connected to the STP.	MCGM has planned to provide 100 % sewer connectivity, which will require 4 to 5 years for completion.	MCGM has planned to provide 100 % sewer connectivity, which will require 4 to 5 years for completion.
8	According to the parameter laid down and calculation as mentioned above, the BMC is liable to pay environmental damage for discharge of untreated sewage water into the water bodies at the rate of Rs. 4.25 crores per month and arrears of Rs. 29.75 crores. The BMC is directed to pay the amount of Rs. 29.75 crores to the account of CPCB within 30 days from today and ensure to regularly pay Rs. 4.25 crores per month till the bio-remediation or phytoremediation measures are taken by the authorities concerned. If remediation or treatment of the water of sewage water is taken, it will be reduced at the rate of Rs. 5 lakhs per month per drain systematically.	MCGM has not submitted compensation.	MCGM has informed that, being aggrieved by the Hon'ble NGT order, they have filed Civil Appeal bearing No.923/2021 before the Hon'ble Supreme Court.
9	The BMC is further directed to ensure that there should not be any water logging during the rainy seasons and the sewage line or water connection which are discharging the water from the city must be regularly monitored so that there should not be any blockage in the flow of the water."	MCGM has taken precaution to avoid water logging during the rainy seasons.	As reported, MCGM has taken precaution to avoid water logging during the rainy seasons.

For & on behalf of Maharashtra  
Pollution Control Board,

(Dr. A. N. Harshvardhan)  
Regional Officer-Mumbai

Place : Mumbai  
Date : /05/2021

## MUNICIPAL CORPORATION OF GREATER MUMBAI

Office of Deputy Municipal  
Commissioner  
MCGM Engineering Hub,  
1<sup>st</sup> floor, Stores Bldg.,  
Dr. E. Moses Marg, Worli,  
Mumbai-400 018

To,  
Shri Ashok Shingare, IAS  
Member Secretary  
Maharashtra Pollution Control Board  
Kalptaru Point, 2<sup>nd</sup> - 4<sup>th</sup> Floor,  
Opp. Cine Planet Cinema,  
Near Sion Circle, Sion (East),  
Mumbai 400,022

**Subject :** Directions u/s 33A of the Water (Prevention & Control of  
Pollution) Act, 1974

**Reference :**

1. VC held on 05.01.2021 at 4pm by CPCB Regional  
Director Shri Bharat Sharma
2. Direction received from Member Secretary, MPCB under  
section 33A of Water Act, 1974 under no. MPCB/B-  
201209-fts-0144 dtd 09.12.2020
3. Review Petition filed by MCGM before Hon'ble NGT,  
Principle Bench, Delhi on 16.11.2020
4. Order dtd 07.10.2020 passes by the Hon'ble National  
Green Tribunal in Original Application No. 197/2017
5. MCGM letter u/no. DMC/E/1464 dtd 29.09.2020

Sir,  
Regarding Hon. NGT's directions vide order dated 07.10.2020 and  
Member Secretary of MPCB's notice dated 09.12.2020, as regards Mumbai  
Sewerage Disposal Planning department (MSDP), Sewerage Operations  
department (SO) and Sewerage Projects department (SP) of MCGM, point-  
wise brief remarks with reference to Hon. NGT's directions are submitted as  
below. Other departments of MCGM have been requested to send their  
remarks directly to MPCB.

ii. The existing WwTFs Worli, Bandra, Versova, Bhandup and Ghatkopar are  
constructed more than 20 years ago. At present these plants are being  
operated as per the consent issued by MPCB. Now, the project for  
upgradation of these WwTFs as per recent NGT guidelines is  
undertaken. Therefore no major capital expenditure is being made in

- existing plant. However all the plants are presently in operation and efforts are continuously made to operate the plants effectively. .
- iii. The progress of laying sewer lines in developed areas for the length of 93.68 km as per Mumbai Sewage improvement plan is in progress. At present, out of 93.68 km, laying of 15.50km sewer line is completed, laying of 51.15 km sewer line is in progress and remaining length of sewer line is in tendering / DL to MS stage. Thus, developed areas will be completely sewerred in 2 to 3 years. Further, the works for diversion of dry weather flow of Mithi, Dahisar, Poisar and Oshiwara Walbhat rivers are taken and various stages details of the same are mentioned in the report below.
- vii. b) In this regard the detailed report alongwith the status of various projects is submitted below.
- c) Necessary steps in this regard such as enhancement of sewerage network, beautification of natural water bodies and lakes are being taken.
- x. The progress of laying sewer lines in developed areas for the length of 93.68 kms. as per Mumbai Sewage improvement plan is in progress further the works for diversion of dry weather flow of Mithi, Dahisar, Poisar and Oshiwara Walbhat rivers are taken and various stages details of the same are mentioned in the report below.
- xi. POINT NOTED
- xiii. In this regard review petition is filed by MCGM with Hon. NGT and hearing is scheduled on 11.01.2021.

In response to the directions received from MPCB under section 33A of the Water (Prevention & Control of Pollution) Act, 1974, MCGM had submitted its Action Plan vide no. AMC/P/3050 dt.14.10.2019. Thereafter, MCGM had also submitted revised Action Plan to MPCB vide no. DMC/E/1464 dtd 29.09.2020.

Further, in response to the Hon'ble NGT's order dtd 07.10.2020 (uploaded on 14.10.2020) in Original Application No. 197/2017, MCGM has ~~filed~~ Review Petition before Hon'ble NGT, Principle Bench, Delhi on 16.11.2020. In this petition, MCGM has requested Hon'ble NGT to

review/modify the order dtd 14.10.2020 passed in Original Application No. 197/2017 based on facts and circumstances of the cases. MCGM has also prayed to Hon'ble NGT to stay on operation of the impugned order dtd 14.10.2020 till the disposal of the Review Petition. Order from Hon'ble NGT in Review Petition filed by MCGM on 16.11.2020 is awaited. The hearing is due on 11.01.2021.

### **The Present Status of STP Tenders**

The tenders for Worli WwTF, Bandra WwTF, Dharavi WwTF, Versova WwTF, Malad WwTF, Bhandup WwTF and Ghatkopar WwTF are reinvited on 31.08.2020 by Ch.E.(MSDP) department of MCGM based on effluent discharge standards prescribed by Hon'ble NGT in its Order dated 30.04.2019. The timeline is as under.

<b>Sr. No.</b>	<b>Name of WwTF</b>	<b>Plant capacity in MLD</b>	<b>Tertiary Treatment</b>	<b>Design, Build Period in years</b>	<b>Expected date of Award</b>	<b>Expected date of Completion</b>
1	Worli	500	250	5	01.04.2021	31.03.2026
2	Bandra	360	180	5	01.04.2021	31.03.2026
3	Dharavi	418	209	5	01.04.2021	31.03.2026
4	Versova	180	90	4	01.04.2021	31.03.2025
5	Malad	454	227	6	01.04.2021	31.03.2027
6	Bhandup	215	108	4	01.04.2021	31.03.2025
7	Ghatkopar	337	170	4	01.04.2021	31.03.2025
	<b>Total</b>	<b>2464</b>	<b>1234</b>			

MCGM is working very hard and making every effort for execution of the above projects in timely manner. The status of projects is briefed to the highest level of administration. Very recently presentation was made to Hon'ble Chief Minister of Maharashtra on date 02.09.2020 regarding the status on implementation of the above projects.

Cojaba WWTF of 37 MLD capacity is commissioned and put in operation from April 2020. In this plant there is a provision of tertiary treatment of 37 MLD. This tertiary treated waste water will be used for non potable purposes.

The bids for the work of Design, Build, Operation and Maintenance of WWTFs at Versova, Ghatkopar, Bhandup and Dharavi are opened and the same are under technical scrutiny. Further, tenders for the work of Design, Build, Operation and Maintenance of WWTFs at Worli and Bandra are due on 15<sup>th</sup> January, 2021 and tender for the work of Design, Build, Operation and Maintenance of WWTF at Malad is due on 18<sup>th</sup> January, 2021.

**Present Status of Laying of Sewer Lines by Ch.E.(SP) department of MCGM is as under :**

An Action Plan for providing and laying new sewer lines for covering of entire city and suburbs has been prepared. The works of providing sewerage network in conformity with drainage zones and sewerage infrastructure development plan so as to provide 100% sewer connectivity is being implemented under Mumbai Sewerage Improvement Program (MSIP). MCGM has a network of 2015 km length of sewer lines in MCGM limit. As per said program, the length of sewer lines to be laid on developed / unencumbered D.P. Roads is 93.68 km and the length of sewer line on encumbered proposed D.P. Roads was assessed as 143 km.

The said program comprises of following four main Components:

**Component I** – In the said component, it is proposed to lay the sewer line on existing DP/Municipal Road having 6m width or more.

**Component II** – In the said component, it is proposed to lay the sewer line on encumbered DP/Municipal Roads.

**Component III** – In the said component, it is proposed to divert dry weather flow from the rivers, nallas etc.

**Component IV** – In the said component, it is proposed to implement Swachha Bharat Abhiyan i.e. to provide sewer facilities in slum areas.

The details of these components are as under:

**Component I** –

Under this component, it is planned to lay/upsized sewer line of 93.68 km length, on existing DP/Municipal Road. On Completion of these proposed works of 93.68 km of sewer lines, most of the developed area in MCGM limit will be catered by pipe sewer facility. It is planned to achieve this goal by the year 2023.

Progress of Implementation of the said component is as under:

### Progress of Works under component I

Sr.No.	Description	Length in Km
1	Works Completed (41 in nos.)	15.50
2	Works are in progress (90 in nos.)	51.15
3	DL to MS in progress (1 in no.)	0.58
4	Tenders in Process (13 in nos.)	7.89
5	Works to be executed in phases (will be carried out after completion of work in progress)	18.56
	<b>Total</b>	<b>93.68</b>

Thus, from the above it can be seen that laying of sewer lines is in progress as per the program.

**Component II** – This component consists of laying sewer lines on the proposed DP roads/Municipal roads which are at present encumbered with slum occupants. There are around 250 slum clusters in Mumbai City and Suburbs. The total length of such roads are identified and the same is of 143 km. The sewer line on these roads will be laid as and when Slum Rehabilitation (SRA) schemes are effectively implemented in these particular areas. Under this component, permissions are also issued to other planning authorities like MIAL, MMRDA etc. and some developers of SRA schemes for laying sewer lines simultaneously on D.P. roads with respect to their development.

**Component III** – This component proposes to intercept the Dry Weather Flow (DWF) entering into major rivers (like Mithi, Dahisar, Poisar, Walbhut, Oshiwara) and divert the same into municipal sewer lines/ STP's / WwTF.

Present status of Works on Rivers/Lakes is as under:

#### A) Present Status of Works on Mithi River :

MCGM had appointed the Consultant to suggest Short Term & Long Term measures for Mithi River Water Quality Improvement. After survey & study the Consultant had proposed Short Term Works and Long Term Works in 4 different packages to divert Dry Weather Flow of about 285 MLD discharging into Mithi River to Municipal Sewer system.

**Package- I** comprises of Providing & Laying Sewer line of 1.65 km length along banks of Mithi River from Filter Pada to WSSD Garage at ~~Provided~~ Construction of Inlet Pumping Station and 8 MLD STP at WSSD

Garage and Construction of service roads along banks of Mithi River. The work commenced from 27.11.2018 and was most likely to be completed within the period of 24 months. However, due to the present pandemic, the same is delayed and time period for the said works is extended. The tender for STP was awarded on the basis of effluent discharge standards prescribed in the MoEF & CC notification dated 13.10.2017. The effluent discharge standards are revised as per Hon'ble NGT's Order dated 30.04.2019. Due to the revision of effluent discharge norms the project may get extended further by 14 months and is likely to be completed by 31.12.2021.

The work of laying of Sewer line is carried out by Ch.E.(SP) department of the MCGM and out of 1.65km of sewer line, 1.04km of sewer line has been laid. Also, the construction of 8MLD STP and 24MLD Influent Pumping Station is in progress. The physical progress of work till date is 70%.

**Package II** (from WSSD garage to CST Bridge) works are sub divided into four different tenders. It includes 8.07 km length of sewer line along and nearby Mithi River and 102 nos. of minor interceptors to divert DWF from minor nallas to Municipal sewer network system. Along with this, works of retaining wall of 3.325 km length, service road of 9.375 km length are also proposed. The work order for the said works has been issued and the work is in progress. Time period for Package- II works is 24 months. The work of laying of sewer line, construction of retaining wall, service road will be carried out by Ch.E.(SWD) department of MCGM.

**Package III** (from CST bridge to Mahim Causeway and at VakolaNalla), works are located in tidal influence zone. It includes training of river (Construction of Retaining Wall & Service Road), Pumping Stations, Interceptors & Diversion works for diverting Dry Weather Flow (DWF) of various outfalls/nallas into nearby existing Municipal Sewer networks along with Gate Pumps, Beautification including promenades & allied works. It comprises of Sewer line work (8.13km), Retaining Wall (8.163 km), Service Roads (7.219 km), 28 nos. of minor Interceptors, 26 nos. of Gate Pumps, 3 nos. of Sewage Pumping Stations and 12.04 kms of beautification of river including promenades with their O & M for 10 years. Bid documents for these works are under scrutiny. Time period for these works is 36 months. The work of laying of sewer line, construction of retaining wall, service road,

beautification of river including promenades will be carried out by Ch.E.(SWD) department of MCGM.

**Package IV-** This work comprises of construction of Tunnel for diversion of intercepted Dry Weather Flow (168 MLD) from Bapat Nalla and Safed Pool Nalla to the proposed WwTF at Dharavi. The diameter of proposed sewer tunnel is 2.6m and length is about 6.7km. Tender for this work is already invited. The contract period for the work is 4 years from award. This work will be carried out by Ch.E.(MSDP) department of MCGM.

### **Status of works on Dahisar, Poisar, Walbhat/Oshiwara Rivers -**

The progress of works is as under:

a) **Dahisar River:**

In rejuvenation project of Dahisar River, 4.41 km length of sewer network, 1.16 km of service road & 1.22 km of roadside of drain is proposed on both sides of the river, 10 nos. of interceptors to intercept DWF into the Dahisar River & Construction of **2 nos. of Sewage Treatment Plant (STP)** at Sukurwadi & Indira nagar having capacity of 1.5MLD & 5 MLD respectively. The tender for sewer network, Nalla interceptor and two STPs are reinvited with respect to modified effluent standards. The date of tender invitation is 21/04/2020 and the date of submission was 27/05/2020 with pre-bid on 11/05/2020. However, due to the ongoing pandemic of Covid 19, the dates had been extended. The pre-bid meeting is conducted on 11/09/2020 and the date of submission is 13/01/2021. The completion period of the work is 24 months (excluding monsoon).

b) **Poisar River:**

In rejuvenation project of Poisar river, 8.67 km length of sewer network, 3.15 km of service road & 9.2 km of road side drain is proposed on the bank of Poisar River for which the tender is invited. However, there was no response for the same. Hence, now tender for sewer network, service road, road side drain, nalla interceptor & **10 nos. of STPs** at Kranti Nagar – 3.5 MLD, Appa Pada Kurar Village Gokul Nagar 4 MLD, Muslim Kabrastan Near Kurar culvert Durga Nagar 3.5 MLD, Mahindra Green Gate 1.5 MLD, Thakur parking Plot 8 MLD, Near Poisar Subway Gaondevi Bihari Tekdi 4 MLD, Opposite

Poisar Gymkhana Tulaskarwadi 3 MLD, Iraniwadi 4 MLD, Laljipada Kandivali West Sanjay Nagar 2 MLD is to be reinvited with respect to modified effluent standards. The date of tender invitation was 21/04/2020 and the date of submission was 27/05/2020 with pre-bid on 11/05/2020. However, due to the ongoing pandemic of Covid 19, the dates had been extended. The pre-bid meeting is conducted on 11/09/2020 and the date of submission is 13/01/2021. The completion period of the work is 36 months (excluding monsoon).

c) **Walbhat / Oshiwara River:**

In rejuvenation project of Walbhat / Oshiwara river, 4.72 km length of sewer network, 4.6 k.m. of service road, 5.1 k.m. of road side drain, 1.8 k.m. of retaining wall, 6 nos of interceptors to intercept DWF in to the Walbhat / Oshiwara River & construction of **5 nos of sewerage treatment plant** at Ram nagar 3.5 MLD, Aarey Colony Hindu Cemetery Nallah 6 MLD, near S.V. Road & Majas Nalla intersection 6 MLD, The Muslim Kabrastan Dnyaneshwar Nagar 3 MLD, Cama and Sonavala Industrial Area 2 MLD is proposed. The Tender for sewer network, road side drain, service road, retaining wall, nalla interceptor and five nos STPs is to be reinvited with respect to modified effluent standards. The date of tender invitation is 21/04/2020 and the date of submission was 27/05/2020 with pre-bid on 11/05/2020. However, due to the ongoing pandemic of Covid 19, the dates had been extended. The pre-bid meeting is conducted on 11/09/2020 and the date of submission is 13/01/2021. The completion period of the work is 36 months (excluding monsoon).

- d) The work of diversion of DWF towards Powai lake to Municipal sewer system is in progress through Ch.E.(MSDP). The physical progress of work till date is 90%.
- e) Kannamvar Nagar - work of providing & laying sewer line along D.P. Road and diverting the flow to Bhandup WWTF for treatment is proposed.

**Component IV** – In the said component, it is proposed to implement Swachha Bharat Abhiyan i.e. to provide sewer facilities in slum areas. These works are looked after by Solid Waste Management department and concerned Assistant Commissioners of respective wards of MCGM.

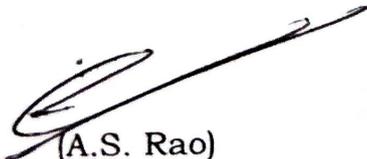
Present capacities of Treatment facilities for Recycle and Reuse of Waste Water :

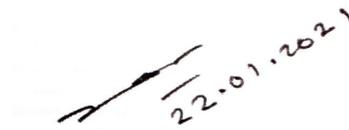
Sr. No.	Name of STP	STP Capacity (MLD)
1	Colaba STP	37
2	Charkop STP	06
3	Banganga STP	1.5
4	Dadar STP	0.3
5	SBT Worli	3

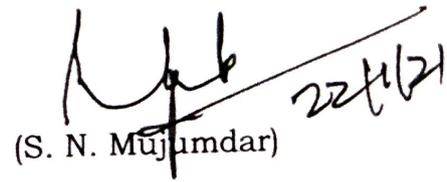
From the present status of various works undertaken by MCGM as mentioned above it is clear that MCGM is taking all efforts for improvement of quality of water bodies which includes laying of sewer lines, construction of new WwTFs as per recent guidelines from Hon. NGT, Rejuvenation of rivers of Mumbai, construction of new sewage pumping stations, etc.

The ongoing works and works for which tenders are invited are getting slowed down due to Covid-19 pandemic and lockdown since 21.03.2020. As such there is shortage of labourers, manpower and materials at sites.

Under the circumstances Maharashtra Pollution Control Board is therefore requested to recommend to Central Pollution Control Board / Hon. National Green Tribunal not to levy the penalty and consider the progress and efforts taken by MCGM in deciding on the review petition filed by MCGM.

  
(A.S. Rao)  
**Ch.E.(MSDP)**

  
(S. D. Chavan)  
**Ch.E.(S.O.)**

  
(S. N. Mujumdar)  
**DMC (E) (i/c)**



<p>per month per STP be deposited to the CPCB. The CPCB is directed to examine all the STPs, CETPs within the Mumbai Municipal Corporation and calculate the amount of environmental compensation in accordance with law and to proceed to recover the amount and communicate this Tribunal within fortnight.</p>	<p>(b) Nos. (with name) of STPs with operational deficiencies with brief details of such deficiencies.</p> <p>(c) Results of all STPs' Sample monitoring &amp; analysis (to be done at least quarterly).</p> <p>(d) Calculation of environmental compensation amount and status of deposition of the same to CPCB.</p>	<p>6) Ghatkopar Lagoon &amp; WWTF : Operational 7) Bhadup Lagoon &amp; WWTF : Operational 8) Charkop STP : Operational</p> <p>Malad WWTF : Preliminary Treatment plant hence not meeting discharge standards. However upgradation is being done by MSDP department. Attached C/69 to C/81</p>
<p>(iii) With regard to the situation where works with regard to STP, sewerage network and its connectivity not yet started, the Mumbai Municipal Corporation has to pay an environmental compensation at the rate of Rs. 10 lakhs per month per STP, sewerage network and its connectivity after 31.12.2020 for the delay in setting up of the same. It will be open to the Municipal Corporation to recover the said amount from the erring officers/contractors.</p>	<p>(a) Data of the pipeline network along with zonal map of Mumbai and suburbs area with clear demarcation of area covered and yet to be covered with sewerage network to each of the STPs.</p>	<p>Ch.E.(SO)</p> <p>Ch.E.(SP)</p> <p>Please refer plan @ pg.C/83 showing sewerage zone along with existing &amp; proposed Waste Water Treatment Plants, Pumping Stations and proposed sewer tunnels.</p> <p>Sewerage Project Department lays the sewer line on minimum 6 meter wide existing Municipal roads/ developed DP roads. MCGM currently has duly commissioned sewer network of 2024 KM. MCGM is committed to provide 100% sewerage connectivity to citizens and had therefore commenced the Mumbai Sewerage Improvement Program (MSIP) from 2016-17. <b>Under Component I of MSIP</b>, it is planned to lay/upsized sewer on existing developed DP roads / Municipal Road of 93.68 KM length. The 41 no. of works of</p>

N/F

			<p>sewer lines amounting Rs. 147.85 Cr. covering length of 15.50 KM (16.55%) are completed. At present 89 works amounting to Rs. 857.31 Cr. covering length of 51.154 KM (54.60%) are in progress. Further, 11 works amounting to Rs.14.43 Cr covering length of 6.786KM of sewer lines (7.24%) will be commenced shortly. The estimation &amp; tendering of 23 works of amounting Rs. 63.99 Cr. covering length of 7.89 KM(8.42%) length of sewer lines are in progress. The balance work of 18.56 KM (19.81%) length of sewer line amounting Rs. 46.15 Cr. will be proposed in the year 2022-23 &amp; in the year 2023-24 after the completion of above referred downstream side works to establish connectivity of sewer line. It is planned to achieve the target of 93.68 Km. under this component by the year 2023-2024.</p> <p><b>Component II</b> of MSIP consists of laying sewer lines along 143.19 Km. length of D. P. Roads which are at present undeveloped / encroached. The same can be developed in S.R.A. layouts after removal of encroachment. As on date, the permission to lay sewer lines along proposed D.P. roads of about 7 KM length had been issued to developers/ authorities. Additional permissions will be issued as and when the proposal for development of Slum Redevelopment schemes will be received to this department.</p> <p><b>The Component III</b> of MSIP is to intercept Dry Weather Flow (DWF) from the</p>
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		<p>various rivers that finds its way into the sea thereby polluting sea shores. Accordingly, services of private consultants have been hired to design and to develop phase wise action plan to intercept DWF by providing and laying sewer line along the bank of rivers and erecting waste water treatment plant to treat the anticipated sewage flow.</p> <p>The details of action plan for rejuvenation of the Mithi, Dahisar, Poisar &amp; Wallbhat / Oshiwara rivers is as under:</p> <p><b>a) Mithi River:</b> The program for diverting sewage flow in to Mithi River is divided in four packages (Short term i.e. Package-I &amp; long term i.e. Package-II, III &amp; IV):</p> <p>Under Package I, the laying of sewer line of 1.65 KM length is in progress through this department, out of which the work of 1.35 KM length of sewer line is already completed.</p> <p>Under Package II, it is proposed to lay sewer line of 8.15 KM length along the bank of Mithi River &amp; under Package III it is proposed to lay sewer line of 8.13 KM length along the bank of Mithi River. Under Package IV sewerage tunnel of 2.6 m diameter of length 6.5 KM from Bapat Nalla to Saphed Pool Nalla upto Dharavi S.T.P. is proposed. Work order of package II is already issued. Tendering &amp; estimation for package III is in progress.</p> <p><b>b) Dahisar River:</b> It is proposed to lay sewer line of 4.42 KM length along the bank of Dahisar River.</p>
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			<p><b>c)</b> Poisar River: It is proposed to lay sewer line of 8.67 KM length along the bank of Poisar River.</p> <p><b>d)</b> Walbhat/ Oshiwara River: It is proposed to lay sewer line of 4.72KM length along the bank of Walbhat/ Oshiwara River.</p> <p>The tendering process for the above works is in progress by Chief Eng. (SWM) department.</p> <p>The budget provision of rejuvenation work of above rivers is provided by Chief Eng. (SWM) department. Accordingly, estimation &amp; tendering is in progress.</p> <p><b>Component IV</b> of MSIP program is to provide sewerage facility to Slum dwellers/ Slum areas and small roads below 6 meter width under "Swachha Bharat - Swachha Maharashtra - Swachha Mumbai Abhayan". Asst. Comm. of respective wards can propose the sewer line to slum area or on small roads through SWM department as per the guidelines/ directions issued under circulars No. Ch.Eng./SWM/4941 dtd.22.06.2015 &amp; No. Ch.Eng./SWM/2649 dtd.24.06.2016. Assistant Commissioners of respective wards can propose the sewer line to slum area or on small roads through the common G. L. Code for repairs of toilet blocks/Septic Tanks allocated by SWM department. Further it is to be mentioned that compensation/grant/subsidy is also offered to slum dweller under the scheme for construction of individual household latrine (IHL) which is implemented at Ward</p>
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} C/85 to  
C/109

	<p>(b) Number (with name and ward details) of STP's which are having 100% sewage network and connectivity.</p> <p>(c) Number (with name and ward details) of STP's which are not having 100% sewage network and connectivity and provide details thereof. Target date for completion of each of the same be also provided.</p>	<p>Ch.E.(SP)</p> <p>Ch.E.(SP)</p>	<p>level through the budget head of SWM department.</p> <p>Further, please refer ward wise sewer network plans of Ward A to T attached at pg. 01 to 24 showing following details viz.</p> <ol style="list-style-type: none"> <li>1) Completed sewer line works marked in Blue colour.</li> <li>2) Sewer Line works in progress marked in Green colour.</li> <li>3) Proposed sewer line works for which tenders are in progress are marked in Red colour.</li> <li>4) Proposed sewer line works which are proposed/ planned in 2021-22 are marked in purple colour.</li> <li>5) Sewer line works which are depended on completion of downstream works proposed in phase-II marked in Yellow colour.</li> </ol> <p>The ward wise details of component I &amp; II of MSIP report is attached at pg.C/111 to C/125.</p> <p>2-Wards 'B' Ward &amp; 'C' Ward having 100% sewage network of Love Grove Treatment Plant &amp; Pumping Station</p> <p>22 Wards: Please refer sheet attached at pg.1 to 24 showing balance component of sewer line to be laid in each ward of total sewer line of Component I (93.68 Km) &amp; Component II (143.19 Km) for each ward in MCGM limit. As stated in above Para (a), target completion for the MSIP component I is 2023-2024 &amp; that</p>
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File II

File II

<p>(iv) Guidelines issued in O.A. No. 426/2018 with regard to the Musi River and O.A. No. 829/2019 (supra) dealing with the coastal pollution, the directions issued from the Principal Bench of this Tribunal must be strictly complied with and in case of violation, the State PCB is directed to proceed in accordance with law for realization of environmental compensation.</p>	<p>(a) Total number of STP's (with their names) having flow measuring devices/systems.                  (b) Total number of STP's (with their names) not having flow measuring devices/systems.                  (c) Total number of STP's (with their names) having online effluent monitoring system installed and its connectivity status to MPCB and CPCB server.                  (d) Breakup of treated effluent used in the gardens, construction works, washing needs, etc. for each of the STPs                  (e) Sewage sludge and grit management quantity record upkeep and planning for environmentally sound management for each of the STPs</p>	<p>Ch.E.(SO)                  Ch.E.(SO)                  Ch.E.(SO)                  Ch.E.(SO)</p>	<p>for MSIP component II will be depend on development &amp; handing over of encroached DP roads in Slum Redevelopment Proposals.                  8 Nos i.e Colaba, Worli, Bandra, Versova, Malad, Bhandup, Ghatkopar &amp; Charkop.                  Nil                  Nil. Plants at Worli, Bandra, Versova, Malad, Bhandup &amp; Ghatkopar are being upgraded and online effluent monitoring system is proposed to be installed in the said work. Budget Provision for installation of online monitoring system at Colaba is done in FY 2021-22 and the work is being taken up.                  Treated Effluent at Charkop STP is partly used for gardening.                  Record of Sewage sludge &amp; grit generated at STP/MWTF is kept at respective STP. The Grit removed from respective Grit Chambers is transported to Deonar Municipal Dumping Ground. The Sludge is removed only at Colaba STP &amp; is stabilized &amp; disinfected and then disposed off.</p>
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			Annexure I and II attached separately Pg. C/53 to C/67
(v) 100% treatment of sewage may be ensured as directed by the Principal Bench of this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017, ParyavaranSurakshaSamiti&Anr. Vs. Union of India &Ors. and time line for completing all steps of action plans including completion of setting up STPs and their commissioning till 31st March, 2021, in terms of order dated 08.04.2019 and in case of default compensation laid down in the order of the Principal Bench of this Tribunal dated 22.08.2019 in the case of River Ganga i.e. Rs.10 lakhs per month per STP.	<p>(a) Zone wise Action plan in brief with target dates for each steps of the action plan ensuring 100% treatment of sewage</p> <p>(b) Zone wise (including ward details) status of set up of grievance redressal cell setup by MCGM and MPCB with respect to illegal discharge of sewage.</p> <p>(c) Status (with details) of demarcation of flood zones by MCGM in consultation with MPCB for natural drains as well as land areas.</p>	Ch. E. (MSDP)	Action plan attached separately- Annexure-I Pg. C/53
(f) Details of the gap area between sewage generation as well as collection and complete treatment. Zone wise break up of these gaps is to be provided.			
(g) Action plan with target date for fulfilling the gaps is to be provided.			
(h) Action taken by MPCB in proceeding in accordance with law for realization of environmental compensation including calculation of environmental compensation amount.			

<p>(vi) The Chief Secretary of Maharashtra may set up appropriate monitoring mechanism at State Level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretary may have an accountable person attached in his office for this purpose.</p>	<p>(d) Progress in Planning and achievement in sewage management infrastructure creation and augmentation of existing sewage treatment facilities to be informed to MPCB by MCGM on monthly basis.</p>	<p>Ch.E.(SP)</p>	<p>Action plan attached separately- Annexure-II Pg. C/55 to C/67</p>
<p>(vii) Remedial measures submitted by Divisional Forest Officer of Maharashtra PCB is accepted and Municipal Corporation of Greater Mumbai is directed to ensure the compliance and execution of the report submitted by the Joint Committee"</p>	<p>(a) Details of monitoring mechanism at State Level</p> <p>(b) Nodal authorities and their accountability</p> <p>(c) Status of appropriate adverse entries in the ACRs of erring officers</p> <p>(d) Status of State level monitoring on fortnightly basis and record of progress maintained</p> <p>(e) Accountable person in the office of Chief Secretary of Maharashtra</p>	<p>Ch.E.(SWD)</p>	
<p>a. Municipal Corporation of Greater Mumbai should ensure the mangrove area is kept to plastic free zone. It is recommended to install Trash Boom or Trash Trap for collection of floating plastic and other wastes &amp; its disposal.</p> <p>b. All sewage should be treated at the</p>	<p>(a) Numbers (with name and respective areas) of patches of mangrove forest exist in MCGM area.</p> <p>(b) Patches wise maps of mangrove area and one summary map.</p> <p>(c) Locations where Trash Broom/Trash Traps are installed.</p>		

<p>source and then release into Creek via streams. This will be taken up by Municipal Corporation of Greater Mumbai for implementation. It will be the responsibility of Municipal Corporation of Greater Mumbai to ensure proper functioning of treatment plants &amp; release treated sewage water to the Creek.</p> <p>c. Natural streams used as sewage canals should be stopped immediately and restoration should be carried out to recover the beauty of mangroves of Mumbai and adjoining Thane District.</p> <p>d. Monitoring of the pollution level should be carried out as per the guideline laid down in the Environment (Protection) Act, 1986 by the Maharashtra Pollution Control Board.</p>	<p>(d) Number of locations (with names) where treated sewage water is released into creeks with brief details of sewage treatment/ management to each of them.</p> <p>(e) Number (with names) of natural streams used as sewage canal and Number (with names) of such natural streams that have been stopped by MCGM along with action plan for restoration and replantation etc. of Mangrove.</p> <p>(f) Monitoring (to be done at least quarterly) carried out by MPCB as per the guideline laid down in the Environment (Protection) Act, 1986 and analysis results thereof.</p>		
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<p>(viii) The report submitted by IIT Mumbai for MTHL project regarding pollution level is accepted. The respondent and the Municipal Corporation are directed strictly to comply and execute it and a time bound action plan be implemented. The technology which has been suggested by IIT Mumbai should be implemented by Municipal Corporation of Greater Mumbai, Navi Mumbai Municipal Corporation on priority basis. For the protection of mangroves, the direction issued from the Bombay High Court in Writ Petition No. 87 of 2016 as mentioned above must be strictly followed. The provision as contained in the Wetland (Conservation and Management) Rules, 2017 must be complied with.</p>	<p>(a) IIT report on setup of effluent treatment facilities</p> <ol style="list-style-type: none"><li>1. Total coastal area under MCGM, NMMC and Thane Municipal Corporation.</li><li>2. Point sources (with name &amp; locations) which discharge effluent (without requisite treatment) into creek and mangroves. Amount of such untreated effluent for each of the point sources be also provided.</li><li>3. Identified proposed locations for set up of waste water treatment facilities in the above point sources.</li><li>4. Action Plan with time target for commissioning the<ol style="list-style-type: none"><li>(i) Floating matter removal</li><li>(ii) Sediment removal, and</li><li>(iii) Biological treatment</li></ol>in the point sources (nallahs) as suggested in the IIT report.</li><li>5. Summarized map by incorporating above 7 points may also be submitted.</li></ol>	<p>Ch.E.(SWD)</p>	
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	<p>(b) <u>Protection of mangroves</u></p> <ol style="list-style-type: none"> <li>1. Total mangroves areas under MCGM, NMMC and Thane Municipal Corporation with names.</li> <li>2. Copy of recent satellite map of mangroves in MCGM, NMMC and Thane Municipal Corporation Jurisdiction</li> <li>3. In how many mangroves areas, "Total freeze" on destruction and cutting of mangroves in the region of MCGM, NMMC and Thane Municipal Corporation has taken place, Map in this regard may be furnished.</li> <li>4. Has dumping of rubble/garbage/solid waste on themangrove areas been stopped. If so, brief details of action taken in this regard.</li> <li>5. Total area along with map where replantation of destructed mangroves taken up.</li> <li>6. Numbers and names where barricades are erected for preventing the entry of vehicles in vulnerable mangrove area.</li> <li>7. Details of encroachment of mangroves area removed by MCGM and NMMC.</li> <li>8. Is the Committee headed by the Divisional Commissioner monitoring and enforcing the preservation and conservation of mangroves, for restoration of reclaimed mangroves areas and various directions in the Judgment dated 17.09.2018 of the Hon'ble High Court</li> </ol>	<p><u>Ch.E.(SWD)</u> <u>Ch.E.(SWM)</u></p>	
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	<p>9. Has the Grievance Redress Mechanism (for enabling the members of the public to lodge complaints about the activity of destruction / removal of the mangroves) been set up and being operated as per the aforesaid Judgment dated 17.09.2018 of the Hon'ble High Court? If so, brief details thereof.</p> <p>10. Is satellite mapping of mangroves area in the area being undertaken at periodical intervals of not more than six months? Please provide copy of recent satellite map of mangroves in MCGM, NMMC and Thane Municipal Corporation Jurisdiction</p>	<p>(c) <u>Compliance of Wet land conservation</u></p> <ol style="list-style-type: none"><li>1. Has State Wetlands Authority been constituted in Maharashtra? If so, copy of such authority constitution be provided.</li><li>2. List of comprehensive inventory (along with maps) of all wet lands within the jurisdiction of MCGM, NMMC and Thane Municipal Corporation.</li><li>3. Action taken report on conservation of wetland and wise use of wetland in the jurisdiction of MCGM, NMMC and Thane Municipal Corporation may be furnished.</li></ol>	<p><u>Ch.E.(SWM)</u></p>	
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<p><b>(ix)</b> Respondent no. 1 is directed to implement the Maharashtra Nonbiodegradable Garbage (Control) Act, 2006 and to install nets in sewage storm water discharge drains to stop sewage solid waste from entering the sea along with the solid waste and to ensure that no untreated water being discharged into the sea level. Respondent no. 1 is also directed to install mobile public toilets after identifying the areas close to beaches where open defecation is rampant.</p>	<p><b>(a)</b> Maharashtra Nonbiodegradable Garbage (Control) Act, 2006</p> <ol style="list-style-type: none"> <li>1. Zone wise numbers of provision made for placement of receptables and places for deposition of non-biodegradable garbage and establishment of waste collection system in MCGM and NMMMC area.</li> <li>2. Number of cases registered against the people/company for the offense made under this act in MCGM and NMMMC area.</li> <li>3. Total amount of fine received or other penalty imposed under this act.</li> <li>4. A brief note on how nonbiodegradable garbage is collected, handled and disposed off in MCGM and NMMMC area.</li> </ol>	<p><u>Ch.E.(SWM)</u></p>	
	<p><b>(b)</b> Total no. of sewage storm water discharge drains (with names and locations)entering the sea</p>	<p>Ch.E.(SWD)</p>	
	<p><b>(c)</b> Numbers with name of respective exact location of MCGM and NMMMC area where untreated water is discharged into sea (other than (b) above).</p>		
	<p><b>(d)</b> Action plan with time target and compliance status of such sewage storm water discharge drains w.r.t. installation of nets to stop sewage solid waste.</p>	<p>Ch.E.(SWD)</p>	
	<p><b>(e)</b> Name of areas identified by MCGM and NMMMC close to beaches where open defecation is rampant</p>		

	(f) Action plan with time target and compliance status for setting up of mobile public toilet in such areas where open defecation is rampant.		
(x) The pipelines which are directly releasing domestic sewage in the water bodies, creeks and wet land without treatment must be removed or connected to the STP.	(a) Inventory (with location name) of pipelines which are directly releasing domestic sewage in the water bodies, creeks and wet land without treatment  (b) Action Plan with time target and current status thereof for removal or connectivity to the STP	Ward Executive Engineer of Each Ward  Ward Executive Engineer of Each Ward	
(xi) The guidelines and directions issued as mentioned above must be complied with and the authorities- CPCB/MSPCB is directed to execute and comply the orders.	Various actions taken by MPCB so as to comply with the said order.		
(xii) The Registrar, Western Zonal Bench, Pune is directed to open a Miscellaneous Application file in which the compliance report submitted by the CPCB/MSPCB be attached and the progress report be monitored and placed at the interval of 3 months before this Tribunal.	In this regard MCGM should submit monthly progress report to MPCB.		
(xiii) According to the parameter laid down and calculation as mentioned above, the BMC is liable to pay environmental damage for discharge of untreated sewage water into the water bodies at the rate of Rs. 4.25 crores per month and arrears of Rs. 29.75 crores. The BMC is directed to pay the amount of Rs. 29.75 crores to the account of CPCB within 30 days from today and ensure to regularly pay Rs. 4.25 crores per month till the bio-remediation or phytoremediation measures are taken by	MPCB to calculate the environmental damage cost and needful done according to law from time to time.		

	<p>the authorities concerned. If remediation or treatment of the water of sewage water is taken, it will be reduced at the rate of Rs. 5 lakhs per month per drain systematically. The State PCB is directed to calculate and do the needful according to law from time to time.</p>		
<p>(xiv) The amount so paid by the BMC as environmental compensation/ environmental damage, be deposited in accordance with Section 7A(3) of the Public Liability Insurance Act, 1991 read with Section 24 of the NGT Act, 2010.</p>	<p>CPCB to take necessary step in this regard and file compliance report in the Hon'ble NGT.</p>		
<p>(xv) The CPCB is directed to proceed in accordance with Section 7A of Public Liability Insurance Act, 1991 read with Section 24(1) of the NGT Act, 2010.</p>			

*Shri C. S. M. Rao*

(A. S. Rao)

Ch.E.(MSDP)

*S. D. Chavan*

(S. D. Chavan)

Ch.E.(S.O.)

*Shri A. M. Patil*

(A. M. Patil)

Ch.E.(S.P.)

*D. M. C. (E)*

(S.B. Uchagaonkar) 6/4/21

D.M.C. (E)