Item No. 01 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 06/2012

Manoj Mishra Applicant

Versus

Union of India & Ors. Respondent(s)

Date of hearing: 27.01.2021

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Respondent(s): Ms. Jyoti Mendiratta, Advocate for GNCTD

Mr. Anil Grover, Senior AAG with Mr. Rahul Khurana, Advocate for State of Haryana & HSPCB

Mr. H.S. Phoolka Senior, Advocate with Ms. Sakshi Popli, Advocate for DJB

Mr. Raj Kumar, Advocate for CPCB

ORDER

I. Issue under consideration: Reviewing the status of compliance of directions of the Hon'ble Supreme Court and NGT for rejuvenation of river Yamuna

1. This order is in continuation of earlier orders on the subject. The issue under consideration is rejuvenation of River Yamuna through execution of directions of this Tribunal's order dated 13.01.2015 (*2015 SCC Online NGT 840) ("***the 2015 order***")* in this matter, and further orders including orders dated 08.05.2015 (2015 SCC Online NGT 841) and dated 07.12.2017 in OA 65 of 2016[1] and OA 76 of 2016[2]. We may mention that

[1] Manoj Misra v. Delhi Development Authority & Ors.
[2] Pramod Kumar Tyagi Vs. Art of Living International Center & Ors.

the **Hon'ble Supreme Court also issued several directions for improving water quality of river Yamuna, and protection of floodplains, to which reference is made later herein. Finally, vide order dated 24.4.2017, the Court transferred proceedings before it in *W.P. No. 725/1994*[3] to this Tribunal for further monitoring.** The Tribunal has been reviewing the progress and has passed several orders to which reference will be made later.

Order dated 13.01.2015 and proceedings upto 25.07.2018

2. The 2015 order was passed based on extensive studies by way of Expert Committee Reports dated 19.04.2014 and 13.10.2014. Detailed directions were issued therein (Paragraph 94) for maintaining environmental flow, preventing discharge of pollutants into the river, protecting flood plain zones by river front development activities and removing encroachments. A Principal Committee was constituted to supervise implementation of the directions and to furnish quarterly reports to this Tribunal. **The Principal Committee was to comprise of representatives of MoEF&CC; Ministry of Water Resources; Chief Secretary, Delhi Administration; Vice Chairman, DDA; Commissioner of all the Municipal Corporations; Commissioner, DJB; Secretary, Department of Irrigation, NCT of Delhi and concerned Secretaries of the States of Haryana, Uttar Pradesh, Himachal Pradesh and Uttarakhand. Four Experts - Professor C.R. Babu, Professor A.K. Gosain, Professor Brij Gopal and Professor A.A. Kazmi were also to be Members of the Principal Committee to be associated with commencement and completion of all the aspects of this project. The Delhi Jal Board (DJB) along with Corporation under whose jurisdiction**

[3] News Item "Hindustan Times" AQFM Yamuna v. Central Pollution Control Board & Anr.

the required number of STP was to be constructed and established as well as the drains which were to be completed and made obstruction free were to be responsible for execution of the work as contemplated in the action plan. Vide order dated 24.07.2017, earlier order was modified to the effect that the Secretary, Ministry of Water Resources (Jal Shakti) was to head the Principal Committee. The authorities responsible for compliance of the directions included Government of Delhi, DJB, Public Works Department (PWD), Municipal Corporations, Industries Department, Delhi Pollution Control Committee (DPCC), Haryana Government and U.P. Government. After transfer from the Hon'ble Supreme Court, the NGT monitored the matter and listed it on several dates. Without referring to all the orders, we may refer here only the significant orders passed.

II. Earlier significant orders on review of compliance status:

- **order dated 25/26.07.2018 (constituting YMC)**
- **order dated 29.01.2019 (Review of the YMC action plan & first report)**
- **order dated 11.09.2019 (Directions on second report of YMC)**
- **order dated 05.03.2020 (Directions on third report of YMC)**

a. Order dated 25/26.07.2018 (constituting YMC)

3. The Tribunal conducted comprehensive review on 25.7.2018 and found that hardly much progress had been in water quality as pollutants continued to be discharged. The matter had been monitored by the Hon'ble Supreme Court since 1994. **Vide order dated 10.10.2012, it was noted by the Hon'ble Supreme Court that inspite of monitoring for 18 years, there were high level of fecal coliform (FC) and BOD**. We may also note orders of the Hon'ble Supreme Court in (1999) 1 SCC 161[4], (2009) 17 SCC

[4] Sector 14 Resident's Welfare Association & Ors. v. State of Delhi & Ors.

708[5], (2009) 17 SCC 716[6], (2009) 17 SCC 720[7], (2009) 17 SCC 745 and (2012) 13 SCC 736[8]. It was *inter-alia* observed that **C Category quality water should be achieved and there should be no encroachment atleast upto 300 meters on both sides of Yamuna**. **Action plans were required to be prepared and executed in time bound manner**.

Since even after monitoring by the Hon'ble Supreme Court for 23 years and simultaneous monitoring by this Tribunal for about five years, the desired result was not being achieved, the Tribunal vide order dated 26.07.2018 constituted a two Member Yamuna Monitoring Committee (YMC) for identifying various action points and closely monitoring execution according to such points in a time bound manner.

b. Order dated 29.01.2019 (Reviewing the action plan and first report of YMC)

4. The Committee gave its action plan dated 20.10.2018 and its first report dated 16.01.2019 which were dealt with by a detailed order dated 29.01.2019[9]. The Core Action Plan dated 22.10.2018, identified road map for monitoring the directions of this Tribunal activity wise and agency wise. The plan highlighted issues, present status and future actions. The sixteen action points identified were:

i. Environmental Flow
ii. DDA, Demarcation of the Flood Plains and Conservation Activities
iii. Quality of River water
iv. Sewage Treatment Plants
v. Interceptor Sewer Project (ISP)
vi. Repair and maintenance of Drains
vii. Polluter Pays principle
viii. Dredging and desilting
ix. Industrial Pollution and CETPs

[5] News Item published in Hindustan Times titled "And Quite Flows the Maily Yamuna"
[6] News Item published in Hindustan Times titled "And Quite Flows the Maily Yamuna"
[7] News Item published in Hindustan Times titled "And Quite Flows the Maily Yamuna"
[8] News Item published in Hindustan Times titled "And Quite Flows the Maily Yamuna"
[9] (2019) SCC Online NGT 644

x. *Sewage and Faecal Sludge Management*
xi. *Online Monitoring of STPs, CETPs and Yamuna.*
xii. *Use of treated Waste Water*
xiii. *Idol Immersion*
xiv. *State of Haryana and pollution of the Yamuna*
xv. *State of Uttar Pradesh and Pollution of the River*
xvi. *Creating Public Awareness through Information Dissemination Strategies and Management"*

From the first report of the YMC dated 16.01.2019, it was found that **DDA was yet to undertake demarcation of the flood plains**. There was need to have a mechanism to stop dumping of debris by installing electronic surveillance system, aerial mapping to track debris, to set up check posts to track transportation of debris and for recovery of environmental compensation, setting up of more water quality monitoring stations, improvement and upgradation of STPs, setting up new STPs to bridge the gap between sewage generated and sewage treated, need for interceptors, maintenance of drains, improvement of CETPs and to set up sewerage network for unauthorized colonies. **The Committee noted that the FC count was upto 6,400 times above the prescribed standards. Only 14% of the 1797 colonies had sewage pipelines. DDA had failed to remove the debris and to secure the area by erecting barbed wire fencing.** The authorities in the State of Haryana were required to expedite action for reducing water pollution load. The State of Uttar Pradesh was required to tap the drains, set up STPs and take action against the polluting industries releasing effluents into drains joining the river. The Tribunal noted that the situation was grim and that the regulatory authorities had failed to apply the 'Polluter Pays' principle to control the polluting activities. In spite of the serious damage being caused, the authorities were not acting against the offenders either by prosecuting them and/or recovering the cost of restoration. Apart from failure of the Delhi Government, there was failure on the part of DDA, UP Government

as well as Haryana Government. The Delhi Government, UP Government as well as Haryana Government were required to furnish performance guarantees in the sum of Rs. 10 Crores each with the CPCB. The DDA was also required to furnish a performance guarantee in the sum of Rs. 50 Lakhs with the CPCB. This Tribunal directed that further report be furnished by 20.05.2019.

c. Order dated 11.09.2019 (Directions on second report of YMC)

- **Review of YMC's Second and Supplementary Reports of 27.5.2019 and 13.8.19;**
- **Assignment of timelines and compensation**

5. The second report of the Committee dated 25.07.2019 followed by Supplementary Report dated 13.08.2019 was dealt with vide a detailed order dated 11.09.2019. **The said order dealt with all the micro issues by laying down exhaustive guidelines and directions and timelines as well as action to be taken for violation of the timelines. The directions included reiteration of recovery of sewage charges from all generators of sewage**. Since the earlier order of the Tribunal dated 8.5.2015 was under challenge before the Hon'ble Supreme Court to the extent of requiring Electricity Supply Companies to recover the charges, vide order dated 11.09.2019, the Tribunal allowed Delhi Government to evolve any other mechanism for recovery. The Hon'ble Supreme Court vide judgment dated 24.10.2019, **(2019) 10 SCC 104**[10], directed levy and recovery of sewage charges as per order of this Tribunal dated 11.09.2019 within two months. A Division Bench of the **Delhi High Court vide order dated 24.10.2019 in *L.P.A. No. 681/2019, DDA v. Yamuna Khadar Slum Union & Ors.***, vacated stay against removal of encroachments, after referring to the order of this Tribunal dated 11.09.2019. Further order

[10] TATA Power Delhi Distribution Limited, NDPL House v. Manoj Mishra & Ors.

dated 22.1.2020 was passed by the Tribunal to explore *in-situ* remediation techniques as supplement to STP systems.

d. Order dated 5.03.2020 (Directions on third report of YMC)

- **Review of YMC's Third Report of 5.2.2020;**
- **Directions to wind up YMC and continue monitoring by constituting 1) DDA's SPV (Drains) and 2) Delhi Government's IDMC (Floodplains) and alternative institutional monitoring mechanism**

6. Third report of the YMC dated 05.02.2020 was considered vide order dated 05.03.2020 wherein detailed reference was made to the earlier orders dated 11.09.2019, 29.01.2019 and 22.01.2020 (in pursuance of Chamber meeting held on 03.01.2020) on the issue of in-situ remediation of sewage and **constitution of a single agency to deal with all the drains in Delhi.** The said report apart from all other action points dealt with the issue of inadequate action by DDA in absence of single coordinating authority entrusted with responsibility of taking necessary steps. The issues to be dealt with by the DDA were identified as follows:

- The protection of the flood plain;
- The creation of wetlands at identified locations:
- Demolition plans and action taken to retrieve flood plain land and free it of encroachments,
- Enforcement against vehicles dumping debris in and around the flood plain
- Progress on financial devolution by the State of Uttar Pradesh on DDA to undertake
- Floodplain rejuvenation on the Eastern bank of the river,
- Progress of 10 identified projects which DDA had undertaken to complete by specific dates.
- Tree plantation drives,
- Closure of bore wells and plans for larger use of treated waste water dealt with in Chapter – 10, Use of Treated Waste Water.

7. The YMC referred to the earlier recommendations of the Committee comprising Prof. AK Gosain (IIT Delhi), Prof. CR Babu(Emeritus Professor Delhi University), Prof. Brij Gopal (IIT Roorkee), assisted by officers from

the DDA, Government of NCT of Delhi, DJB and UP Irrigation department, **to set up an independent body to plan and execute the restoration programme for river zone in the NCR, to protect flood plains and to make river zone a place of attraction with the involvement of the civil society**. This was named as a 'Special Purpose Vehicle' (SPV) or Yamuna River Front Management Authority (YRFMA). The YMC referred to note of Cabinet Secretariat dated 24.08.2007 contemplating such authority. The Tribunal, accordingly, after consideration issued following directions:

> *"**Directions***
>
> *66. In view of above discussion, there is need for stringent compliance of directions to ensure sewage and sludge management and other pollution aspects for protection of environment, public health and safety and also rejuvenation of river Yamuna.* ***There is a continued failure of compliance by the authorities inspite of repeated directions of the Hon'ble Supreme Court and this Tribunal in the last more than twenty five years.*** *The evaluation of damage on account of degradation to river Yamuna, in monetary terms, on account of such failures has also become necessary for fixing accountability.*
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> *67. Accordingly, we direct as follows:*
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> *a. In the light of observations in the third report of the YMC dated 05.02.2020 showing inadequate progress in compliance of orders of this Tribunal dated 11.09.2019, all concerned authorities (in Delhi, Haryana and U.P.) need to take further action expeditiously on the issues of* ***sewage management, industrial pollutants, solid waste management*** *and other issues, as per laid down timelines and to pay compensation wherever timelines have not been met which may be ensured by the CPCB.*
>
> *CPCB may issue notice to the entities accountable to pay compensation and in case of non-payment and seek execution by moving this Tribunal.*
>
> *Wherever coercive measures are required to be taken in terms of orders of this Tribunal dated 11.09.2019 and have not been taken against official lethargy, action may be taken as already directed by the concerned administrative heads. In case of any failure, this Tribunal may have to take further action for strict compliance. The Authorities may give their progress reports of the status as on 30.04.2020 to this Tribunal by email at judicial-ngt@gov.in before the next date.*
>
> *b.* ***The DDA may constitute a Special Purpose Vehicle (SPV) preferably within two weeks from today for rejuvenation of river Yamuna. The functions of such entity will***

include ecological restoration of the flood plain zones, setting up of bio-diversity parks, artificial wetlands, phyto-remediation of drains at the river mouth locations, maintaining the vigil and undertaking flow measurement, creating ecological services, removing encroachments and undertaking other activities, including river front development. It may also take steps to attract and educate the citizens and nature enthusiasts for nature related activities, including building environmental temper amongst citizenry, without in any manner causing any damage to the flood plains.

c. ***Delhi Government may set up within two weeks from today an 'Integrated Drain Management Cell' (IDMC) under the Chief Secretary for remediation and management of all drains of Delhi with representatives of all agencies/ departments/Urban Local Departments owning such drains, not below the level of Chief Engineer dealing with the management of drains to the IDMC.*** *The CEO, DJB will be the ex-officio Member Secretary of the IDMC. The IDMC may meet atleast once in a week, to start with. Constitution of IDMC will not affect ownership of the drains. IDMC may send its reports to this Tribunal every two months by e-mail at judicial-ngt@gov.in.*

d. *CPCB may revise its report on 'Alternate Technologies for Management of Waste Water in Drains' in the light of comments of the YMC dated 17.02.2020 and forward the same to the Ministry of Urban Development, Jal Shakti, Govt. of India, NMCG, Governments of Delhi, Haryana and U.P. within one week from today for further necessary action on their part for making a policy which may be finalized within one month from today. CPCB may file a compliance report after collecting status of compliance from the said authorities by e-mail at judicial-ngt@gov.in before the next date. Revised CPCB report may be placed on its website and also circulated to all States/UTs and PCBs/PCCs.*

e. *The IDMC may prepare and execute an action plan on the subject of 'Alternate Technologies for Management of Waste Water in Drains' after appropriate techno-economic evaluation at its end in the light of reports of the CPCB referred to by the YMC in its recommendations dated 20.01.2020 and 17.02.2020 or any other relevant inputs on the subject, within three weeks from its constitution which may be ensured by the Chief Secretary, Delhi. It is made clear that this direction does not in any manner obviate the need to comply with the earlier direction of this Tribunal and the timelines already laid down. It is made further clear that Tribunal has not expressed any opinion about viability or desirability of any particular process or technology indicated in the report or otherwise. Only object of direction of this Tribunal is reduction and abatement of pollution load by using the best possible option.*

f. *Chief Secretaries of Haryana and U.P. may also ensure action on the pattern of direction 'e' above in their respective jurisdiction within three weeks from today.*

g. ***The Government of Delhi may review its 'free sewer scheme' referred to in para 22, 51 to 52 above, in the light of the order of the Hon'ble Supreme Court dated 24.10.2019 in Civil Appeal No. 9276-9290 of 2015 (Tata Power Delhi Distribution Ltd. v. Manoj Mishra), referred to in para 8 above, earlier orders of this Tribunal dated 08.05.2015 (referred to in para 22 above) and dated 11.09.2019 [para 15 (viii) (e)] and recommendations of the YMC (para 22 above).***

h. *A joint Committee comprising CPCB, NMCG, NEERI, IIT Roorkee and IIT Delhi may assess damage to environment, in monetary terms after the date of order of this Tribunal 13.01.2015, on account of degradation of river Yamuna, by continued inaction of the authorities in Delhi, Haryana (from Hathnikund till entry in State of UP), U.P. (upto Mathura), within three months from today. CPCB will be the nodal agency for coordination and compliance. The Committee will be at liberty to take such assistance from any individual(s)/institutions as may be necessary.*

68. We place on record our sincere gratitude and appreciation to the YMC for its outstanding contribution in endeavours for rejuvenation of river Yamuna. ***Once setting up of SPV for River Front Management and constitution of IDMC as a single agency for remediation and management of all the drains in Delhi takes place, it should be possible for such SPV set up by the DDA and the Chief Secretaries of Delhi, U.P. and Haryana to directly monitor further steps, extensively laid down in the order of this Tribunal dated 11.09.2019 and the present order, in a time bound manner.***

69. ***The YMC may accordingly submit its final report on the status of compliance as on 30.04.2020, before the next date so that thereafter monitoring of progress of rejuvenation of river Yamuna and related issues is taken over by the SPV and the Chief Secretary, Delhi, by constituting an appropriate effective institutional mechanism directly under him for exhaustively monitoring all issues relating to rejuvenation of river Yamuna****. It will also be open to the Chief Secretaries of U.P. and Haryana to have their own appropriate mechanism for monitoring. The Chief Secretaries of Delhi, U.P. and Haryana may place the mechanism so evolved before this Tribunal before the next date. On conclusion of proceedings of the YMC constituted by this Tribunal, the record and database may be taken over by the SPV and the Chief Secretaries, Delhi, Haryana and U.P.*

List for further consideration on 14.05.2020.

A copy of this order be sent by e-mail to Governments of Delhi; Haryana; U.P; DDA; DJB; PWD, Delhi; all Municipal Corporations of

*Delhi; CPCB; Ministries of Urban Development and Jal Shakti, Govt. of India; NMCG; IIT Delhi; IIT Roorkee and NEERI.***"**

8. By further order dated 06.05.2020 the time for furnishing final report was extended due to lockdown.

III. Connected matters involving overlapping issues bearing on this matter:

a. OA 593/2017, Paryavaran Suraksha Samiti v. Union of India (preventing discharge of industrial effluents and municipal sewage)**.**

b. OA 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues**.**

c. OA 673/2018, In Re: News item published in "The Hindu" authored by Shri Jacob Koshy, titled "More river stretches are now critically polluted: CPCB**"** (remedying polluted river stretches)**.**

a. OA 593/2017, Paryavaran Suraksha Samiti v. Union of India (preventing discharge of industrial effluents and municipal sewage)**;**

9. We may note three connected matters involving overlapping issues. The first, *OA 593/2017, Paryavaran Suraksha Samiti v. Union of India* involves the issue of monitoring compliance of directions of the Hon'ble Supreme Court in (2017) 5 SCC 326[11] to ensure that no industrial or municipal pollutant is discharged into water systems after 01.04.2018 and if it is done, State PCB must initiate prosecution. Further monitoring was to be by this Tribunal. In pursuance of the said order, this Tribunal has periodically issued directions. Directions issued vide order dated 21.05.2020 were for ensuring 100% treatment of sewage/ effluents and coercive action for violation of the timeline fixed by the Hon'ble Supreme Court. A copy of the said order was directed to be forwarded to the Secretary General, Hon'ble Supreme Court of India with reference to the judgment in (2017) 5 SCC 326. The matter was last dealt with vide order

[11] Paryavaran Suraksha Samiti & Anr. v. Union of India & Ors.

dated 21.09.2020 whereby noticing non-compliance, following directions were issued:

> *"36. Accordingly, we issue following directions:*
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> *i. All the States/UTs may address gaps in generation and treatment of sewage/effluents* ***by ensuring setting up of requisite number of functional ETPs, CETPs and STPs****, as directed by the Hon'ble Supreme Court in (2017) 5 SCC 326.*
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> *ii. The timeline for commissioning of all STPs fixed by the Hon'ble Supreme Court, i.e., 31.03.2018, has long passed. The Hon'ble Supreme Court directed that the State PCBs must initiate prosecution of the erring Secretaries to the Governments, which has also not happened. This Tribunal was directed to monitor compliance and, in the course, thereof, we direct that compensation may be recovered in the manner already directed in earlier orders (See,* ***Paras 5 and 6*** *herein), which may be deposited with the CPCB for restoration of the environment.*
>
> *iii. The unutilized capacity of the existing STPs may be utilized expeditiously.*
>
> *iv. The States/ UTs may ensure that the CETP, ETPs and STPs meet the laid down norms and remedial action be taken wherever norms are not met.*
>
> *v. It must be ensured that no untreated sewage/effluent is discharged into any water body. Prompt remedial action may be taken by the State PCBs/PCCs against non-compliant ETPs/CETPs by closing down or restricting the effluents generating activity, recovering compensation and taking other coercive measures following due process of law.*
>
> *vi. Directions outlined in* ***Paras 24-26*** *herein may be implemented by the States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level.*
>
> *xxx xxx xxx*
>
> *x. CMC may consider development of an appropriate App to enable easy filing and redressal of grievances with regard to illegal discharge of sewage/effluents.*
>
> *xi. The monitoring by the CMC may have the target of reduction of pollution loads and improvement of water quality of rivers and coastal areas.*
>
> *xii. The CMC may also monitor the setting up of the bio-diversity parks, constructed wetlands and other alternative measures to reduce pollution load.*
>
> *xiii. The CMC may also monitor demarcation of flood plain zones.*
>
> *xiv. The treated sewage water may be duly utilized for secondary purposes by preparing appropriate action plans*

and reports in this regard be filed with the CPCB periodically.

xv. CMC may submit its consolidated update report incorporating all the above, before the next date. Each action point mentioned in Para 26 may be individually covered, and summarized in a tabular format."

b. OA 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues

10. The second matter, OA 606/2018 is in pursuance of the order of the **Hon'ble Supreme Court dated 02.09.2014 in WP No. 888/1996**[12] to monitor compliance of solid waste management rules wherein in relevant part, the last order of 28.02.2020 held:

> *"41. In view of above, consistent with the directions referred to in Para 29 issued on 10.01.2020 in the case of UP, Punjab and Chandigarh which have also been repeated for other States in matters already dealt with, we direct:*
>
> **a.** *In view of the fact that most of the statutory timelines have expired and directions of the Hon'ble Supreme Court and this Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted,* ***interim compensation scale is hereby laid down for continued failure after 31.03.2020. The compliance of the Rules requires taking of several steps mentioned in Rule 22 from Serial No. 1 to 10 (mentioned in para 12 above). Any such continued failure will result in liability of every Local Body to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body from 01.04.2020 till compliance. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal. Final compensation may be assessed and recovered by the State PCBs/PCCs in the light of Para 33 above within six months from today. CPCB may prepare a template and issue an appropriate direction to the State PCBs/PCCs for undertaking such an assessment in the light thereof within one month.***

[12] Almitra H. Patel Vs. Union of India & Ors.

b. ***Legacy waste remediation was to 'commence' from 01.11.2019 in terms of order of this Tribunal dated 17.07.2019 in O.A. No. 519/2019 para 28[13] even though statutory timeline for 'completing' the said step is till 07.04.2021 (as per serial no. 11 in Rule 22), which direction remains unexecuted at most of the places and delay in clearing legacy waste is causing huge damage to environment in monetary terms as noted in para 33 above, pending assessment and recovery of such damage by the concerned State PCB within four months from today, continued failure of every Local Body on the subject of commencing the work of legacy waste sites remediation from 01.04.2020 till compliance will result in liability to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal. Final compensation may be assessed and recovered by the State PCBs/PCCs in the light of Para 33 above within six months from today.***

c. *Further, with regard to thematic areas listed above in para 20, steps be ensured by the Chief Secretaries in terms of directions of this Tribunal especially w.r.t. plastic waste, bio-medical waste, construction and demolition waste which are linked with solid waste treatment and disposal. Action may also be ensured by the Chief Secretaries of the States/UTs with respect to remaining thematic areas viz. hazardous waste, e-waste, polluted industrial clusters, reuse of treated water, performance of CETPs/ETPs, groundwater extraction, groundwater recharge, restoration of water bodies, noise pollution and illegal sand mining.*

d. *The compensation regime already laid down for failure of the Local Bodies and/or Department of Irrigation and Public Health/In-charge Department to take action for treatment of sewage in terms of observations in Para 36 above will result in liability to pay compensation as already noted above which are reproduced for ready reference:*

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[13] The Chief Secretaries may ensure allocation of funds for processing of legacy waste and its disposal and in their respective next reports, give the progress relating to management of all the legacy waste dumpsites. Remediation work on all other dumpsites may commence from 01.11.2019 and completed preferably within six months and in no case beyond one year. Substantial progress be made within six months. We are conscious that the SWM Rules provide for a maximum period of upto five years for the purpose, however there is no reason why the same should not happen earlier, in view of serious implications on the environment and public health.

i. ***Interim measures for phytoremediation/ bioremediation etc. in respect of 100% sewage to reduce the pollution load on recipient water bodies – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per drain by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.***

ii. ***Commencement of setting up of STPs – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.***

iii. ***Commissioning of STPs – 31.03.2021. Compensation is payable for failure to do so at the rate of Rs. 10 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2021.***

e. *Compensation in above terms may be deposited with the CPCB for being spent on restoration of environment which may be ensured by the Chief Secretaries' of the States/UTs.*

f. *An 'Environment Monitoring Cell' may be set up in the office of Chief Secretaries of all the States/UTs within one month from today, if not already done for coordination and compliance of above directions which will be the responsibility of the Chief Secretaries of the States/UTs.*

g. *Compliance reports in respect of significant environmental issues may be furnished in terms of order dated 07.01.2020 quarterly with a copy to CPCB.*

11. In the above matter, this Tribunal requested the Niti Ayog to simplify and **standardize technology and services dealing with solid and liquid waste management to avoid delays in such processes. Accordingly, Niti Ayog vide its report dated 25.06.2020 conveyed that such simplification and standardization was done in consultation with all experts and GeM has been asked to place such services on its portal. Standard concessionaire agreements/DPRs etc. have also been prepared.** The same have been referred to and fully quoted in the order of

this Tribunal dated 03.07.2020 in OA 514/2019 (relating to solid waste management in Kerala).

c. OA 673/2018, In Re: News item published in "The Hindu" authored by Shri Jacob Koshy, titled "More river stretches are now critically polluted: CPCB" (remedying polluted river stretches)

12. The Third connected matter, OA 673/2018[14] is dealing with the remedial action for 351 polluted river stretches identified as such by the CPCB based on the water quality data, including river Yamuna. The said matter has been last dealt with by orders dated 29.06.2020 and 21.09.2020 in the light of earlier proceedings. A copy of order dated 29.06.2020 was directed to be forwarded to the Secretary General, Hon'ble Supreme Court of India with reference to directions in (2015) 12 SCC 764 passed in O.A. 200 of 2014 (relating to River Ganga) with a request that the Secretary-General may place the matter on the judicial side in terms of the direction of the Hon'ble Supreme Court in para 20 of said judgement. The matter was last considered on 21.09.2020 alongwith OA No. 593/2017, *Paryavaran Suraksha Samiti & Anr. vs. Union of India & Ors.* and common directions were issued which have already been quoted above. The Chief Secretaries of all the States/UTs were directed to monitor compliance at the State level and the CMC at the National level for ensuring that there is no discharge of pollutants in the rivers and drains connected thereto and taking other steps for rejuvenation of rivers, including demarcation of floodplains, use of treated water for secondary purposes and setting up of biodiversity parks, constructed wetlands and other alternative measures to reduce pollution load on the rivers to improve the water quality.

[14] In Re: News item published in "The Hindu" authored by Shri Jacob Koshy, titled "More river stretches are now critically polluted: CPCB"

13. Directions in order 21.9.2020 referred to above include monitoring of execution of action plans for all the 351 river stretches by the Chief Secretaries at the State Level and a Committee comprising of the Secretary, Ministry of Jal Shakti, NMCG and the CPCB at national level.

14. The present matter was last considered on 06.07.2020 with reference to the final report of the YMC dated 29.06.2020 and other developments and after noting the contents of the report under different headings with reference to the action points of action plan already noted in Para 4 above, it was observed:

> ***"IV. Review of the final YMC report of 29.06.2020 and other developments before today's hearing***
>
> *14. We may now deal with the 'final' report of the YMC dated 29.6.2020 which records inadequate action by the concerned statutory authorities in complying with the directions of this Tribunal and taking necessary steps for rejuvenation of Yamuna. In this regard, we note the disappointment expressed in a recent order of the Hon'ble Supreme Court dated 25.11.2019 in W.P. (Civil) No. 13029/1985[15] quoted in para 5 of the order dated 29.06.2020 in OA 673/2018 as follows:*
>
> ***"5. ...58. Rivers in India are drying up, groundwater is being rapidly depleted, and canals are polluted. Yamuna in Delhi looks like a black drain. Several perennial rivers like Ganga and Brahmaputra are rapidly becoming seasonal. Rivers are dying or declining, and aquifers are getting over pumped. Industries, hotels, etc. are pumping out groundwater at an alarming rate, causing sharp decline in the groundwater levels. Farmers are having a hard time finding groundwater for their crops e.g. in Punjab. In many places there are serpentine queues of exhausted housewives waiting for hours to fill their buckets of water. In this connection John Briscoe has authored a detailed World Bank Report, in which he has mentioned that despite this alarming situation there is widespread complacency on the part of the authorities in India.[16]***
>
> ***"4. We see Yamuna river virtually turned into a sullage. We take judicial notice of this situation. Similar is the position with Ganges. As it proceeds, industrial effluents are being poured in rivers. Sewage is also being directly put in rivers contributing to the river water pollution. We direct the Pollution Control Boards of the various States as well as***

[15] M.C. Mehta v. Union of India

[16] State of Orissa v. Govt. of India, (2009) 5 SCC 492

the Central Pollution Control Board and various Governments to place before us the data and material with respect to various rivers in the concerned States, and what steps they are taking to curb the pollution in such rivers and to management as to industrial effluents, sewage, garbage, waste and air pollution, including the water management. We club the pending case of water management with this matter.[17]

15. As noted from the order dated 05.03.2020, this Tribunal observed that with the establishment of a ***single authority to deal with the treatment of sewage in all the drains called Integrated Drain Management Cell (IDMC) and setting up of SVP by DDA,*** *the monitoring can be done by the Chief Secretaries of Delhi, UP and Haryana at State level and at national level by the Secretary, Ministry of Jal Shakti, NMCG and CPCB and the Principal Committee constituted for monitoring of remedial plan for river Yamuna.* ***The DDA unfortunately has taken a stand, without any valid basis, that it cannot constitute a special purpose vehicle.*** *Having regard to the stand of the DDA as well as in the absence of any proposal for effective alternative institutional mechanism in terms of para 69 of the order dated 05.03.2020,* ***we find it necessary to continue with the YMC for the time being in the interest of rejuvenation of river Yamuna and protection of environment and public health and the rule of law****.*

16. As already noted, the issues on which the YMC has focused are:

(I) Environmental Flow
(II) DDA and Demarcation of the Flood Plains and Conservation Activities
(III) Quality of River water
(IV) Sewage Treatment Plants
(V) Interceptor Sewer Project (ISP)
(VI) Repair and maintenance of Drains
(VII) Industrial Pollution and CETPs
(VIII) Sewage and Faecal Sludge Management
(IX) Online Monitoring of STPs, CETPs and Yamuna
(X) Use of treated Waste Water
(XI) Idol Immersion
(XII) State of Haryana and pollution of the River Yamuna
(XIII) State of Uttar Pradesh and Pollution of the River Yamuna
(XIV) Creating Public Awareness Through Information Dissemination Strategies

17. The Committee has given the status of compliance as well as proposed directions in respect of each of the above action points. The report of the Committee is exhaustive and is available on the website of the NGT as well as that of the Committee itself. We note that the YMC has provided a tabular statement summarizing the major directions of the NGT, achievements and directions needed. The table gives bird's eye view of the entire issues at one place. The table is

[17] M.C. Mehta Vs UOI- W.P. (Civil) No. 13029/1985 dated 25.11.2019

included as ***Appendix*** *to this order for reference. We further mention the proposed directions under each of the head suggested by the YMC at the end of each Chapter dealing with the above action points*[18]*:*

(I) ***Environmental Flow***

The YMC requests the NGT to consider issuing the following directions:

1. *That the recommended E- flow is a scientific study and all stakeholders should treat it as a critical parameter for revival of the river.*
2. ***The, MOJS, UYRB and the riparian states of Uttarakhand, HP, UP, Haryana and Delhi who are beneficiary states under the Water Sharing agreement of 1994 to rework the water sharing arrangement to permit release of the recommended E- flow at Hathnikund barrage.***
3. ***The NMCG, UYRB, MOJS and the riparian states should identify policy and water conservation measures, including measures for enhancing water use efficiency of agricultural practices and promoting cultivation of less water intensive crops through price support mechanisms.***
4. ***The NMCG and MOJS should prepare a road map, with timelines in consultation with state governments and other stake holders for the implementation of various policy and conservation measures.***
5. *CGWB and CPCB be directed to monitor the status of ground water in floodplains areas where shallow reservoirs have been created and if the outcomes are encouraging, direct GNCTD and States of Haryana and UP taking up such works in their areas along the floodplains*

(II) ***DDA and Demarcation of the Flood Plains and Conservation Activities:***

1. ***Demarcation****: NGT may consider directing that the area Chief Engineer undertakes foot marches along the bollards in his jurisdiction and even small encroachments are removed there and then. The Vice Chairman may be asked to get a signed compliance from each area in-charge every month.*
2. *Land allotted by DDA to other Departments. The completion of handing over by DMRC and other Departments needs follow up. A firm direction to complete the process in 3 months is needed.*
3. ***48 year old Court Matter involving vast tracts of land.*** *NGT may kindly consider directing that a status report be filed by the Vice Chairman DDA after he has gone into the case.*
4. ***UP delay in making payment to DDA****: Hon'ble NGT is requested to direct that the work should start and to consider passing* ***strictures against the officials who handled the case in UP Irrigation for giving assurances to the***

[18] The table and proposed directions suggested by the YMC are not being quoted herein.

YMC which have been forgotten after the meeting*. The work should start as it is connected with rejuvenation and UP authorities are delaying transfer of funds. NGT may consider passing an appropriate order as this is not a new matter and is being delayed unnecessarily.*

5. ***954 hectares are still under cultivation****: NGT may consider directing that a plan for eviction of those possessing the land and where there are no court stays be prepared. DDA needs to be reprimanded for evading doing this for so long. Without a plan the agriculturists will only get more strength to ward off reclamation efforts whenever these are mounted.*
6. ***Surveillance to Prevent Dumping****: It is recommended that NGT directs the DDA to certify that there are now no portions of the flood plains outside CCTV or security coverage and to consider giving watch and ward responsibility to a reputed NGO if they work on nominal payment or pro-bono.*
7. ***Progress of 10 projects for Rejuvenation*** *NGT is requested to entrust the monitoring of future work to some responsible entity as the unforeseen events has no doubt given a legitimate cause for delay but unless there is oversight the momentum built up may slow down indefinitely.*
8. ***SPV*** *:*

Part A: It is urged that the management of a relatively small area from ***Old Railway Bridge to Majnu Ka Tila which YMC had referred to in all its reports may be entrusted for integrated management in public interest****. It is very necessary that the present truncated management both public and private leading to haphazard activities are brought under a unified, cohesive structure for coordination. This needs to have representation from DDA, MCD (North,) Police, either the Delhi Government's Department of Art and Culture or an arm of the Union Ministry of Culture and some reputable NGOs to plan to make this an integrated area to promote cultural/ religious and historical interest but managed as a whole without ownership of land changing.*

Part B: ***NGT has given its vision of an SPV which would be all encompassing for the entire flood plain****. The YMC's only comment is to flag the need for the tempo built up not to be slowed down in the process.*

(III) ***Quality of River water:***

1. ***CPCB in collaboration with DPCC should bring out a monthly report on the quality of river Yamuna and display it on the Website of CPCB for public information.*** *The Report should be compiled after assimilating and incorporating the test reports of DPCC which maintains nine stations so that there is no variance between the reports of the two organizations. At present the independent reports generated by the two regulatory bodies are difficult to reconcile and can create confusion in the mind of the public and media.*

2. ***The River Front and River Conservation Authority as a SPV which the NGT has directed to be created should be given the mandate to closely and periodically monitor the river Quality and submit periodic report to the Tribunal and also bring out an annual report in the public domain.***
3. *CPCB be directed to submit damage assessment report without any further loss of time. Considering the disruption caused due to the lockdown, a two-month extension to the Committee to submit their report is recommended.*
4. ***It is abundantly clear that rejuvenation of the River Yamuna is within reach if the flow of the river is sustained and the polluting industries closed down.*** *The experience during the Lockdown period when unrelated to the closure, extra water was released, shows what a huge difference heightened flow can make. Although industries were closed sewage was being discharged in the drains and river and septage management by itself was not substantial enough to make such a big difference.* ***The conclusion that is self-evident is the fact that increased flow and closure of industries-both in conforming areas and in the non- conforming areas had contributed despite the presence of sewage as was prevalent as usual.*** *For the health of the river more water is needed. There is every need to revisit the water sharing agreement and incentivize less water intensive crops to conserve it. Use of less water intensive crops and other conservation measures was a task given to the National Institute of Hydrology as a part of E flow study which the Institute must suggest.*

(IV) ***Sewage Treatment Plants (STPs)***

1. *Much of the work on new STPS are at a nascent stage and monitoring at this stage is being done in respect of land allotment issues. A strong direction from NGT to the Chief Secretary GNCTD is needed to provide oversight to land allotments within a period of three months.*
2. *An increase in capacity utilization of STPs would need much more capacity building within the organisation. The DJB has not shared any details of the technological and efficiency parameters by which it will achieve this. The DJB was asked to create measurable benchmarks to evaluate progress but this has not been done.*
3. *It is the understanding of the YMC that the IDMC was not only to focus on phyto- bio-remediation. That was suggested as a means to tackle the sewage which is flowing in the storm water drains.* ***But there is a need to have a focal point to which the drain owning agency reports if sewage is not plugged/ diverted or the polluter pays Principle applied on households that have not arranged for collection services or provided septic tanks. In the chapter on septage Management*** *the data on colonies and populations have been tabulated. A Government order number dated31.3.2020* ***Annexure – C-4/3****places responsibility for enforcement on the urban local bodies. But unless someone monitors this it will remain a*

paper order. ***The IDMC should be directed to examine the progress made by the local bodies through its own administrative mechanism.***

4. *Pending land allotment for STPs,* ***Govt of NCT Delhi be directed to concentrate on extensive coverage of the households/colonies relying on Septic tanks as in-situ sanitation measure in the catchment areas of the proposed STPs on the one hand and in-situ remediation of sewage in drains on the other.***
5. *Up-gradation of STPs to meet revised standards laid down by DPCC and also directed by the NGT, be taken up in a time bound manner. Non- compliance to environmental standards on the grounds of non-availability of funds is unacceptable.* ***If required funds should be directed to be mobilised by levying sewage charges on all the citizens irrespective of the water consumption and whether they live in sewered areas or un-sewered areas. This was also ordered by NGT in its order of 13.1.15 and reiterated in order dated 26.7.18. YMC does not find any justification in subsidising those living in colonies like GK, Vasant Vihar, Vasant Kunj etc where almost 50% of the households do not pay any water and sewerage charges under 20 KL free water scheme.***

(V) ***Interceptor Sewer Project (ISP)***

Considering that it a flagship project, DJB be directed to submit quarterly progress report to the Tribunal against milestones.

The completion of ISP and the plugging of drains have been given much room for elasticity and reasons for further delay are already available. But when the magnitude of environmental damage is as overwhelming as the quantum of pollution shows, funds have to be assigned. It is not a new requirement and policy makers have to evaluate the risk of giving room for extended delays. ***As directed by the Hon'ble Tribunal in order dated 08.5.2015, shortage of funds, if any, should be made up by invoking Polluter Pays Principle.***

NGT may kindly consider passing orders that the completion of these projects may be given overriding priority on grounds of public health and ecological safety.

(VI) ***Repair and maintenance of Drains:***

1. *Hon'ble NGT may consider directing* ***DPCC to monitor 11 drains which have been trapped with regard to the effectiveness of trapping****. In some places (viz. Sweepers Colony drain, Magazine drain, drain no. 14 and Barapula drain) some JJ clusters/isolated jhuggis have started coming up which release sewage directly into the drains. Such encroachment on drains should be stopped by the drain owning agencies and the DSUIB directed to provide amenities like community latrines in such JJ clusters. Permitting JJ*

clusters to come up downstream of the point of trapping defeats the very purpose of trapping of drains.

2. *MC recommends directions to* ***DDA for allotment of land to DJB for setting up of the plant at the mouth of Mori Gate Drain, Mori gate drain and Barapula Drain within next three months.*** *Allotment of land for setting up STPs on these drains has been hanging fire for the last two years if not longer. The process of allotment must be done on priority and Chief Secretary and VC DDA be directed to personally oversee this and submit compliance to NGT within three months.*
3. *The DJB be directed to submit revised timelines which are realistic and will fasten accountability on the officers responsible for the projects. Delhi Jal Board must also take a decision on the capacity of proposed STP after considering the discharge proposed to be trapped from Kushak and Sunheri Bagh Drain into sewerage system. IDMC be directed to monitor this.*
4. ***NDMC be directed to plug all the sewage flowing into this drain from the areas under its charge within two months and submit a compliance report before the Tribunal.*** *DJB be directed to take up the work of de-silting of Gravity ducts immediately as short term measure and rehabilitate these ducts for carrying more discharge as a long term measure. Action plan with definite timelines be called from DJB*
5. ***YMC recommends directions to Chief Secretary Govt of NCT Delhi to strengthen the monitoring of these projects which impact the health of public at large and fix accountability of the officers for adherence to the timelines.***

(VII) ***Industrial Pollution and CETPs***

1. ***Directions may be issued to Commissioner Industries and MD DSIIDC to furnish a quarterly Progress Report to the Tribunal on the study underway for up-gradation of the CETPs and for effective and time bound implementation of the recommendations of NEERI report.***
2. *Establishment of the Hazardous waste management Facility. This was directed to be set up by GNCTD by June 2020, however, due to Covid19 lockdown and the delay in grant of Environment Clearance the work of establishing the Hazardous waste site will be delayed. Considering that Delhi does not have any Hazardous waste Treatment facility, directions may be issued to the GNCTD and DSIIDC to set up the facility by December 2020 and the authorities be directed to submit quarterly report to the Tribunal.*
3. *NGT may also kindly consider directing the MOEF&CC to expedite grant of Environmental Clearance considering the urgency of the matter.*

(VIII) ***Sewage and Faecal Sludge Management***

1. *Regardless of when the individual household gets connected to the sewer network,* ***Govt of NCT Delhi should start levying sewerage charges on all the households, whether located in sewered/unsewered unauthorized colonies or even slums. DUSIB can subsidise the poor but all others must be made to pay for the pollution created by whatever name the levy may be called****.*
2. *The Delhi Slum Improvement Board (DSUIB) has claimed before YMC that the Board has installed community toilets and no sewage goes into drains. This statement can only be checked by an external agency which does a random check. Judging from the complaints of people residing around Chirag Delhi and Nizamuddin West t****he sewage from the jhuggis is flowing into the drains causing an intolerable stench.***
3. *Out of the 626 U/A colonies, which are not covered by the ISP, while some are proposed to be brought under sewerage network,* ***there is no clarity about 502 colonies****.* ***NGT may direct the IDMC to have a three-pronged approach and while in-situ phyto/bio-remediation and septage management must continue there is also need for oversight of the implementation of an SOP which casts responsibility for sewage in drains on the local bodies.*** *NGT's direction is needed to clinch need for all 3 strategies to be used -the bottom line being the stoppage of sewage in storm water drains.*
4. *NGT may direct the IDMC to mount a survey of colonies and households which are having* ***pit latrines/collection services and those who have no sewerage system and are discharging into the drains.*** *Without linking strategies to populations in the colonies people will continue to pollute.*
5. *Applying the polluter pays Principle,* ***every individual household causing pollution by release of sewage into the open environment or in the sewer network has been already made liable for payment for its treatment irrespective of whether the sewage is conveyed through a sewer network or by way interception under the Interceptor project or through septage management.*** *NGT may direct that a response be given to the Tribunal's order to revisit the policy of subsidizing polluters as there is no response. Orders of the Tribunal starting 2015 and last reiterated in September 2019 have been ignored.*

(IX) ***Online Monitoring of STPs, CETPs and Yamuna***

NGT may consider issuing the following directions

1. *To provide statutory backing to the SOPs, CPCB be directed to issue directions under Environmental Protection Act 1986 to DJB, DSIIDC, and Commissioner Industries for comply with the SOPs in letter and spirit and also fix accountability for any dereliction. In the absence of such statutory backing, it is doubtful whether the SOPs will get implemented effectively.*

2. *To DJB, DSIIDC/Industries Department to fix accountability on the supervisory officers for failing to ensure periodic calibration and for not imparting training to those in charge of using the OLMS.*

(X) ***Use of treated Waste Water***

YMC recommends the following to the NGT for issue of directions to the stakeholders:

1. *DJB needs to work with Divisional Commissioner and the 11 District Magistrates to see that the directions issued by Lt Governor in notification dated 12.7.2010 and reiterated by the Chief Secretary vide his letter dated 09.03.19 are strictly enforced. Presently there is shifting of blame between the District Magistrates and the DJB on the enforcing this important provision of law. The District Magistrates need to give monthly figures of sealing to the authority which monitors this. It should be shared with DJB. Presently only cumulative totals were being given to YMC.*
2. *Other bulk users of water like the Railways, DMRC and Transport Department should also be directed to use treated waste water for washings and construction, by more polishing if required which will reduce use of ground water which is reported to be used.* ***This will need to be monitored. An NGT direction is needed as these bodies have not generally shown any enthusiasm to attend meetings called on this subject.***
3. *Construction and installation of de-centralized modular STPs of Kiloliter capacity range to be installed adjacent to parks and gardens and using sewage flowing in the drains or erected along the sewer lines. This has been done by the SDMC in Vasant Kunj Park and few other areas*
4. ***Creating root zone treatment system in vacant portions of the parks and gardens by diverting sewage in the drains from the man- holes.*** *This will have both demonstrative effect and help meet water needs of the parks without resorting to use of machinery. DDA proposes to undertake phyto-bioremediation in parks/gardens where the treated waste water received from DJB is not of good quality. The phyto/bio-remediation should help polish the treated waste water to better standards.*
5. ***The bad odour from the treated waste water, high mineral content and presence of Fecal Coliform which are harmful to plant growth and human health becomes the bone of contention and DJB must see that public fears are addressed and allayed properly through the District Magistrates and also the MCDs which are in charge of conservancy****. RWAs should be convinced that the water is odourless and safe for being used in neighborhood parks. <u>There is a need for NGT's direction as this becomes no man's land and results in the park owning agencies refusing to use the water. If there is a</u>*

quality benchmark for treated waste water to be used in colony parks, and an independent agency can be called by the RWA to test the water quality being supplied it will allay public apprehensions and end disputes with the RWAs and residents.

(XI) ***Idol Immersion***

NGT may consider directing the Govt of NCT Delhi to follow the SOPs developed and practiced for idol immersion during 2019.

(XII) ***State of Haryana and pollution of the River Yamuna***

The Committee has mentioned the status of STPs in catchment areas with the observation that the ***Haryana YMC was not able to verify the compliance status due to lockdown.*** *However, untreated effluents are being discharged in river Yamuna through 11 drains, including* ***untreated sewage and industrial effluents at Faridabad, Yamuna Nagar and Panipat as also discharge of sewage and effluents at Gurgaon. Tankers carrying septage are illegally disposed of in adjoining drains****. Online monitoring devices are not fully functional. It is further mentioned that the Haryana YMC has conveyed all the deficiencies to the concerned departments.*

(XIII) ***State of Uttar Pradesh and Pollution of the River Yamuna***

Hon'ble NGT may consider issuing the following directions:

1. *Independent assessment of flow in all the drains reaching Yamuna be undertaken within next two months and thereafter submit action plan for setting up STPs to bridge the gap with definite and monitorable timelines.*
2. ***Out of 427 MLD of treatment capacity in Sahibabad and Loni STPs with only 80 MLD capacity are compliant to standards.*** *A direction to UP Jal Nigam, Ghaziabad MDA and Ghaziabad Municipal Corporations to upgrade/rehabilitate the STPs to meet revised environmental standards of TSS/BOD: 10/10 mg/L within next two years and the authorities being directed to submit Action plan to achieve this within next three months.*
3. *Stoppage of all* ***sewage from sewered areas of Sahibabad Banthala and Indira Puri*** *as per the Action Plan prepared by the State Government by December 20.*
4. *Implementation of Septage management by December 20 in all areas which are not sewered.*
5. *UPSIIDC be directed to ensure setting up CETPs and ensure their proper functioning. UPPCB be directed to put in place policy for realizations in case the industries failed to pay. As requested by the UP PCB the arrears of unpaid EC be directed to be realized as arrears of land revenue.*
6. *The YMC is unable to comment on the omnibus compendium submitted for NMCG funding pertaining to Phyto and Bio remediation. However, when approved the* ***drains which are***

polluting the Sahibabad and its tributary drains need to be taken up if feasible. *The reply of UP on in- situ bio/phyto remediation is vague and does not inspire confidence about the seriousness of the intent.*

7. *A direction is required to be given to the* ***UP Irrigation Engineer in Chief and the Principal Secretary Irrigation relating to the inordinate delay in paying DDA for undertaking the rejuvenation of the flood plains on the UP side as a deposit work which was promised on several occasions but has not made any headway in the last 7 months when one months time had been sought****.*

(XIV) ***Creating Public Awareness Through Information Dissemination Strategies***

- *NGT is requested to direct that with the closure of schools, the Action Plan which was in operation both by the Departments of Environment and Education should be redesigned to make it amenable to on line viewing and participation. Webinars should be planned using the themes already identified.*
- *In the context of distancing the YMC feels that a film should be prepared for the public as well as students which can be viewed on television or you-tube giving the historical, cultural, economic and social significance of the Yamuna; also highlighting the citizen's role by looking inwards at the individual's role and responsibility.*
- *The Government should ask for periodic evaluation of the impact of the Yamuna awareness programmes which should be filed before NGT along with outcomes which should be evaluated.*
- *The awareness building programmes necessarily need to include Municipal and private schools.*

V. Today's proceedings and directions

18. ***The above discussion shows that major problem continues to be pollution caused by discharge of sewage, industrial effluents and other pollutants. If Yamuna is to be rejuvenated such discharges either directly or through drains need to be stopped. This is possible only if the IDMC performs its functions effectively to prevent discharge of untreated sewage into the drains or into Yamuna. The DPCC needs to ensure that polluting industries are stopped and new industries are not allowed without safeguards.***

The second major issue is of protecting the flood plains and undertaking other restoration measures for which the DDA has to own the responsibility in an effective manner. Serious challenge on this aspect continues without an exclusive agency for the purpose. Large amount of flood plains are still under encroachment. Setting up of adequate wetlands and other such useful activities remain a distant dream.

Third major issue is of e-flow which has to be worked at administrative level.

Apart from authorities in Delhi, the States of Haryana and UP cannot avoid their responsibility. Undertaking

awareness programme and involving civil society is essential. Effective institutional monitoring mechanism has to be evolved.

19. We have carefully perused the recommendations of the YMC. We are in agreement with the same. The directions proposed are essential for compliance of orders of this Tribunal and environmental norms.

20. We find the stand of the DDA that a special agency (by whatever name called) to deal with protection of flood plains and undertaking restoration programmes cannot be constituted by it to be wholly untenable. DDA has been constituted under the Delhi Development Authority Act, 1957 and its statutory responsibility is development of Delhi and all matters ancillary thereto. The authority is headed by L.G. Delhi with Vice-Chairman appointed by the Central Government and other members. Section 5A enables the authority to constitute as many committees as may be necessary for various purposes. We fail to understand as to why a SPV by whatever name called cannot be constituted under Section 5A of the DDA Act, 1957 or under the ancillary powers and duties of the DDA. Any such difficulty may be sorted out in consultation with the YMC and the Principal Committee. The object of having such an exclusive agency is to relieve the concerned officers discharging multiple functions of the DDA from the onerous and burdensome task of looking after long neglected time consuming and important work of restoration of the River environment and protecting and repossessing the encroached flood plains.[*19]***A dedicated agency needs to be in place which can focus on issues relating to the Yamuna rejuvenation and also involve the civil society or such other experts/institutions as may be found necessary for ecological restoration of the flood plain zones, setting up of bio-diversity parks, artificial wetlands, phyto-remediation of drains at the river mouth locations, maintaining the vigil and undertaking flow measurement, creating ecological services, removing encroachments and undertaking other activities, including river front development. It may also take steps to attract and educate the citizens and nature enthusiasts for nature related activities, including building environmental temper amongst citizenry, without in any manner causing any damage to the flood plains, as already directed by this Tribunal***. *This Tribunal has not issued directions out of the blue or without knowing the structure of DDA. It is based on Expert Committee recommendations and covered by order dated 13.01.2015 and later orders. There is a detailed discussion on the subject in the report of the YMC dated 05.02.2020 and the report shows that the concept has been found viable, necessary, and useful even by the Cabinet Committee. Once it is desirable to do so, the unthoughtful and untenable plea that the DDA itself being an authority cannot create any authority has no legs to stand and is in contradiction to its own earlier stand. The DDA cannot function in the air. It has to function through individuals or group of individuals/agencies by whatever*

*****Substituted on 09.07.2020 for "The object of such exclusive agency is that instead of concerned officers discharging multiple functions of DDA looking after long neglected time consuming and important work of restoration of the River environment and protecting and repossessing encroached flood plains."

named called. Section 5(A) specifically provides for constitution of Committees. The Committee so constituted should be tasked with the functions noted above and relieved of any other responsibilities. ***Rejuvenation of river Yamuna is an important function and DDA cannot shy away from its statutory responsibility. Yamuna rejuvenation can be model for rejuvenation of 351 river stretches in the country given its location in national capital territory where all experts authorities and funds are available****. It is undisputed that huge amount of work of ecological restoration and removing encroachments is incomplete since long. One major bottleneck for this is absence of a dedicated agency for the purpose.*

21. Accordingly, we direct that:

a. DDA must forthwith comply with the earlier direction instead of finding lame excuses and taking stand of avoiding public duty.

b. Let the concerned authorities in Delhi, Haryana and UP to take further action in terms of the recommendations of the Committee as well as earlier directions of this Tribunal dated 13.01.2015, as updated vide earlier orders dated 11.09.2019 and 05.03.2020. The compliance may be overseen by the Chief Secretaries concerned. The Committees headed by Justice Pritam Pal in Haryana and Justice SVS Rathore in UP may also oversee such compliances in their respective states and give their independent reports periodically.

c. ***The YMC may continue to monitor compliance of the directions in continuation of its earlier working for the time being. The facilities provided to be Committee including the office space may continue so that the Committee can operate effectively.***

d. CPCB may complete its task of assessment of compensation in coordination with the NMCG, NEERI, IIT Delhi and IIT Roorkee as earlier directed.

e. The Delhi Government may forthwith comply with the order of the Hon'ble Supreme Court dated 24.10.2019 on the subject of levy and recovery of the sewage charges.

f. IDMC may carry out its functions as already directed.

g. Let the authorities in Delhi, Haryana and UP consider and adopt the report of the Niti Ayog in shortening the procedures in dealing with the waste management activities.

h. The order of this Tribunal in 351 river stretches[20] as well as in Paryavaran Suraksha Samiti[21] to prevent discharge of any pollutants in river bodies and order for compliance of solid waste management norms[22], in regards to river Yamuna, may be complied with and monitored by the Chief Secretaries at the State Level and by the Secretary, Ministry of Jal Shakti with NMCG and CPCB at the national level. The Principal Committee constituted by this Tribunal may resolve the difficulties, if any, in coordination with the YMC.

i. The issue raised by the YMC, of the unavailability of land preventing setting up of STPs may be addressed by DDA, and monitored by the Principal Committee. Having regards to the

[20] Paras 12 & 13
[21] Para 9
[22] Para 10 & 11

priority to be given to the treatment of sewage disposal in the drains joining river Yamuna, the land available on the flood plains may be utilized for the purpose, if there is no other alternative or till other land becomes available. Needless to say, such safeguards sites for such purpose may be approved by the Principal Committee.

j. The issue of e-flow may be resolved by the Principal Committee as recommended by YMC.

22. We need not repeat our observations on other issues already discussed above. The YMC will monitor all the said issues for the time being.

23. If inspite of direction of this Tribunal and orders of Hon'ble Supreme Court, direction for levy of sewage charges is not complied with, it is open to either party to move the Hon'ble Supreme Court for such action as may be necessary for enforcement of the direction of the said Hon'ble Court. It is also open to either party to move the Delhi High Court for enforcement of the direction for steps to be taken by the DDA in removing the encroachments etc. with reference to the order of this Tribunal dated 11.09.2019 in L.P.A. No. 681/2019.

24. As per procedure currently being followed, the YMC furnishes its quarterly report with a copy to the Chief Secretaries of Delhi, Haryana and UP and the DDA/any other statutory body. Their response, if any, is required to be given to the Committee and the Committee gives its observations thereon. ***We find that some of the parties mechanically file their action taken reports even when there is no contest to the recommendations of the Committee as such. The role of the Delhi, Haryana, UP and DDA/other authorities in Delhi in presentation before this Tribunal is limited to their response, if any, to the desirability of recommendations of the Committee and not of mechanically filing action taken reports which have already been considered by the Committee and on which the recommendations have been made****.*

25. In view of above, ***we direct that the further report of the Committee be furnished giving status as on 30.11.2020 with a copy to the Chief Secretaries of Delhi, Haryana and UP and Vice Chairman of DDA/any other authority who may give their response, if any, to this Tribunal with a copy to the YMC within two weeks. The YMC may give a tabular statement about the recommendations/response of the authorities and further observations of the Committee before the next date*** *by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image/PDF before 15.01.2021."*

15. Accordingly, the YMC has filed its 5th report dated 07.12.2020. In the overview, the Committee has observed that the quality of river remains abysmally bad in terms of BOD and DO levels. The Committee has thereafter given the status of progress made under various heads in the

NCT of Delhi, stretch falling in Haryana and stretch falling in UP. **The report has been followed by a tabular statement filed on 23.01.2021 after considering replies of stakeholders with recommendations of the YMC thereon**.

16. **The table filed by the YMC about status of various issues with columns of response of concerned authorities and recommendations of the Committee is being included as Appendix to this order**. However, the recommendations of the Committee in its report under various heads are quoted below:

"Environmental Flow

S. No.	***Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20***	***Recommendations of YMC***
1.	***E-Flow***	*1.NGT may consider issuing directions to MoJS/NMCG to accept and notify E- flow recommended by the NIH this will set a benchmark/platform on which policy decisions may be taken.* *2.Prepare a monitorable action plan in coordination with other Ministries like Agriculture, and the state governments to achieve the recommended E-flow. Without this the policy intent may not be achieved.* *3.The CGWB and CPCB be directed to continue to monitor the ground water level and its quality in coordination with IFCD during, pre- monsoon, post-monsoon and lean season months and submit reports to the YMC and Principal Committee to take a decision on further continuation and its extension to other areas if found beneficial.*

2.	***Setting up an SPV or any other body to oversee the River Related Issues***	*NGT may consider directing that* ***the membership of the RYMC,the Executive Committee (or Committees) suggested by YMC and the subcommittees or system for institutional back –up should be prepared in a way that the challenges and bottlenecks get highlighted before the high-level RYMC and there is continuity in following up of decisions. A dedicated secretariat may be directed to be set up as otherwisediscussions held may not get properly acted upon. Also, the membership of the Committees and the terms of reference should form an integral part of the order setting up the RYMC and Executive Committees which would obviate delay in making the RYMC and its organs functional****.* *It is pointed out that even after the RYMC is setup, there would be a need for reports to be filed before the National Green Tribunal as the projects, schemes and strategies which are in progress and on the anvil cut across several departments and organisations under GMCT as well as under the DMR's which report to independent elected bodies besides DDA itself.* ***Since the improvement in the quality of river water is the only benchmark by which performance can be judged, the directions and oversight by the NGT will ensure that the functions are taken seriously.*** *Building public participation and awareness as directed by NGT requiresa comprehensive plan and has to have both cultural as well as ecological moorings. NGT may direct that all the issues of education of children, awareness building, promoting cultural events and nature walks etc require to be managed imaginatively and a system for engaging institutions and agencies who have a track record has to be put in place so the Yamuna remains emblematic for different sections of society.* ***DDA does not have the wherewithal to do this and must set up a calendar of events which are managed*** ***professionally. Until all things fall into place oversight by the Tribunal would be necessary so that whatever momentum has been built up because of NGT's previous orders remains in focus****.*
3.	***Quality of River water***	*i. CPCB and DPCC should coordinate and increase the number of stations for monitoring water quality in the river Yamuna as suggested by the YMC.* ***ii. All the product manufacturers of soap and detergents be directed to disclose the ingredients present in the product and display the same on the package. This is a matter which will only be effective if the Ministry of Consumer Affairs under whom the BIS functions are directed to bring out a policy and notify not just standards but a mandatory requirement to declare the ingredients alongwith their proportion.*** *iii. Soap making is not confined only to NCT of Delhi and even if efforts are made by GNCT Delhi, it will not have the intended effect on soap/ detergent manufacturing in other states where soap and detergent manufacturers continuing to produce non-standard cleaning items may not be proceeded against by enforcement agencies. Since the effluent joins the drains and the river in Delhi, the problem will continue.* ***Therefore, there has to be a policy direction from the Central Ministry of Consumer Affairs based upon the findings of the CPCB and the DPCC, the huge media coverage and public anxiety when the frothing of the Yamuna continues year after year. CPCB needs to advise Ministry of Consumer Affairs of the health hazards and risks to humans which goes beyond the***

		visual quality of the water bodies and the river. There is a need to have a plan to phase out the use of certain chemicals which are not permitted by other countries due to health reasons and/or reduce the quantities thereof. *iv. NGT may also direct the Government of NCT Delhi to issue orders prohibiting sale, storage and transportation /marketing of detergents which do not conform to the revised BIS standards. GNCT Delhi may also be directed to launch awareness campaigns about the harmful effect of using substandard soaps and detergents.*
4	***Sewage Treatment Plants NGT's order dated 6.7.20***	*Hon'ble NGT may consider issuing the following directions:* *1. Tree felling permissions have caused undue delay in Commissioning of the STPs, and the proposals are awaiting approval since September 2020 which is affecting a slew* ***of interdependent activities which cannot commence without the land being handed over without trees. The Department of Forests is expected to see that the provisions of law on tree cutting are implemented as provided in the statute which refers to time bound clearances having to be accorded or rejected. GNCT Delhi should within two weeks grant permission for tree felling if the requirements under the Delhi Tree Preservation Act 1994 have otherwise been complied with failing which Chief Secretary shall be personally present before the Tribunal on the next date of hearing.*** *****[23]*** *2.* ***[FOOTNOTE MAY PLEASE BE REFERRED.]*** *ii.* ***NMCG being the funding agency, should evolve a water tight mechanism to ensure that payments to the agencies executing YAP-III projects are made promptly and diversion of project funds made inadmissible. Once project funds are allowed to be used for salaries etc, the delay in payments to the contractors is bound to happen. There is every need for Department of UDD, NCT Delhi and the NMCG to be represented on the Delhi Jal Board and to introduce financial controls that do not permit of diversion of funds inter or intra the YAP III projects.*** *iii.* ***As directed by the Hon'ble Supreme Court in "Quiet Flows the Maily Yamuna" case which stood transferred to the Hon'ble Tribunal, the Principal Secretary UDD (presently the Additional Chief Secretary) is expected to review the progress on a monthly basis and the Chief Secretary on a quarterly basis. Quarterly progress reports should be submitted to the Tribunal along with an affidavit***. *iv.* ***YMC recommends a performance Audit by the Controller and Auditor General of India to bring out the systemic problems and corrective action needed. Section 69 of the Delhi Jal Board Act of 1998 makes provision for C&AG's audit and Hon'ble NGT may consider directing the Government of NCT Delhi for***

[23] ****** On 22.1.21 a What's App message was received from the CEO DJB that the approval for tree cutting has since been accorded.

****** In a What's App message sent on 22.1.21 the CEO has informed the Member YMC that the approval for tree cutting has been received. The Directions may kindly take this into account as the recommendation was made before the message from CEO DJB was received which is still informal at the time of dispatch of this statement.

		approaching the CAG to undertake a performance audit. *v.* ***The YAP III projects with a financial outlay of Rs 1600 crores can certainly benefit from the advice of a more professional ways of project monitoring as the present systems are ineffective. If after scores inspections and meetings the change is not visible, the lack of progress does not result in rapid execution, it points to the need for doing things differently.*** *vi. When the Delhi Jal Board Act1998 was enacted, the senior most functionaries were required to be not below the rank of Joint Secretary to Government of India. That applies to the CEO of DJB, the Members in charge of Finance, Drainage, and Administration besides others.* ***The Government should consider inducting officers and professionals possessing wider experience and exposure, particularly when there is so much dependency on external consultants.*** *vii.* ***Since DJB is a successor organization to the 'Delhi Water Supply and Sewage Disposal undertaking", all its official websites, official communications should prominently convey its mandate for both water and sewerage. This is necessary to give thrust to the work that it is mandated to do under the Act of 1998. The GNCT Delhi should also consider amending the Act suitably to cover "Sewage Disposal" in the title of the Act itself to provide the requisite thrust and orientation.*** *viii.* ***DJB should come up with a definitive plan of upgradation of STPs with budgetary outlays year-wise and timelines for achieving the revised standards as non- compliance to the environmental standards by a public authority on the ground of non-availability of funds is unacceptable under environmental jurisprudence****.* *ix.* ***GNCT Delhi should, within next two months, submit a report indicating timelines within which land allotments for the decentralised STPs will be finalised as the matter has been unresolved for the last almost 4 years.*** ***x. Since in-situ phyto/bio remediation in drains is being monitored by the IDMC headed by the CS, a status report on action taken be filed within two months. NGT may also consider permitting the CPCB/DPCC to allow use of EC funds for pilot projects on in-situ phyto/bio remediation, one drain in each of the DMCs in Delhi.***
5.	***Interceptor Sewerage Project (ISP)***	*The following directions may be considered :* **1.** ***DJB should ensure that 147 drains out of 204 additional drains falling in the catchment of Najafgarh and Shahdara drains, which are not covered under ISP, must be trapped and sewage diverted to nearest STPs with strict adherence to the timelines which should be prescribed and monitored.*** **2.** ***Timelines for each stage of the process should be laid down. The responsibility for different segments of the process of trapping and depositing into the SPSs should be assigned to specific officers. The progress should be monitored by the CEO on a monthly basis against the agreed timelines.***

		3. The extent to which these drains can be taken up for in-situ bio/phyto-remediation should be got studied by a competent agency. *4. The results of the tripartite committee's findings on river water quality should be placed in public domain periodically.*
6.	***Repair and Maintenance of Drains***	*YMC recommends issue of the following directions:* ***1. IDMC constituted by the GNCT Delhi on orders of NGT should holistically cover all aspects of prevention, control and treatment of sewage in the drains and also ensure that enforcement action is taken under the Water act of 1974, the Delhi MC act of 1957 and any other law in force.*** ***2. The issue of land allotment for STPs/SPSs be resolved by the VC DDA and CS GNCT Delhi within next two months and a compliance report submitted to the NGT.*** ***3. IDMC should direct authorities/drain owning agencies to install CCTV cameras at the hotspots of pollution in drains/ trapping points to monitor sewage/septage in the drains and to act as a deterrent against throwing garbage. CCTV should need a control room as DDA has provided on the floodplains (for 24x7monitoring of trucks entering the floodplain). That system is functioning well. IDMC may be directed to have common control rooms for selected drains manned by common control rooms involving all drain owning agencies and DPCC.*** ***4.*** *All households in the colonies which have been notified as sewered should be provided or directed to take connections to the sewer network within next three months. Failure of households to take sewer connections should be made liable to pay EC of Rs 10,000 per month.* ***NGT may also consider directing that after 30thApril 2021 if it is found that sewer connections have still not been installed in a functional state, the Chief Secretary should make adverse remarks in the Annual Reports of the senior most DJB officer in charge of the concerned colony and a report thereof has to be furnished to the Tribunal by 15.5.2021. This action is covered by NGT's order dated 11.9.19 in which inPara15(A)(iv)(g) NGT had directed the Chief Secretary, GNCT Delhi as follows:*** ***"For delay of the work, the Chief Secretary, Govt. of NCT Delhi must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department".*** ***Further the order states that*** ***"where works with regard to STP, sewerage network and its connectivity have not yet started, the Govt. of NCT, Delhi 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 and it will be open to Govt. of NCT of Delhi to recover the said amount from erring officers/contractors"*** *5.* ***In situ bio/phyto remediation through technology of Constructed wetlands developed for Kilokari drain near Kalindi colony and Dhobi Ghat at South***

		Biodiversity park by DDA through Prof Babu of CEMDE may be considered for replication by all drain owning agencies who should be directed to visit the Kilokari drain. Encroachment on public land should be removed in wider public interest as the presence of pollutants are a health hazard to the community. Human habitation on public land is ubiquitous in Delhi but the safety of tens of thousands of citizens must surmount concern for a few score citizens that prevent the treatment of sewage and waste water because they have encroached on the land. *6.* ***There should be zero tolerance for intermixing of sewage in the storm water drains which is done by puncturing the sewer lines. NGT may consider directing that if any new punctured sewers are found, the responsibility should be fixed on the concerned Executive Engineer of the DJB and DMCs/drain owning agencies at the point of puncture. It may be treated as willful negligence or misconduct, inviting major penalty since this cannot happen without the concerned Executive Engineer's connivance or negligence. Puncturing storm water drains is a serious offence because it exacerbates pollution and causes health hazards to residents.*** ***IDMC may be directed to establish mechanism to receive and promptly investigate and report on such instances of local puncture of drains.*** ***7. A team of Scientists from NEERI, NMCG and IIT Delhi should take a decision on whether or not further study of legacy sludge in river Yamuna should be undertaken in view of the findings of NEERI report. IFCD should coordinate this.***
7	***Industrial Pollution and CETPs***	***YMC recommends that the Hon'ble NGT may consider giving the following directions:*** ***I. The Govt of NCT Delhi/DDA should take a final decision within the next three months on the issue of industries operating in industrial areas which have been notified for redevelopment. A last date for submission of layout plans may be given as it has remained unresolved for years together and is having an adverse impact on the containment industrial pollution. The nature of industries that may be permitted in such areas should be notified first and if they do not qualify they must be asked to relocate or should be removed if there is non -compliance.*** ***ii. NEERI should complete its study of CETPs up - gradations within the next three months and also give a feedback to the YMC on the implementation of the short term measures recommended for improving the functioning of CETPs.*** ***iii. An Action Plan should be drawn up for identifying drains located within the Industrial clusters and identify those carrying industrial effluent. The work of Wazirpur IE be taken up on priority within the next two months and with the help of NEERI pumping and conveyance infrastructure be repaired and effluent conveyed to the CETP. This should be coordinated by the IDMC and report submitted to the Tribunal within 2 months.*** ***iv. The Chief Secretary and the Chairman DPCC / Principal Secretary Environment & Forests Govt of NCT Delhi should take immediate steps to suitably***

		strengthen DPCC and fill up all the vacant posts to enable it to perform its regulatory functions. In the interregnum particularly, posts of technical nature should be filled up on Contract. This has been advised by YMC in repeated meetings with DPCC but the organisation is clearly either not or is unable to pull its weight with the senior officers / Government. The services of retired scientists with the requisite experience can be hired for one year on lump sum payment till the posts are filled up on a regular basis.
8	***Septage management and Levy of EC***	***YMC recommends the following:*** ***1. NGT may consider directing GNCT to complete all decision making processes for implementation by end of March 2021 and start levying sewerage charges on all households from 01.04.21.*** ***2. Direct the GNCT Delhi to complete household connectivity to all households in 561 colonies which have been notified as sewered colonies within the next three months and submit a compliance report to the Tribunal. The provisions of section 28 of the NGT Act may be invoked if provision of household connections is not completed by 30.04.21.*** ***3. Individual District Magistrates are not enforcing the Septage Regulations which require detecting illegal tankers and taking action against the vehicle owners. The performance of the DMs as far as enforcement is concerned over the last 20 months of the operation points to laxity on the part of both the DMs and the DJB officers who should have been pursuing this proactively. Action may also be directed to be taken by the Chief Secretary against the officers who have failed to implement/enforce the Government order of GNCT Delhi which made them responsible for containment/collection of septage discharged into storm water drains.*** ***4. For failure to enforce the provisions of the septage management regulations against unregistered septage collectors and /or providing sewer connectivity to households there is sufficient cause to take action as already directed by NGT in its order dated 11.9.19. In that order in Para15(A)(iv)(g) NGT had directed the Chief Secretary, GNCT Delhi as follows :*** ***"For delay of the work, the Chief Secretary, Govt. of NCT Delhi must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department".*** ***Further the order states that*** ***"where works with regard to STP, sewerage network and its connectivity have not yet started, the Govt. of NCT, Delhi 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 and it will be open to Govt. of NCT of Delhi to recover the said amount from erring officers/contractors."*** ***5. Alternative strategies may be directed to be given with timelines for treatment of drains in 593 colonies which are targeted to be sewered only by 2024 and 645 colonies for which land is yet to be allotted. DJB is a revenue earning organisation and has to treat sewage at a heavy cost which is paid out of Government funds. It can raise resources and not sit back in the hope that***

		NMCG will always support it to fulfil its obligatory functions. ***6.Commissioners of the DMCs be directed to put in place a mechanism for better enforcement of pollution in drains within their jurisdiction and realisation of EC levied under Polluter Pays Principle.*** ***7. The UDD and the DMC Commissioners be directed to redefine the role and functions of DEMs under DMCs to include night patrolling of the drains and the only way to judge progress is for IDMC to get random inspections done by an external party and to hold DEMS or the enforcement agency of the concerned DMC responsible for presence of solid waste, non-levy of EC and poor recovery.***
9	***Online Monitoring System (OLMS)***	***YMC recommends the following Directions:*** ***1. CEO DJB and the MD DSIIDC be directed to identify officers within their organizations who should be responsible for smooth functioning of OLMS, its calibration in time as per the SOPs prescribed by the CPCB and fix accountability in the event of default.*** ***2.Each organization (DJB/DSIIDC) should evolve procedures and systems for attending to alerts received online or through SMSs/WhatsApp messages within prescribed timelines which should be worked out in advance and notified to all levels of decision making within the organization so that any problem in the Plant or any of its units are addressed expeditiously.*** ***3. Calibration should be done through a NABL accredited laboratory as per the frequency and protocol laid down in the SOPs prescribed by the CPCB.*** ***4. DPCC should review its testing and calibration protocols and impart training to lab technicians on a periodic basis to upgrade their skills if required.*** ***5. In the event of repeated noncompliance by STP and/or CETP, DPCC should consider levying EC on the plant operator.*** ***4. CPCB should set up a surveillance system for monitoring high levels of Ammonical N in river Yamuna particularly during the winter months of lean season flows in the river and intensify monitoring of STPs/CETPs in Haryana, both online and through physical inspections.*** ***5. DPCC should be directed to create a feedback loop in their OLMS to share the data with DJB and CPCB in case of high levels of Ammonical N observed at Palla to alert the Plant officials at Wazirabad well in time.***
10	***Use of Treated waste water***	***YMC recommends the following Directions:*** ***1. Despite DJB officers taking up with Divisional Commissioner and District Magistrates have not resulted in any tangible enforcement action to seal borewells where water treated at an STP is available. NGT may consider directing the Chief Secretary Delhi to see that the output and performance of individual DMs in so far as enforcement is concerned is got monitored by their direct superior authority- the Divisional Commissioner so that incremental progress on sealing bore wells is planned in conjunction with the lifting of treated waste water. This should be reviewed by the Chief Secretary every quarter and DJB made responsible for accelerating the use of treated waste water This has to be related to the mapping exercise so that the work of sealing is planned to synchronize with the availability of treated waste water. DJB must also push for more decentralized STPs to be set up in all large parks. This has been done successfully by SDMC and DDA and there is a need for all large parks to***

		construct and operate in -situ STPs which too has to be monitored with reference to targets given to the park owning agencies. ***2. DJB should give wide publicity to the policy of free supply of treated waste water so as to promote its use for cooling, dust pollution control and construction activities as well as washing of buses, railway carriages etc,*** ***3. The NGT may consider directing the Ministry of Jal Shakti and the States of Haryana, UP and Delhi to meet and expedite the decisions on exchange of treated water in lieu of fresh water so as have a clarity on the willingness of states to operationalise the plan which may be the first of its kind and deserves every encouragement.*** ***4. UYRB be directed to coordinate this and submit a progress report to the Tribunal. This be accorded priority in view of the fact that use of treated waste water, which presently is unutilized for agriculture will reduce waste and make fresh water available for drinking purposes.*** ***5. NGT may consider directing the bulk users of water like the Railways, DMRC, CPWD, DTC, CPWD and PWD to prepare a plan for switching over to the use of treated water for washings, construction, dust control etc. In its last report dated 29.6.20 YMC had recommended*** ***"Bulk users like the Railways, DMRC and Transport Department be also directed to use treated water for washings and construction, which will reduce use of ground water which is reported to be used. This will need to be monitored. A NGT direction is needed as these bodies have not generally shown any enthusiasm to attend meetings called on this subject.*** ***NGT had accepted and supported this in its order dated 6.7.20 and despite that there has been no response from Railways although from the DJB's response it is not for want of trying. Even the claims of DMRC need to be verified. This needs to be taken up by the Chief Secretary with the Cabinet Secretary seeking his intervention as the DJB is not able to enforce its own policies and despite NGT's directions has not been effective in pursuing the Central Government organizations as well as other bulk users of water.*** ***6.The overall off take of treated water as reported by DJB should be monitored. DJB should be directed to compile data by user and confirm that DDA, the DMCs and other stakeholders are lifting the water as claimed. The Department of Urban Development has not been monitoring this which is needed in the given circumstances.***
11	***Industry Interface***	*--*
12	***The YMC had flagged the following issues to the State of Haryana for compliance of Orders of Hon'ble NGT dated 06.07.2020.***	***NGT may consider issuing direction to Chief Secretary to:*** ***1. Ensure that sewage from approved and unapproved residential areas is diverted to the nearest STP for treatment. MD HSIIDC may be directed to ensure that all the CETPs are complying with the discharge standards. The ATN may cover new measures instituted after 01.02.2021 and effective initiatives taken by these officers.*** ***(Action: ACS PHED and ACS ULBD)*** ***2. Prepare a comprehensive action plan with measurable targets prepared for diverting the domestic sewage to the adjoining STPs and stop the discharge of untreated sewage into the Storm Water Drain.***

		3. Expedite the construction of proposed 02 Nos. of CETPs for treatment of Industrial Effluent discharged by utensil manufacturing units in Jagadhri Town. (Action: ACS ULB and ACS PHED and UDD) ***All unlicensed manufacturing units which are in nonconforming areas and operating from households have to be moved or closed down. Repeated assurances have not led to any perceptible change and a long rope continues to be extended. In such a situation, no engineering solutions can make a difference to the extent of pollution. The action on the survey and the recommendations referred in the state's latest reply summarized in Column 4 need to be acted upon urgently as it has been discussed several times. The survey and IIT Roorkee report has to be viewed as fortifying what has been known all along – not treated as a new finding. Action on the ground is needed as several months have gone in undertaking surveys and getting expert reports well knowing the existence of heavy water pollution.*** ***In the event of noncompliance action may be taken in accordance with directions in para 15(B) (vi) of Hon'ble NGT's order dated 11.9.19 which states" "For delay of the work, the Chief Secretary, Govt. of Haryana must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department."*** ***(Action: ACS Industries and Managing Director HSIIDC)*** ***4. Expedite the capacity augmentation of CETPs. Till that is done HSPCB should restrict the large industries operating in the industrial estate from discharging excess industrial effluent which exceeds the quantum for which consent was given under the Water Act, 1974. The present responses and pace of work continue to be unsatisfactory for which appropriate remonstrance may be considered. (Action: MD HSIIDC).*** ***5. Submit a monitorable monthly progress report to HYMC for repair and for construction of 5 new STPs (3 by ULB and 2 by HSVP). The generic standards notified by Niti Aayog which help to fast track the process of awarding work along with technical specifications should be considered.*** ***If untreated sewage is allowed to continue it can have disastrous consequences on the populations residing in the area. The subject is being truncated between agencies and the assurances carry little conviction. The three officers may be directed to meet every month, prepare a joint action plan after being shown the problems on the ground by the Haryana Pollution Control Board's Member secretary. The progressive action decided to be taken in terms of planning and execution should be minuted by the Member Secretary, HSPCB who should add his remarks on whether it is sufficient. HYMC team may be called for the meetings and their advice minuted every month. This should not be delegated below senior most officers as indicated.*** ***In the event of non - compliance, action may be taken in accordance with directions in para 15(B) (vi) of Hon'ble NGT's order dated 11.9.19 which states"*** ***For delay of the work, the Chief Secretary, Govt. of Haryana must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in***

		respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department. i) The Govt. of Haryana will be liable to pay Environment Compensation if defaults take place as under: a). The operational deficiencies of the existing STPs must be rectified within three months failing which Environmental compensation of Rs. 5 Lacs per month for STP shall be deposited with CPCB. ***(Action: ACS ULBD, Chief Administrator HSVP and Commissioner, Municipal Corporation Faridabad).*** ***6. Take expeditious action for construction/ upgradation of 17 Nos. (2 STP recently identified) of STP in 07 Major Towns. By giving unverified responses which are not based on ground realities and execution capacity of the agencies, the seriousness is getting diluted.*** ***(Action: ACS ULB, PHED, and Chief Admn HSVP).*** ***7. Expeditiously start construction of New CETPs and squeeze the timeline for the same. (Action: ACS ULBD, CEO GMDA and MD HSIIDC)*** ***8. Initiate action against the officers and operators responsible for O&M of these STPs as they have failed to rectify the operational deficiencies and are not following the SOPs laid down.*** ***(Action: ACS PHED, ACS ULB, CEO GMDA).*** ***9. Expeditiously start the capacity augmentation of 4 Nos. of CETP at Sonepat and take effective steps in removing operational deficiencies in rest existing CETPs. Further, CEO GMDA may be directed to upgrade 30 MLD CETP at Manesar. The Chairman HSPCB may be directed to pull up their officer responsible for monitoring the operational efficacy of the CETPs in their Jurisdiction. It seems either the water samples for the outlet of the CETP were not properly collected or the analysis of water sample is not correct.*** ***(Action: MD HSIIDC, CEO GMDA)*** ***10. to expedite the construction and operationalisation of Sewer Conveyance Network along with diversion of sewage to the nearest STP, falling which untreated sewage will find its way to River Yamuna through Drains. The performance of the ULBD's officers headed by the ACS ULBD may be judged by the extra quantum of sewage reaching the STP and getting treated. HYMC may be asked to report on this as it is not meaningful to keep track of the length of the sewer line that is constructed without reference to the end result which is to get households connected to the conveyance system, the success whereof can be gauged by the extra quantum of sewage deposited in the STP. (Action: ACS ULBD).*** ***11. Ensure that the Septage Management Policy notified by the State of Haryana be followed strictly. This alone will to reduce the pollution load in 11 major drains until the conveyance systems are laid and households take connections.*** ***(Action: All Magistrates and Municipal Commissioner).*** ***12. Nominate a senior officer not below the rank of Superintending Engineer to supervise the operational efficiency of OLMs installed on STPs and CETPs and make the information easily accessible to the public by giving incremental reports of what the OLMs data shows and to also share the quality of water being discharged into the drains for public knowledge. It may be considered whether the relevant faculty and students of the Punjab University or IIT Roorkee or the local engineering colleges can be asked to collaborate***

		in informing the public. Internships for students will also give a much needed focus to the abatement of pollution in the drains which impact the river. This cell should provide proper over sight of the performance of the operators who have to maintain the OLMs. ***(Action: ACS PHED, ACS ULB, CEO GMDA, MD HSIIDC and Chief Administrator HSVP).*** ***13. Ensure completion of work by engaging double shift labour and in any case complete it by 31.5.2021as promised. The Chief Secretary Haryana may ensure that the work is awarded within the next 15 days as an emergency requirement. (Action: ACS Irrigation).*** ***14. Complete the work of diversion of effluent from Storm Water Drains Leg-I, Leg-II and Leg-III on priority as it has taken much longer than necessary.*** ***a) To undertake area an assessment of waste water generation and disposal after treatment so that there is a benchmark for incremental reduction of the polluted discharge. The information on Gap Assessment is needed to be able to judge progress as the objective is to free the drains of pollution which can only be measured by flow and presence of pollutants.*** ***(Action: CEO GMDA)*** ***-This is a matter which has either to be addressed at a policy for a under the Ministry of JS or by the Apex Court which has taken cognisance of the matter recently.*** ***15. Take up Phyto remediation/bio-- remediation projects to prevent the discharge of untreated sewage in the drains as an interim measure. These officers may be asked to show definite progress and if this is still not achieved in the next four months NGT may consider having an adverse remark entered by the Chief Secretary in the Annual Report of the officers at the instance of NGT as this is not a new responsibility and is not being grappled with any seriousness.*** ***(Action: ACS PHED, ULB, CEO GMDA and Chief Administrator HSVP).*** ***16. Expedite the work of diversion of sewage from non-conforming areas to the STPs.*** ***(Action: ACS, ULBD)*** ***17. Strict monitoring of Water Quality in 11 major drains which will reflect the status of domestic and industrial effluent treatment in the catchment area.*** ***(Action: Chairman, HSPCB)*** ***18. Ensure that domestic effluent generated from the effluent from the remaining villages should be trapped and treated or Septage management policy implemented in such villages to ensure zero discharge into drains leading to Yamuna., Government of Haryana need to either get decentralised STPs constructed or to set up Phyto-bioremediation projects as it has been going on indefinitely and according to present indications will have time overruns unless each case is decided on a location specific basis.*** ***(Action: ACS, Development & the Panchayats Department)*** ***19.Review the inspection policy for industrial pollution and to ensure that all large and medium highly polluting industries are inspected frequently and EC levied where called for.*** ***(Action: ACS Envt and Climate Control0 and Chairman HSPCB)*** ***20. Review the inspection policy for Private Residential Colonies Condominiums. Assurances given are quite hollow compared with what the HYMC has reported from ground conditions.***

		(Action: ACS Environment and Climate Control and Chairman HSPCB) ***21. Formulate a policy and implement the same for reutilization of treated waste water for agriculture purposes throughout the states but particularly in the catchment area of River Yamuna.*** ***Action: ACS Irrigation /Agriculture).*** ***22. for taking up the work of Bioremediation / Phyto remediation in all 11 Major drains through which effluent is being discharged in River Yamuna.*** ***(Action: ACS PHED and ACS ULBD)*** ***23. Assign accountability on HSPCB as the poor recovery of less than Rs 5 crores against a levy of Rs 300 crores shows that the orders are only on paper and the most charitable explanation is that this is not a priority. It however reflects very poorly on the priority accorded by the Government and the lack of perseverance on the part of the officers.*** ***(Action: Chairman HSPCB and the ACS Environment)***
13	***State of Uttar Pradesh and Pollution of the Yamuna***	***YMC recommends that Hon'ble NGT may consider issuing the following directions:*** ***1. Since Shahibabad and Indirapuri drains, which have a very high BOD/COD of 195/580 and 237/930 mg/L respectively and contribute substantial volume of both industrial and domestic sewage into Yamuna, the State of UP should complete the trapping of entire sewage and industrial effluent in these drains within next 3 months, failing which the directions contained inpara:15(A)(iv) of NGT's order dated 11.9.19 should be invoked:*** ***"For delay of the work, the Chief Secretary, State of Uttar Pradesh must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department.*** ***i). The State of Uttar Pradesh will be liable to pay Environment Compensation if defaults take place as under:*** ***a). The operational deficiencies of the existing STPs must be rectified within three months failing which Environmental compensation of Rs. 5 Lacs per month for STP shall be deposited with CPCB……."*** ***2. CPCB and UPPCB should jointly assess the STPs at Ghaziabad, Dundahera, Shahibabad, Indirapuram and Loni with regard to their functionality, capacity utilisation and compliance to standards and submit a report to the Tribunal/YMC within one month. The joint team should also give its comments on the functional upgradation being undertaken by the State and whether the work can be completed as per the schedule given by the State of UP.*** ***3. The joint team constituted by District Administration, Ghaziabad, should undertake inspections of industries in non -conforming areas on a regular basis as the industries once closed have a tendency to restart. Strong punitive action under the Water Act/ Municipal Acts is needed with zero tolerance for industrial discharge from particular areas.*** ***4. The State of UP should in coordination with DDA take effective steps for rejuvenation and protection of the floodplains and submit a status report on demarcation, eviction of encroachments and rejuvenation work done on the UP portion of the floodplains.*** ***5. A decision also should be taken on the cost sharing of the floodplain rejuvenation works and funds made***

"

		available to DDA for rejuvenation of UP portion of the floodplains as agreed between the two states.

17. Before considering the report, we note that the issue of preventing discharge of sewage and industrial effluents, referred to in Para 8 above, has been further dealt with by this Tribunal, vide order dated 21.09.2020 in the light of report of the CPCB and the Central Monitoring Committee (CMC), headed by the Ministry of Jal Shakti, in **OA 593/2017, in pursuance of directions of the Hon'ble Supreme Court in (2017) 5 SCC 326. By the said judgement, all the States in the country are required to ensure that the requisite water treatment devices are installed in time bound manner by 31.3.2018, after which coercive measures must be taken. Following the said orders, the Tribunal directed that the River Rejuvenation Committees (RRCs) (which were directed to be constituted by the Tribunal to prepare and execute action plans for restoration of the polluted river stretches) and the Chief Secretaries of all States/UTs must ensure preventing of any pollution of the rivers by enforcing the statutory law and norms and Constitutional obligation of providing pollution free environment.**

18. We have heard learned Counsel for the NCT of Delhi, DJB and the State of Haryana. There is no objection to the recommendations of the Committee.

19. From the report of the Committee, it is clear that major problem of preventing pollution by discharge of sewage, industrial effluents and other pollutants remains unaddressed. This was so observed in para 18 the last order also, as quoted above in the paragraph 14. There is hardly any improvement in evolving meaningful and effective institutional mechanism for monitoring. Though IDMC is reported to have started functioning,

tangible results are yet to be shown, as noted in the report of the YMC. The Committee has particularly found that 147 drains in the catchment of Najafgarh and Shahadra drains have not been tapped, as earlier directed. **Against heading 6, dealing with repair and maintenance of drains, the Committee has noted huge gap in generation and treatment of sewage. The Committee has rightly recommended that all the drains in which untreated sewage is being discharged need to be intercepted and diverted so that the untreated sewage is not conveyed to the river. Such gaps need to be bridged in UP and Haryana also. The IDMC and DJB have to ensure this for Delhi.** The monitoring by Additional Chief Secretary and Chief Secretary Delhi in terms of order of the Hon'ble Supreme Court dated 24.07.2017 has yet to take place. Necessary devices for sewage and effluent treatment have still not been installed to the required extent. Inspite of availability of huge funds, DJB is not working in a professional manner, as observed by the YMC. Water quality remains highly deteriorated as pollutants are still being discharged into the drains. Flood plains are not being made encroachment free, affecting the riverine ecology. Awareness programmes are inadequate. Biodiversity parks and other measures have also been found to be inadequate. Frothing frequently found is in absence of regulating composition of detergents, which find place in the river through sewage, for which action needs to be taken by DPCC/CPCB/Ministry of Consumer Affairs. E-flow needs to be managed by resolving inter state issues administratively. Accountability needs to be enforced against failure of timelines which are being changed at leisure with no adverse consequences against non-performers. Compensation regime needs to be strictly followed on 'polluter pays' principle which was not happening depicting failure of the regulators. The

observations in respect of authorities in Delhi equally apply to the States of Haryana and UP.

20. There is, thus, need for continuous and effective working of the IDMC to plan and oversee prevention of untreated sewage being discharged in the drains or the river. Apart from discharge of sewage, there is need to stop industries from discharging effluents by concerned statutory authorities, including the DPCC. The issue of protection of flood plains by the DDA remains to be satisfactorily addressed even though steps are said to have been taken for constitution of a SPV for the purpose. **Encroachment is huge and steps taken are miniscule. Meaningful working of SPV by DDA will depend on success to remove encroachment and keeping continuous vigilance**. Thus, on the part of concerned Authorities in the State of Delhi, Haryana and UP further actions in terms of the earlier orders of this Tribunal as well as the current recommendations of the Committee need to be taken, which may be overseen by the Chief Secretaries of concerned States on regular basis by constituting a cell of experts on the subject directly reporting to the Chief Secretary for meaningful monitoring in coordination with authorities like DDA, IDMC, DPCC, DJB etc.(in the context of Delhi). **Non-adherence to timelines must result in adequate and stringent action against accountable persons. Timely completion of projects must be ensured, otherwise for generations the problem will remain untackled, as vested interests will like the projects to remain pending and delayed to the detriment of the public interest. Interim measures like phytoremediation need to employed where permanent solution is delayed. Earlier directions of the Tribunal, which by and large remain un-complied so far, need to be strictly followed with meaningful coercive measures against the erring officers and the violators.**

21. **As already noted, the matter has been dealt with by the Hon'ble Supreme Court for 23 years, before transfer of the matter to this Tribunal in the year 2017 and by this Tribunal for almost nine years**. Finding inadequate compliance, the Tribunal constituted a Monitoring Committee on 26.07.2018 with the hope that day to day monitoring by an independent Committee may result in some improvement. **The Committee has functioned for more than two years and contributed in a big way in steering the authorities with a clear road-map by its exhaustive reports on every aspect but the authorities' action has been every time found to be inadequate and continues to be so**. This requires the authorities to change their attitude and rise to the occasion to discharge their Constitutional obligation to the citizens to provide clean environment by protecting the scarce sources of water by stringent steps against the erring officers and the violators and by effective monitoring at appropriate higher levels, reviewing/modifying the failed models and failed officers. **All the issues have been duly identified and categorical directions issued. Recommendations made for future compliance need to be taken up seriously by the concerned statutory and administrative authorities.**

22. The Tribunal or Tribunal appointed Committee cannot be expected as substitute for governance and can at best set directions. **This has been done by elaborate order passed on 13.1.2015, based on recommendations of the Experts with defined timelines. The order also constitutes 'Principal Committee' headed by Secretary Jalshakti to oversee compliance. Further, the Hon'ble Supreme Court vide order dated 24.4.2017 directed monitoring by Additional Chief Secretary Urban Development and Chief Secretary Delhi. The Hon'ble**

Supreme Court has fixed deadline of 31.3.2018 for ensuring pollution control devices, indicating sources of funding and requiring coercive measures for failure which has not happened. The satisfactory results are not visible on account of failure of enforcement and monitoring, as found by the Monitoring Committee.

23. Accordingly, we direct that in terms of directions of the Hon'ble Supreme Court and earlier orders of this Tribunal, henceforth **the Chief Secretary, NCT of Delhi, in coordination with other authorities (such as, Additional Chief Secretary Urban Development, DDA, IDMC, DPCC, DJB) and the Chief Secretaries of Haryana and UP may personally monitor the progress, by evolving effective administrative mechanism to handle grim situation caused by years of neglect.** Causes of failure of existing mechanism and remedial measures required be addressed in the light of reports of the Committee. This needs to be further overseen at National level by the Central Monitoring Committee, headed by Secretary Jalshakti, which also includes NMCG and CPCB, in terms of earlier orders of this Tribunal. To give effect to the orders of the Hon'ble Supreme Court, the Tribunal has already directed constitution of River Rejuvenation Committees (RRCs) in all the States/UTs by order passed in OA No. 673 of 2018 *in Re: News item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB*, to be headed by the Environment Secretaries of States/UTs, to prepare and execute action plans for restoration of the polluted river stretches, under the oversight of the Chief Secretaries of the States/UTs. Such action plans are already in place. **The RRCs of Delhi, Haryana and UP may accordingly monitor execution of the action plans with proper inter-departmental coordination, to remedy the polluted stretches of river Yamuna in their respective jurisdiction,**

subject to oversight of the Chief Secretaries on quarterly basis, who may thereafter give their quarterly reports to the Central Monitoring Committee (CMC) headed by the Secretary, Jal Shakti in terms of order dated 21.09.2020 in O.A. No. 673/2018, supra.

24. **We place on record our appreciation for the contribution of YMC in the last more than two years. With the taking over of the further monitoring by the Chief Secretaries of NCT of Delhi (and other authorities of Delhi, including DDA, DJB and Municipal Corporations), Haryana and UP, proceedings of the Committee constituted by this Tribunal on the subject will stand concluded, subject to further monitoring by the concerned State Authorities**.

25. As noted earlier, in terms of directions atleast by four orders i.e. dated 24.04.2017 in W.P. No. 725/1994, (in the case of Yamuna) dated 22.02.2017 in (2017) 5 SCC 326 (dealing with the issue of preventing water pollution), in (2015) 12 SCC 764 (regarding Ganga, which also includes Yamuna) and dated 2.9.2014 in Almitra Patel, WP No. 888/1996[24], referred to in para 10 above (regarding solid waste management), the Hon'ble Supreme Court has directed this Tribunal to monitor compliance of directions of the Hon'ble Supreme Court to prevent pollution, particularly of rivers. The Tribunal has accordingly attempted to do so and also required Chief Secretaries of all States/UTs to appear before the Tribunal in person for interaction on the issues. Based on such interaction, further directions were given. In view thereof, the registry of this Tribunal has sent, apart from other orders, copies of its orders dated 21.05.2020 and 29.06.2020 to the Secretary General, Hon'ble Supreme

[24] Almitra H. Patel Vs. Union of India & Ors.

Court[25], with the request that the matter be considered on the judicial side of the Hon'ble Supreme Court, if required. **In continuation, we direct the registry of this Tribunal to forward a copy of this order to the Secretary General, Supreme Court of India, for the matter being placed on the judicial side, if so required.** We also note that the Hon'ble Supreme Court has taken *suo moto* cognizance on the subject of remediation of polluted Rivers in Suo Moto W.P. (C) No. 01 of 2021.

26. With the above directions, all proceedings before this Tribunal will stand disposed of, subject to the matters being further considered by the Tribunal in O.A. No. 593/2017 and 673/2018 in the light of reports of the CMC, based on monitoring by it with the assistance of Chief Secretaries of States/UTs in terms of orders of this Tribunal to give effect to the orders of the Hon'ble Supreme Court, referred to above. However, it is made clear that this order will not affect earlier directions, including the constitution and functioning of the 'Principal Committee', headed by Secretary, Jal Shakti in terms of order dated 13.01.2015 read with later orders. **Wherever the YMC has suggested filing of periodical reports with this Tribunal, such reports be filed with the Secretary, Ministry of Jalshakti, heading the 'Principal Committee' in terms of order dated 15.1.2015 and also heading the CMC**. The website set up by the YMC and all other record available with it may now be utilized as per directions of the Chief Secretary, Delhi.

27. On the above pattern, the monitoring by the Committee headed by Justice Pritam Pal for the stretch of Yamuna in Haryana will also stand concluded, subject to the monitoring being now undertaken by and under

[25] As mentioned in Paras 9 and 12

the Chief Secretary, Haryana and filing of reports with the CMC, on same pattern as in Delhi.

The application is disposed of.

A copy of this order be also forwarded to Secretary Jalshakti, Government of India, NMCG, CPCB, Chief Secretaries of Delhi, Haryana and UP, DDA, DJB and Municipal Corporations of Delhi, Ms. Shailja Chandra, former Chief Secretary, Delhi and Justice Pritam Pal, former Judge, Punjab and Haryana High Court by e-mail.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

January 27, 2021
Original Application No. 06/2012
A&DV

APPENDIX

Environmental Flow

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
1	**E- Flow**: NGT in its order of 6.7.20 directed as under: *The third major issue is of e-flow which has to be worked at administrative level. Apart from authorities in Delhi, the States of Haryana and UP cannot avoid their responsibility. Undertaking awareness programme and involving civil society is essential. Effective*	Pursuant to NGT's order of6.7.20 directing that Principal Committee should decide on the issue of E- flow, MoJS/NMCG had observed that the water sharing agreement of 1994 among the riparian states of Uttarakhand, HP, UP, Haryana, Rajasthan and NCT Delhi is due for revision only in 2025unless any of the states so demand implying that no revision of water sharing will be possible to achieve the E-flow of 23 cumecs in the lean season as recommended by NIH study. For augmenting flow in the river to achieve E-flow the following measures have been recommended after the meeting of the Principal Committee held on 22.5.20 and another meeting held under the chairmanship of Minister MOJS on 3.6.20**:** **1.** Increase in irrigation efficiency.	No further comments on YMC's report of 7.12.20 received from NMCG/MoJS.	YMC reiterates that the recommendations made in the report of NIH be accepted and E- flow notified. This is necessary as the recommended E-flow will set as benchmark on which policy decisions may be taken. In collaboration with Ministry of Agriculture and the state governments concerned, policy and schematic interventions be initiated to increase the usage of water efficient irrigation practices and adoption of crops which are more efficient users of water. Additional steps like regulation of ground water, rain water	1.NGT may consider issuing directions to MoJS/NMCG to accept and notify E- flow recommended by the NIH this will set a benchmark/platform on which policy decisions may be taken. 2.Prepare a monitorable action plan in coordination with other Ministries like Agriculture, and the state governments to achieve the recommended E-flow. Without this the policy intent may not be achieved.

	institutional monitoring mechanism has to be evolved. *The issue of e-flow may be resolved by the Principal Committee as recommended by YMC* *2.Creation of Water reservoirs on the floodplains to augment ground water*	**2.** Scientific estimation of crop water demands and scheduling of irrigation based on soil-water-plant interactions, **3.** Conjunctive use of surface water and groundwater, and technological up-gradation by adoption of sprinkler/micro-sprinkler/drip irrigation systems for achieving the desirable level of irrigation efficiency. **4.** Regulate groundwater withdrawal in the basin especially in the Mawi-Baghpat stretch and augment groundwater recharge in order tosustain base flows **5.** Shifting from water intensive crops viz., paddy/sugarcane cultivation less water intensive crops like cotton and employing efficient water use practices such as micro-sprinkler, drip irrigation. **6.** Augmentation of non-monsoon inflows at Hathnikund barrage by creating storage of monsoon runoff under Lakhwar, Kishau and Renuka storage dam projects. **7.** Treatment of effluent coming through various drains meeting river Yamuna - the non-monsoon average BOD of the drains discharging in the river ranges from 19.6 mg/l to 262.2		harvesting and recycling of waste water in basin states will be required to be pursued more vigorously to achieve the goal of rejuvenation of the river. In the absence of a policy on various water conservation measures being recommended as integral to achieving e-flow, the entire study may become an academic exercise. The measures suggested by the MOJS, though desirable, are open ended and there is no road map suggested as to the policies, programmes or schemes at the government of India level and state government level , that are needed to be implemented to achieve the quantifiable incremental flows in the river with ultimate goal of	3.The CGWB and CPCB be directed to continue to monitor the ground water level and its quality in coordination with IFCD during, pre- monsoon, post-monsoon and lean season months and submit reports to the YMC and Principal Committee to take a decision on further continuation and its extension to other areas if found beneficial.

		mg/l. With such high level of pollution around 390 cumecs flow will be required to be discharged from Wazirabad barrage, which is not a viable solution. It was stated that further developments on E-flow and the water conservation measures by basin states will have to be monitored for achieving the overall objective of river rejuvenation. *2.* **CREATION OF WATER BODIES/ RESERVOIRS IN FLOOD PLAINS OF RIVER YAMUNA BY RETAINING EXCESS WATER IN THE RIVER DURING MONSOON SEASON FROM PALLA TO WAZIRABAD** The pilot project for recharge of Yamuna flood plain was initiated in the year 2019 on an area of 40 acre on the floodplain near Palla. A rise of 1 to 1.3 metre was observed in the piezometers due to flood in the River in the year 2019.In the year-2020, the work of excavation of pond/ reservoir was started on 24.06.2020 and has been already completed on 10.07.2020 in an area of 26 acre. A rise	IFCD has informed that CGWB and CPCB are monitoring the ground water, both in quality and level and based on the finding further steps will be taken.	achieving the recommended E flow. The MoJS has only conveyed its intent without any definitive programme. 2. The impact on the E flow in the river on account of other conjunctive measures like conveying 70 MGD of treated waste water to Palla and releasing it into the river and exchange of fresh water with treated water with the states of Haryana and UP as planned by the GNCT Delhi also need to be assessed by the GNCT Delhi and the NMCG/ MoJS.	

		of 0.5 to 2.0 metre has been observed in the piezometers due to flood in the River in the year 2020.A total of 33 piezometers have been installed to monitor ground water level through and CGWB. The ground water level in the project area will require to be monitored so that lessons learnt can be used to recommend more such projects.		CGWB and CPCB should send periodic report on the monitoring of ground water done by them to the YMC.	

DDA and Demarcation of the Flood Plains and Conservation Activities

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
2.	**Setting up an SPV or any other body to oversee the River Related Issues.**	**1.** The Honorable Tribunal had noted that section 5 A enables the authority (DDA) to constitute committees and directed that the dedicated agency needs to be put in place which can focus on issues relating to River rejuvenation by involving civil society, experts/institutions as necessary for ecological restoration of the floodplain zones, maintaining vigil, undertaking flow measurement, removing encroachment and undertaking activities including Riverfront development. The body was expected to take steps to attract and educate citizens, nature enthusiasts and building an environmental temper amongst the citizenry without in any way causing damage to the floodplains. NGT expected that Yamuna rejuvenation could become a model for the rejuvenation of 351 river stretches in the country given its	The modified draft order at **Attachment as Annexure C-2/1 of Fifth Report dated 7.12.2020** shows DDA's intention and the broad contours of the proposed RYMC structure, its constitution and its membership. **1.** DDA has recognised the need to have a permanent body with the wherewithal to have a holistic approach to all activities connected with the River – both related to the abatement of pollution and the revival of the ecology of the river. However the suggestion of the YMC to have sub-committees with people who are capable of giving reports on the ground realities has been	The following comments of YMC are being given without reference to DDA's response which does not touch on key aspects as the previous column shows. [By way of explanation the observations below do not have a relationship with the points listed in Column 4.] **1.** DDA has recognised the need for an advisory committee and subcommittees but has provided no details of the membership or the terms of reference, and the need for a more participatory approach by providing representation	NGT may consider directing that the membership of the RYMC, the Executive Committee (or Committees) s suggested by YMC and the subcommittees or system for institutional back -up should be prepared in a way that the challenges and bottlenecks get highlighted before the high-level RYMC and there is continuity in following up of decisions. A dedicated secretariat may be directed to be set up as otherwise discussions held may not get properly acted upon. Also

		location in the national capital where all expert authorities and funds were available. DDA was directed by NGT to comply with the earlier direction instead of finding excuses and YMC was directed to continue to monitor the compliance of the directions for the time being. This was referred to. The proposal received from DDA was discussed with the Vice-chairman DDA and elaborated upon in the 5th Report of YMC. The following aspects give the perspective of YMC which had a rationale, summarised below : **i.** Since there is an elected Government in Delhi as well as local bodies (DMC's) having direct responsibility for water, sewage, sanitation, enforcement of different statutes, it was necessary to build that into the structure of the proposed RYMC. **ii.** Besides an advisory committee of experts four Subcommittees with the ability/authorization to visit the areas and oversee developments and to place their findings before the Executive committee were needed.	included in the draft order but no details have been provided. **2.** The need for another Executive Committee to monitor and provide updates to the RYMC on pollution related aspects as well as progress of infrastructure development have been left as something IDMC can decide. **3.** No comments have been given on how inputs on activities relating to the construction or upgradation of STPs, Management of Drains and Septage will be presented to the RYMC. **4.** Enforcement powers under various Acts (water, Solid waste and Biomedical waste are with DMCs but there is no mention in the comments on working arrangements. **5.** There are no comments on how it is proposed to involve public representatives and	for the inclusion of public representatives as well as people with domain knowledge and interest so that RYMC gets advice based on what is actually happening on the ground. While the structure provides for Sub committees it is necessary to spell out the working modalities in the order itself for the following reasons: **(a)** Owing to contending priorities a Committee comprising solely of officers will not have time to maintain sustained interest in tracking multifarious developments on the ground including the functioning of surveillance measures , removal of encroachments, progress of rejuvenation projects, effectiveness of	the membership of the Committees and the terms of reference should form an integral part of the order setting up the RYMC and Executive Committees which would obviate delay in making the RYMC and its organs functional. It is pointed out that even after the RYMC is setup, there would be a need for reports to be filed before the National Green Tribunal as the projects, schemes and strategies which are in progress and on the anvil cut across several departments and organisations under GNCT as well as under the DMC's which report to independent elected bodies besides DDA itself. Since the improvement in the quality of river water is

		Aspects like surveillance, removal of encroachments, progress of rejuvenation projects, effectiveness of enforcement action and suggestions for public participation require independent inputs to enable the proposed Executive Committee and the RYMC to be effective in terms of NGT's directions. Since all members of the proposed RYMC and the Executive Committee are Government officers, in ex-officio capacity, the channels for participatory decision- making needed to be defined in the order. **iii.** A parallel executive committee was suggested by YMC to be set up to give inputs to the RYMC. It was suggested that it could be under the Additional Chief Secretary in charge of Urban Development as that Department has direct responsibility for steering the formulation of policy, co-ordination and assignment of budgetary support to the Delhi Jal Board and the DMCs. The Department has the mandate to do this on a continuous basis and its input was needed as the proposal of DDA in the draft order goes beyond the flood plain related activities and even	promote the participation of elected representatives as was highlighted by the YMC. **6.** The need for a small but dedicated Secretariat had been highlighted but has not been commented on.	enforcement action and enhancing public participation. **(b)** The idea of sub-committees having been accepted, the membership of the sub-committees needs to be included in the order setting up the RYMC. Otherwise it will take several weeks more for deciding who should be inducted. While the Advisory committee and possible subcommittees (already delineated by YMC in discussion and referred in the 5th Report) cannot exercise any executive authority, they must have the gravitas and interest to offer meaningful advice based on an understanding of what is happening on the ground. Alternately, since DDA has plans to use several expert institutions such functions could be	the only benchmark by which performance can be judged, the directions and oversight by the NGT will ensure that the functions are taken seriously. Building public participation and awareness as directed by NGT requires a comprehensive plan and has to have both cultural as well as ecological moorings. NGT may direct that all the issues of education of children, awareness building, promoting cultural events and nature walks etc require to be managed imaginatively and a system for engaging institutions and agencies who have a track record has to be put in place so the Yamuna remains

		refers to *supervising the functioning of all departments which affect river and its floodplains*---and *supervise setting up, upgradations and functioning of STPs/ETPs by various departments to ensure that public spaces, drains are clean."* YMC had pointed out that it was time a strategy was prepared to create public awareness and promote public involvement as very few people even know about the plans and current progress. It was also suggested that public –private partnership mode is necessary for the management of areas on the riverside which have been built for public recreation and enjoyment, for the organisation of public events, building public awareness and regulating entry, subject to DDA's regulations and oversight. This will enhance sense of ownership not just with the floodplains but the river itself. YMC had suggested that the proceedings of the Executive committee and the RYMC should be placed in public domain by releasing		delegated to them also but the notification should carry a convincing roadmap indicating how this would be achieved. **2.** DDA does not appear to have coordinated with GNCT Delhi to address the need for another Executive Committee to give progress reports to the RYMC on the achievements and bottlenecks affecting the renovation/ construction, commissioning of STPs and related infrastructure as well as maintenance and enforcement measures which have a huge impact on the pollution in the Yamuna. As the architect of the RYMC concept proposed to be set up under the DDA Act 1957 ,DDA should focus on the objective sought to be achieved in a	emblematic for different sections of society. DDA does not have the wherewithal to do this and must set up a calendar of events which are managed professionally. Until all things fall into place oversight by the Tribunal would be necessary so that whatever momentum has been built up because of NGT's previous orders remains in focus.

		six monthly reports to the press at an event which would keep the media and citizenry informed of steps initiated, under progress and which had been completed.		comprehensive way or suggest a better alternative. **3.** The idea of having a second Executive Committee has been met with the remark that it can be decided by IDMC. DDA has not placed this in a co-ordinated way before the GNCT authorities as while IDMC has been given responsibility for drains, oversight of septage collection and establishing Phyto and Bio remediation projects by NGT, it is a Cell and not a Government Department. Sustained oversight can only come through a Government Department with direct responsibility for the local bodies and oversight of sanitation, sewerage and the implementation of all the statutes dealing with water pollution.YMC has no strong views but since	

				the DDA has widened the scope of the RYMC's mandate (which was envisaged by NGT) it must also provide for working mechanisms to make RYMC effective. **4.** The objective was to make the RYMC as effective as possible and also to dovetail the twin aspects of pollution control and rejuvenation to revitalise the river which have been clearly brought out in NGT's order. DDA's draft order says "*the Committee shall supervise the functioning of all departments which affect river and its floodplains. It will develop mechanisms for monitoring of activities of departments for maintenance of all spaces and facilities created like tracks, shelters, boardwalks, decks as a*	

				connect to the river, management and cleanliness of Ghats besides River Yamuna floodplains. <u>The Committee will supervise setting up, upgradations and functioning of STPs/ETPs by various departments to ensure that public spaces, drains are clean."</u> To be able to perform the above functions effectively, the RYMC would need to be briefed through authentic progress reports. Feeding progress reports requires focal point and the Executive committee under the Department of Urban Development was suggested by YMC only as one way of providing a functional bridge. To the RYMC.	

				5. The need for a small independent Secretariat of two officers with knowledge of water pollution and environmental / ecological functions of river restoration in the Notification itself, as continuity would be critical if RYMC does not become just another committee which only goes by inputs from the very departmental officers who will rely on departmental inputs.. Mere issue of minutes will not suffice unless there is a continuous effort to flag achievements as well as continuing bottlenecks and seek intervention of the RYMC. Independent inputs are vital for such a high powered body to be able to act meaningfully.	

				6. To secure citizen's involvement and explore avenues for public-private partnership models of management of the biodiversity park areas, CII and FICCI members were called by YMC and introduced to the DDA officers as the involvement of apex level organisations would promote greater participation and newer ways of handling public participation and public awareness building. No efforts have been made to involve CII and FICCI to take the suggestion forward.	
	Ten projects for rejuvenation of the River Yamuna	**1.** The items are not repeated here as they are listed in the Attachment which is self-explanatory and gives an up-to-date picture. **2.** The land issues with UP Government referred in the YMC's 5th report remain unresolved and are discussed in Column 5.	NGT had directed DDA to pay attention to the restoration of floodplains so that they can undertake the ecological functions which are integral to a healthy river. From October 2018 until now there has been tangible physical progress only in respect of three identified	YMC had already indicated that the progress on three projects was good and the South Delhi biodiversity park is also coming up well.	In the interest of undertaking the rejuvenation projects in a comprehensive way, NGT may consider directing the DDA as well as the Ministry of Jal Shakti and the Government of Uttar

			rejuvenation projects on the river Yamuna. The progress had been described in the report dated 7.12.20 and reviewed with the vice-chairman DDA and the minutes have indicated what was expected to be done. The statement attached indicates where tenders have since been called and work awarded which gives YMC reason to believe that the timelines can be met. YMC has been following up on the rejuvenation projects and during December also visited three which are under execution including the South Delhi Biodiversity Park and the wetland projects at Kalindi under Dr CR babu of CMDE. Comments on 100% complete reports. **1.** There is specifically a term referred as "completion" which is used in the status given in the table. Although the water	**The latest progress shown in the attached sheet gives hope that most of the timelines are now feasible and can be met. The attachment could not be incorporated in the statement and has therefore been attached separately. (Annexure-A)** **UP Land and Funding** The commencement of rejuvenation work in respect of land which is in the possession of UP Government and getting funding to the tune of Rs. 98 crores from the state belies the hope of early settlement. There was repeatedly a mention of the matter being taken up at the level of the LG with the political executive in Uttar Pradesh but no such confirmation was forthcoming in writing.	Pradesh to have a tripartite meeting at the highest level – with a view to taking up the projects in parallel. This is needed in the interest of improving the ecological footprint around the river Yamuna. DDA has already given estimates for Rs. 98 crores to the Government of Uttar Pradesh which has been received by them. There is a need to bring about an understanding about the potential importance and significance of the floodplains on either side of the river to the two Governments and to DDA so that it is taken forward in a in a result oriented manner focused on jointly reviving the river.

			bodies and pathways are ready and remarkable progress has been made on some of the wetland projects, YMC noted that it will require much more time to be termed as complete from a public point of view as all the remaining works like greening the area, provision of public amenities, solar lights et cetera would be needed before public entry is permitted. This has now been treated by DDA as phase 2 which was never stated as such earlier. But it may be accepted as DDA has the will and wherewithal to achieve it. **2.** During the visit in March 2020, YMC had been assured that water Hyacinth was being removed . Not only has it not been removed but it has overgrown as it was virtually abandoned during the lockdown and its aftermath. YMC was assured by Prof Babu that the Irrigation and Flood Control Department of GNCT	**In the 5th report submitted by the YMC on 7.12.20 it was highlighted that, considerable land belongs to** UP Irrigation Department assessed to involve 299.75 Ha. of land with a total estimated cost for the Restoration and Rejuvenation working out to Rs. 98 Cr. The break up is as under : **(i)** Old Railway Bridge to ITO Barrage (Eastern Bank) having an area of 107 Ha. Where rejuvenation is estimated to cost Rs. 35 Cr. **(ii)** NH-24 to DND Flyway (Eastern Bank) having an area of 162.75 Ha. Where the cost of rejuvenation is estimated as costing Rs. 53 Cr. **(iii)** Hindon cut wetland having an area of 30 Ha. whose rejuvenation cost	

			would be providing two motorboats through which it will now be possible to remove the water-Hyacinth in a matter of the next two months (by March 2021) to make up for time lost due to the pandemic. What was expected to be a haven in South Delhi will require some months more to be completed to the point that regulated public entry becomes possible.	has been estimated to cost Rs. 10 Cr. The subject of rejuvenation of the flood plain on the UP side has been going on from the time it was first raised by the YMC in December 2018 and appears presently to be intractable. Since it involves payment between two Governments it can go on interminably. The difficulty is that this land is in different pockets but each such package impacts on both access as well as development of the floodplain by DDA. The full advantage sought to be realised through the rejuvenation taken up by DDA will not be available unless the UP related land and funds issue is addressed and clinched	

				and work starts on the ground. Since this matter appears to be going beyond the capacity of DDA to be able to persuade or negotiate with the Government of Uttar Pradesh, it requires a decision at a political level. The only authority which is equipped to address this is the Ministry of Jal Shakti.	
	Matters related to demarcation, surveillance, enforcement and protection.	It has been certified that the demarcation of one in 25 years floodplains from Wazirabad to Jaitpur has been completed on both banks through the erection of also 591 bollards, 310 flag posts and 24 signboards and another29 will be completed shortly. Details of the CCTV cameras have been given and new locations have also been suggested by Prof CR Babu which are being attended to. 120 security guards have been deployed round-the-clock in three shifts at vulnerable points along with four patrolling vehicles along the entire Yamuna floodplain to check	**DDA has not given any comments as it is factual.**	The work of surveillance has been done quite satisfactorily by DDA. After several months of dilly-dallying the matter was given due prominence from mid 2019 onwards and the achievement is good.YMC had visited the areas where they intervening wall is coming up between unorganised settlements and the backwaters. The Bollards and flags have been erected and are not	No directions are needed from NGT but it is a model which other river rejuvenation authorities can replicate. It is relatively inexpensive and saves the river from solid waste dumping and encroachment.

		illegal dumping of malba and to prevent encroachment. 222 challans have been issued by now with 186 in the year 2019 and 35 in 2020. However, the State Transport Authorities of Delhi, Haryana, UP, Rajasthan and Punjab have not responded to requests from DDA for cancellation of the registration of the vehicles. It is now proposed to take this up using the mechanisms of Delhi Police the YMC was informed. This is a good step.		unsightly or capable of being vandalized. The signages too are good including at the entry points.. The working of the CCTV control room and cameras across the entry points to the floodplains was visited by the YMC and is quite impressive. It is serving the purpose very well.	
	(i) Repossession of land occupied by agriculturists.	**(i)** In the 5th Report YMC had reported that approximately 870.70 acres of land has been cleared from encroachment by June 2020. Since then 214.68 acres has been further retrieved until 19.11. 2020 and 105 acres is proposed to be cleared by the end of December 2020. Through this plan 319.68 acres will be retrieved from encroachment by DDA belonging to the floodplains of the river Yamuna by the end of December 2020. This is in addition to the 870.70 acres already cleared.	DDA has not given any further comments or progress report tabled in the 5th Report of YMC **Details of the land cleared from encroachments** By June 2020, **A: 352.36 hectares** (870.70	**There are no comments against 4(i)** **Comments against 4 (ii)** **The demolition work is continuing and DDA has undertaken three measures namely construction of a wall between the habitations and the water, barring entry of vehicles and undertaking planned**	NGT may consider directing that unauthorized occupation of land on the flood plain must be followed up and the Police Department should give all the assistance. Once vacated DDA must not allow rebuilding on the spot.

	(ii) Eviction of encroachments:	**(ii)** DDA has decided that a survey map has to be prepared and khasra numbers superimposed thereon before fresh demolition of encroachments on the "O" zone of the floodplains can be restarted. This should have been anticipated but the DDA now should complete the survey work within this year itself.	acres) Updated status as per meeting held on 23.09.2020 **A(updated):378.36Ha** (934.54acres) June - Nov '2020 (as per status submitted to YMC on 07.12.20) **B: 86.9 hectares** (214.68 acres) in addition to A: 352.36 hectares (870.70 acres) **Total land cleared of encroachments till 07.12.2020 = A+ B = 439.26 Hectares** (1084.97 acres)	**demolition and hence there is nothing to add at this juncture.**	
	Repossession of land allotted to Govt/Semi Govt agencies	**i.** YMC had observed that DDA had not given any response on specific points relating to land temporarily allotted to DMRC, NHAI and PWD.	No information furnished to YMC other than relating to the India Project which is not being monitored by YMC.		Since it is a huge area, directions are needed both for repossession from different govt. departments, reclamation of land from agricultural use and from encroachment. The Principal Committee has been given this task by the NGT.

Quality of River water

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
3	**Quality of River water** NGT order dated 6.7.20: *Para 18:* *If Yamuna is to be rejuvenated such discharges either directly or through drains need to be stopped. This is possible only if the IDMC performs its functions effectively to prevent discharge of untreated sewage into the drains or into Yamuna* NGT had directed that	**i. Monthly reports on the Water Quality in river Yamuna** Presently, there are 14 measurements done every month of which CPCB measures water quality at 5 stations and DPCC at nine stations. Two stations are common between the two Boards. YMC had directed that CPCB and DPCC should finalise the list of stations where each of them can monitor the water quality so as to avoid overlap. Considering that there are 23 drains which have outfall in river Yamuna, YMC recommends that the CPCB and DPCC may also consider increasing the monitoring stations to coincide with the outfall points of drains in river Yamuna so as to track the level of pollution entering through each of the drains.	No comments received from CPCB/DPCC.	Since no comments have been received from CPCB and DPCC the comments and directions recommended may be accepted.	i. CPCB and DPCC should coordinate and increase the number of stations for monitoring water quality in the river Yamuna as suggested by the YMC. ii. All the product manufacturers of soaps and detergents be directed to disclose the ingredients present in the product and display the same on the package. This is a matter which will only be effective if the Ministry of Consumer Affairs under whom the BIS functions is directed to bring out a policy and notify not just standards but a mandatory requirement to declare

	DPCC should bring out monthly reports water quality in the river and should also contain data on Faecal coliform and that these reports be placed on the website of the DPCC,	**ii. Water Quality Trends during the period 2015-2020:** Through the years 2015-2020, the reports compiled by both CPCB and DPCC indicates that that there is no significant change in the water quality of river Yamuna with respect to DO, pH, BOD and FC. This is a matter of concern and needs to be conveyed to the important stakeholders, namely, the NMCG, Govt of NCT Delhi for their information and to critically examine the issues involved and take remedial steps. **iii. Environmental Damage Assessment in River Yamuna** NGT had directed that a team of CPCB, NMCG, NEERI, IIT Roorkee and IIT Delhi to assess damage to environment due to degradation of river Yamuna from Hathanikund to Mathura. The CPCB has informed the YMC that the report of the Committee is being finalised and will be filed before the Hon'ble Tribunal with a copy to the YMC. **iv. Foam formation in river Yamuna**			the ingredients along with their proportion. iii. Soap making is not confined only to NCT of Delhi and even if efforts are made by GNCT Delhi, it will not have the intended effect on soap/detergent manufacturing in other states where soap and detergent manufacturers continuing to produce non- standard cleaning items may not be proceeded against by enforcement agencies. Since the effluent joins the drains and the river in Delhi, the problem will continue. Therefore there has to be a policy direction from the Central Ministry of Consumer Affairs based upon the findings of the CPCB and the DPCC, the huge media coverage and public anxiety when the frothing of the Yamuna

		Media/Social media has been reporting occurrence of toxic foam in selected stretches of river Yamuna in Delhi. Both CPCB and DPCC who were asked to undertake inspections and identify causes of foam formation have attributed the episodic presence of foam due to phosphates in the detergents that are present in the untreated sewage that is released into the river Yamuna. As per the DPCC report, against a discharge standard of 5 mg/L for dissolved phosphates, the phosphates in the river Yamuna varied from 6.9 at Okhla to 13.42 mg/L at Khajoori Paltan(D/S of Najafgarh drain). DPCC also ordered sealing of two industries under the Water (Prevention and Control of Pollution) Act 1974 and issued Directions for closure of 39 industries besides issuing show cause notices to 17 units for levying EC for causing pollution in the river Yamuna. A comparison of the 2001 and 2002 BIS standards and those prescribed in 2020 show that Sodium Tri Poly Phosphates(STPP) percentage for the household laundry detergents bars have been decreased from			continues year after year. CPCB needs to advise Ministry of Consumer Affairs of the health hazards and risks to humans which goes beyond the visual quality of the water bodies and the river. There is a need to have a plan to phase out the use of certain chemicals which are not permitted by other countries due to health reasons and/or reduce the quantities thereof. iv. NGT may also direct the Government of NCT Delhi to issue orders prohibiting sale, storage and transportation /marketing of detergents which do not conform to the revised BIS standards. GNCT Delhi may also be directed to launch awareness campaigns about the harmful effect of using substandard soaps and detergents.

		9.5(percentage by mass) to 5 for detergent bars, 2.5 for powder and to zero for household detergents for woollen and silken fabrics. Though BIS standards for detergents have been improved, it is not clear whether these standards will actually be enforced and until that is done and the manufacturers are made to comply with the standards, the problem arising due to release of detergents with high phosphate contents into rivers and water bodies will remain. The role of regulatory bodies like as CPCB, PCBs and DPCC is generally limited to implementing discharge/effluent standards. Whether they can enforce the product standards at the manufacturing and marketing stage is doubtful.			

Sewage Treatment Plants

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
4	**Sewage Treatment Plants NGT's order dated 6.7.20** *21(g). Let the authorities in Delhi, Haryana and UP consider and adopt the report of the NitiAyog in shortening the procedures in dealing with the waste management activities.* *21(i). The issue raised by the YMC, of the unavailability of land preventing setting up of STPs*	**Part-I:Setting up and Up- gradations and Rehabilitation of STPs** **a. Slippages in Physical progress**: The STPs at Rithala, Kondli, Okhla under YAP III (externally funded by JICA)and Coronation Pillar funded by NMCG taken together account for 279 MGD of treatment capacity, which translates into about 30% of the total sewage generated in Delhi. Despite repeated assurances, the projects have repeatedly missed the timelines. Delays have been endemic to all the projects during the last 3 to 4 years. The lag in physical progress varies from 14% in Okhla STP to 43% in Rithala STP. YMC, therefore, reviewed the systemic problems which are affecting the timely commissioning of the large infrastructure projects under DJB's control. So that all points of view were	**a.**. The lag in physical progress in respect of Kondli, Rithala, Okhla and Coronation Pillar STPs is 25.96%, 39.75%, 16. 92% and 20.25% respectively. All agencies have been directed to prepare catch-up plans for mitigating the impact of the COVID related delays. It is reasonably expected that the project timelines will be met without any major deviations and all projects would be completed with minimum shifting in timelines. None of the causes of delay viz delay in tree cutting permissions, EPCA ban, COVID Lockdown, contractor's own fault, cash flow problems are	**a&b**: DJB has assured that timelines will be met without any major deviations. However with the file for final approval of tree cutting pending with the E&F Department since Sept 20 and the feedback received during review meeting with PMC and Contractors it is doubtful if the timelines will be met. The delay in approval for tree felling/transplantation at the level of "the competent authority" will retard the project completion and will give an excuse to the Contractors to further	Hon'ble NGT may consider issuing the following directions: 1. **Tree felling permissions have caused undue delay in commissioning of the STPs, and the proposals are awaiting approval since September 2020 which is affecting a slew of interdependent activities which cannot commence without the land being handed over without trees. The Department of Forests is expected to see that the provisions of law on tree cutting are implemented as provided in the statute which refers to**

	may be addressed by DDA, and monitored by the Principal Committee. *Having regards to the priority to be given to the treatment of sewage disposal in the drains joining river Yamuna, the land available on the flood plains may be utilized for the purpose, if there is no other alternative or till other land becomes available.* *Needless to say, such safeguards sites for such purpose may be approved by the*	taken into account YMC held discussions with the NMCG, as YAP III funds are routed through the Mission. This was followed with discussions withthe Project Management Consultants (PMC) and the Construction Agency besides the senior officers of DJB. The review brought out that the delays are mainly due to the delay in tree cutting permission, cash flow constraints, Contractor's own faults, delay in handing over land, EPCA ban on construction and Covid 19 related delays. The review also brought out shortcomings in the project implementation and the system of monitoring. **b. Delay in tree cutting permissions: The time taken in tree cutting permissions have ranged from 8 to 14 months despite a specific provision in the Delhi Tree Preservation Act 1994 that if permission is not granted within 60 days it shall be deemed to have been granted. In the case of**	attributable to the DJB or its actions. **b**. The files for Tree cutting permission for Rithala and Okhla submitted final approval of E&F Department on 23.9.20 and 29.9.20 are being pursued regularly. DJB has left no stone unturned in seeking the tree-	delay the project and make other claims on account of such unforeseen delays. The Contractor for Rithala STP had in fact pointed out that the commissioning date would be October'23 and will go beyond December'22.The assurance of the DJB will have to be monitored closely as the assurances are very general. Though the PCCF stated that SOPs have been finalised to see that clearances are given within 60 days as prescribed under the Act, it is necessary that the SOPs are adhered to keeping in view of the provision of deemed permission under Section 9 of the DTP act 1994 after 60 days under the Act.	**time bound clearances having to be accorded or rejected. GNCT Delhi should within two weeks grant permission for tree felling if the requirements under the Delhi Tree Preservation Act 1994 have otherwise been complied with failing which Chief Secretary shall be personally present before the Tribunal on the next date of hearing.**[2]** **2. [FOOTNOTE MAY PLEASE BE REFERRED.]** ii. NMCG being the funding agency, should evolve a water tight mechanism to ensure that payments to the agencies executing YAP-III projects are made promptly and diversion

[1]** On 22.1.21 a What's App message was received from the CEO DJB that the approval for tree cutting has since been accorded.

[2]** In a What's App message sent on 22.1.21 the CEO has informed the Member YMC that the approval for tree cutting has been received. The Directions may kindly take this into account as the recommendation was made before the message from CEO DJB was received which is still informal at the time of dispatch of this statement.

	Principal Committee.	**Rithala (860 trees) and Okhla (409 trees)the proposal is pending with the Minister (E&F) of GNCT **.[1]** **[FOOTNOTE MAY PLEASE BE REFFERED.]** **c. Cash Flow Constraints**: Contractors have pointed out delays in payment by DJB. At least on two occasions the delay was as much as 60 days over and above the 56 days provided for in the agreement even before the Covid 19 pandemic surfaced and an embargo was imposed by the NCT government on expenditure DJB does not seem to be maintaining a separate account for different YAP III projects and the admission that funds do get transferred for other purposes like salary or to other financial heads is militating against accounting principles which are applicable for such time bound externally funded projects. Oversight by the Finance officers seemed weak and there seemed to be a competency deficit and weak financial controls. The delay provides	cutting permission and the delay in final approval cannot be attributed to DJB or paucity in its efforts **c.** Severe reduction in revenue flows and financial measures introduced by Government order dated 08.04.2020. There was drastic fall in Revenue collection of DJB and severe resource crunch, due to which DJB was barely able to manage the salaries of the staff and urgent repair-work with which the basic services of water and sewerage were maintained. Matter was also taken up with State Govt. for release of sufficient funds to meet the required expenditure for all the on-going projects. With the situation improving and financial position ameliorating, it is submitted with satisfaction that DJB has released all	**c.** The assurance for timely payment will have to be monitored. DJB needs to maintain separate accounts for YAP III projects to obviate the need to have to wait for budget availability when project funds stand assigned and diversion is not permissible .There is a need for much better monitoring and also a need to strengthen the Finance and Accounts Wing with in – service professional staff with qualifications and experience of Finance and Accounts.	of project funds made inadmissible. Once project funds are allowed to be used for salaries etc, the delay in payments to the contractors is bound to happen. There is every need for Department of UDD, NCT Delhi and the NMCG to be represented on the Delhi Jal Board and to introduce financial controls that do not permit of diversion of funds inter or intra the YAP III projects.. **iii.** As directed by the Hon'ble Supreme Court in "Quiet Flows the Maily Yamuna" case which stood transferred to the Hon'ble Tribunal, the Principal Secretary UDD(presently the Additional Chief Secretary)is expected to review the progress on a monthly

		the contractor with an opportunity to justify his own delay. **d. Ineffectiveness of the PMC**: The PMC on their own admission were merely playing an advisory role and the nature of intervention was routine, non-qualitative and prepared mechanically. The advice given did not impart any sense of urgency and did not lead to raising the level of decision making to expedite of the timely commissioning of the projects. The PMC had held no focused, professional interaction with the Member Drainage (only one meeting was held during the last one and a half years) and no interaction with the CEO to convey that in case the milestones and timelines were missed or were likely to be missed how it would impact the overall objective of the JICA project which was to clean the river.	payments due to the contractors up to December, 2020 of all YAP-III agencies. It is assured that regular reviews are being held and all future payments will be made in a timely manner to the agencies. **d.** No deviation in the Terms of Reference (ToR) is permissible at the level of DJB. DJB has made all efforts for effective monitoring and supervision of all the projects within the purview of ToR.	**d.** DJB should examine the clause 2 of the TOR which authorises DJB to permit PMC play a more active role in project management rather than merely playing a advisory role as at present.PMC is paid out of project funds and that the consultants are unable to pull their weight is apparent. This needs to be confronted by informing JICA through NMCG if necessary.	basis and the Chief Secretary on a quarterly basis. Quarterly progress reports should be submitted to the Tribunal along with an affidavit. **iv.** YMC recommends a performance Audit by the Controller and Auditor General of India to bring out the systemic problems and corrective action needed. Section 69 of the *Delhi Jal Board Act of 1998*makes a provision for C&AG's audit and Hon'ble NGT may consider directing the Government of NCT Delhi for approaching the CAG to undertake a performance audit. **v.**The YAP III projects with a financial outlay of Rs 1600 crores can certainly benefit from the advice of a more professional ways of project monitoring as the

		e. Absence of monitoring: YMC has found that the system of monitoring has been ineffective. There is no evidence that bottlenecks had been brought to the notice of the Board and of the Government or the intervention of higher authorities sought. The situation created by delays in forest clearance and hold up of fund flow called for intervention by the Principal Secretary Department of Urban Development, the Chief Secretary and the DJB's Board under the Chairmanship of the Water Minister. There was no evidence of this presented to YMC. As many as 21 Communications from Government of India, as pointed out by NMCG, relating to the YAP III projects had remained unanswered. Though Supreme court in *Quiet flows the Maily Yamuna* case which was referred to NGT in 2017 directed periodic monitoring by CEO once a month and by CS once in 3 months, there was no evidence that such monitoring meetings were being held and the requisite interventions made as were needed for critical projects like the YAP III projects.	**e**. The projects related to construction of STPs at Kondli, Rithala, Okhla under YAP-III are being monitored by the by the dedicated project team under respective Chief Engineers and regular review meetings at DJB as well as review meetings at the level of GNCTD and Govt of India. In all 36 meetings were held at the level of Principal Secretaries and CS of GNCT Delhi, Secretary MoJS and others from time to time. For a sharper focus and incisive segregated review of only the YAP-III projects, a system of monthly review at the level of CEO, DJB on 15th of every month has also been initiated from 15.12.20. In compliance of Hon'ble Supreme Court's order in ***Quiet Flows the Maily Yamuna,*** periodic review meetings were held for ISP and other projects of control of pollution in Yamuna. In all 73 meetings by CEO and 38 by CS have been held so far. For the works at	**e.** The response from the Government has listed a plethora of meetings mixing up meetings taken by the ministry of JS/ NMCG and those convened under the Chairmanship of the CS, the CEO DJB, and the Member Drainage along with site inspections. The response is a clear evidence that holding meetings is considered a sign of progress when the fact that there has been delay has been glossed over. It has been added that "*unfortunately, these reviews and preparatory meetings are not minuted due to optimization of available time/resources"* which serves little purpose. The meetings even if held as stated by DJB have had little impact in reducing delays. CEO has now issued instructions on	present systems are ineffective. If after scores inspections and meetings the change is not visible, the lack of progress does not result in rapid execution, it points to the need for doing things differently. **vi.** When the Delhi Jal Board Act1998 was enacted, the senior most functionaries were required to be not below the rank of Joint Secretary to Government of India. That applies to the CEO of DJB, the Members in charge of Finance, Drainage, and Administration besides others. The Government should consider inducting officers and professionals possessing wider experience and exposure, particularly when there is so much

			Rithala, Kondli and Okhla, where the scheduled completion period is not over, the agencies still have the opportunity to complete the work within timelines given to the YMC by increasing the resources like deploying additional manpower & machinery and strictly adhering to their revised catch-up plans. DJB is focusing on timely completion of works and will impose stringent penalties as per CA in the interest of work. Maximum penalties will be imposed on the firms if they fail to complete the work within the specified timelines	15.12.20 that projects will be reviewed by him one in a month. This is a welcome initiative even if late in the day	dependency on external consultants. **vii.** Since DJB is a successor organization to the 'Delhi Water Supply and Sewage Disposal undertaking", all its official websites, official communications should prominently convey its mandate for both water and sewerage. This is necessary to give thrust to the work that it is mandated to do under the Act of 1998. The GNCT Delhi should also consider amending the Act suitably to cover "Sewage Disposal" in the title of the Act itself to provide the requisite thrust and orientation.
		f. Organizational performance review: Repeated cases of slippages in project implementation, both YAP III and even the Interceptor Sewer Project, call for tightening the processes of decision making within DJB because any such delays are militating against the prevention of pollution and the need	**f. Organizational performance review:** Greater focus will be laid on the anticipation of problems, trouble shooting, raising levels, follow up key link in chain to get desired results. Regarding the issue of performance audit by CAG, the recommendations of Hon'ble YMC are noted.	**f.** Since the DJB Act provides for performance review by C&AG, YMC recommends that the systemic issues of administration, planning, monitoring, financial controls need to be gone	**viii.** DJB should come up with a definitive plan of upgradation of STPs with budgetary outlays year-wise and timelines for achieving the revised

		for oversight to anticipate delays and to exercise sound financial control so that at no stage is there delay on account of non- availability of budget (which was cited.).The present administrative systems in DJB are clearly in need of infusion of professional oversight which should not be left to only project engineers who from responses received lack the capacity for anticipating problems, trouble-shooting, raising levels, following up with key links in the chain to get results. The YMC has seen a report titled '**Fixing the Stink'** which was prepared under the directions of the then Chairman DJB in 2017. Among the several recommendations of the Committee, it underscored the *need for organizational restructuring and zero tolerance to delay in project implementation.* Obviously the malaise is an old one and needs to be set right. A performance Audit by the Controller and Auditor General of India should bring out the systemic problems and corrective action needed as the		into by the Supreme Auditor for taking remedial action. DJB views it's responsibilities through the limited vision of an organisation accustomed to giving maximum attention to water supply. Even a perusal of the official DJB Website would give an impression that it is mainly a Water Board as information under "Important Schemes and Projects" head only shows details of water treatment schemes and nothing about major Sewage projects like the Okhla and, Rithala, Kondli and Coronation Pillar projects. DJB is a successor organization to the "Delhi water Supply and Sewage Disposal undertaking" and therefore its focus has to be both water and sewage. While no one can doubt the importance of	standards as non-compliance to the environmental standards by a public authority on the ground of non-availability of funds is unacceptable under environmental jurisprudence. **Ix.** GNCT Delhi should, within next two months, submit a report indicating timelines within which land allotments for the decentralised STPs will be finalised as the matter has been unresolved for the last almost 4 years. **x.** Since in-situ phyto/bio remediation in drains is being monitored by the IDMC headed by the CS, a status report on action taken be filed within two months. NGT may also consider permitting the CPCB/DPCC to allow use

		containment of huge pollution is at stake. The last Performance Audit of DJB was done way back in 2012. A comprehensive performance Audit of the YAP III projects is overdue and more importantly as challenges for sewerage planning are growing with greater urbanization. Section 69 of the *Delhi Water Board Act of 1998 refers.* ***Part-II: Functioning of Existing STP****:* As per DJB's test reports, out of 35 STPs, 22 are meeting their design parameters. However, as per the DPCC test report for October 2020, 10 STPs out of 33 as against 7 out of 31 STPs tested DPCC in May 2020 are compliant to TSS/BOD standards of 10/10/ mg/L and T. Coliform standards as laid down by the DPCC in 2016. This indicates incremental improvement though small. The DJB has plans for upgradation of 16 STPs to TSS/BOD: 10/10 mg/L standards with provision for coliform treatment subject to availability of funds of Rs 2721 crores There is no clarity when these STPs will be upgraded as the plan is quite vague with a lot of imponderables like the	**Part-II:** Out of 540 MGD of sewage, 115 MGD is being treated of the standards BOD / TSS 10:10 and the STPs at Rithala, Kondli, Coronation Pillar and Okhla with a total capacity of 279 MGD are under rehabilitation / upgradation and likely to be completed by June 2023. For balance 16 STPs, action plan has already been prepared and submitted to YMC subject to availability of land and funds. Up-gradation of Balance 16 STPs of DJB [348 MGD (1582 MLD)] (with Parameters BOD - 10mg/l & TSS-10mg/l including Bio-nutrient & Pathogen Removal & Sludge	water, the focus on sewage related projects and reduction of water pollution is not receiving due attention. The fact that scores of meetings have not yielded results requires wholesale changes To be made based on competent advice. **Part-II:** The proposal is vague both in terms of certainty about fund availability and the timelines. However, non-compliance to the environmental standards by a public authority on the ground of non-availability of funds is unacceptable under environmental jurisprudence.	of EC funds for pilot projects on in-situ phyto/bio remediation, one drain in each of the DMCs in Delhi.

		availability of land, tree cutting permissions, funds and the absence modern and robust implementation and monitoring framework. Continued non-adherence to environmental standards is unacceptable and the state can invoke the Polluter Pays Principle as directed by NGT in its order dated 13.1.15 and reiterated in order dated 26.7.18.This is not being done by DJB. **Part-III: Short term measures for better capacity utilisation** From the time when the Final report was submitted to the NGT on 29.6.20, the capacity utilization of the six STPs has increased from57 MGD to the 93 MGD as reported by DJB against an installed capacity of 120 MGD. Though some definitive improvement has taken place with enhancement in treatment from 47.5% to 77.5% these are short term measures. The improvement in capacity utilization had been promised to be completed by June 2020 and will now spill over to 31.3.21.	Management at an outlay of Rs 2721 crores. **Part-III:** The capacity utilization have already been increased from 57 MGD to 93 MGD against the capacity of 120 MGD which is an increase from 47.5% to 77.5%. The action plan submitted by DJB to YMC will be monitored closely to achieve the full capacity utilization within the timelines	**Part-III:** Short term measures should have been completed by December '19 as per the assurances given by DJB representatives in the meeting of YMC. The timeline was later extended to June' 20. Part-V: Seven decentralised STPs in Najafgarh zone which were sanctioned by NMCG in 2017 have not	

				yet commenced construction. DJB has given no indication of when construction of those for which land is available will start. The land allotment is getting dragged on between the DJB and the DDA. Despite meetings held between the DDA and DJB there has been little progress on actual allotment of land for STPs/SPSs.	
		Part-IV: Long term measures for better capacity utilisation: Better capacity utilisation is linked to new STPs being commissioned. STPs under YAP III and Coronation Pillar will add110 MGD to the existing capacity besides upgrading the STPs with a capacity of169 MGD which have been running on old standards. The capacity utilisation at present is about 90% which is planned to increase to 95% by June 2021 with the commissioning of the Coronation Pillar STP. **Part-V: Decentralised STPs**:	**Part-IV:** The action plan submitted by DJB to YMC will be monitored closely and long term capacity shall be enhanced from present capacity of 597 MGD to 707 MGD by Dec-22 and capacity utilization of 100 % shall be to achieved by the first quarter of 2023	**Part VI:** No comments Public authorities cannot take absence of funds as an excuse for not being able to take anti-pollution measures as environmental pollution adversely impacts public health.	

		Out of 14 decentralised STPs planned by DJB, , NMCG has already sanctioned funds for 7 STPs and released the funds in 2017. Land for two out of the 7 sanctioned projects is in the possession of DJB. However, the construction could not commence due to one or the other reason. The cost of constructing 56 decentralized STPs with a treatment capacity of around 92 MGD is about Rs. 828 Crores. Further the land cost for these new DSTPs will be about Rs. 300 Crores. Thus the total cost for construction of the new DSTPs works out to about Rs. 1128 crores. There is no evidence that funds would be found as NMCG will expect utilisation of the previous tranche of funds provided for 7 DSTPs. The plans are based on notional planning and have not been related to actual colonies and habitations. There is no indication given whether in-situ sewage treatment is possible. Land issues are still in a state of flux.	**Part-V:** Land for construction of 56 STPs decentralized and SPSs at 8 locations is yet to be allotted by Revenue Department and DDA. Another 24 to 36 months will be required for completion of these STPs after allotment of land.		

		Part-VI: In-situ Bio/Phyto-remediation: All the drain owning agencies like the DMCs, NDMC, DSIIDC, PWD, IFCD, DCB have only prepared Action Plans and no actual work of In situ bio/phyto remediation has commenced so far. Meetings of the IDMC do not reflect on the timelines given by NGT and the minutes show that the agencies are acting very slowly depending on outside consultancies.	**Part-VI:** This is being separately monitored by IDMC. However, agency wise progress reported to YMC is as follows: **Delhi Cantonment Board**: DCB has started Bioremediation in six drains till permanent resolution of contamination of these drains is made. It is pertinent to mention here that waste water from six drains was tested before start and after one month of bio-remediation. The reports were compared and the results after one month of Bio-remediation were found well within the prescribed parameters by the DPCC. **SDMC:** has reported that though Action Plan for 261 drains at a total outlay of Rs 129.96 crores has been prepared by IIT Delhi. SDMC does not however have funds to undertake the work. The CPCB who were approached by SDMC vide letter dated 10.7.20 for financial assistance of Rs.		

			1073.81 lakhs for 17 Km of Chirag Delhi drain have declined to provide any financial support under EC funds collected by the Board. There has therefore been no progress on the ground so far. **EDMC:** has stated that is treating 3 MLD of waste water at Shahdara jheel set up in 2016.An action plan for treatment of 5 drains at a total outlay of Rs 59.69 crores has been submitted to CPCB for funding. North DMC have reported no further progress.		

Interceptor Sewerage Project (ISP)

<table>
<tr><th>S.No.</th><th>Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20</th><th>Observations in YMC's report of 7.12.20</th><th>Comments of stakeholders/ parties</th><th>Comments of YMC on the reply received from the stakeholder concerned</th><th>Recommendations of YMC</th></tr>
<tr><td>5</td><td>Interceptor Sewerage Project(ISP)</td><td>The interceptor Sewerage Project (ISP), a flagship project for trapping sewage from unsewered unauthorized colonies in the catchment of Najafgarh, Supplementary and Shahdara drains contributing almost 2/3rd of sewage, which was to be commissioned as per the original schedule in 2014 was rescheduled to be completed by 31.12.19 and finally by 31.12.20.

a. Status of ISP:
The progress of trapping 108 drains under ISP and treatment reported in YMC's report dated 7.12.20 was as under:

<table>
<tr><td>Date</td><td>Trapping MGD</td><td>Treatment MGD</td></tr>
<tr><td>31.12.20</td><td>242</td><td>158.70</td></tr>
<tr><td>30.6.21</td><td>242</td><td>200</td></tr>
<tr><td>31.12.22</td><td>242</td><td>242</td></tr>
</table>
</td><td>a. Status of ISP:

DJB in its reply has informed that the ISP will be commissioned by 31.12.20.

The delay in treatment of sewage trapped under ISP is due to delay in commissioning of STPs at Rithala, and Coronation Pillar. The schedule of trapping and treatment will be as under:

<table>
<tr><td>Date</td><td>Trapping MGD</td><td>Treatment MGD</td></tr>
<tr><td>31.12.20</td><td>242</td><td>165</td></tr>
<tr><td>31.3.21</td><td>242</td><td>200</td></tr>
<tr><td>30.6.21</td><td>242</td><td>211</td></tr>
<tr><td>31.12.22</td><td>242</td><td>242</td></tr>
</table>

Reasons for delay:</td><td>a. YMC has got an independent assessment done through a team consisting of Shri RS Tyagi Former Member (Drainage) DJB and Prof Singh, Head of Department of Environmental Engineering of Delhi Technical University. The report of the team is placed at Annexure- I which has confirmed that the sewage trapping part of the ISP has indeed been completed. However, treatment of 242 MGD of sewage as planned will take place only by Dec 22.</td><td>The following directions may be considered :

1. DJB should ensure that 147 drains out of 204 additional drains falling in the catchment of Najafgarh and Shahdara drains, which are not covered under ISP, must be trapped and sewage diverted to nearest STPs with strict adherence to the timelines which should be prescribed and monitored.

2. Timelines for each stage of the process should be laid down. The responsibility for different segments of the process of trapping and</td></tr>
</table>

			ISP was scheduled to be completed by 31.12.19. But work got delayed due to complete ban on construction imposed Hon'ble Supreme Court appointed EPCA on 26.10.2019. CAA Protests and communal riots in Seelampur Area of East Delhi which occurred in Feb-March 2020, also hampered progress, as the SP packages were majorly located in East Delhi area where the effects of such factors were more pronounced.. Subsequently, the extraordinary crisis and pan-India lockdown and other restrictions due to COVID-19 pandemic since 23.03.20 thwarted attempts to complete the ISP as per timelines. The problem was compounded by severe shortage of funds in Project Escrow account due to the COVID -19 Pandemic related restrictions on expenditure. However, the project work was regularly reviewed and work		depositing into the SPSs should be assigned to specific officers. The progress should be monitored by the CEO on a monthly basis against the agreed timelines. **3.** The extent to which these drains can be taken up for in-situ bio/phyto-remediation should be got studied by a competent agency. **4.** The results of the tripartite committee's findings on river water quality should be placed in public domain periodically.

			commenced after the easing of COVID restrictions and improvement in the fund position. Now, the project is scheduled to be completed by 31.12.2020.		
		b. Sewage from Unauthorized colonies under ISP: The STPs linked to the 108 drains passing through 1173 colonies and being covered under ISP are to be commissioned only by December 2022. Availability of trapping infrastructure by itself will not provide relief from extensive pollution because the STPs would need to treat the waste water and all the households will need connection supported by a conveyance system	**b. Sewage from unauthorised colonies**: The new policy of DJB is to provide household connectivity to all households in the sewered colonies at DJB's cost which should help maximise trapping and treatment of sewage.	**b**. Sewage from some colonies out of a total of 1173 colonies in the catchment of ISP will continue to discharge untreated sewage until the Rithala STP is commissioned by 2022 Also, 147 out of 204 additional drains in the catchment of ISP will continue to discharge sewage into the Yamuna until December 2022 -the date by which time all the colonies are planned to be sewered.	
		c. Water quality improvement in Yamuna: Delhi Jal Board needs to give an assessment of improvement in river	**c. Water Quality improvement in Yamuna**: Over a period of time from 2001 to 2020, due to increasing	**C.** CPCB and DPCC reports of November 2020 enclosed to the YMC's report of 7.12.20 do not	

		water once the present set of drains are trapped and the sewage is treated. Although the existence of sewage in the drains is related to factors beyond the control of DJB, the Jal Board needs to set a goal of achieving certain level of water quality improvement in the river once the ISP is commissioned. A tripartite arrangement with CPCB, DPCC and DJB needs to be put in place for doing it. **d. Time series data of Water Quality in Yamuna** Time series data collected by the CPCB and the DPCC should help establish the impact of the ISP, both in quantitative terms by volume of waste water in the drains as well as the quality of waste water itself	population the generated BOD pollution load increased from 690 MT per day to 1150 MT per day. However, due to relentless efforts of DJB, the BOD load in River Yamuna has seen a declining trend from 45 mg/lit in 2009 to 28 mg/lit in 2020 at ITO bridge. (Data as per DPCC Report). As suggested by YMC, a tripartite agreement with CPCB, DPCC and DJB may be formulated under the aegis of DPCC, which has the mandate of quality monitoring system of river Yamuna. **d. Time series data in Water quality in Yamuna:** Time series data of the river quality has to be taken by CPCB and DPCC and DJB will extend full cooperation	indicate any reduction in pollution load in river Yamuna during the period 2015-20. Also the measurements of water quality at ITO alone cannot be taken as representative figure for pollution in the Yamuna in Delhi. **d.** DPCC and CPCB together measure water quality at 14 stations along the Yamuna on a monthly basis. DJB should coordinate with DPCC to ascertain improvement in water quality at all the stations and make that the basis for showing progress in reducing pollution.	

Repair and maintenance of Drains

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
6	Repair and Maintenance of Drains	There are in all 23 large storm water drains joining Yamuna downstream of Wazirabad which discharge sewage and industrial waste into the river. Out of 3026 MLD of flow discharged into river Yamuna through all the drains, Najafgarh and Shahdara drains **(CPCB Report of 11.11.2020)** account for about 2106 MLD and 513 MLD respectively. Keeping in view the fact that a large number of unsewered colonies continue to discharge their sewage into the storm water drains, DJB has been trapping drains at the outfall point into river Yamuna and conveying the sewage through the trunk sewers to the nearest STP. **a. Trapping of drains at the outfall point in the river:** The following 13 drains were claimed to have been trapped by DJB which implied that there was no flow	**a.** DJB has replied that trapping during the Monsoon from July to end of September to avoid flooding/surcharge in the catchment area of the drain. Therefore, during the monsoon	**a.** This will require to be monitored by the IDMC which has the mandate of prevention, control, treatment of sewage in the drains ensuring that	YMC recommends issue of the following directions: **1.** IDMC constituted by the GNCT Delhi on orders of NGT should holistically cover all aspects of prevention, control and treatment of sewage in the drains and also ensure that enforcement action is taken under the Water act of 1974 , the Delhi MC act of 1957 and any other law in force. **2.** The issue of land allotment for STPs/SPSs be resolved by the VC DDA and CS GNCT Delhi within next two months

		downstream of the point of trapping: These were: 1. Magazine Road Drain 2. Sweeper Colony drain 3. Khyber Pass Drain 4. Metcalf House Drain 5. Moat Drain(Vijay Ghat) 6. Civil Military Drain 7. Tonga stand Drain 8. Dr. Sen Nursing Home Drain 9. Delhi Gate drain 10. Drain No 14 11. Tughlaqabad Drain 12. Kalkaji Drain 13. Tehkhand Drain CPCB had disputed these claims, and so YMC asked CPCB to undertake site inspection and report on the status of trapping. As per the CPCB Report of 11.11.2020, only the following six drains had no flow downstream of trapping: 1. Magazine Road Drain 2. Khyber Pass Drain 3.. Metcalf House Drain 4.. Moat Drain(Vijay Ghat) 5.. Kailash Nagar Drain 6.. Drain No 14	and immediately after post monsoon period there is some discharge in the drains in the downstream portion of the trappings. However, during the lean period of summer the discharge downstream of the trapping is completely plugged. DJB states it has awarded an operation and maintenance contract for all the trapping points to ensure periodic maintenance and effective functioning of the trappings. DJB will fully co-operate with DPCC, whenever they choose to inspect these trapping points where sewage was found downstream of the trapping point: These drains are: 1.Delhi Gate drain 2.Sweeper Colony drain 3.Civil Military Drain 4.Tekhand Drain 5.Tuglaqabad drain 6.Kalkaji drain 7.Shastri Park Drain As far as encroachment beyond the trapping point is	enforcement action is taken for dumping of sewage, septage and solid waste in the drains. **b.** Prevention and eviction of encroachment on drains and proper maintenance of trapping infrastructure to ensure that there is no sewage downstream of trapping point and installation of CCTV cameras are essential for monitoring sewage in drains.DJB has not indicated who was consulted about the feasibility and utility of the CCTV or any technology based intervention to keep track of the pollution at points of completed trapping. Once again there is an effort to deflect the problem to DMCs with no ownership for the prevention of pollution. This defeats the purpose of trapping and if sewage	and a compliance report submitted to the NGT. **3.** IDMC should direct authorities/drain owning agencies to install CCTV cameras at the hotspots of pollution in drains/ t trapping points to monitor sewage/septage in the drains and to act as a deterrent against throwing garbage. CCTVs would need a control room as DDA has provided on the flood plains (for 24x7 monitoring of trucks entering the flood plain).That system is functioning well. IDMC may be directed to have common control rooms for selected drains manned by common control rooms involving all drain owning agencies and DPCC.

		In the other drains, there was considerable flow downstream of the point of trapping. Drain wise flow as per CPCB report is as follows: 1. Sweeper Colony drain(4.32 MLD) 2. Civil Military Drain(4.32 MLD) 3. Tonga stand Drain(1.73 MLD) 4. Dr. Sen Nursing Home Drain(29.38 MLD) 5. Delhi Gate drain(56.16 MLD) 6.Tughlaqabad Drain(26.78 MLD) 7.Kalkaji Drain(NA) 8.Tehkhand Drain(NA) While the presence of flow may be understandable during the monsoon and immediately post -monsoon, the presence of flow even during the drier months of October/November suggests that the trapping infrastructure suffers from poor maintenance and supervision. In a number of drains there are jhuggis and encroachments downstream of where trapping has been done and the release of sewage directly into the drains continues. IDMC headed by the Chief Secretary needs to attend to the following:	concerned, the required action is to be taken by the respective drain-owning agencies. Regarding installation of CCTV cameras at trapping, the same was not found feasible due to site constraints and remote locations etc. However, the feasibility will again be explored for finding a suitable technology-based/CCTV monitoring mechanism. The responsibility for in-situ bio/phyto remediation, as an interim measure, lies with drain owning agencies and IDMC is monitoring this. For control of sewage in Maharani bagh drain, the time lines for the work of laying of sewer network in Batla House GOC Ph-II are April 2022 which has already been squeezed and further squeezing of timelines is not practically possible as this is not a green field project and the work involves laying of internal sewer lines in a length of about 75 kms in this project wherein about 25 kms is under	re-enters downstream it negates the efforts made. Since the CEO of the DJB is the Member Secretary of IDMC, he must see that such cases of post-trapping pollution are kept track of through an oversight mechanism and are flagged in the IDMC meetings. Only then can the local body/drain owning agency be made responsible for stopping the sources of pollution. IDMC should prescribe a strict time frame to rectify the pollution points as otherwise the whole purpose of trapping is defeated. IDMC should set up a mechanism for receiving public complaints relating to sewage in the drains as numerous RWAs have been complaining to YMC that they are suffering the	**4.** All households in the colonies which have been notified as sewered should be provided or directed to take connections to the sewer network within next three months. Failure of households to take sewer connections should be made liable to pay EC of Rs 10,000 per month. NGT may also consider directing that after 30thApril 2021 if it is found that sewer connections have still not been installed in a functional state, the Chief Secretary should make adverse remarks in the Annual Reports of the senior most DJB officer in charge of the concerned colony and a report thereof has to be furnished to the Tribunal by 15.5.2021.

		I. Prevention and removal of encroachments/jhuggis on or abutting the drains ii. Direct the DUSIB to take effective measures for prevention and control of sewage, septage and solid waste going into drains from jhuggis adjacent to the drains. iii. Direct the DPCC to monitor these drains with regard to the effectiveness of trapping iv. Installation of CCTV cameras at the point of trapping and connecting these to DPCC/DJB control rooms. iv. To effect better coordination and accountability between the drain owning agencies and the DJB which must own overall responsibility for sewage management in Delhi. v. In situ-bio/phyto remediation in drains where the quantum of flow is low and area is available for adoption of models suggested by the CPCB **b. Treatment of Sewage in other drains:** Treatment of sewage in the following drains is proposed to be done by setting up STPs/providing sewer network:	the command area of this drain. On Barapula drain, 6 out of 12 points in the Action Plan have been completed. One point partially and the remaining 5 points will be completed by June 2021. **b. Proposed STPs:** Land for STPs/SPSs have been sought from DDA: 1. Mori gate drain, 2..Tonga stand drain 3. Barapula Drain 4..Sonia Vihar Drain 5. Jaitpur Drain In addition to land for DSTPs/SPSs internal sewer network is proposed to be laid in Batla House colonies, and	adverse effects of open sewage in the vicinity. **b.** The timelines for STPs are either missing or vague. No progress on exploring the possibility of setting up STPs on floodplains has been given although NGTs orders were brought to the notice of the officers attending YMC meetings.	This action is covered by NGT's order dated 11.9.19 in which in Para15(A)(iv)(g) NGT had directed the Chief Secretary, GNCT Delhi as follows : ***"For delay of the work, the Chief Secretary, Govt. of NCT Delhi must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department".*** Further the order states that ***"where works with regard to STP, sewerage network and its connectivity have not yet started, the Govt. of NCT,***

		Tonga Stand drain(7.8 MLD): After allotment of land by DDA 1. **Mori gate (Quadasiabagh drain**)(33 MLD): After allotment of land by DDA. 2. **Barapula drain(150 MLD)**Action of trapping of drains into the sewer network and of providing a sewer network in the U/A colonies as per the 12 point Action Plan given by DJB to be completed by 31.3.21 should be got completed before awarding more construction work of new STPs. 3. **Maharani bagh drain (39 MLD):** After trapping 9-10 MLD in the trunk sewer, balance 39 MLD flows will be trapped into the sewer network once the sewer system in Batla House group of colonies is ready by April 2022. Separately, this drain along with other smaller drains like the Kilokari drain in Khijrabad/Kalindi colony areas are being treated in-situ phyto/bio-remediation using Constructed Wetlands by DDA	command area of Sonia Vihar, Jaitpur, Abul Fazal drains.		***Delhi 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 and it will be open to Govt. of NCT of Delhi to recover the said amount from erring officers/contractors''*** **5.** In situ bio/phyto remediation through technology of Constructed wetlands developed for Kilokari drain near Kalindi colony and Dhobi Ghat at South Biodiversity park by DDA through Prof Babu of CEMDE may be considered for replication by all drain owning agencies who should be directed to visit the Kilokari drain. Encroachment on public

		through Prof Babu, head of CEMDE. 4. **Sonia Vihar drain (25.50 MLD**): After laying of internal sewer network and allotment of land for SPS. No timelines given. 5. **Abul Fazal drain(35 MLD**): After laying of internal sewer network(Target date: April 2022) 6. **Jaitpur drain (23.30 MLD**): After providing sewer network and setting up decentralized STP. Land yet to be allotted. Land allotment for STPs and SPSs has shown no progress except exchange of letters. DJB has not shown any progress on NGT's order directing that land on the floodplains be considered for setting up STP. **c. Drains covered under Interceptor Projects:** **Najafgarh (2106MLD) and Shahdara (513MLD):** 108 drains in the catchments of Najafgarh and Shahdara drains are covered under the ISP. As stated by **DJB 158 MGD**(717 MLD) of sewage in these drains is being	**c. Najafgarh and Shahdara drains** are linked to ISP and the progress of interception and treatment has been covered in Ch-5-Interceptor Sewer project	**c.** Interim measures for treatment of sewage in drains not connected to any STP due to delay in com missioning of Coronation Pillar and Rithala STPs must be planned through phyto/bio remediation /alternative technologies or by implementation of septage management	land should be removed in wider public interest as the presence of pollutants are a health hazard to the community. Human habitation on public land is ubiquitous in Delhi but the safety of tens of thousands of citizens must surmount concern for a few score citizens that prevent the treatment of sewage and waste water because they have encroached on the land. **6.** There should be zero tolerance for intermixing of sewage in the storm water drains which is done by puncturing the sewer lines. NGT may consider directing that if any new punctured sewers are found, the responsibility should be fixed on the concerned Executive Engineer of the DJB and DMCs/drain

		intercepted and treated under the ISP though infrastructure for trapping 242 MGD has been commissioned. The balance Sewage (242-158) will be treated only on commissioning of STPs at Coronation Pillar under Namami Gange and Rithala under YAP III. Since about 105 MGD(478 MLD) from Haryana and 50 MGD(227 MLD) from UP comes into Najafgarh and Shahdara drains respectively, the IDMC cell headed by the CS GNCT Delhi will have to coordinate with the states of Haryana and UP for control and treatment of sewage before leaving the respective states. **d. Status of Punctured sewers**: Out of 79 places where sewers were punctured to permit flow in the storm water drains, 50 places have been plugged. The remaining are planned to be plugged during 2021 and completed by December 2021. The work relating to DUSIB, DDA and Railways should be got done through the concerned Agencies by the IDMC as permitting sewage in storm water drains, which act as tributary of river Yamuna will	**d.** 50 points out of 79 points where sewage was flowing into storm water drains by puncturing sewer lines have been plugged, two points pertain to DUSIB and one point to DDA. In the remaining points except 2 places, the work was to be completed by 31.12.20, but the work for only three points will be completed by December 20 and for 13 points during March-June 2021 and remaining 8 only by December 2021.	regulations. In the absence of such interim measures, sewage will continue to flow in the drains until the STPs are commissioned in December 2022 and pollute river Yamuna and cause public health hazard. **d.** Progress has been slow. Timelines for completing the work are being stretched too frequently with generalised justification for extension of timelines, which makes monitoring meaningless. If DDA and Revenue Departments are not cooperating DJB should share the reasons given by them so that those Departments can be also brought into the loop of	owning agencies at the point of puncture. It may be treated as wilful negligence or misconduct, inviting major penalty since this cannot happen without the concerned Executive Engineer's connivance or negligence. Puncturing storm water drains is a serious offence because it exacerbates pollution and causes health hazards to residents. IDMC may be directed to establish mechanism to receive and promptly investigate and report on such instances of local puncture of drains. **7.** A team of Scientists from NEERI, NMCG and IIT Delhi should take a decision on whether or not further study of legacy sludge in river Yamuna should be undertaken in view of the findings of NEERI report.

		defeat the efforts at sewage management by DJB. **e. Controlled dredging in river Yamuna**: Judgment dated 15.1.13 had directed controlled dredging in river Yamuna to remove historical sludge. NEERI had submitted its report to the IFCD. However YMC received no response from IFCD.	**e**. IFCD has informed that the conclusions of NEERI study are: *"Through analysis of metals in the sludge/sediments samples collected during pre and post monsoon season do not show any specific trend as the samples were either collected from surface and 1 ft below the surface, possibility of legacy sludge in deeper section of the river bed cannot be ruled out. It will be worth considering deep digging of sludge /sediment up to 5-6 feet at a few selected locations to further support any conclusion/decision*."	monitoring. But in the absence of any details being provided it gives the impression that there is no seriousness to actually set up the STPs. **e.** NMCG and GNCT Delhi should take a view on this based on the report of NEERI.	IFCD should coordinate this.

Industrial Pollution and CETPs

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
7	Industrial Pollution and CETPs	The test reports of CPCB and DPCC from time to time have brought out that the drains and the river Yamuna continue to carry a high degree of pollution load, particularly high COD(80 to 184 mg/L) and even heavy metals like Ni, Cr, Pb even prior to idol immersion. This is indicative of pollution caused by industrial effluents. **A. Industrial areas in Delhi** As per the Report of Industries Deptt/DSIIDC, industrial area in Delhi can be categorised as follows: **1.** Industries located in notified Industrial Clusters. **2.** Industrial clusters notified for redevelopment under DDA's Master Plan of 2021. **3.** Industries operating from non-conforming/Residential areas	**A to C:** No Comments received from DSIIDC/ Industries Department		YMC recommends that the Hon'ble NGT may consider giving the following directions: **I.** The Govt of NCT Delhi/DDA should take a final decision within the next three months on the issue of industries operating in industrial areas which have been notified for re-development. A last date for submission of layout plans may be given as it has remained unresolved for years together and is having an adverse impact on the containment industrial pollution. The nature of industries that may be permitted in such

		1. Industries Located in notified Industrial Clusters: There are in all about 36000 industries within **33** approved Industrial Areas in Delhi. Only **25** Industrial areas have been handed over to DSIIDC for maintenance& development activities. Out of the 25 Industrial areas with DSIIDC the lease administration of only 12 areas is with DSIIDC and for the rest, the authority lies with DDA. In these 12 industrial areas, the authority to collect revenue and levy various types of penalties/charges vests either with DDA or concerned DMCs. The 17 industrial clusters having water polluting industries connected to 13 CETPs fall within this category, though complete control as prescribed under the DIDOM Act 2010 does not vest with the DSIIDC. The 11 6industrial clusters having dry industries are also within this category. The remaining industries are flatted factories causing no water pollution. **2. Industrial Clusters notified for redevelopment under DDA's Master plan of 2021**			areas should be notified first and if they do not qualify they must be asked to relocate or should be removed if there is non-compliance. **ii.** NEERI should complete its study of CETPs up-gradations within the next three months and also give a feedback to the YMC on the implementation of the short term measures recommended for improving the functioning of CETPs. **iii.** An Action Plan should be drawn up for identifying drains located within the Industrial clusters and identify those carrying industrial effluent. The work of Wazirpur IE be taken up on priority within the next two months and

		Twenty five Industrial Clusters have been notified for redevelopment under the provisions of the Master Plan. These areas are non-industrial where industrial activity mushroomed illegally and later these clusters were notified for redevelopment. There is no infrastructure such as a CETP or a separate conveyance system for industrial effluent. The DSIIDC and the Industries Department have no control and carry out no supervision over the industrial units in these areas. There are virtually no environmental safeguards or oversight. The notified areas are required to be redeveloped by the concerned Society of Industrial Units wherever they have applied for declaring the area as notified for redevelopment. The said redevelopment is required to be carried out within 3 years of the approval of the layout plan (as provided in the MPD). However, while issuing the regulations for redevelopment of these clusters, no timeline has been fixed by DDA either for applying for the approval of a Layout Plan or for approval of the same thereafter. The Industries Department			with the help of NEERI pumping and conveyance infrastructure be repaired and effluent conveyed to the CETP. This should be coordinated by the IDMC and report submitted to the Tribunal within 2 months. **iv.** The Chief Secretary and the Chairman DPCC / Principal Secretary Environment & Forests Govt of NCT Delhi should take immediate steps to suitably strengthen DPCC and fill up all the vacant posts to enable it to perform its regulatory functions. In the interregnum particularly posts of technical nature should be filled up on Contract. This has been advised by YMC in repeated meetings with DPCC but the organisation is clearly

		informed YMC that they have taken up with DDA for taking up redevelopment of the industrial areas in a time bound manner, or else de-notify them. There is no progress on this., There is no credible data available as to the total number of units presently operating in these clusters though it is roughly estimated that there may be over 30,000 such units. The DPCC has reported that Consent to Operate had been given to 1752 units of these clusters from 01.01.2020 to 31.10.2020. The DSIIDC has therefore suggested that: **a)** A firm timeline for submission of layout plan, its approval and redevelopment needs to be notified, and **b)** Regular inspections and enforcement action has to be taken by the concerned civic/regulatory agencies i.e. DMCs, DPCC, DJB etc. against units which continue to release pollutants into the drains. YMC is of the view that the GNCT Delhi/DDA should take a final decision			either not or is unable to pull its weight with the senior officers / Government. The services of retired scientists with the requisite experience can be hired for one year on lump sum payment till the posts are filled up on a regular basis.

		on the issue of industries operating in industrial areas which have been notified for re-development. Layout plans should be given in not more than 3 months as the matter has remained unresolved for years and the owners are having unbridled freedom to ignore environmental requirements of installing the requisite ETPs and be under anti-pollution scrutiny The nature of industries that may be permitted in such areas should be notified first and if they do not qualify they must be asked to relocate or should be removed if there is non-compliance **3. Industries operating from non-conforming/Residential Areas** Under the directions of Hon'ble Supreme Court, the Commissioner of Industries, Govt. of Delhi had formulated the scheme of "Relocation of Industries" in the year 1996. The rationale of the scheme is to relocate and manage the operation and maintenance of industrial units working in the residential areas of Delhi to conforming areas in NCT of			

		Delhi. 51837 applicants had applied for alternate plots under the relocation scheme. Out of that, 21960 applicants who were declared as successful allottees got alternate plots. The YMC is not specifically monitoring this as there is a separate committee under Chairmanship of CS Delhi reporting to the Hon'ble Apex Court and another Committee under Justice Pratibha Singh reporting to the Hon'ble NGT **B. Enforcement Action:** Industries Deptt levied Rs 9.825 Cr. as EC on 1965 units and realised only Rs 5.89 crores. Similarly against a levy of Rs 25.28 crores cr. as EC imposed by DPCC the realisation has been a paltry Rs2.69 crores. High levels of non-recovery of the EC levied on the industries would have emboldened them to defy the law as the punishment is ineffective. DSIIDC/ Commissioner Industries and DPCC need to evolve a strategy to realise the EC levied on the industries within a time frame as the discharge from such industries is not being stopped through such ineffective measures.			

		C. NEERI study for upgradations of CETPs: DSIIDC has commissioned a study though NEERI to upgrade/retrofit the CETPs to ensure that they meet environmental parameters. The present capacity utilisation is only of the order of 25 to 30% and therefore whether some of them can actually be retrofitted to also undertake sewage treatment was also a part of the Terms of Reference of the NEERI study. NEERI should complete the assigned study to determine the feasibility of upgrading the CETPs within the next three months. NEERI should give also a feedback on the implementation of the short term measures recommended for improving the functioning of CETPs. **D. Industrial Effluent in Storm Water drains passing through Industrial Clusters**: NEERI informed the YMC that in the Industrial clusters at Wazirpur, the amount of industrial effluent found in		**D.** Presence of industrial effluent in drains within	

		the drains, within an Industrial cluster serviced by CETP, was found to carry almost twice the industrial effluent reaching the CETP. The characteristics of the effluent in the drains showed the presence of industrial pollutants. **This clearly points to industries either not conveying all the effluent to the CETPs or resorting to the use of a bypass. Water polluting activities may also be emanating from the Jhuggis which are within such clusters. This is a matter of serious concern as industrial effluent is being allowed to pollute the water devoid of oversight.** YMC also asked the officers concerned, MS, DPCC and Executive Director, DSIIDC to jointly prepare a paper with suggested strategies which could have tangible impact. YMC is yet to receive such a strategy paper which will be submitted to the Hon'ble Tribunal for appropriate orders **E. Hazardous waste management facility:** Delhi does not have a hazardous waste management facility. There is delay in grant of Environment Clearance for	**D**. Industries Deptt/DSIIDC have furnished the following comments: **a.** The storm water drains may be connected to the existing conveyance system of CETP through gravity pipelines after installing a screen chamber in the Storm Water Drain so that no solid waste is allowed to flow into the conveyance system/sewerage system. Two locations have been identified one at A Block and another at B&C Blocks of the Wazirpur Industrial Area where the storm water drains can be connected to the existing conveyance system of the CETP. In this way the entire untreated waste water of storm water drain may be transported to the CETP Wazirpur. **b.** For connecting the storm water drains to conveyance system of CETP, NOC from DJB is required.	industrial estates should stopped on priority by Industries Department/ DSIIDC. DJB should have no objection to giving NOC if the work of interception, repairing conveyance system and the pumping infrastructure is to be executed by Industries Department / DSIIDC. This will increase capacity utilisation of the CETP and stop industrial effluent in the drain.	

		establishing a Hazardous Waste Facility. Considering that Delhi does not have any Hazardous Waste Treatment facility, the matter needs to be pursued by the Industries Department with the MoEF & CC. **F. Matters relating to DPCC:** In order to function properly DPCC must have adequate technical manpower. During the review, on a query by the YMC, MS DPCC informed that out of 343- sanctioned posts in DPCC only 117 posts are filled as of today with 226 vacant posts. While some posts are promotional, a large number of posts are to be filled by direct recruitment. Filling up all the vacant posts needs to be accorded priority and in interregnum contractual appointments need to be made particularly to man the technical posts considered essential- not on a normative basis but judged by the size of the pollution problems besetting the city. Chief Secretary needs to see that the posts are directed to be filled on fast track and the progress has to be monitored as no enforcement agency	**c.** Further, this shall be a temporary arrangement till such time that industrial effluent continues to be present in the storm water drain. **d.** NEERI has also been requested to look into the matter and to suggest upgrade/ modify the CETP at Wazirpur keeping in view the quantity and quality of the waste water of the storm water drain also, so that the entire untreated waste water flowing into the storm water drain could also be treated in the CETP itself **E.&F:** No comments have been given.	**E&F:** Expediting Environmental clearance and filling up vacant posts of DPCC should be taken up on priority and the Secretary Environment should be made accountable to coordinate between the different agencies and get it done.	

		can function with 2/3 of its posts lying vacant. Since this has a direct impact on pollution the Secretary Environment of GNCT should be made accountable.			

Sewage and Faecal Sludge Management

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
8	Septage management and Levy of EC *The Delhi Government may forthwith comply with the order of the Hon'ble Supreme Court dated 24.10.2019 on the subject of levy and recovery of the sewage charges.* *23. If in spite of direction of this Tribunal and orders of Hon'ble Supreme Court, direction for levy of sewage charges is not*	**A. Levying Sewerage Charges on all households whether in sewered or unsewered colonies under polluter pays principle** In compliance with the order dated 08.5.2015 and subsequent orders of NGT, the DJB in the Board meeting held on 24.09.2020. has approved levy of sewerage charges on all households irrespective of whether they live in sewered areas or unsewered colonies The Sewerage charges approved are Rs 100+50 per KW of load in G and H colonies to Rs 5000+200 per KW of load in A and B class colonies.(per month or year may be mentioned.) YMC is of the view that unless this is approved by the Cabinet, not much may be read into this at this stage, as in 2015 also, sewerage charges were levied following a Cabinet decision, but the order could not be implemented as	A. In a meeting held under taken by the Minister(UD) on 04/01/21 the following decisions were taken: a) Annual Sewage Pollution Charge under 'PP Principle' is to be levied on all households whether located in sewered / unsewered areas and collected by the DISCOMS from the Domestic and Non-Domestic consumers at rates as approved by the Board of DJB on 04/11/20 (b). The Annual Sewage Pollution Charge will be collected by DISCOMS through the Electricity Bill once in a year. (c) DERC shall consider the cost of collection by the DISCOMs for levy and collection of EC Fee and necessary	A. Since the matter is now awaiting Cabinet approval, and its actual implementation would need to be monitored by UDD and IDMC considering the past delays and shifting time-lines as all citizens need to become mindful of compensating for the pollution they cause.	YMC recommends the following: 1. NGT may consider directing GNCT to complete all decision making processes for implementation by end of March 2021 and start levying sewerage charges on all households from 01.04.21. 2. Direct the GNCT Delhi to complete household connectivity to all households in 561 colonies which have been notified as sewered colonies within the next three months and submit a compliance report to the Tribunal. The provisions of section 28 of the NGT Act may be

	complied with, it is open to either party to move the Hon'ble Supreme Court for such action as may be necessary for enforcement of the direction of the said Hon'ble Court."	one of the Power Distribution Companies had approached the Hon'ble Supreme Court and got the order stayed. There is no clarity if the decision now taken and the mechanism of recovery through the power distribution companies will fructify unless there are collection charges payable to the power distribution Companies and the government has had prior consultations with the DISCOMs on this. The progress on this will require to be monitored and reported to the Hon'ble Tribunal. **B. Household Sewer connections in all Sewered colonies**: Out of 1799 unauthorized colonies with a population of almost 70 lakhs, the status of the sewerage network is as follows;	orders/directions including any operational issue shall be decided by DERC. The DISCOMs shall transfer the amount of EC collected to DJB within a time period and after deducting collection charges as decided by DERC. (e) The Power Department shall coordinate for collection of Annual Sewage Charges under PPP along with Electricity Bill and transfer the same to DJB within a time period, as decided by DERC. A draft Cabinet Note prepared by DJB and Water Branch (UD) on 08/01/21 has been circulated among Power Department, Finance Department, Law Department and Planning Department before being taken up in the Cabinet. **B.** The Progress of sewerage connections in 1799 unauthorised colonies is as under:	**B.** i. The reply of GNCT Delhi is vague as it is not clear if all the households in the 561 notified sewered	invoked if provision of household connections is not completed by 30.04.21 3. Individual District Magistrates are not enforcing the Septage Regulations which require detecting illegal tankers and taking action against the vehicle owners. The performance of the DMs as far as enforcement is concerned over the last 20 months of the operation points to laxity on the part of both the DMs and the DJB officers who should have been pursuing this proactively. Action may also be directed to be taken by the Chief Secretary against the officers who have failed to implement/enforce the Government order of GNCT Delhi which made

		a)Colonies where sewerage network is completed and notified: 561 colonies b)Colonies where sewerage network is under execution and to be completed by Dec '22: 481 c)Colonies where work is awarded and to be completed by March' 23: 114 d)Colonies where work is at the stage of tendering and likely to be completed by Dec '23 subject to availability of land for DSTPs: 512 e)Colonies where NOC from Forest, Archaeology Dept. and under "O: zone" from DDA pending and work to be completed after 3 years of receiving NOC: 131 Out of the 561 colonies where sewer network has been completed, 75 out of these are yet to be notified as sewered colonies. As per the ATR furnished by DJB only 241 colonies have been surveyed where 1.14lakh households had not taken household sewer connection. YMC had said in its 5th Report that there was a need for clarification (i) whether the 1.14 lakh households with illegal sewer connections/ no sewer connection signifies the total of such households	a)Sewer line laid and notified: 561 b) Work of sewer network is in progress 593: Up to December, 2024 in phased manner d) Work of sewer network is in tender stage: 02 to be completed by March, 2023 e)Colonies where NOC is awaited/O-Zone 131: About 03 years after receipt of NOC / Clearance from concerned department f)Colonies where sewerage network is to be laid along with Decentralized STP: 512 For laying sewerage network in these colonies 3 years' time will be required after availability of land for DSTPs and committed fund of Rs. 2580 Crores @ 4 crores per Colony (Total Balance Colonies 2+131+512 = 645 Delhi Jal Board has resolved in its meeting on 12.06.2020 to provide sewerage connectivity right upto the doorstep of the residents at the cost of DJB.	colonies have been connectivity to the sewer network and if not, what are the timelines for completing sewer connectivity to all the households? ii. 593 colonies will be provided sewer network only by 2024. What is the plan in the interim to ensure that sewage doesn't go into the river Yamuna though drains? iii. Also what is interim Plan for treatment/trapping for treatment of sewage coming from 645 colonies as there is no clarity as to when the STPs and the sewer network will be laid as these are conditional to land and funds being made available.	them responsible for containment/collection of septage discharged into storm water drains. 4. For failure to enforce the provisions of the septage management regulations against unregistered septage collectors and /or providing sewer connectivity to households there is sufficient cause to take action as already directed by NGT in its order dated 11.9.19 .In that order in Para15(A)(iv)(g) NGT had directed the Chief Secretary, GNCT Delhi as follows : ***"For delay of the work, the Chief Secretary, Govt. of NCT Delhi must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse***

		or whether more such households are expected to be added from the remaining 320 (561-241) colonies not yet surveyed. (ii) Timelines for completing the survey and providing household sewer connections had been sought. In the Board meeting held on 12.06.2020 it was decided that in future a colony will be notified as a sewered colony only after all the households have been connected to the sewer network.	Accordingly, the scope of ongoing sewer network works in unauthorized colonies has been revised and work is in progress to provide connectivity to the residents. This significant initiative of the Board will result in the maximization of sewer connections by the residents/households in all notified sewered areas in the future. Further, in future, notification of sewer system in the unauthorized colonies/areas will be done by DJB only after providing extended house connection facility upto nearby building line by constructing small chamber so that consumer can take sewer connection very easily after notification of sewer system. This recent policy of DJB has greatly simplified the process of taking sewer connections as most of expenditure of sewer connection is being borne by DJB.		***entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department".*** Further the order states that ***"where works with regard to STP, sewerage network and its connectivity have not yet started, the Govt. of NCT, Delhi 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 and it will be open to Govt. of NCT of Delhi to recover the said amount from erring officers/contractors."***

		C. Septage Collection, transportation and treatment: Septage Management Regulations of 2018 notified by the GNCT Delhi provide for collection, transportation and treatment of septage (Faecal Sludge) generated in unsewered unauthorized colonies which rely on onsite sanitation service. DJB has so far registered 206 licensed vendors (Emptiers) for collection and transportation of sewage from the septic tanks and has identified 86 SPS points for receiving the Septage. The Board also plans to engage 200 more septage machines and the Notice Inviting Tenders was proposed to be issued in December 20 and finalized by March 2021. The average daily collection of septage is of the order of 6 to 7 lakh litres per day. However West, East, Central, Shahdara, and North have shown Zero septage collection from June to September 20. Though these districts collectively have 705	The sewer connections have now been increased to 19.8 lakh as on August, 2020 against 15.6 lakh in Jan - 2020. **C.** **DJB**: On average, 6 to 7 lakh litres of septage per month is being collected and treated at the STPs of DJB. d) DJB is already formulating comprehensive plans for engagement of over 80 Septage Cleaning Machines/Vehicles for the collections and conveyance of septage from unsewered areas. The tenders will be floated shortly and it is expected that more than 80 machines will be in operation within the next 6 months by June 2021. Septage **EDMC**: EDMC has issued instructions to all its field officers that, whenever any blockage in buildings / Community toilet complexes is	**C.** i. The reply is vague on what action is proposed to be taken for better enforcement though District Magistrates. ii. Even though SOPs issued vide order of 31.3.20 have been prepared and conveyed to all DMCs and DJB, actual quantity of septage collected and transportation to SPSs of DJB has not been furnished. iii. There are five districts, namely West, East, Central, Shahdara and North where septage collection is zero even though there are a number of unsewered colonies in these districts. The DMs are overlooking the discharge	5. Alternative strategies may be directed to be given with timelines for treatment of drains in 593 colonies which are targeted to be sewered only by 2024 and 645 colonies for which land is yet to be allotted. DJB is a revenue earning organisation and has to treat sewage at a heavy cost which is paid out of Government funds. It can raise resources and not sit back in the hope that NMCG will always support it to fulfil its obligatory functions. 6.Commissioners of the DMCs be directed to put in place a mechanism for better enforcement of pollution in drains within their jurisdiction and realisation of EC levied under Polluter Pays Principle. 7. The UDD and the DMC Commissioners be

		unauthorized colonies with 4,81,798 households (of which 232 are unsewered with as many as 1,91,002 households,) the zero collection shows lack of enforcement and implementation. There has been no enforcement action by the District Magistrates who have been powers under the regulations. Govt of NCT Delhi has issued an order dated 31.3.20 which lays down responsibilities and Standard Operating procedure for Septage collection, transportation and treatment from Unauthorized unsewered Colonies. Despite the order allocating responsibilities for collection and for enforcement there is no ownership of septage collection and treatment from unauthorized colonies. Urban Development Department, which is the nodal Department for all matters relating to DMCs and the DJB, has to be held accountable for laxity in implementation. Bulk of the septage continues to go into drains and the river Yamuna. Without the oversight by the IDMC headed by the Chief	noticed, that should be attended to by EDMC field officers through Suction-cum-Jetting machines which were procured under UDF and the collected septage is disposed of in nearby STP of DJB. **SDMC**: SDMC has appointed nodal officers for enforcement of directions by the committee. The concerned officers regularly visit the area and take necessary action as per directions issued. As regard to Septage Management, a detailed SOP is under approval.	of septage into non-designated in their areas despite meetings held by YMC with all key officers. It is only in January that YMC has been informed that the Divisional Commissioner will monitor the DM's although this has been repeatedly brought to the notice of the previous Divisional Commissioners and the individual DMs by YMC.	directed to redefine the role and functions of DEMs under DMCs to include night patrolling of the drains and the only way to judge progress is for IDMC to get random inspections done by an external party and to hold DEMS or the enforcement agency of the concerned DMC responsible for presence of solid waste, non-levy of EC and poor recovery.

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<td>Secretary, it is fast becoming no man's land.

Heads of the organizations viz., DJB, the 3 DMC's, the Department of Urban Development and the Divisional Commissioner under whom the DM's work are severally responsible for not paying heed to NGT's of repeated directions and even skirting a Government order which has been in force since 31.3.20.

D. Environmental Compensation for pollution in drains:

The agency wise EC levied, realized and outstanding(in lakhs) as reported is as follows:

<table>
<tr><td>SDMC</td><td>40.50</td><td>1.00</td><td>39.50</td></tr>
<tr><td>EDMC</td><td>58.18</td><td>1.90</td><td>56.28</td></tr>
<tr><td>North DMC</td><td>148.50</td><td>41.43</td><td>107.07</td></tr>
<tr><td>DDA</td><td>-----</td><td>-----</td><td>21.00</td></tr>
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<td>D:
The updated progress on EC levied, realised and outstanding (in lakhs) under different agencies is:

<table>
<tr><td>EDMC</td><td>58.38</td><td>1.90</td><td>56.48</td></tr>
<tr><td>DCB</td><td>1.50</td><td>-----</td><td>1.50</td></tr>
</table>

Other agencies have not reported any progress after YMC's last report of 7.12.20.

EDMC:</td>
<td>D. Despite clear instructions of CS issued vide order dated 9.1.19 followed by decision in the meeting taken by CS on 8.2.19 there has been no effective action to prevent dumping of solid and C&D waste in the drains. Realization of EC also has been poor and the order of SDMC and North DMC to realise the outstanding under DMC Act will have to be monitored.</td>
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		As is evident, the status of EC realization is extremely poor. YMC had asked the UDD and DMCs to evolve a credible mechanism for improving realization of EC levied on the violators. The response, however, is ambivalent except in the case of North DMC and South DMC which have now decided to effect recoveries under Section 455 of the DMC Act 1957 as the experience of making recoveries through SDMs as arrears of land revenue has proved to be highly unsatisfactory. However unless this is monitored by the Urban Development Department, not much headway is expected. YMC is of the opinion that accountabilities need to be fixed on officers for their lackadaisical implementation of the Polluter Pays Principle so far as pollution in the drains is concerned	To prevent such dumping of the waste in the drains EDMC have deployed Nalla Beldars and Sanitation Staff on daily basis to clean the drains and this is reoccurring process. Executive Engineers (Maint.) have been empowered to challan the defaulters. The realization of these challans was Being effected through two member committee appointed by CPCB on the order of Hon'ble NGT. Earlier this committee used to meet once in a month in each zone. Due to Corona Pandemic, the said committee now is not holding physical hearing as such realization of challans have been affected. The process of keeping constant watch on actions for throwing the garbage and C&D waste is being reviewed periodically.	Dumping of solid waste in drains has to be reviewed by the Commissioner as the subject is not getting due importance at lower levels and individual RWAs are complaining about the hardships the face. An oversight agency is needed to patrol the drains and to nab miscreants who do this mostly at night. Whereas de-silting is planned and the implementation is monitored no such activity is being taken up for solid waste dumping throughout the year. It is no use allowing people to throw solid waste and then remove it when de-silting is done in the pre-monsoon period. At present neither Department of UD nor IDMC is going into these	

				aspects which is an obligatory function of the DMCs.	

Online Monitoring of STPs, CETPs and Yamuna

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
9	Online Monitoring System(OLMS)	**1. STPs:** There are 35 functional STPs under the DJB. All 35 STPs have now installed OLMS and are connected to the servers of CPCB and DPCC. The STP data is also in public domain. A system of generating alerts whenever parameters exceed the prescribed standards has also been prescribed. Out of 33 STPs monitored in the month of October, 2020 by DPCC 10 STPs were meeting the prescribed standards and the DJB was asked to rectify the defects. Calibration of OLMS is being done by the DJB fortnightly and by DPCC on Quarterly basis and the Report is sent to Chief Secretary and YMC regularly. Though the system of alerts and Whatsapp messages has been developed and used whenever plants exceed parameters, internal systemic	**1 & 2:** In compliance to the above orders of Hon'ble NGT, DJB has implemented following: a) DJB has already installed Online Monitoring System (OLMS) at all of its 35 STPs for real time monitoring of quality parameters in 2018 and same are also linked to DPCC/CPCB. The online data is being regularly monitored by DPCC. b) Calibration of sensors of OLMS at each STP is being carried out fortnightly as per SOP of CPCB and calibration report is submitted to YMC, DPCC and CPCB. DJB has working laboratories at most of the STPs and calibration is being done based on variation	**1&2:** YMC visited the OLMS at the Delhi Gate STPs in the presence of CPCB and DPCC representatives on 24.12.2020. YMC was also explained the mechanism of receiving and responding to alerts when parameters are exceeded. It was explained that the alerts are generated once the design parameters of the STPs are exceeded and these alerts go to all the senior officers in DJB. The data is generated every fifteen minutes and is available on the website of DPCC CPCB and DJB on	**YMC recommends the following Directions:** 1. CEO DJB and the MD DSIIDC be directed to identify officers within their organizations who should be responsible for smooth functioning of OLMS, its calibration in time as per the SOPs prescribed by the CPCB and fix accountability in the event of default. 2.Each organization (DJB/DSIIDC) should evolve procedures and systems for attending to alerts received online or through SMSs/Whatsapp messages within prescribed timelines which should be worked

		improvements do not appear to have been made to respond to emergent situations to rectify defects and shorten the response time. 2. **CETPs:** There are 13 CETPs for 17 Industrial clusters and all the CETPs have functional OLMS. Though DSIIDC has confirmed that they have prepared SOPs for addressing alerts received whenever parameters exceed the prescribed standards, the actual performance of the CETPs is not satisfactory. However, DSIIDC Officers were not able to show any improvement in efficiency of decision making and most of the CETPs which show the four parameters which OLMS monitors, namely, pH, TSS, BOD and COD, within prescribed parameters are actually non- compliant on several other parameters like TDS, metals and heavy metals. Calibration of CETPs although being done through NABL laboratory, however it is observed that in some of the CETPs like the Mangolpuri,	in OLMS data and DJB laboratory data. c) Real time data of OLMS of all STPs is available on DJB website for general public. d) Alerts on SMS/E-mail are being generated whenever plants parameters exceed design values. SOP has been decided and implemented for effective use of OLMS for rectifying defects causing parameters out of design limits. e) The variation in the values of OLMS reports and DPCC lab reports for the month of September 2020 for some of the STP's, could be due to sampling & testing errors of DPCC lab or malfunctioning of OLMS. However, calibration is being checked on fortnightly basis and data for subsequent months will be observed.	a real time basis for anybody to access. CPCB/DPCC servers which receive data from all the STPs The STP at Delhi Gate and Dr Sen Nursing Home which were visited by the YMC had all systems working perfectly but were surrounded by filth and overflow of sewage from trapping point and so even if the parameters are not excessive and the OLMS works efficiently it has no meaning until the drains in the vicinity are plugged which was nowhere near having been achieved. In the event of repeated occurrences relating to a particular STP, appropriate action under the Law should follow if the design parameters are exceeded and such action has to be taken by CPCB.	out in advance and notified to all levels of decision making within the organization so that any problem in the Plant or any of its units are addressed expeditiously. 3. Calibration should be done through a NABL accredited laboratory as per the frequency and protocol laid down in the SOPs prescribed by the CPCB. 4. DPCC should review its testing and calibration protocols and impart training to lab technicians on a periodic basis to upgrade their skills if required. 5. In the event of repeated non-compliance by STP and/or CETP, DPCC should consider levying EC on the plant operator. **4.** CPCB should set up a surveillance system for monitoring high levels of

		Nangloi, Mayapuri and Jhilmil CETPs, the BOD and COD values are at variance with the lab results by as much as 43% in Mayapuri to 140 % in Mangolpuri. Such wide variation raises questions about the OLMS as a tool for improving efficiency. NEERI which has been assigned a study to suggest upgradation of CETPs should be asked to critically look at the OLMS system installed and suggest improvements for using the system more efficiently as a tool to improve testing protocols operating practices. **3. Online Connectivity of STPs/CETPs in Haryana and UP for monitoring Pollution in Yamuna including Ammonical Nitrogen:** There have been also instances when due to excessive sewage flowing into river Yamuna resulting in high levels of Ammonical Nitrogen the Water treatment Plants in Delhi had to be closed. Real time monitoring by the CPCB therefore should be able to pin point such source of pollution well in time for remedial action besides taking enforcement action by the CPCB. YMC	3. No reply received from CPCB. However based	3. High level of Ammonical Nitrogen was reported in Yamuna at Wazirabad was reported in the "The Hindustan Times" on 29th December '20. DJB also separately brought this to the notice of YMC. Vide YMC's mail dated 31.12.20 YMC asked CPCB to depute a team of CPCB scientists and with HSPCB undertake inspection of point sources of pollution coming to river Yamuna through various drains	Ammonical N in river Yamuna particularly during the winter months of lean season flows in the river and intensify monitoring of STPs/CETPs in Haryana, both online and through physical inspections. 5. DPCC should be directed to create a feedback loop in their OLMS to share the data with DJB and CPCB in case of high levels of Ammonical N observed at Palla to alert the Plant officials at Wazirabad well in time.

		had asked the CPCB for Real Time Online Monitoring of Industries and STPs in Haryana and UP and their connectivity to the servers of CPCB and to take enforcement action for violation of Environmental Standards for STPs/ETPs/CETPs in the basin of river Yamuna. CPCB has informed that it has issued directions on 07.08.2020 to Haryana & Uttar Pradesh SPCB under Section 18(1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 for installation of Online Continuous Effluent Monitoring System (OCEMS) for self- surveillance of Sewage Treatment Plants within timelines and connectivity to SPCB/PCC & CPCB Servers, undertaking regular operation & maintenance.		originating in Haryana. The report of CPCB has not yet been received. On the direction of YMC, DPCC had set up an online station at Palla to specifically monitor Ammonical N in river Yamuna. DPCC has not submitted any report on the functioning of the Online system at Palla and whether in case of high levels of Ammonical N are being shared with DJB to alert their Wazirabad plant. YMC has also written to CS Haryana on 15.1.21 asking him to direct officials to take all effective measures to stop flow of untreated sewage and industrial effluent into Yamuna.	

Use of Treated Waste Water

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ Parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
10	Use of Treated waste water	As informed by the DJB, only about 89-90 MGD of treated waste water out of about 590 MGD of waste water generated is being utilised. This is less than 20%. In fact some of the treated waste water is of very good quality (BOD less than 10 mg/l) and is being treated at a very high cost. Letting such good water go into the drains is not only a waste of a valuable resource but also from the point of view of addressing ground water depletion which is taking place at an alarming rate. The overall report from the Agencies shows considerable progress and the NGT's orders have been given effect to though it will take time for 100 % coverage by the urban local bodies and DDA.	**For all Agencies viz: DMCs, DCB and DDA** The latitude & longitude of the parks and the data/ locations of parks received from various agencies were plotted on the Map and the number of parks which are falling within a radius of 5 KM of the DJB STPs had been identified and the information furnished by DJB to all agencies with location of nearest STPs so that they can immediately start lifting treated effluent through tankers. DJB had prepared project reports for laying infrastructure for supply of treated effluent upto designated locations of the end	The off take by the institutional users like the DMCs, DCB, DDA needs to be monitored by the UDD as the reuse of water serves the larger objective of water conservation.	**YMC recommends the following Directions:** **1.** Despite DJB officers taking up with Divisional Commissioner and District Magistrates have not resulted in any tangible enforcement action to seal borewells where water treated at an STP is available. NGT may consider directing the Chief Secretary Delhi to see that the output and performance of individual DMs in so far as enforcement is concerned is got monitored by their direct superior authority- the Divisional Commissioner so that incremental

		DDA: **a)** 78 Parks(1882 acres) using 6 MLD of Treated water **b)** 41 Parks(406 acres) to be covered by November 2021	user park-owning agencies for usage in parks. The cost estimates were submitted to the park-owning agencies for taking necessary action to install the conveyance system, however, no action has yet been taken. **a)** The figure of utilization of 89 MGD of treated efflu1ent within Delhi is peak consumption, there is always some seasonal variations depending upon the weather conditions. There is seasonal variation in the demand of treated effluent, with reduced off take in winter months. In the month of October, the average supply of treated effluent to CPWD was around 13-14 MGD against their peak demand of 20-22 MGD in the summer season. **b)** DJB extends the fullest support, cooperation and facilitation to the DCs/ DMs for the sealing action/drives.	**a)** Independent assessment may be necessary **b)** YMC has brought the lax response to the notice of the Additional CS Urban Development and she has been asked to see that the	progress on sealing bore wells is planned in conjunction with the lifting of treated waste water. This should be reviewed by the Chief Secretary every quarter and DJB made responsible for accelerating the use of treated waste water This has to be related to the mapping exercise so that the work of sealing is planned to synchronise with the availability of treated waste water. DJB must also push for more decentralized STPs to be set up in all large parks. This has been done successfully by SDMC and DDA and there is a need for all large parks to construct and operate in -situ STPs which too has to be monitored with reference to targets given to the park owning agencies.

		c) 83 parks(including 4 Biodiversity parks) with 2682 acres of area to be taken up in next 2 years **d)** 99 Decentralized STP for 101 parks(2264 acres) during the current year and 70 during the next year proposed to be set up, 25 by December 2020.	However, the statutory sealing action has to carried out by the empowered authority i.e. DMs, who are as much bound by the directions and orders of the Hon'ble NGT, as is DJB and other agencies. DJB has also stated that all other authorities/user agonies should be equally accountable for implementing the orders of Hon'ble NGT and DJB may not be singled out for unsatisfactory progress in utilization of treated water. **c)** As far as DMRC is concerned, they have communicated vide their letter dated 24.11.2020 that they are using their own treated effluent for horticulture purposes from their own captive STPs and ETPs and don't require any Treated Effluent from DJB. Further, Railway authorities were invited in the stakeholders meeting at DJB,	indifference shown by the DMs is taken up effectively. She has undertaken to see that the DMs are given a direction through the Div. Commissioner. DJB must share data on the quantum of treated water lifted/ drawn by different agencies by district and request for commensurate sealing of bore wells based on an analysis of the data. **c)** YMC feels the efforts made to secure the attention and compliance from the Central Government agencies and other large institutional water users has been ineffective considering NGT's specific directions. The CS having written to some Central Government authorities in January 2019 needs to	**2.** DJB should give wide publicity to the policy of free supply of treated waste water so as to promote its use for cooling, dust pollution control and construction activities as well as washing of buses, railway carriages etc, **3.** The NGT may consider directing the Ministry of Jal Shakti and the States of Haryana, UP and Delhi to meet and expedite the decisions on exchange of treated water in lieu of fresh water so as have a clarity on the willingness of states to operationalise the plan which may be the first of its kind and deserves every encouragement. **4.** UYRB be directed to coordinate this and submit a progress report to the Tribunal. This be

			but they never attended any meeting, nor have shown any desire for the use of treated effluent from DJB. As pointed out by YMC, the efforts to secure compliance from Central Govt agencies and other large institutional water users need more impetus. The observations of the YMC that the CS having written to some Central Govt authorities in January 2019 needs to consider taking it up at level of Cabinet Secretary is most welcome in this regard.	consider taking it up at the level of the Cabinet Secretary if the organizations do not pay heed.	accorded priority in view of the fact that use of treated waste water, which presently is unutilized for agriculture will reduce waste and make fresh water available for drinking purposes.
		e) Bioremediation in Sanjay Lake, Mehrauli and Vasant Kunj planned	**e)** From time to time, public notices are also being published by DJB in newspapers for awareness of the bulk users and general public also for the optimum usage of treated effluent for horticulture and other non-potable purposes.	**d)** Merely drawing attention to the existence of a policy does not cut much ice when the implementation has been routine. Much more proactive interest is required if the NGT's directions have led to speedy and effective action. **e)** YMC is of the view that while efforts at quality improvement are welcome, but instead of treating the non-receipt of complaints as a sign of success DJB should use the positive outcomes to inform the general public by holding workshops and exposing school children	**5.** NGT may consider directing the bulk users of water like the Railways, DMRC, CPWD, DTC, CPWD and PWD to prepare a plan for switching over to the use of treated water for washings, construction, dust control etc. In its last report dated 29.6.20 YMC had recommended "*Bulk users like the Railways, DMRC and Transport Department be also directed to use treated water for washings and construction, which will reduce use of ground*

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<td>f) 99 parks and 215 KM of roadside plantation covered by tanker irrigation g) 268 borewells closed

EDMC
EDMC is irrigating 1338 parks using water tankers. EDMC is also having its own ETPs, having capacity of 0.6 MLD located at Swami Dayanand Hospital and 3.0 MLD at Shahdara Jheel which are functional. 473 nos. tubewells have been closed and in 444 nos. parks utilizing treated water from these ETPs presently. The total treated water 3459 KLD was utilized by EDMC for irrigation of parks of Shahdara South & North in last three months. In addition to this, the treated water is being used at Waste to Energy Plant Ghazipur and C&D plant at Shastri Park to run these plants. At C&D Waste Plant about 15000 ltrs. per day and at Waste to</td>
<td>f) DJB has prepared a perspective plan for use of treated effluent, which will utilize a total of 605 MGD treated effluent in a phased manner as follows:

<table>
<tr><th>Area of Utilization</th><th>Proposed Utilization</th><th>Quantity in MGD</th></tr>
<tr><td>Present usage</td><td></td><td>90</td></tr>
<tr><td>Discharge in Yamuna River as Return Flow</td><td></td><td>267</td></tr>
<tr><td>Sub-total-1</td><td></td><td>357</td></tr>
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<td>to the need to use treated waste water and how DJB is encouraging it and monitoring parameters like odour etc.

f) The strategies enunciated are futuristic but their success lies in acceptance by the concerned states and the UYRB. Also there is no clarity about the timelines. That requires to be pursued and the cost-effectiveness and the existence of minimal risks and feasibility pursued. However this being outside YMC's direct mandate as given by NGT, the response will be only taken on record and shared with NGT as given.</td>
<td>water which is reported to be used. This will need to be monitored. A NGT direction is needed as these bodies have not generally shown any enthusiasm to attend meetings called on this subject.

NGT had accepted and supported this in its order dated 6.7.20 and despite that there has been no response from Railways although from the DJB's response it is not for want of trying. Even the claims of DMRC need to be verified. This needs to be taken up by the Chief Secretary with the Cabinet Secretary seeking his intervention as the DJB is not able to enforce its own policies and despite NGT's directions has not been effective in pursuing the Central Government</td>
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		Energy Plant 100 to 150 KL per day waste treated water is being used. **SDMC:** SDMC has 6822 parks with a total area of 2202 acres. At present 134 parks having an area of 69 acres are utilising treated wastewater and 56 tube wells have been closed. A total of 8.132 Million litres has been utilised during the period-01.09.20 to 24.11.20. Order for 15 new modular STPs has been placed for being installed at the Parks. With the installation of these STPs, 28 more bore wells will be closed. **North DMC :** North DMC is proposing to irrigate 640 parks covering a total of 362 acres of park area. At present STP water is being utilised in 401 parks and in all 99 tube wells have been closed **NDMC:** All major parks of NDMC are having decentralised STPs and the water being used for horticultural purposes. All the Borewells have been sealed.	Artificial Water Bodies	46			organizations as well as other bulk users of water. 6.The overall off take of treated water as reported by DJB should be monitored. DJB should be directed to compile data by user and confirm that DDA ,the DMCs and other stakeholders are lifting the water as claimed. The Department of Urban Development has not been monitoring this which is needed in the given circumstances.
			Coronation Pillar STP-discharge at Palla	70			
			Auchandi & Jaunti Regulator	20			
			Exchange in lieu of raw water with UP	140			
			Sub-Total-2	**276**			
			Grand Total: (present & planned)	**633**			

		Delhi Cantt. Board: Treated water from STPs of MES and CETP of DSIIDC is being used for horticulture purpose through tankers to the tune of 560 KL per day to be augmented to 1000 KLD. The work of preparing hydraulic design, structural design and tender documents for construction of pumping station and reservoir etc is in progress. **DJB**: **a) Quantity of Water supplied by DJB**: Though DJB has been maintaining that 89 -90 MGD of treated waste water is being utilized by various user agencies, the actual quantity supplied from its various STPs is only 82 MGD. This is considerably less than the earlier figure of 89-90 MGD furnished by the DJB. This needs to be independently verified. DJB also needs to explain the reasons for decline in the usage of treated waste water Board has now decided to supply treated water free of cost as against the earlier policy of charging Rs. 7 per KL, increased off take of water needs to be monitored			

		b) Sealing of Borewells and Enforcement Action: Sealing bore wells is a duly notified function entrusted to the DMs and the directions of NGT required more than routine follow up. Despite repeated correspondence by DJB there has been little progress. **c) Treated Waste Water to other bulk Users like DMRC, Railways etc:** According to DJB, DMRC & Railways are not lifting treated effluent from DJB. However DTC is taking treated effluent through tankers as well as through pipelines also. DJB has not indicated the efforts mounted to take up the matter up at higher levels in the Central Government organisations and bringing it to the notice of the Chief Secretary seeking his intervention.DJB as a bulk supplier has to see that all big users are persuaded and then given ultimatums through the Heads of such organisations.			

		d) Installing Decentralised STPs near on Parks for Waste water Treatment: Delhi Jal Board informed YMC of its policy on Decentralized STPs for utilization of treated waste water for horticulture purposes to reduce the ground water extraction. This refers to the year 2018. The policy has supposedly been in operation for a long time but the implementation shows too many gaps for it to be viewed as having made a difference to the use of treated waste water. **e) Improving Quality of Treated water - removal of odour et.**DJB has reported that it has plants with different outlet parameters like BOD=30 TSS-50, BOD=20, TSS=30,BOD=10, TSS=15, BOD=10, TSS-10 etc. Only some of the plants are having Fecal Coliform treatment through chlorination / UV. Normally complaints are not received about odour from the RWA or park owning agencies. In case any complaint is received the same is addressed and it is ensured that the STP meets its design parameters on regular basis. DJB is also in the process of upgrading			

its STPs to the latest effluent standards as laid down by DPCC i.e. BOD =10, TSS=10, COD= 50, Fecal Coliform <230 etc including Coliform treatment which will take care of quality parameters and odour issues. DJB is also planning to start chemical dosing with Poly Al Chloride/ ALUM/Ferric Chloride on trial basis to improve outlet parameter and reduce odour at its STPs.

f) Major Proposals:

Proposal	**Quantity in MGD**	**Present Status**
Coronation Pillar STP to Palla after micro filtration	70	Matter pending with UYRB/Govt of Haryana
Exchange with Haryana in lieu of Fresh Water at Auchandi and Jaunti Regulator	20	--do---

		Exchange with UP in lieu of fresh water	140	Board has given in principle approval			
		Return Flow into Yamuna as per Water sharing agreement	267				
		TOTAL	497				

Industry Interface

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
11	Industry Interface	Recommendations of YMC has been given in the 5th report dated 7.12.20.	No comments have been received from stakeholders.	-----	-

State of Haryana and Pollution of the River Yamuna

Statement of YMC's observation, Comments of the State of Haryana and replies to the Comments based on the findings of the Haryana Pollution Control Committee

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of the Governmen of Haryana.	Comments of YMC based on the Detailed observations and Inspections undertaken by the Haryana Pollution Control Committee set up by HY Govt. as directed by NGT.	Recommendations of YMC
12	The YMC had flagged the following issues to the State of Haryana for compliance of Orders of Hon'ble NGT dated 06.07.2020.	The observation of YMC is based on the following facts. The State of Haryana is generating 1164 MLD domestic effluent and 245 MLD industrial effluent from 34 towns. At present, 506 MLD partially treated / untreated domestic effluent and industrial effluent is being discharged to River Yamuna through 11 drains.	No comments received from State of Haryana on this issue.	No comments from HYMC.	NGT may consider issuing direction to Chief Secretary to: 1. Ensure that sewage from approved and unapproved residential areas is diverted to the nearest STP for treatment. MD HSIIDC may be directed to ensure that all the CETPs are complying with the discharge standards. The ATN may cover

Urgent and Critical action to be taken.	i. Untreated Effluent from Jagadhri-Yamuna Nagar	Presently 66 MLD Untreated Industrial and **Domestic effluent is being discharged from Jagadhri-Yamuna Nagar Township to Ditch Drain.** Neither the Municipal Corporation Yamuna Nagar nor the Public Health Engineering Department is taking responsibility to treat the effluent	The response of the State of Haryana on the observations of Yamuna Monitoring Committee in its 5th report submitted to NGT in OA No. 06/2012- Manoj Mishra Vs UOI & Ors. Vide letter No. YPMC/2020/524 dated 07.12.2020, are summarized below. With reference to the observations of RYMC that 66 MLD untreated effluent is flowing into drains from twin cities of Jagadhri and Yamuna Nagar, it is submitted that there are presently 4 STPs operating with a capacity of 79 MLD, which are treating the effluent which is being generated from Jagadhri and Yamuna Nagar (i.e. 32.3 MLD (Yamuna Nagar town) + 18.56 MLD (Jagadhri town)).	**The information provided by the state is not corroborated with the ground realities at site.** The response is based on data from known sources without taking into account the huge discharge of domestic sewage and industrial effluent from industries in non-conforming areas. As such the claims give a misleading picture as the data does not capture the quantum of pollution emanating from several sources. At present, 66 MLD untreated effluent (from residential areas and industries / commercial establishments operating	new measures instituted after 01.02.2021 and effective initiatives taken by these officers. ***(Action: ACS PHED and ACS ULBD)*** 2. Prepare a comprehensive action plan with measureable targets prepared for diverting the domestic sewage to the adjoining STPs and stop the discharge of untreated sewage into the Storm Water Drain. 3. Expedite the construction of proposed 02 Nos. of CETPs for treatment of Industrial Effluent discharged by utensil manufacturing units in Jagadhri Town. ***(Action: ACS ULB and ACS PHED and UDD)***

			In fact STPs are designed for next 15 years. In Yamuna Nagar, present required capacity is 32.30 MLD against which STPs of 65 MLD capacity have already been provided. So treatment of sewage is taken care of. The present total population of Yamuna Nagar town is 2,60,485 persons and sewage generation works out to be around 32.30 MLD. The sewage generation on the basis of prospective population for next 15 years works out to be 44.28 MLD. The capacity of existing STPs at Yamuna Nagar town is 65 MLD (25 MLD at Radaur Road + 20 MLD at Radaur road 2 x 10 MLD at Baddi Majra) against the present sewage generation of 32.30 MLD. However, it is also intimated that the upgradation of the existing 25 MLD at Radaur Road has already been completed and upgradation of 10 MLD STP at Baddi Majra is in progress and	in the non-conforming areas) is flowing into the Jagadhri Yamuna Nagar Drain which leads to the Ditch drain which carries the pollution to the River Yamuna .In addition to the above ULB Yamuna Nagar is treating and discharging 50 MLD domestic effluent from Yamuna Nagar (32.3 MLD) and Jagadhri Town (18.56 MLD). The MC Yamuna Nagar (ULBD), PHED and HSIIDC departments are not taking any responsibility for diversion and treatment of the untreated effluent. The cumulative waste water generation (mixed effluent) is 116 MLD against the cumulative installed capacity of 89 MLD. Further, the population figures of Yamuna Nagar and Jagadhri town do not include the floating labour	All unlicensed manufacturing units which are in non-conforming areas and operating from households have to be moved or closed down. Repeated assurances have not led to any perceptible change and a long rope continues to be extended. In such a situation, no engineering solutions can make a difference to the extent of pollution. The action on the survey and the recommendations referred in the state's latest reply summarized in Column 4 need to be acted upon urgently as it has been discussed several times. The survey and IIT Roorkee report has to be viewed as fortifying what has been known all along – not treated as a new finding. Action on the ground is

			will be completed by 31.12.2020. Hence, the capacity of installed STPs at Yamuna Nagar will be more than sufficient to treat the 44.28 MLD domestic sewage generations for prospective population of Yamuna Nagar Town for next 15 years. As far as Jagadhri town is concerned, the present total population of the town is 1,49,873 persons and sewage generation works out accordingly to 18.56 MLD. The sewage generation on the basis of prospective population for next 15 years works out to be 23.78 MLD. The capacity of existing STP at Jagadhri town is 24.00 MLD against the present sewage generation of 18.56 MLD, which is more than sufficient to treat the 23.78 MLD domestic sewage generations for prospective population of Jagadhri Town for next 15 years. The State has already prepared	population and population of recently included 27 villages in the Municipal Corporation's area. The capacity of the existing STPs will be insufficient as future requirements grow. The capacity enhancement of the existing STPs and construction of new CETPs is essential to ensure that no untreated effluent is discharged in River Yamuna. The target date for laying 39 KM of sewer by 31.06.2021 is feasible. The operationalisation of the sewer line may take some more time.	needed as several months have gone in undertaking surveys and getting expert reports well knowing the existence of heavy water pollution. In the event of non-compliance action may be taken in accordance with directions in para 15(B) (vi) of Hon'ble NGT's order dated 11.9.19 which states" *"For delay of the work, the Chief Secretary, Govt. of Haryana must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department."*

			the plan and acting on tapping of polluted effluent through laying of sewers and also intercepting effluent into sewers. Out of the total targeted length of 109 Km of sewer lines, 69.9 km has already been laid out and the remaining 39 KM length of sewer shall be laid by 30.06.2021. To address the issues relating to industrial effluent of these towns, Industries Department of Haryana has got a survey done to explore the possibility of shifting the industrial units of these towns to some designated places. And, the Industries Department has taken up the issue with PHED seeking the details of discharge and land for CETP, besides deciding to engage IIT Roorkee to take up a study of sewerage system of Jagadhri and Yamuna Nagar towns to suggest what can be done to treat the mixed discharge. The team from IIT Roorkee has		***(Action: ACS Industries and Managing Director HSIIDC)***

			already conducted the field visits for the feasibility studies and sent a report in December 2020, the recommendation of IIT Roorkee is under consideration of the State Government.		
	ii. Untreated Effluent from Sonipat	None of the 4 CETPs and 3 STPs is functioning properly and partially treated/untreated effluent being discharged through Drain No. 6.	In this regard, it is submitted that, in case of 2 STPs in Municipal Corporation, Sonepat, maintained by ULBD, the trunk sewer line was settled down due to which the entire sewage is not reaching the STPs which are not functioning to their full capacity. The work of replacement of trunk sewer line is in progress and likely to be completed by 30.06.2021. The remaining STPs in Sonepat are presently functioning properly, as corroborated by the recent analysis reports of HSPCB. As far as the 4 CETPs (with a total capacity of 25.2 MLD), which belong to HSIIDC are concerned, the Corporation is in the process of upgrading the	The averments are not correct. a) 2 STPs are not working since long due to settlement of trunk sewer. Now, the work of replacement of trunk sewer has been awarded but target given by the ULBD seems unachievable. b) Although the sewage carrying network for the third STP is there, domestic effluent discharged is not reaching to the STP (7.5 MLD). c) Untreated domestic sewage generated from Sonepat Town is being discharged into	4. Expedite the capacity augmentation of CETPs. Till that is done HSPCB should restrict the large industries operating in the industrial estate from discharging excess industrial effluent which exceeds the quantum for which consent was given under the Water Act, 1974. The present responses and pace of work continue to be unsatisfactory for which appropriate remonstrance may be considered. ***(Action: MD HSIIDC***)

			same and they would be in a position to treat 48 MLD after upgradation. The upgradation of Kundli CETP (4 to 10 MLD) will be completed by 31.12.2021 and works of CETPs in Rai (5 to 10 MLD), Barhi (16 to 26 MLD) and Murthal (0.2 to 2 MLD) are expected to be completed by April 2022.	River Yamuna through Drain No. 6. d) All 4 CETPs of HSIIDC are not capable of treating the total quantum of industrial effluent generated. The excess industrial effluent is being discharged illegally directly into adjoining drains through bypass facility. e) The designs of the existing CETPs are not based on the quality of effluent generated from the different industrial process.	
	iii. Untreated Effluent from Faridabad	There is no functional STP in Faridabad Town. 210 MLD of untreated domestic effluent being discharged to River Yamuna through Budia Nalaha and Gounchi Drain.	In this regard, it is submitted that the machinery of STP at Badshapur is being replaced and shall be functional by 30.04.2021. There are 5 STPs under construction, with a capacity of 227.5 MLD and these will be completed by 31.12.2020(7.5MLDatFaridabadbyHSVP),31.07.2021(10MLDatFaridabad by ULBD),	The 45 MLD STP at Badshapur, Faridabad is under repair since long and target date is being extended every time. The target dates given for installation of new STPs in Faridabad Town are not achievable. Thus, the domestic sewage generated from	5. Submit a monitorable monthly progress report to HYMC for repair and for construction of 5 new STPs (3 by ULB and 2 by HSVP).The generic standards notified by Niti Aayog which help to fast track the process of awarding work along with technical

			30.06.2022 (30 MLD at Faridabad by HSVP), 02.11.2022 (100 MLD at Partapgarh by ULBD) and 02.11.2022 (80 MLD at Mirzapur by ULBD) respectively. The Municipal Corporation of Faridabad is planning to start Phyto remediation from April 2021, till the commission of all these STPs.	the town is being discharged untreated into the river Yamuna through Budia Nalaha and Gounchi drain	specifications should be considered. If untreated sewage is allowed to continue it can have disastrous consequences on the populations residing in the area. The subject is being truncated between agencies and the assurances carry little conviction. The three officers may be directed to meet every month, prepare a joint action plan after being shown the problems on the ground by the Haryana Pollution Control Board's Member secretary. The progressive action decided to be taken in terms of planning and execution should be minuted by the Member Secretary, HSPCB who should add his remarks on whether it is sufficient. HYMC team may be called for the

					meetings and their advice minuted every month. This should not be delegated below senior most officers as indicated. In the event of non-compliance, action may be taken in accordance with directions in para 15(B) (vi) of Hon'ble NGT's order dated 11.9.19 which states" *For delay of the work, the Chief Secretary, Govt. of Haryana must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department. i) The Govt.*

					of Haryana will be liable to pay Environment Compensation if defaults take place as under: a). The operational deficiencies of the existing STPs must be rectified within three months failing which Environmental compensation of Rs. 5 Lacs per month for STP shall be deposited with CPCB. *(Action:* ***ACS ULBD, Chief Administrator HSVP and Commissioner, Municipal Corporation Faridabad)***
	iv. Construction/Upgradation of STPs	The timeline for construction, upgradation work of 15 Nos. of Sewage Treatment Plant in 07 major towns is needed to be firmed up to prevent discharging untreated sewage to River Yamuna. Urgent upgradation/replacement is required in 02 Nos. of existing STPs at Rohtak (40 MLD) and Bahadurgarh (18 MLD) to reduce pollution load in drain No. 6 and KBC-Mungeshpur drain	In this regard, it is submitted that, the upgradation work of 4 STPs is underway and same shall be completed by 31.03.2022. It is further submitted that the progress has been delayed in some of the STPs mainly due to COVID pandemic related issues and ban on construction activities taken up for prevention of air	The state has not initiated any visible action to reduce the timeline for the construction of new STP rather they are extending the target date on their own. State of Haryana has not taken any action for upgradation of existing 2	6. Take expeditious action for construction/ upgradation of 17 Nos. (2 STP recently identified) of STP in 07 Major Towns. By giving unverified responses which are not based on ground realities and execution capacity of the agencies, the

		respectively	pollution, as directed by EPCA last year. The State is committed to firm the timelines as advised by RYMC and the progress will be monitored regularly both at Departmental level as well as at Chief Secretary level.	Nos. of STPs (40 MLD STP at Rohtak and 18 MLD STP at Bahadurgarh).	seriousness is getting diluted. (***Action: ACS ULB, PHED, and Chief Admn HSVP).***
	v. Construction of New CETPs	The construction work of 07 New CETPs at Faridabad (2 Nos.), Gurugram (3 Nos.) and Yamuna Nagar (2 Nos.) not yet started. These CETPs will be discharging 131.25 MLD of Industrial Effluent to River Yamuna.	In this regard, it is submitted that 3 CETPs in Faridabad shall be constructed by the State Urban Local Bodies Department, the work of which shall start by 30.06.2021 and will be completed by 31.03.2023. In Gurugram, the 2 CETPs are getting commissioned through ULBD/GMDA and the State is committed to complete the same within the shortest possible time.	The state has agreed to construct 7 Nos. of new CETPs. All these work are in planning stage. No visible action noticed within last 6 months.	7. Expeditiously start construction of New CETPs and squeeze the timeline for the same. ***(Action: ACS ULBD, CEO GMDA and MD HSIIDC***)
	vi. Inspection of Existing STPs by HYMC	HYMC randomly inspected 24STPs (763.5 MLD Capacity) in Yamuna Nagar, Panipat, Sonipat, Rohtak, Bahadurgarh, Gurugram, Faridabad and Palwal to verify the complying status indicated by the Line Departments. The operational deficiencies were still observed in 16	In this regard, it is submitted that the matter has been taken up with all Departments concerned and the deficiencies have been directed to be rectified. HSPCB has also started monthly monitoring of all STPs now along with the	There are 60 existing STPs out of which 6 are abandoned, 3 are dysfunctional as no sewage is reaching, 2 are in the process of upgradation and 2 STPs need upgradation where	8. Initiate action against the officers and operators responsible for O&M of these STPs as they have failed to rectify the operational deficiencies and are not

		Nos. of STPs (452.5 MLD Capacity) which were found to be not in compliance of standards. The compliance given by the line departments were found to be incorrect. The HSPCB officers are not performing the regulatory functions as assigned under the Provision of Water Act, 1974/EPA1986.	regular checking of the status of these treatment plants through Online Monitoring Devices. As per the recent inspections conducted by HSPCB, 10 STPs have improved the performance of these STPs and 6 are still non-compliant. GMDA has attended to the operational deficiencies indicated and the STP of 68 MLD at Dhanwapur needs minor modifications which will be completed by 31.03.21. And for 2 STPs with a capacity of 100 MLD at Dhanwapur (which is non- complying), and 120 MLD at Behrampur (are complying, as per latestreports), a Administrative approval amounting to Rs.27.30 Cr and 33.11 Cr respectively have been accorded by the Government and the works will be completed by 31.12.22. Action has been initiated against the remaining failing STPs and concern officers.	the process has not started. The HYMC is regularly monitoring the effectiveness of the STPs along with the Officers of Pollution Control Board and Departments responsible for O&M of STPs. The operational deficiencies which have been communicated earlier still exist. The SOPs notified by the Government of Haryana are not being followed. The status of compliance given by the departments and the HSPCB seems to be incorrect. The operation and maintenance of the STPs has been left to the operator and junior staff. Senior officers at the level of Superintending Engineers are not monitoring the operational efficiency of the STPs.	following the SOPs laid down. ***(Action: ACS PHED, ACS ULB, CEO GMDA).***

				Details of action taken against the officers/officials/ departments for not maintaining the STPs are not indicated.	
	vii. Inspection of Existing CETPs by HYMC	HYMC randomly inspected 12 Nos. of CETPs. Contrary to the claims of compliance made by HSIIDC, ULBD and GMDA, all these 12 CETPs were found non-compliant. The HSIIDC is constructing the CETPs without considering the effluent characteristics of the industries operating in the Industrial Estate. This is the only reason for the performance of the existing CETPs remaining unsatisfactory.	In this regard it is submitted that the deficiencies indicated by RYMC have been attended to by HSIIDC, and it has improved the efficiency of the plants by ensuring a proper chemical dozing system and sludge disposal system. Further, HSIIDC has also got the efficacy of these CETPs checked from IIT Delhi and is implementing the suggestions given by the Institute. Recent inspections conducted by HSPCB indicate the compliance status of the CETPs.	The statements given in the reply are not corroborated by facts on site. All these 12 CETPs are still not capable of treating the effluent generated from the industrial estate because: 1. Operational deficiencies still exist and the SOPs notified are not being followed. 2. The CETPs are not designed as per the effluent characteristics of the industries operating in the industrial estate. For example, all 4 CETPs in Sonepat town do not have the facility to remove oil and grease which is	9. Expeditiously start the capacity augmentation of 4 Nos. of CETP at Sonepat and take effective steps in removing operational deficiencies in rest existing CETPs. Further, CEO GMDA may be directed to upgrade 30 MLD CETP at Manesar. The Chairman HSPCB may be directed to pull up their officer responsible for monitoring the operational efficacy of the CETPs in their Jurisdiction. It seems either the water samples for the outlet of the CETP were not properly collected or the analysis of water sample is not correct.

				influencing the biological activity. This is a mandatory requirement. Now they have installed a chemical dozing and oil and grease removal facility which is inadequate to manage these CETPs. 3. The facilities of Sludge removal need to be upgraded in the CETPs at Baddi, Rai, Murthal, Kundli, Rohtak, Panipat, Faridabad and Gurugram. 4. A 3 MLD CETP at Kutana, Rohtak is supposed to treat effluent discharged from Electroplating and Powder Coating Units whereas the existing CETP was designed to treat the biological discharge only. It cannot remove	(***Action: MD HSIIDC, CEO GMDA)***

				heavy metals from the effluent. 5. The old 21 MLD CETP at Panipat is in the process of upgradation. The industrial effluent is not reaching the new 21 MLD CETP Panipat. It is pertinent to mention here that the senior officers of the department are not monitoring the operational efficacy of the CETPs and they are relying only on the analysis report arranged by the operator to get his payment released from the department.	
	viii. Sewer Conveyance System	The progress of construction and operationalisation of the Sewer Conveyance Network (645 KM) is very slow and in the absence of the sewage conveyance systems the capacity of the existing Sewage Treatment Plants remains unutilized majorly in Panipat and Sonipat towns. Untreated effluent continues	It is submitted that the Urban Local Bodies Department of Haryana is laying the sewer lines involving a length of around 1,382 Km in 8 Municipalities namely Faridabad, Panipat, Sonepat, Rohtak, Karnal, Yamuna nagar-Jagadhri, Bahadurgarh and	The Target date given in the reply do not appear achievable. The ULBD is only laying the sewer line but making them operational requires connectivity to the households which have to take connections. No	10. to expedite the construction and operationalisation of Sewer Conveyance Network along with diversion of sewage to the nearest STP, falling which untreated sewage

		to be discharged into the River Yamuna through Drain no. 1 &6	Palwal under the AMRUT Scheme. Out of this target, around 928 Km sewer lines have already been laid and the work in the above said towns (except Panipat and Palwal towns) is likely to be completed by 30.06.2021. In the case of Panipat, due to enhanced scope of work expanding from 115.1 KM to 211.4 KM of sewer line, and the construction of 3 Intermediate Pumping Stations and 3.7 KM m of sewer line by trenchless technology, the work is expected to be delayed. Now, the scope of work has been further increased from 211.4 KM to 256 KM due to further regularization. The Government is committed to get the task completed at the earliest. Furthermore, in 2019, due to ban of construction activities by EPCA and Hon'ble Supreme Court of India from 01.11.2019 to 14.02.2020 in NCR areas, the works got delayed for 106 days. Following this period, the work	significant diversion of effluent has been noticed at the STPs so far which is the proof of effectiveness.	will find its way to River Yamuna through Drains. The performance of the ULBD's officers headed by the ACS ULBD may be judged by the extra quantum of sewage reaching the STP and getting treated. HYMC may be asked to report on this as it is not meaningful to keep track of the length of the sewer line that is constructed without reference to the end result which is to get households connected to the conveyance system, the success whereof can be gauged by the extra quantum of sewage deposited in the STP. (***Action: ACS ULBD)***

			got delayed by another three months due to Covid-19 pandemic, due to lock down issues, non-availability of labour and availability of necessary equipment. All these are the reasons for the delayed work in Panipat town and the task is now likely to be completed by 31.03.2022. Similar reasons are applicable in case of Palwal also, where the work is likely to be completed by 31.07.2021. In case of Sonepat, where the work of replacement of settle trunk sewer line is taken up, it is submitted that there are many encroachments along Drain No.6, from where the sewer line is to be replaced. Considering the field conditions, MC is now laying this sewer line through trenchless technology which has slowed down the work further besides the above reasons. The work will be completed by 30.06.2021. Further, the Urban Local Bodies		

			Department has made a plan to tap/ divert 84.14 MLD of effluent at 155 locations in the Yamuna catchment area, out of which 41.42 MLD effluent has already been diverted at 73 locations. The work to divert the sewage of unapproved colonies at 65 locations is under progress. Further, the 12 points having discharge of 13.50 MLD in Panipat where the work has not been started yet, were falling in the unapproved area, but the State has now approved the same and accordingly, a DPR and DNIT amounting to Rs. 97.00 Cr for laying of sewer line and construction of STPs in these colonies has been approved by the Government under the AMRUT Scheme and tender for the same has been floated on 07.12.2020 and last date of bid submission is 06.01.2021. ULBD has already the work of 2 locations in Ganaur which will be completed by 30.06.2021 and the work of 3 locations in		

			Sonepat is yet to be started. The Department is laying the sewer line through trenchless technology, and hence the work is delayed, but will be completed by 30.06.2021.		
	ix. Septage Management	The Septage Management Policy is not being followed in all major townships, adding significant amount pollutants to River Yamuna through 11 major drains. There is a huge gap between quantum of untreated effluent and the effluent treated through Septage Management.	In this regard, it is submitted that the Septage Management Policy has been formulated by the ULB Department and has been adopted by all ULBs. A total number of 242 tankers have been registered and deployed in the ULBs of Yamuna catchment area. Monthly progress of such septage lifted is being monitored at Departmental level and at the level of Chief Secretary in the Review Meetings. During the month of October 2020, a quantum of 66 MLD of septage/untreated sewage was transported through tankers and treated in STPs. Further, special drives are being directed to be conducted at District level against tankers which are discharging the untreated	Action taken for Septage Management in all 34 towns in the catchment area of River Yamuna is far from satisfactory. The Municipal Corporations/ Committees except Gurugram are not properly implementing the Septage Management Policy. They have just started diverting the tankers collecting the Septage to the adjoining STPs. HYMC has not verified the claim by the GMDA about the amount recovered as penalty from the tankers owners. The Quantum of Septage diverted to STP was not verified. Out of 66 MLD Diverted the major quantum is from	11. Ensure that the Septage Management Policy notified by the State of Haryana be followed strictly. This alone will to reduce the pollution load in 11 major drains until the conveyance systems are laid and households take connections. ***(Action: All Magistrates and Municipal Commissioner***)

			effluent illegally in drains / river, and during the last six months (since June 2020), 265 such illegal tankers have been challaned by various Municipal Corporations and an amount of Rs.68,20,500/- has been collected as penalty. It has also been directed by Chief Secretary during the recent review meeting that special drives be conducted against such illegal discharge at District level by DCs.	Gurugram only. No significant action taken by other Towns.	
	x. Functioning of OLMS	The online monitoring devices are not calibrated regularly, thus they do not reflect the actual status of treatment and Haryana State Pollution Control Board does not have any mechanism to verify the authenticity of data generated from these OLMs. Further, HSPCB has no mechanism to take cognizance of any reported violations.	In this regard, it is submitted that HSPCB has made it mandatory for all the medium and large scale water polluting industries in the Yamuna River catchment area to install the online monitoring devices, failing which the Consent to Operate shall not be granted. This has also been implemented successfully now and these devices have been connected to the servers of both CPCB and HSPCB. To monitor these devices, HSPCB has set up a Monitoring Cell in	Regular calibration, proper monitoring of OLMs will reflect the efficacy of the ETPs, STPs and CETPs. The regulatory agencies with adequate monitoring network can properly enforce compliance of Water Act, 1974. The Haryana State Pollution Control Board should develop a protocol to monitor the data generated from these devices and put it on public domain on an easily	12. Nominate a senior officer not below the rank of Superintending Engineer to supervise the operational efficiency of OLMs installed on STPs and CETPs and make the information easily accessible to the public by giving incremental reports of what the OLMs data shows and to also share the quality of water being discharged into the drains for public knowledge. It may be

			its Head Quarters and the units are monitored for exceeding of different pollutant levels, delays of transmission, off line modes and non- connections. The details are being shared with Regional Officers of the Board for physical checking of the devices, selectively based on the severity of the reports. Regional Officers have also been directed to check the functioning / calibration of these devices during their inspections and report. Further, Chief Secretary has also directed the line departments to establish such monitoring cells at their head quarters, after taking necessary access from the Board, to ensure their self regulation.	accessible and intelligible website and by informing the public through newspapers that this has been done and public can view the information and alert the HYPCB of transgressions.	considered whether the relevant faculty and students of the Punjab University or IIT Roorkee or the local engineering colleges can be asked to collaborate in informing the public. Internships for students will also give a much needed focus to the abatement of pollution in the drains which impact the river. This cell should provide proper over sight of the performance of the operators who have to maintain the OLMs. ***(Action: ACS PHED, ACS ULB, CEO GMDA, MD HSIIDC and Chief Administrator HSVP)***
	xi. Discharge from drain No. 6 and CETP Kundli Effluent Channel	The Discharge from Drain No. 6 and channel from Kundli CETP are mixing in the Diversion Drain No. 8 at Sonipat is responsible for adversely affecting the Drinking Water Treatment Plant at Wazirpur due to Higher BOD and	In this regard it is submitted that, the closed conduit pipeline has been approved by the State and the treated effluent shall be carried through closed conduit. HSIIDC	The progress in the work for laying Close Conduit Pipe Line is satisfactory but it requires fast track work to be done by doubling the capacity if	13. Ensure completion of work by engaging double shift labour and in any case complete it by 31.5.2021as promised. The Chief Secretary

		Ammonical Nitrogen concentration. This continuing negligence must be stopped and fast track approvals are needed for work on the conduit carriage to be stared and completed without any further delay.	has already transferred Rs. 6.59 Cr to Irrigation Department for construction of closed conduit pipeline for discharge of treated effluent from CETP Kundli to avoid mixing of water of DD No. 8 in Sonepat. A meeting has already been convened at the level of Chief Secretary with Departments of Irrigation, ULBD, Industries and Finance to finalize the individual contribution of every Department for the project and tenders have been decided to be called by Irrigation Department. The work is expected to be completed by 31.05.2021.	feasible as everyday that the clean water gets mixed with polluted water poses insurmountable for the water works in Delhi which supply drinking water to the capital. The fact that the matter is still held over for deciding the interdepartmental share of less than Rs 7 crores is not acceptable as this misplaced parsimony is taking a heavy toll on the water treatment capability of DJB which has multiplier effects on the citizens of the Capital.	Haryana may ensure that the work is awarded within the next 15 days as an emergency requirement. ***(Action: ACS Irrigation***)
	xii. Discharge from Storm Water Drains Leg -I, Leg – II and Leg-III (Badshapur Drain)	75 to100 MLD of untreated effluent is still flowing in storm water drains named Leg-I, Leg-II, Leg-III (Badshapur drain) due to slow progress in the diversion of effluents to the STPs. The timeline for completion of diversion is being extended repeatedly.	In this regard it is submitted that under GMDA informs that while the domestic sewage is generated to the tune of 430 MLD, there is a capacity of 428 MLD (388 MLD with Government Treatment Plants and 40 MLD with colonizers), with a capacity utilization of around 310 to 330 MLD,	The GMDA was required to divert untreated sewage from Storm Water Drain, Leg-I, Leg-II and Leg-III Badshapur Drain on or before 31.12.2020. Now they have extended the time line upto 31.12.2022 and linked it with the completion of	14. Complete the work of diversion of effluent from Storm Water Drains Leg-I, Leg-II and Leg-III on priority as it has taken much longer than necessary. a) To undertake area an assessment of waste water

			leaving currently around 49 MLD of untreated effluent in Yamuna. This quantum may vary due to seasonal as well as daily variation and increase from 50 to 80 MLD. With the proposed STPs of 161.50 MLD, though all the Departments concerned committed themselves to plug the discharge of untreated sewage storm water by 31.12.2020, due to Covid-19 issues, the construction of STPs are getting delayed and will be completed by 2021 and 2022.	construction of new STPs of 161.5 MLD Capacity. Work for construction of 9 small STPs with 38 MLD Capacities is in progress instead of reported 161.5 MLD. Status of construction work of 2 large STPs (25 MLD at Manesar and 100 MLD at Dhanwapur) is not included in the Action Plan. The linkage of diversion of effluent from Strom Water Drain, Leg-I, Leg-II and Leg-III with construction of new STPs seems to be unjustified.	generation and disposal after treatment so that there is a benchmark for incremental reduction of the polluted discharge. The information on Gap Assessment is needed to be able to judge progress as the objective is to free the drains of pollution which can only be measured by flow and presence of pollutants. (***Action: CEO GMDA***)
Critical action to be taken.	**I. Environmental Flow**	Maintaining Environmental flow of 10 Cumecs (352 cusecs) in River Yamuna and compliance of the Provisions of report submitted by National Institute of Hydrology (NIH).	It is submitted that the State is already releasing 10 Cumecs of Yamuna water from Hathnikund Barrage on daily basis which was to be released after construction of upstream storages dams as per MOU of year 1994. Further this 1994 MoU can be revisited after 2025 if any of the partner	The State Government is in complete disagreement with the recommendation of NIH. The matter has been taken up with the Ministry of Jal Shakti, Government of India	-This is a matter which has either to be addressed at a policy for a under the Ministry of JS or by the Apex Court which has taken cognisance of the matter recently.

			States so desire. However, the recommendation of NIH are nearly 300% of the existing e-flowof 10 cumecs and the State is completely in disagreement with the recommendations of NIH to increase the quantum of e-flow as the implementation of the above proposal shall cause environmental disaster in Haryana. The matter has already been taken up by the State with the Ministry of Jal Shakti, Govt. of India.		
	II. Construction of New small STPs	Construction work of 14 Nos. of new small STPs is very slow and may not be completed by 31.12.2020.	It is submitted that 8 STPs of 33.5 MLD shall be completed by 31.12.2020, 2 STPs of 13 MLD shall be completed by 31.03.2021, and 12 STPs of 117.5 MLD shall be completed by 31.12.2021. Further 4 more STPs of 225 MLD shall be completed by 30.06.2022.	1. The departments have been postponing the timelines for completion of construction of these STPs many times. 2. The revised target dates given by the State are not achievable. 3. Status of construction work of 2 STPs (25 MLD at Manesar and 100 MLD at Dhanwapur) have not	15. Take up Phyto remediation/bio--remediation projects to prevent the discharge of untreated sewage in the drains as an interim measure. These officers may be asked to show definite progress and if this is still not achieved in the next four months NGT may consider having an adverse remark entered by the Chief Secretary in the Annual Report of the officers at

				been included in the Action Plan.	the instance of NGT as this is not a new responsibility and is not being grappled with any seriousness. (***Action: ACS PHED, ULB, CEO GMDA and Chief Administrator HSVP)***
	III. Diversion of sewage from Unapproved areas	Diversion of sewage from non-conforming areas (unapproved areas) cannot be completed until the construction of the Sewerage Conveyance System for the conforming areas is complete and operationalised.	It is submitted that the sewers are being laid and simultaneously the sewage fromunapprovedareasisalsobe inginterceptedtocarryittoexisti ngSTPs.As informed earlier, due to Covid-19 epidemic the work was stopped from the end of March 2020 to May 2020 and the works were also delayed due to the non-availability of labour. The detail of status of laying of sewer lines in approved areas and interception of sewage from unapproved areas.	The target date for diversion of sewage from non-conforming areas / Unapproved areas given by the State of Haryana needs to be squeezed so that domestic effluent can be intercepted and diverted to the nearest STP. Till then the Septage Management Policy of the State be strictly implemented.	16. Expedite the work of diversion of sewage from non-conforming areas to the STPs. ***(Action: ACS, ULBD***)
	IV. Water Quality in 11 Major Drains-	Water Quality and flow of 11 major drains discharging directly into River Yamuna are being monitored the Haryana State Pollution Control Board (HSPCB). Monthly Water Quality Data are not indicating the presence of	It is submitted that the water quality and flow of all major 11 drains are being monitored by HSPCB and Irrigation Department.	The Water Quality Data of 11 major drains are not matching with the data provided by the CPCB. The BOD level as per CPCB data is much higher,	17. Strict monitoring of Water Quality in 11 major drains which will reflect the status of domestic and industrial effluent

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<td>untreated effluent (506 MLD). Regional Officers of the HSPCB are not effectively monitoring the Water Quality of these drains</td>
<td></td>
<td>indicating that untreated domestic and industrial effluent is being discharged through these drains.
<table>
<tr><td>Name of the Drain</td><td>BOD (mg/l)by CPCB</td><td>BOD(mg/l)by State of Haryana</td></tr>
<tr><td>Dhanura Escape</td><td>630</td><td>180</td></tr>
<tr><td>Drain No.2</td><td>90</td><td>19</td></tr>
<tr><td>Drain no. 6</td><td>215</td><td>74</td></tr>
<tr><td>Leg 1</td><td>48</td><td>50</td></tr>
<tr><td>Leg 2</td><td>58</td><td>38</td></tr>
<tr><td>Badshahpur Drain</td><td>62</td><td>48</td></tr>
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</td>
<td>treatment in the catchment area.
(Action: Chairman, HSPCB)</td>
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<td>V. Sewerage Treatment in Villages</td>
<td>277 Nos. of Villages in the catchment area of River Yamuna are generating 90 MLD Domestic Sewage. The work of diversion and treatment in 24 villages out of 277 villages has been completed. The work is held up due to non-availability of funds.</td>
<td>It is submitted that, as per the latest status, out of the total 277 villages, the works have been sanctioned in 268 villages and got completed in 24 villages. There is no discharge at 9 villages. It is also</td>
<td>277 villages are in the catchment area of river Yamuna generating 90 MLD domestic sewage, so timelines are required to be squeezed.</td>
<td>18. Ensure that domestic effluent generated from the effluent from the remaining villages should be trapped and treated or Septage management policy implemented in</td>
</tr>
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			submitted that the work shall be completed by 31.03.2022 in these villages.		such villages to ensure zero discharge into drains leading to Yamuna., Government of Haryana need to either get decentralised STPs constructed or to set up Phyto-bioremediation projects as it has been going on indefinitely and according to present indications will have time overruns unless each case is decided on a location specific basis. (**Action: ACS, Development & the Panchayats Department)**
Important action to be taken.	**a) Status of Stand Alone ETPs**	The quarterly progress report for monitoring the stand alone ETPs installed in 800 industries operating in the catchment area of River Yamuna have not been received regularly from HSPCB department which indicates lack of proper monitoring and reporting.	It is submitted that the decision on the same was taken in the meeting of January 2020 and following the lock down, since many industries were closed down and no inspection could be done, the data could not be sent for the first two quarters. However, the data for 3rd quarter was submitted along with status report and report	The third quarterly report is yet to be received	19.Review the inspection policy for industrial pollution and to ensure that all large and medium highly polluting industries are inspected frequently and EC levied where called for. (***Action: ACS Envt and Climate Control0 and Chairman HSPCB)***

			for the 4th quarter shall be submitted within the due date.		
	b) Effluent Treatment in Private Residential Colonies / Condominiums	The Haryana State Pollution Control Board informed that there are 214 Private residential Colonies and Condominiums in the catchment of River Yamuna generating 82.1 MLD of sewage. The cumulative installed capacities of these 214 STPs are 241 MLD. These Residential colony condominiums are required to achieve ZLD. Out of these 314 STPs, only 13 STPs are found non-compliant which seems to be unrealistic. The HSPCB is not enforcing the ZLD stipulation and the effluent from these condominiums is being discharged either into the adjoining sewer or drains.	It is submitted that the Regional Officers of HSPCB have been given directions to check the compliance conditions of all colonies through special drives and the status and details of actions initiated shall be shared with RYMC.	The HYMC is yet to receive any status report regarding monitoring of STPs in the Private Residential Colonies and Condominiums achieving ZLD.	20. Review the inspection policy for Private Residential Colonies Condominiums. Assurances given are quite hollow compared with what the HYMC has reported from ground conditions. (Action: ACS Environment and Climate Control and Chairman HSPCB)
	c) Crop Diversification	HYMC emphasized that the State of Haryana should formulate a policy on crop diversification and use of treated waste water for agriculture purposes. This will be useful for conservation of ground water in the State. Except Gurugram, no significant process has been achieved for reutilization of treated domestic sewage. The incremental progress in this regard need to be monitored as it has impact	It is submitted that the State has already formulated the crop diversification policy and farmers are being persuaded to switch to crops other that paddy. During 2020-21, an area of 38,612 Ha has been diverted in the State. Further, with regard to the observation of RYMC on reutilization of treated effluent / sewage	The steps taken by State of Haryana for crop diversification in other areas should also be implemented in the catchment area of River Yamuna. Further, the Policy for reutilization of treated water for agricultural purpose may be	21. Formulate a policy and implement the same for reutilization of treated waste water for agriculture purposes throughout the states but particularly in the catchment area of River Yamuna. ***Action: ACS Irrigation /Agriculture)***

		on flow of water in Yamuna and dependence on river water for irrigation.	water, it is informed that the State has already notified the Reuse of Treated Waste Water Policy on 30.10.2020 and is in the process of preparing projects for re utilization of waste water and CADA has already prepared 3 projects for using the treated water from 3 STPs of Ladwa, Shahbad and Pehowa. Irrigation Department has prepared a project for re-use of treated water from a 30 MLD STP at Jattal Road of Panipat.	formulated for other towns in the catchment area of River Yamuna.	
	d) Bio-remediation or Phyto-remediation in Drains	There is no significant work for Bioremediation/ Phyto remediation of pollutants in 11 major Drains.	It is submitted that ULB Department has started bio/phyto remediation works in the drains in Municipal Corporation, Yamuna Nagar – Jagadhri, as a pilot project, which will be replicated at other places. Municipal Corporation of Sonepat has also invited tenders for the bio/phyto remediation of drains. Similarly, Municipal Corporations of Gurugram and Faridabad are in the process of preparing the proposals for	The work of Phyto remediation in drains is yet to be started. The efficacy of the phyto remediation in the drains shall be monitored after the completion of the Project.	22. for taking up the work of Bioremediation / Phyto remediation in all 11 Major drains through which effluent is being discharged in River Yamuna. ***(Action: ACS PHED and ACS ULBD)***

			bio/phyto remediation. Municipal Corporation of Panipat has already floated the tenders for the process in their jurisdiction. GMDA has also initiated a pilot project as an interim treatment for untreated discharge of Leg I via geo-synthetic dewatering tubes in consultation with CPCB. PHED has undertaken the *in-situ* phyto/bio remediation in its new STPs at Indri and Beri. Chief Secretary, during the review meeting held, has also directed that all concerned Departments shall expedite the work on Bio/Phyto-Remediation.		
	e) Environmental Compensation	The Government of Haryana has not submitted any details of the Environmental Compensation imposed and fixing accountability of the officers of the line departments for not complying with the directions/Order of Hon'ble NGT dated 11.09.2019.	It is informed that the State Pollution Control Board has been imposing environmental compensation on all the violating units in the State and till November 2020, an amount of Rs. 300 Cr. has been imposed by the Board and an amount of Rs. 4.67 Cr. has been collected. In this regard, it is also informed that the Board is also	Orders of Hon'ble NGT dated 11.09.2019 for imposing environmental compensation and fixing accountability of the officers is yet to be implemented.	23. Assign accountability on HSPCB as the poor recovery of less than Rs 5 crores against a levy of Rs 300 crores shows that the orders are only on paper and the most charitable explanation is that this is not a priority. It however reflects very poorly on the priority accorded by

			in the process of imposing EC for untreated effluent in drains / STPs and Chief Secretary has taken up the matter with individual administrative Secretaries for taking action against the erring officers		the Government and the lack of perseverance on the part of the officers. ***(Action: Chairman HSPCB and the ACS Environment***)

General:

The status available in the foregoing statement indicates that at numerous places responses and comments have been given without due verification. The remarks in Column 5 based on the findings of the HYMC present a picture of unsubstantiated claims in respect of several areas like upgrading or constructing new STPs, completing conveyance systems, making household connections functional, trapping sewage from unorganised habitations and shifting households or their polluting industries. The CPCB-NEERI Report of 2018 had made suggestions which have still to be acted upon. The delay in the construction of a conduit from Drain No. 6 to Abandon Drain No. 6 has been taken up with every new Chief Secretary after October 2018 but the work has not even started leading to huge pollution in Diversion Drain No 8 which had been pointed out by CPCB-NEERI. It would appear that even when an independent statutory body and a top scientific and technological National Institute have jointly given a report on the causes of pollution and nailed the hot spots the action taken has been lack-lustre. In each area wherever serious shortcomings have been observed, details have been given in column 5. The YMC has made efforts not only to pursue matters through the HYMC but has seen that the deficiencies and continuing problems were reported to the previous two Chief Secretaries of the state but despite assurances the progress is nowhere near expectations.

In NGT's order dated 11.09.2019 pertaining to the State of Haryana at Para 15(B)(vi)(vi) NGT had given directions on

Compensation and accountability and stated that the Directions given to NCT Delhi will apply to the State of Haryana also. Bioremediation and/or phyto remediation or any other remediation measures was to start as an interim measure positively from 01.01.2020, failing which the Govt. of Haryana may be liable to pay compensation of Rs. 5 Lakhs per month per drain to be deposited with the CPCB.

It was noted that "This however, is not to be taken as an excuse to delay the installation of STPs, sewerage network and its connectivity."

The Tribunal further noted:

"For delay of the work, the Chief Secretary, Govt. of Haryana must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department."

NGT may consider issuing directions to the Chief Secretary Haryana to show action taken in the face of the unsatisfactory progress which is evident from the reports and inspections undertaken.

Following are the glaring inaction on the part of the executing agencies.

A. **Yamuna Nagar and Jagadhri Township**- ULBD and HSIIDC have failed to take appropriate action in diverting and treating industrial effluent from Yamuna Nagar and Jagadhri Township. 66 MLD Untreated industrial and domestic effluent is still being discharged to the River Yamuna through Ditch Drain. The land for construction of 02 New CETPs are yet to be identified and timeline not given for the same. HYMC has flagged this issue since December, 2018.Further, The Haryana State Pollution Control Board failed to take action against the Industries operating in the non conforming areas and discharging untreated industrial effluent.

B. **Panipat Town-**The capacity of the existing STPs and CETPs are underutilized and untreated mixed effluent is reaching to River Yamuna through Drain No. 1 and 2. The target dates for diversion of Domestic and Industrial effluent are being extended regularly. HSVP and ULBD are responsible for this inaction.

C. **Sonepat Town-**The ULBD is regularly extending the target date for repairing of the trunk sewer line; thereby untreated domestic effluent is being discharged to River Yamuna through Drain No. 6. The ULBD is responsible for such inaction.

The target date for capacity augmentation in existing 4 non complying CETPs should be extended further. Appropriate action may be taken against the responsible officers of HSIIDC, in case the target date is extended beyond April, 2022.

D. **Faridabad**: The target date for construction of 5 New STPs and 2 CETPs should not be extended beyond October, 2022. Appropriate action may be taken against the responsible officers of Municipal Corporation Faridabad and HSVP in case of extension of target date.

E. **Gurugram**: The GMDA is regularly extending the target date for diversion of sewer from the Storm Water Drains to the nearest STPs. Untreated /Partially effluent is still flowing in Storm Water Drain, Leg-I, Leg-II and Leg-III (Badshapur Drain).Appropriate action may be taken against the responsible officers of Gurugram Metropolitan Development Authority (GMDA) in case of extension of target date beyond 31.12.2021.

F. **Standard Operating Procedure (SOP)for operation of STPs and CETPs**: The SOPs notified by the Government of Haryana are not being followed by PHED, ULBD, GMDA, HSVP and HSIIDC. The efficacy of the STPs and CETPs is affected for not following the SOP. Appropriate action may be taken against the responsible officers for not following the SOPs.

State of Uttar Pradesh and Pollution of the River Yamuna

S.No.	Issues as per YMC Final report of 29.6.20 and NGT's order of 6.7.20	Observations in YMC's report of 7.12.20	Comments of stakeholders/ parties	Comments of YMC on the reply received from the stakeholder concerned	Recommendations of YMC
13	State of Uttar Pradesh and Pollution of the Yamuna	The main sources of pollution in the Delhi stretch of river Yamuna from UP are the towns of Ghaziabad, Sahibabad and Loni and Noida. The cities of Sahibabad and Loni generate 575 MLD of sewage and there are 7 STPs of a total capacity of 427 MLD to treat the sewage. This leaves 148 MLD of untreated sewage which gets released into Sahibabad drain where it gets mixed with industrial effluent. Though earlier reports based on a WAPCOS study had estimated that out of 166 MLD, 74 MLD was being treated at Indirapuram STP and the balance 92 MLD was being released into the Shahibabad drain. For Indirapuri drain it was reported that it had a flow of 78 MLD out of which 30 MLD was being treated and the balance was released in the Indirapuri drain. Both the drains merge with Shahdara drain which meets river Yamuna at Okhla.	YMC has not received any response/comments on its report of 7.12.20 from the State of Uttar Pradesh	**1.** It is one year since assurances were given to prevent any sewage going into Sahibabad drain. This is not acceptable as there is no clarity about the timelines by which time all the STPs will become fully functional and also meet environmental standards. The UP PCB/CPCB should be asked to undertake an inspection of all the STPs and submit report to NGT/YMC within one month. Most of the STPs are non-functional, they are more than 20 years old and are at present not complying with the standard norms because of damaged civil structure	YMC recommends that Hon'ble NGT may consider issuing the following directions: **1.** Since Shahibabad and Indirapuri drains, which have a very high BOD/COD of 195/580 and 237/930 mg/L respectively and contribute substantial volume of both industrial and domestic sewage into Yamuna, the State of UP should complete the trapping of entire sewage and industrial effluent in these drains within next 3 months, failing which the directions contained inpara:15(A)(iv) of NGT's

		YMC held meeting with Chief Secretary and the various departments responsible to reduce pollution in river Yamuna; on 28.9.20 on the issues covered in the report of YMC dated 29.6.2020 and the order dated 6.7.2020 of NGT. As a follow up of the meeting with the Chief Secretary, U.P. Govt. submitted the status report on various points related to reduction of pollution in River Yamuna. Independently YMC commissioned Mr. R.S. Tyagi, Former Member (Dr), Delhi Jal Board assisting YMC as Technical Expert to undertake a field visit, hold discussion with the UP officers and give a report to the YMC. Separately a report from CPCB was also called about the status of sewage in the drains as well as on the functioning of STPs and CETPs. 1. **Sewage in Shahibabad and Indirapuri drains**:There has been a dispute over the quantum of flow in Shahibabad drain. In WAPCOS study the flow assessed was 166 MLD, out of which 74 MLD was to be treated but not actually being treated due to limitation of capacity of the outfall drain at Shahibabad and the balance		as well as faults in the electrical and mechanical equipment. The "One City One operator" system is expected to remove deficiencies by February 2021. A report on this will be required from the State. **2.** In-situ Phyto /Bioremediation based treatment method as a short term measure for cleaning of wastewater in Banthala Canal and Indirapuri Drain has been initiated on a pilot scale. YMC needs to be given present status of the work. **3**. Shri Ram Institute of Industrial Research, New Delhi has been requested by U.P. Jal Nigam, Ghaziabad to measure the-flow in Sahibabad Drain. This needs to be completed in a fortnight	order dated 11.9.19 should be invoked: *"For delay of the work, the Chief Secretary, State of Uttar Pradesh must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department.* *i). The State of Uttar Pradesh will be liable to pay Environment Compensation if defaults take place as under:* *a). The operational deficiencies of the existing STPs must be rectified within three months failing which Environmental compensation of Rs. 5*

92 being released into the drain. The Govt of UP however maintained that the drain has flow only of 90 MLD of which 74 MLD is being treated at Indirapuram STP. The YMC has received a report from the CPCB and have submitted the following flow data on Shahibabad and Indirapuri drains for the month of November 2020:

Name of the drain	**Discharge in MLD**	**BOD mg/L**	**COD mg/L**
Sahibabad Drain	36.5	195	580
Indirapuri Drain	26	237	930

YMC had asked for a third party independent assessment of the flow in these drains in its Report of 29.6.20. Accordingly, UP Govt has asked Shri Ram Institute of Industrial Research, New Delhi Institute by U.P. Jal Nigam,

and a report made available to CPCB, UP PCB and the YMC to enable the YMC to furnish its response to NGT on further action to be taken on the capacity of the STP that will be required to be set up at Shahibabad so that the drain does not carry any sewage.

4. There is some progress in taking the work of renovation of STPs by M/s VA Tech Wabag. Chennai. These STPs are 74 MLD STP Indirapuram. The firm is doing renovation of 70 MLD STP Dundahera, 56 MLD STP Indirapuram and 30 MLD STP Loni and it will be completed by end of Feb, 2021. Further progress on the upgradation of STPs and removal of their functional deficiency should be reported by the

Lacs per month for STP shall be deposited with CPCB……."

2. CPCB and UPPCB should jointly assess the STPs at Ghaziabad, Dundahera, Shahibabad, Indirapuram and Loni with regard to their functionality, capacity utilisation and compliance to standards and submit a report to the Tribunal/YMC within one month. The joint team should also give its comments on the functional upgradation being undertaken by the State and whether the work can be completed as per the schedule given by the State of UP.

3. The joint team constituted by District Administration, Ghaziabad, should undertake inspections of industries in non-

		Ghaziabad on 02.11.2020 to undertake the flow measurement and settle the dispute once and for all. Once the correct flow is known it will help the state government to decide on the capacity of the STP that is needed to treat sewage in the Shahibabad drain. Even if the final report is not received by that time an interim report be submitted to YMC. **2. Action Plan for treatment of Waste water in Shahibabad drain:** The UP Govt submitted the following two pronged action plan under implementation for treatment of sewage in Shahibabad drain: a) 74 MLD discharge of Shahibabad can be treated through 74 MLD STP at Indirapuram. Presently, however, only a part of the 74 MLD sewage in Shahibabad drain is pumped and treated at this STP as the outfall drain for the treated water does not have sufficient capacity to carry combined effluent of l86 MLD from 3 STPs (56+56+74) at Indirapuram. A DPR for laying of treated sewage pipeline from 74 MLD STP Indirapuram to storm water drain situated along NH24 in		UP Jal Nigam and the UP PCB. **5.** As per the status report certain work of pipeline and IPS in the catchment of Shahibabad drain had been promised to be completed by November 2020 and February 2021. Present status of the works be informed to the YMC for submitting compliance status to the NGT. **6.** UP PCB should also furnish report on functioning of CETPs, the status of industrial pollution from Loni and Shahibabad industrial areas. **7.** Mechanism needs to be worked out for recovery of EC levied on industries/ defaulting units otherwise the purpose of levying EC will get defeated. Data on	conforming areas on a regular basis as the industries once closed have a tendency to restart. Strong punitive action under the Water Act/ Municipal Acts is needed with zero tolerance for industrial discharge from particular areas. **4.** The State of UP should in coordination with DDA take effective steps for rejuvenation and protection of the floodplains and submit a status report on demarcation, eviction of encroachments and rejuvenation work done on the UP portion of the floodplains. **5.** A decision also should be taken on the cost sharing of the floodplain rejuvenation works and funds made available to DDA for rejuvenation of UP portion of the

		2500 m length, for disposing combined effluent of all the three STPs has been approved. The work of laying of pipeline had started on 01-02-2020. Laying of 2100 m (84%) pipeline against 2500 m had been completed. The pipeline work has been delayed due to Covid19, monsoon and public utilities such as Electricity cables, IGL gas pipelines, sewer lines and water supply lines etc falling in the pipeline alignment. The balance work was expected to be completed by Nov, 2020. YMC decided to get this inspected to see the outcome. b) Due to insufficient pumping capacity in the Sahibabad Drain catchment area, the sewage is being pumped temporarily into Sahibabad Drain. To address the remaining 16 MLD discharge (90-74) an additional Intermediate Pumping Station of l7 MLD capacity is under construction at Vijay Park in Shalimar Garden (Main) under AMRUT. Sewage from Shalimar Garden, DLF Colony, Vikram enclave. Jawahar Park and Shaheed Nagar area will reach the l7 MLDIPS The overall progress of lPS is 80%. Alter		Enforcement action taken should be uploaded on the website of the UPPCB. **8.** Regarding Septage management, the work of setting up of 32KLD capacity Faecal Sludge Treatment Plant (FSTP) in Loni was to be completed by December 2020 and in Ghaziabad, setting up of 50 KLD Capacity FSTP will be completed after six months. The State Government is required to submit its response and status report to the YMC. **9.** To assess the status of implementation of the Action Plan for trapping sewage in Shahibabad and Indirapuri drains, removal of functional deficiencies in the STPs at Indirapuram and setting up FSTPs and to confirm if the milestones given in the YMC report of 7.12.20	floodplains as agreed between the two states.

		completion of IPS this 17 MLD sewage shall be treated at 56 M LD STP at Indirapuram. **Once completed, together with work at (a) above, the Sahibabad drain will not carry any sewage by end of, by December, 2020.** YMC decided to get this inspected in January 2021 to see the outcome. **3. Treatment of Sewage in Loni drain**: As per earlier report out of 78 MLD of sewage in Loni drain, 30 MLD was being treated at Indirapuri STP. This STP during inspection by Shri Tyagi, Technical Expert was found non-functional. The drain carries 26 MLD of sewage and industrial effluent with high COD (903 mg/L) needs immediate intervention. DPR for 60 MLD STP has been submitted to NMCG and will take two years after its sanction. The enhanced capacity will also treat sewage in Banthala drain. In the interregnum it is proposed to treat the untreated waste water of Banthala Canal drain and Indirapuri Drain by in-situ. Bio-remediation work is to be carried out by respective Nagar Nigam / Nagar Palika Parishad.		have been achieved, YMC deputed a team of Prof Singh of DTU and Mr Rs Tyagi to inspect and give a report after site inspection. The report has since been received and has been placed on the website of the YMC under "Report of Experts". As per the report: **i.** the 2500 metres pipeline work for complete trapping of 74 MLD from Shahibabad drain will be ready by 10.1.21 **ii.** Pumping station for conveying balance 16 MLD (90-74) MLD of waste water in the drain to 56 MLD STP at Indirapuram under rehabilitation will be ready by 20.1.21. **iii.** Functional deficiencies in 74 MLD STP have been removed. **iv.** Loni STP of 30 MLD will be upgraded by 31.3.21.	

		4. Status of One- city-one operator scheme in the cities of Ghaziabad, Sahibabad and Loni: The Principal Secretary Urban Development had assured the YMC on 31.12.2019 that the one city one operator scheme had been handed over to M/s VA TECH WABAG LTD and in 6 months the completion, trapping and treating of Sahibabad and Loni drains would stop sewage related pollution going into the Delhi drain. The Company representative also was present and confirmed this. It appears now that there is a conditionality which needs that the STPs are rectified and made functional before they're handed over to the operator and that work itself will take 6 months. As per the latest report submitted by U.P. Govt deficiencies in 74 MLD STP Indirapuram have been removed and renovation works of 70 MLD STP Dundahera, 56 MLD STP Indirapuram and 30 MLD STP Loni will be completed by end of Feb, 2021. The state had been asked to give a progress report.		**v.** Upgradation of 2 STPs of 70 MLD at Dundahera and 56 at Indirapuram will be completed by Feb' 21. **vi.** 32 KLD FSTP for Septage treatment at Loni will be ready by 30.1.21. **vii.** 50 KLD FSTP at Ghaziabad for septage will be ready 30.4.21. The team made the following recommendations: **I.** The U.P.J.N. must adhere to the timelines for completion of their projects mentioned above. Ghaziabad Nagar Nigam must take up intensive awareness program, do regular challans of the defaulters and clean the drain regularly to maintain the flow in the drain to avoid formation of noxious gases and stench.	

		5. Status of implementation of septage management policy in the towns of Sahibabad, Loni and Ghaziabad: Septage management policy was to be implemented by November 2020. The Policy has since been approved. The work of setting up of 32 KLD capacity FSTP in Loni will be completed by December 2020 and in Ghaziabad, setting up of 50 KLD Capacity FSTP will be completed after six months, No specific date has been mentioned. The state was asked to give a status report. **6. Status of in-situ bio/phyto remediation in drains:** A Pilot Project for in-situ bio/phyto remediation in drains has been started at Arthla Drain Ghaziabad and same is planned to be adopted in other drains, if successful. The timelines and further plan of action is however quite vague. The monthly test results of the treated water in this drain and outcome of the pilot project had been agreed to be shared with YMC.		UPSIDC must renovate some culverts creating hindrance to the flow in Sahibabad drain **ii.** UPPCB must take heavy action against polluting industries in conforming and non-conforming residential areas to avoid air and ground water pollution as the bed of Sahibabad drain is kacha. **iii.** U.P.J.N. with the consent of Ghaziabad Nagar Nigam should construct decentralized STP for treating the waste water at the source itself coming from the unauthorized and unsewered colonies on the North of Wazirabad Road to reduce the load of polluted water in Sahibabad drain. The treated effluent can be used for irrigation in nearby agricultural lands.	

		7. Installation of OEMS/OLMS in STPs and ETPs/CETPs and their connectivity to UPPCB and CPCB servers: The bids for Design, Supply, Installation, Testing & Commissioning of Online Continuous Effluent Monitoring System (O.C.E.M.S.) of STP's, including five years Operation and Maintenance have been received. Evaluation of technical bids is under process. After completion of tender process, the work will be completed within 12 months. YMC is of the view that the timelines need to be further squeezed. The State Government has not given the updated progress report to YMC. **8. Stoppage of untreated industrial from industries in conforming areas of Loni and Sahibabad and present status of enforcement action against the defaulting industries:** • Show cause notices were issued against 25 defaulting units in Sahibabad area under Water Act of 1974.		**iv.** Instead of taking domestic discharge of 17 MLD from J-Point to Indirapuram STPs which have no spare capacity UPJN with the requisition of Ghaziabad Nagar Nigam may refurbish existing SPS of 20 MLD capacity and construct decentralized STP of 20 MLD capacity at J-Point itself where sufficient land is available for construction of STP. The treated water from this STP can be used in the nearby parks and for rejuvenation of existing water body (as informed by the residents of the area). **v.** Ghaziabad Nagar Nigam may adopt enzyme treatment/ Bioremediation to reduce odor in the drain water. It is proposed to forward a copy of the observation	

		• Closure orders issued against 05 defaulting units in Sahibabad. • Disconnection of electricity and sealing of two defaulting units in Aryanagar and Loni industrial area by the Joint Team. • Recommended disconnection of electricity to EE, UPPCL against 01 defaulting unit in Sahibabad area • EC of Rs. 248.75 Lakhs imposed against defaulters. YMC had advised that UPPCB/ District Level Committees constituted by the local administration must ensure regular vigilance on the industries and take action against the defaulting industries causing pollution. Monthly report in this regard may be uploaded on their website. Mere levying of EC may not prove to be a deterrence. What is important is that a mechanism for recovery of EC needs to be worked out. The State Government in its reply should give an updated progress report to YMC. **9. Status of enforcement action against industries in non-conforming areas in Loni and Sahibabad. Whether**		and recommendations of the Team to the State Government for their comments and further action. **10.** U.P has decided to release Rs 10.49 crores for development of 86 hectare in phase-I against a total demand of Rs 35 crore for development of 167 hectares.DDA has informed the YMC that a demand for a total of Rs 98 crores has been placed with the Government of UP for floodplain restoration work in UP portion of floodplain in Delhi. UP Government needs to furnish its stand on the request of DDA.	

		the industries ordered to be closed have actually been closed: • Total 435 no. of illegal units were demolished and 10 no. of illegal units were sealed by Joint Team in Krishna Vihar, Phase-II, Amit Vihar, Behta Hazipur & Farukhnagar, Loni in Ghaziabad • Recommended disconnection of electricity to Ex. E, UPPCL against 01 illegal unit in Bhopura Sahibabad area. • EC of Rs. 1.35 Lakhs imposed against defaulters. YMC had said that mere levying of EC will not provide enough deterrence and mechanism for recovery of EC needs to be worked out. Also the effort at stopping such activity has to be of continuing nature else such illegal activities have a tendency to resurface once enforcement effort slackens. Monthly report in this regard should be uploaded on the website of UPPCB. **10. Status of administrative measures to protect and safeguard floodplains against encroachment, illegal dumping of C&D waste and unauthorized cultivation**:			

		The Irrigation (Department of UP?) decided to get the flood plain maps for river Yamuna in NCT area prepared by I.I.T Delhi in consultation with DDA. The DDA has already submitted the flood plain map before the Hon´ble court of NGT. UP Irrigation Deptt., informed that it is keeping continuous watch-and-ward to protect the flood plain from any pucca constructions and has physically verified that the demarcated area is free of any pucca constructions. Irrigation& Water Resources Department, UP has defined the Eastern marginal bund as the boundary of the flood plain zone (on the land of U.P Irrigation Department) upstream of Okhla Barrage in the area of NCT Delhi / UP in 2015. It has also demarcated the floodplain by fixing bollards at the extreme edges of flood plain. The department is also keeping continuous watch-and-ward over illegal encroachments and dumping. Presently there is no solid waste /debris existing on the UP Irrigation			

		land. In future violation of directions relating to dumping of debris and resulting compensation will be implemented as per directions given by Hon´ble NGT. Govt. of U.P. has also given permission to DDA for installing of CCTV cameras in U.P portion. YMC had informed the UP Irrigation Department about dumping of C&D waste near NOIDA, presence of heavy earth moving machinery on the floodplain and disappearance of water bodies as informed by SANDRP- a Delhi civil society organization to the YMC. SANDRP report was sent to Irrigation Department on 21.09.202.The pictures attached to their report showed impermissible activities allowed in violation of NGT's order. YMC has received no response to that letter. A status report was asked to be furnished to YMC within a fortnight. **11. Status of the pending litigation in respect of the 3835 big has (about 700 acres) of floodplain land between UP, DDA and 221 others**:		

		Execution no.45449/2016 state of UP vs DDA & 221others is pending in Karkarduma court, Delhi is pending for taking repossession of the land which is to be used for the development of wetland development on the eastern bank of River Yamuna and is being pursued by the Department as stated by the State Govt. YMC has pointed out to the State government that since the vast tract of floodplain land has been under litigation since 1972 effective steps needs to be taken by the State to arrive at early closure else the floodplain will continue to be used for non-permissible activities. **12. Status of rejuvenation of 167 hectares of UP portion of floodplains through DDA and whether the funds for the purpose have been transferred**: U.P Irrigation was to release Rs 35 crores to DDA by U.P Irrigation Deptt. for rejuvenation of 167 Hectare of flood plain of U.P. U.P has decided to release Rs 1049 Lakhs for development of 86 hectare in phase-I. YMC has not been informed			

		what the terms and conditions of releases by the UP Government are. DDA has stated in its response which is contained in the Chapter 2 of this Report that the money is yet to be received. Further, DDA have sought additional funds from UP State Irrigation for the rejuvenation of the flood plains. The State Government must see that a joint meeting with VC DDA is held to decide on the matter.			

Status of 'Restoration and Rejuvenation of River Yamuna floodplains (01st January 2020)

S. No	Project Area	Area	Approvals	Landscape Proposal	Present Status
1.	Old Railway Bridge to ITO Barrage (Eastern Bank) – **Asita East**	**90 Ha.** with DDA	Screening Committee Approval: 352nd SCM dated 21.07.2017 Estimates Approval Committee: Amount 13.27 Cr. Approved on 27.08.2019	• Largest open area in the densely populated East Delhi. • The Northern edge is in close proximity to the river encouraging River people connect. • Greenway comprising of walkways, trails and public interactive spaces. • Dedicated spaces for the kids, elderly and yoga meditation spaces etc. • Walk along the wetlands, grassland and floodplain forest. • Selfy point to attract public (under progress) • Existing rose gardens retained.	Civil work Completed 100% Hort. work Completed 95%
		107 Ha. with UP Irrigation Department	Screening Committee Approval: 352nd SCM dated 21.07.2017 Estimated cost : 35 Cr.	• Facility for parking • Urban plaza streetscape comprising of open gym, kids plays facilities, seating areas and kiosks. • Area also having existing wetlands. • Kachcha trails for the connect to the River.	Estimated cost sent to UP Irrigation Department on thumb rule basic. No funds from UP Irrigation Department received till date
2.	NH24 to DND Flyway (Western Bank)	**100 Ha.** with DDA	Screening Committee Approval: 346th SCM dated 11.01.2017 Estimates Approval Committee: Amount 25.4 Cr. Approved on 27.08.2019	• Continuous open green public spaces developed along with the DND flyway. • Largest public refuge area for the Kilokari, Maharani Bagh and nearby residential areas. • Direct pedestrian connectivity from the adjacent areas • Barapullah drain is treated by Department of Biotechnology, GoI as a pilot project, the abutting area is being developed as Demo park. • Public useable spaces for the all age groups comprising of Kids area, Yoga area and multipurpose spaces. • A network of wetlands created along the greenway with connecting swales. • Floodplain forest experience in South Delhi.	Civil work completed 98% Hort. work Completed 70%

Status of 'Restoration and Rejuvenation of River Yamuna floodplains (01st January 2020)

S. No	Project Area	Area	Approvals	Landscape Proposal	Present Status
3.	Old Railway Bridge to ITO Barrage (Western Bank)- **Asita West**	**107 Ha.** with DDA (Total area: 200 Ha (93Ha already completed))	Screening Committee Approval: 346th SCM dated 11.01.2017 Estimates Approval Committee: Amount 21.47 Cr. Approved on 08.09.2020	• In close proximity to the densely populated Old Delhi residential areas • Greenway along the Geeta Colony Bridge and Ring Road Bypass comprising of kachha Cycle tracks, walkways and public interactive spaces. • Restoration of the existing depressions and creation of new wetlands • Treatment Zone for treatment of waste water from Shanti Van Drain at its outfall • Adventure Zone for kid's with provision of cycling trails • Development of open air theatres in a sustainable manner	30.06.21 (for the balance 107 Ha area) The work has been started at site.
4.	DND to proposed Kalindi By-Pass (Western Bank)- Khijrabad (Entrusted to CEMDE)	**115 Ha.** with DDA	Screening Committee Approval: 346th SCM dated 11.01.2017 Estimates Approval Committee: Amount 13.59 Cr. Approved on 21.10.2019 for constructed treatment wetlands	• The Second Biodiversity park along the River Yamuna after Yamuna Biodiversity Park in the North Delhi. • A treatment wetland system for in-situ bio-remediation to treat the raw sewage of approx. 1420 MLD coming from 09 drains. • Revival of lost ecology Excavation of the wetlands, earth used for making embankments, pathways, trails and for making islands serving as recreational spaces. • Development of grasslands and marsh communities. • Future destination for scientific research on Yamuna's native flora and fauna.	31.03.21 (for construction of wetlands)- As communicated by Prof. C.R. Babu

S. No	Project Area	Area	Approvals	Landscape Proposal	Present Status
5.	Wazirabad Barrage to ISBT Bridge (Eastern Bank) around Garhi Mandu Village & Usmanpur Village. Near Signature Bridge	**236.5 Ha.** with DDA	Screening Committee Approval: 385th SCM dated 23.09.2020 & 346th SCM dated 11.01.2017 Estimates Approval Committee: Amount 13.65 Cr. Approved on 01.12.2020	• A linear open green space interspersed with a series of waterbodies along the Pushta Road near Signature Bridge • Treatment Zones for waste water from Garhi Mandu and Usmanpur villages • Restoration of the existing depressions into waterbodies • Greenway along the Pushta Road and ISBT Bridge comprising of kachha Cycle tracks, walkways and public interactive spaces. • Pedestrian promenades connecting to the central waterbody and the River • Large parcels of land allotted to other agencies for compensatory plantation in lieu of felling of trees for infrastructure projects	30.09.21 The Tender has been called.
6.	ITO to NH-24 (Eastern Bank)-Area South of CWG Village Area	**90 Ha.** with DDA	Screening Committee Approval: 385th SCM dated 23.09.2020 Estimates Approval Committee: Amount 74.74 Cr. Approved on 04.11.2020	• Large green in the heart of the city opposite Common wealth games village. • Hydrological potential of the site explored and running streams proposed to retain water all through. • Use of Gabion structure in the form of retaining walls, seating etc. • A 4 mt. wide elevated boardwalk first of its kind provided to connect to the river as a pilot project. • Inviting Entrance plaza with seating and public amenities provided. • Public interactive spaces strategically placed.	31.08.21 The Tender has been called. The work is yet to start at site.

Status of 'Restoration and Rejuvenation of River Yamuna floodplains (01st January 2020)

S. No	Project Area	Area	Approvals	Landscape Proposal	Present Status
7.	Wazirabad to old Railway Bridge (Western Bank) Qudsia Ghat (Entrusted to INTACH)	**16 Ha.** with DDA Total area: 66 Ha (Sur Ghat-13.6Ha, Eco-trail-33 Ha, Qudsia Ghat-16 Ha, Yamuna Bazaar Area- 3.4 Ha	Screening Committee Approval: 385th SCM dated 23.09.2020 for 05 Ha area. 388th SCM dated 04.12.2020 for 16 Ha area. Estimates Approval Committee: Amount 13.87 Cr. Approved on 04.11.2020 for 05 Ha areas. Approval for the total 16 Ha. area is to be taken-up.	• Entrusted to INTACH, since it has a cultural and historic significance as per the directions of the Hon'ble NGT • A part of the broader strategy of 66 Ha comprising of Sur Ghat, Qudsia Ghat, Yamuna Bazaar area etc. • Restoring the Historic connect of the Qudsia Bagh to the Ghat area • Development of the Char Bagh concept at the entrance with Baradaris and chattris • Redevelopment of the ancient Ghats • Serves as a connection to the Yamuna Aarti Sthal and the Yamuna Bazaar area through walkways and trails	30.06.21 only for Qudsia Ghat 16 Ha
8.	NH-24 to DND Flyway (Eastern Bank) Part Area-I	**235 Ha.** with DDA	Screening Committee Approval: 346th SCM dated 11.01.2017 Area under dispute due to land issues. Proposal will be re-worked.	• The largest green open area at the Delhi NCR border, will serve as an greenlungs between Delhi and Noida • Native flora and fauna will restore the riparian ecosystem of the floodplains. • The area under the Barapullah elevated corridor Phase-3 has been designated as "cultural gully" for public interface and cultural recreational usage. • The greenway will allow public to enjoy serene environment along the floodplains.	Proposal to be revised due to pending land issues.

S. No	Project Area	Area	Approvals	Landscape Proposal	Present Status
8.		**162.75 Ha.** with UP Irrigation Department	Screening Committee Approval: 346th SCM dated 11.01.2017 Work will be taken-up after the receiving of the funds from UP Irrigation Department. Estimated cost: 53 Cr.	• Facilities for the parking • Arrival courts for the inviting entry. • Congregational spaces for the multipurpose use for the general public. • Cultural gully for the active recreational use comprising of kids play area, yoga / meditation zones, seating niches, open gym spaces etc. • Wetlands for the revival of the ecosystem. • Riverine plantation for eco system restoration.	Estimated cost sent to UP Irrigation Department on thumb rule basic. No funds from UP Irrigation Department received till date
9.	NH-24 to DND Flyway (Eastern Bank) Part Area-II-**Hindon Cut Wetlands I&II** (Entrusted to CEMDE)	**15 Ha.** with DDA	Land under litigation/ land issues. Proposal will be taken-up after clarity on land.	• Treatment wetlands to treat the raw sewage coming from the Hindon Cut Canal entering the floodplains through Chilla village • Revival of earlier connect to the River • Development of grasslands and marsh communities. • Future destination for scientific research on Yamuna's native flora and fauna.	31.10.21 (for construction of wetlands) As communicated by Prof. C.R. Babu 31.10.21 (for construction of wetlands) As communicated by Prof. C.R. Babu.
		30 Ha. with UP Irrigation Department	Work will be taken-up after the receiving of the funds from UP Irrigation Department. Estimated cost: 10 Cr.	• Constructed Treatment wetland at the outfall of the Hindon cut falling into the floodplains to treat raw sewage. • Kachcha trails and walkways • Riverine plantation for the revival of the ecosystem.	Estimated cost sent to UP Irrigation Department on thumb rule basic. No funds from UP Irrigation Department received till date

Status of 'Restoration and Rejuvenation of River Yamuna floodplains (01st January 2020)

S. No	Project Area	Area	Approvals	Landscape Proposal	Present Status
10.	Geeta Colony Bridge to ITO Barrage (Western Bank) **Eco-Tourism Bundh**	**30 Ha** with DDA	Screening Committee Approval: 352nd SCM dated 21.07.2017 Land yet to be retrieved. (14 Ha land is with DESU (IPGCL) Land department has been requested to take back the land)	• The only area outside 1 in 25 years floodplains. • The area will act as a magnet for general public helping in boosting public awareness and eco-tourism. • The proposed state of art River Museum and Oceanarium about the Yamuna's journey and its restoration and rejuvenation works. • This will be one of its kind example of restoring degraded landscape, involves detoxification of flyash dump of Raj-Ghat power plant. • It's a transition link between the Riverine Ecology and tourism hence its name.	Pending land issues.

NOTE:

***"Completion" of the ten projects** is as per the directions of Hon'ble NGT orders which consist of majorly **"Protection of floodplains" and "Restoration of the wetlands " and "Connect to the river" for the general public.** These compliance to the Hon'ble NGT orders are considered as Phase 1 and after the completion of the Phase 1 as per the timelines, further works at detailed level can be taken up in Phase 2 & 3 which includes Entrance plazas, utilities and amenities etc.*

The expenditure taken-up for the removal of encroachments/ demolition programmes and protection of the floodplains are NOT the part of estimates taken-up for the development/ restoration and rejuvenation of the floodplains of River Yamuna works.

The timelines has been revised and as per the latest timelines submitted to Monitoring Committee on 22nd December 2020, most of the projects would be completed by September 2021 except for the ones which have some land issues.