

T-03/2016-17/534/NMCG/Phase-II/Vol.II
National Mission for Clean Ganga
Ministry of Jal Shakti, Government of India

1st Floor,
Major Dhyan Chand National Stadium
India Gate, New Delhi-110002
Dated: 10th October, 2019

OFFICE MEMORANDUM

Subject: Minutes of 10th Meeting of the re-constituted Principal Committee in the matter O.A. No. 06 of 2012 — Manoj Mishra Vs Union of India & Ors held on 30.09.2019 at 03.00 PM

A copy of Minutes of Meeting of Principal Committee held at Conference Room, Ministry of Jal Shakti on 30.09.2019 at 03.00 PM under the Chairmanship of Secretary, DoWR,RD&GR, Ministry of Jal Shakti is forwarded herewith for information/ necessary action.


(D. P. Mathuria) 10.10.2019

Executive Director (Technical)
Member Secretary, Principal Committee

Encl: As above.

To:

1. Shri Shashi Shekhar, Expert Member, C – II/155, Satya Marg, Chanakyapuri, New Delhi – 110021
2. Additional Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi – 110032
3. Joint Secretary, Ministry of Water Resources, RD&GR Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi, Delhi 110001
4. Chief Secretary, GNCTD, Delhi Secretariat, IP Estate, Near Indira Gandhi Indoor Stadium, Delhi - 110002
5. Secretary, Irrigation Department, Govt. of Haryana, Haryana Civil Secretariat, Sector-1, Chandigarh, Haryana
6. Secretary, Irrigation Department, Govt. of Himachal Pradesh, H.P. Secretariat, Shimla-171002
7. Secretary, (UP) Irrigation Department, Babu Bhawan Sachivalya, Government of UP, Lucknow – 226 001
8. Secretary, Irrigation Department, Govt. of Uttarakhand, 4 Subhash Road, Secretariat, Forth Floor, New Building Dehradun, Pin code-248001
9. Secretary, Department of Environment, Govt. of NCT of Delhi, 6th Floor, Delhi Secretariat, IP Estate, New Delhi (Fax – 011 23392034)
10. Secretary, Department of Irrigation & Flood Control, Varunalaya Complex (Phase-II), Karol Bagh, New Delhi-110005

11. CEO, Delhi Jal Board, Delhi Jal Board, Varunalaya Complex (Phase-II), Karol Bagh, New Delhi-110005
12. Dr. A. K. Gosain, Professor of Civil Engineering, Indian Institute of Technology Delhi Hauz Khas, New Delhi - 110 016
13. Dr. C. R. Babu, Centre for Environmental Management of Degraded Ecosystems, School of Environment Studies, University of Delhi-110007.
14. Dr. A. A. Kazmi, Civil Engineering Department, Indian Institute of Technology Roorkee, Roorkee, Uttarakhand 247667
15. Shri.U.W.Hood, Group General Manager (Projects), National Capital Region Transport Corporation (NCRTC), 7/6, Siri Fort Institutional Area, August Kranti Marg, New Delhi -110049
16. Shri. S. A. Verma, General Manager (Environment), Delhi Metro Rail Corporation Limited
17. Chief Engineer, Zone-I, Department of Irrigation & Flood Control, Varunalaya Complex (Phase-II), Karol Bagh, New Delhi-110005
18. Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
19. Vice Chairman, Delhi Development Authority, Vice-Chairman Office B- Block, 1st Floor Vikas Sadan, New Delhi-110023.
20. Director, National Institute of Hydrology, Roorkee – 247667, Uttarakhand,
21. Principal Secretary, Department of Environment, U.P., Room No. 601, Babu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.
22. Principal Secretary, Urban Development Department, 824, Babu Bhawan Lucknow, Uttar Pradesh – 226001
23. Member Secretary, Delhi Pollution Control Committee, Government of N.C.T. Delhi, 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006
24. Chief Engineer (Yamuna), Department of Irrigation UP
25. The Chief Administrator, Haryana Shehri Vikas Pradhikaran (HSVP/HUDA), Sector 6, Panchkula, Haryana
26. The Director, Urban Local Body, Bays No 11-14, Sector 4, Panchkula, Haryana
27. The Engineer-In-Chief, Public Health Engineering Department, Haryana, bays no 13-18, sector 4, Panchlula, Haryana
28. The Engineer-In-Chief, Irrigation & Water Resources Department, Haryana, Sichai Bhawan, Sector 5, Panchkula, Haryana
29. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector 6, Panchkula, Haryana 134109

Copy for kind information to:

1. PPS to Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti,
2. Members, Monitoring Committee (Yamuna)
3. Director General, NMCG
4. PS to ED (Projects/ Finance/Admin), NMCG

Minutes of 10th Meeting of the re-constituted Principal Committee held at Conference Room, DoWR, RD&GR, Ministry of Jal Shakti

10th meeting of the re-constituted Principal Committee in the matter OA No. 6 of 2012 was held on 30.09.2019 at Conference Room, DoWR, RD&GR, Ministry of Jal Shakti under the Chairmanship of Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti. The list of participants is at **Annexure-I**.

Following discussions were held in the meeting:

Agenda 1: National Capital Region Transport Corporation (NCRTC)'s proposal for "construction of elevated viaduct of Delhi-Ghaziabad-Meerut, Regional Rapid Transport System (RRTS) corridor through Yamuna Floodplain O-Zone".

Member Convener PC informed that the proposal was discussed in the 7th meeting of Principal Committee held on 22nd May 2019. In the meeting, it was decided that the final recommendation on the proposal will be made after consideration of the final Environment Impact Assessment (EIA) report and site visit by the Principal Committee. Subsequently, the report of the site visit undertaken by a sub-group of Principal Committee was circulated with the members of Principal Committee. Further, the final Environment Impact Assessment (EIA) Report submitted by NCRTC was also circulated with the members of Principal Committee for comments. However no comments were received on EIA report.

Group General Manager, NCRTC presented background of the proposal (presentation at **Annexure-II**) as below:

- 1.1 National Capital Region Transport Corporation, a Joint Venture Company of Govt of India and State Governments of Delhi, Haryana, Rajasthan and Uttar Pradesh has been mandated to implement Regional Rapid Transit System (RRTS) in NCR. RRTS is a dedicated high speed (maximum operational speed 160 kmph) rail based mass commuter transit system connecting various nodal towns in NCR with Delhi. In the first phase of this project, three RRTS corridors namely Delhi-Ghaziabad-Meerut, Delhi-Gurugram-Rewari- Alwar and Delhi-Panipat have been taken up.
- 1.2 Delhi-Ghaziabad -Meerut RRTS corridor (82.15 Km) originates from an elevated terminus station at Sarai Kale Khan in Delhi and ends at Modipuram in Meerut in U.P. The elevated viaduct of this RRTS corridor passes through Yamuna Floodplain "O Zone" for a length of 3.46 Km including a bridge over river Yamuna. The elevated

viaduct comprises of 2 – 3 m dia RCC piers spaced generally at 30 – 35 m centre to centre founded on pile foundations. The pillars for the crossing of Yamuna river flow at spacing of 42.5 m centre to centre (total length – 665 M) shall be aligned with the pillars of the adjoining DND flyway bridge. Central Water and Power Research Station (CWPRS) Pune under Ministry of Jal Shakti, who were engaged by NCRTC for carrying out the hydraulic model studies, has recommended that the above bridge is found hydraulically satisfactory in respect of river morphology. CWPRS has further stated that the construction of this bridge will not cause any major change in the river regime in the reach under consideration and it will not induce any changes in the flow conditions that pose difficulties to the downstream DND bridge.

- 1.3 In response to NCRTC's request for the grant of approval for the above viaduct passing through Yamuna flood plain, the Technical Committee of Delhi Development Authority (DDA) granted in-principle approval subject to necessary clearance from Principal Committee of NGT.
- 1.4 Vide letter dated 06.03.2019, NCRTC submitted its request to the Principal Committee of NGT for the grant of necessary clearance. Along with the above request, the details of in-principle approvals to Delhi-Ghaziabad-Meerut RRTS corridor, accorded by various authorities such as Yamuna Standing Committee, Ministry of Environment, Forest and Climate Change, Irrigation and Flood Control department of GNCTD, Divisional Forest Officer, NOIDA, Department of Archaeology, GNCTD were also submitted.
- 1.5 Subsequently vide letter dated 22.04.2019, NCRTC submitted further details along with the provisions in the draft of the Project Environment Impact Assessment (EIA) report as regards the mitigation measures for the identified issues due to RRTS viaduct construction. The above includes measures to mitigate pollution due to waste water/ solid waste generated during construction, generation of debris & muck, extraction of water from the ground or river, noise generation, movement of vehicles, disturbance to the wet lands/ swamps/ marshes, blockage of water flow, plan for the implementation of these measures etc.
- 1.6 The above proposal was discussed in the 7th meeting of the Principal Committee held on 22.05.2019. In the above meeting it was decided that a sub-group of the Committee comprising of Chairman, Principal Committee along with Prof.C.R.Babu, CEO, Delhi

Jal Board, Commissioner Transport GNCTD, Director General, NMCG and Executive Director-Technical, NMCG shall visit the proposed site. NCRTC were also advised to submit the final Environment Impact Assessment (EIA) Report for the project. It was decided that the final recommendations on the proposal will be made after consideration of the EIA report and site visit by the Principal Committee.

1.7 A sub-group of the Committee accompanied by the Managing Director and officials of NCRTC and Additional Commissioner (LS) DDA, staff of Irrigation and Flood Control department of GNCTD visited the site in the afternoon of 14.0.72019. The major observations of the team during the above visit are as under:

- i) RRTS alignment within the Yamuna floodplains runs parallel to DND flyover approach road for some distance along Kutcha road that have 2-3 wetlands on its left side and low lying area on right side and harbours plants like *Prosopisjuliflora* - an invasive species and *Saccharumravennace*.
- ii) After some distance, the alignment cuts across guide bund and passes through another cluster of wetlands near Hindon canal which is a critical point of the RRTS alignment with Sarai Kale Khan.
- iii) The tree cover along the alignment is mostly invasive alien undesirable species and the flood plain is mostly open and covered with grasses.
- iv) Alignment passes through insignificant agricultural fields.
- v) The foot print of the viaduct is only piers of about 2-3 meter diameter which is insignificant as compared to the entire floodplain area.
- vi) RRTS is a high speed transit system (design speed-180 kmph) where sharp curves are to be avoided to reduce the wear and tear of rolling stock, to avoid speed restrictions. The proposed alignment has been finalised taking into consideration these factors. Any other alignment closer to DND flyway will be longer and will result in higher capital cost and severe speed restrictions.
- vii) The entire alignment through flood plain has been planned as an elevated viaduct without any embankment and thus will not obstruct river flow as being done by the embankments of the existing DND flyway on the downstream side.
- viii) Piers of the viaduct in active river channel have been aligned with the piers of downstream DND bridge. In its report, CWPRS has stated that the proposed viaduct is hydraulically satisfactory in respect of river morphology and its

construction will not cause any major change in the river regime in the reach under consideration.

1.8 In the site visit report, the following recommendations were made by the sub-committee:

- i) To minimize the de-gradation to floodplains and its wetlands, an option (Option-I) to re-align the proposed alignment in a way that keeps the wetlands intact and reduce the floodplain area occupied by the viaduct, was recommended. For the same, alignment closer to existing DND flyway was proposed. It was also recommended that this option, if implemented, has to weigh its techno-economic viability.
- ii) In case, it is not possible to implement Option-I, due to engineering reasons such as speed restriction, cost issues, wear and tear to rolling stock etc, the second option (Option-II), is to restore the wetlands that may be impacted due to RRTS construction for which a flood plain wetland restoration plan to be prepared and implemented under the supervision of a Committee constituted by Principal Committee to NGT or Hon'ble NGT. It was further recommended that wetland located on either sides of RRTS alignment be restored, preserved and managed like the wetlands that have pillars, as a part of management of RRTS.

The above site visit report was circulated to all the members of Principal Committee.

1.9 Vide letter dated 14th August 2019, NCRTC submitted its comments on the recommendations made in the above field visit report. Major points in the above submission are as under:

- i) The proposed alternative alignment close to DND alignment has major disadvantages such as additional capital cost of Rs 200 Crores due to increase in length of RRTS corridor, crippling speed restrictions due to five sharp curves, higher wear & tear of rails and rolling stock due to sharp curves resulting in reduction in system life, more noise pollution on account of screeching noise due to sharp curves, additional travel time due to increase in length, higher O & M cost, additional time for conducting the required model studies along the new alignment etc. In view of the above major disadvantages, NCRTC had submitted that the proposed alternative alignment is not feasible.

- ii) As regards the second option, NCRTC has submitted that NCRTC is committed to make good the damages, if any, caused to the existing wetlands during the RRTS construction. Such wetlands will be restored as part of project cost and entire restoration works would be supervised by a Committee of experts, as may advised by PC. However as regards preservation and management of wetlands on either sides of the viaduct as a part of the management of RRTS, it is submitted that NCRTC should not be made responsible for the same as it does not have any jurisdiction over the Yamuna Flood plain and does not have skilled manpower to perform or supervise such function. It is also submitted that RRTS operation will not have any impact on the wet lands.

1.10 Subsequently vide letter dated 28.08.2019, NCRTC submitted the finalised Environment Impact Assessment (EIA) Report for the project. Details of the mitigation plan proposed as per the EIA report are:

- i. The land acquisition and resettlement & rehabilitation activities of the project will be governed by the general principles.
- ii. The project will also require diversion of a small portion (about 0.5027 ha) of forest land (at two locations). NCRTC will take forest clearance from state forest departments and a compensatory plan will be implemented as per the conditions of the forest clearance.
- iii. In addition to the compensatory plantation, green belt area shall be developed for the total length of elevated corridor using native shrubs, herbs and grasses. Effort will be made to minimize the cutting of trees by transplantation of the young trees.
- iv. Disposal of the soil will be regulated as per Municipal Corporation rules.
- v. Disposal of polymer used in piling operations shall be done at the designated locations.
- vi. Bulk of the excavated material shall be used for backfilling in the foundations and the balance muck shall be disposed off immediately to designated disposal areas outside the Yamuna flood zone. No muck/debris shall be allowed to be piled up in the flood zone.
- vii. Utmost care shall be taken to ensure that no disturbance/damage is caused to the wetlands/swamps/ marshes.
- viii. Minimum vehicular movement in Yamuna Floodplain shall be ensured.

- ix. The numbers of approach roads to the various pier location shall be kept to bare minimum. These approach roads shall be temporary, without any use of concrete or masonry. At locations where construction of approach road through wetland is inevitable, proper flow of water shall be ensured by providing pipes etc. After completion of the construction, these approach roads shall be removed, and the ground shall be restored to its original position.
- x. Various engineering and biological measures will be used to restore the flood plain. Services of domain experts will be used in restoration of floodplains.
- xi. Adequate budgetary provisions have been made in the EMP towards the restoration of changes in floodplain and wetland occurred due to construction of RRTS.
- xii. The Construction and demolition waste would be handled and disposed off to waste processing facility or for back filling of low lying areas, leaving no significant impact on environment.

1.11 NCRTC explained the objectives of RRTS which includes decongesting Delhi, reducing pollution, encouraging shift from private transport to rail based public transport (RRTS will take away one Lakh vehicles off the roads), substantial reduction in CO₂ emissions etc and thus it offers a clean and green environment friendly mobility solution for NCR. The major disadvantages in the option of re-alignment and its constraints in the proposed Option-II of making wetland preservation as a part of management of RRTS were also presented. Further, NCRTC requested for early approval for the proposal so as to take up the detailed designs and construction of the project.

During further discussions, following two issues were raised by the expert members of the Principal Committee:

- Prof. A.K.Gosain, Professor IIT, Delhi desired to know the reasons for changing the earlier proposal to construct an underground tunnel for the section of RRTS crossing through Yamuna floodplain and River Yamuna. It was mentioned that an underground section would not have any adverse impact on Yamuna flood plain. He also raised concern on afflux created due to constriction in water way and also accumulation of afflux due to series of bridges and elevated corridors being constructed across 22 Km of stretch of Yamuna.

Representative of NCRTC stated that the above underground tunnel proposal was at feasibility stage studies and changes were made during the process of detailed value engineering for the project. An underground section through Yamuna flood plain including crossing of river Yamuna, as envisaged earlier would have necessitated Sarai Kale Khan as an underground station as against elevated station as per the present proposal. Technical requirements would have made it essential to go underground for other two RRTS corridors. The additional cost impact would have been more than Rs 4,000 Crores. Besides, underground section was found to be non-feasible due to large scour depths of approx >35 m and non-feasibility of day-lighting of tunnel in very short span of approx 2 km on left bank. Thus the above change was done on account of various techno-commercial reasons. The Committee members appreciated the requirement of change.

- Prof. C.R.Babu, University of Delhi stated that the RRTS viaduct passes through the same location at which Art of Living (AOL) event was held in March 2016 and Hon. NGT had imposed a fine of Rs 5 Crores on the AOL event organisers for the damages caused to Yamuna Flood plain due to the above event. Hence morally it may not be correct to grant permission for RRTS viaduct passing through the same location. Prof. Babu, Expert Member observed that during construction, the natural flood plains suffer due to movement of heavy plant and machinery. EMP should specifically address impacts due to construction and operation of the project and EMP should provide specific mitigation measures towards that.

It was explained that it may not be correct compare a public funded infrastructure project like RRTS having many socio-economic as well as environmental benefits with an event like AOL which could have been held at any other location and stated that for such projects a holistic view needs to be taken considering the larger benefits of the project vis-à-vis adverse impacts, if any, on the river flood plain. Moreover NCRTC has proposed an Environment Management Plan to mitigate any adverse impact due to RRTS construction. The project has large beneficial impacts for environment as it will ease traffic congestion, reduces vehicular emissions, reduces carbon footprints and is closely a green mode of transportation. Benefits from the project do outweigh the negative impacts which will be addressed by implementation of EMP in guidance with

experts. As per EMP, NCRTC remains committed to carry out restoration works if any damage occurs to the wetland during the construction phase.

- DDA officials informed that they have undertaken planned plantation in and around these wetlands. Future construction activity by NCRTC may destroy this plantation.

After detailed deliberation by the Principal Committee on the merits and de-merits of the project, the Committee recommended the proposal of RRTS viaduct through Yamuna flood plain "O" zone as per alignment proposed by NCRTC for approval of Hon'ble NGT, subjected to fulfillment of following conditions by NCRTC:

- i. The Environment Management Plan (EMP) prepared by NCRTC pertaining to various mitigation measures to reduce impact on Yamuna Flood Plain due to RRTS construction shall be reviewed by a Committee of experts nominated by the Principal Committee of NGT or Hon'ble NGT and a final plan shall be advised to NCRTC. The implementation of various measures provided in the finalised EMP to be done under the guidance/ supervision of these experts.
- ii. All the construction activities should be carried out with minimum effect on the floodplains,
- iii. Restore the wetland that may be impacted adversely or otherwise by the construction of RRTS alignment in the Yamuna flood plain/ pillars as per a flood plain wetland restoration plan. The restoration of impacted wetlands may be carried out under supervision of Committee constituted for this purpose.
- iv. The muck/ debris generated should be disposed off scientifically and no dumping shall be allowed on the floodplains.
- v. Compensation of the trees to be cut during construction/ operational phase of the project to be carried out by NCRTC without fail.
- vi. Failure to abide by any conditions thereof will lead to withdrawal of permissions.

DDA representative was advised to continue with the wetland restoration and tree plantation work started by them as per the orders of Hon'ble NGT. It was also advised that any damage to the above due to RRTS construction shall be restored by NCRTC.

Agenda 2: Delhi Metro Rail Corporation Limited’s proposal for “construction of bridge across the river Yamuna and construction of viaduct in the floodplain”.

Official from DMRC informed that under Delhi Metro’s Phase IV project, a new corridor is proposed, Mukundpur-Maujpur corridor, consisting of 12.54 km and having 6 elevated stations, which will connect East Delhi with North-West Delhi, via a bridge of 560m length across the River Yamuna and 780m elevated viaduct section in the Yamuna floodplain. The bridge has been proposed between the existing two bridges viz., Signature Bridge which is approx. 200 m on the downstream side and Wazirabad barrage which is approx. 450m on the upstream side (presentation at **Annexure-III**). After completion of proposed corridor, operational Delhi Metro Line No. 7 (Pink Line), will be complete and form a ring to cover important parts of Delhi, as well as provide connectivity to highly inhabited parts of Delhi (such as Sonia Vihar).

Further it was informed that the alignment of the bridge from Sonia Vihar to Surghat has been finalized considering the existing sites such as Wazirabad Barrage on upstream of Proposed Bridge, Signature Bridge on downstream, Surghat station located at Ring Road, orientation of Surghat station governed by Heritage structure of Shah Alam Tomb, Geo-Tech Study along Bridge alignment, Tree Survey and CWPRS Study. Details of mitigation measures proposed to be adopted during construction and operational phase was informed, such as:

- i. No polluting vehicles, construction machinery & plants allowed
- ii. Use of RMC (Ready mixed concrete) for concreting
- iii. Disposal of Construction & Demolition (C&D) Waste at recycling plant at Burari and using recycled material such as paver blocks in the project
- iv. Use of non-polluting polymer in pile foundation
- v. No use of hazardous material which can contaminate water/ soil
- vi. DMRC follows a policy of plantation of 10 saplings for every tree felled. 118 trees required to be felled on east side near Sonia Vihar –Safeda, Jungli Jalebi, Shisham, Kikar, Jamun, Peepal. 09 trees to be felled on west bank – Jungli Jalebi, Kikar. Above trees shall be felled with prior permission from and under the guidance of forest department. Special care shall be exercised for protection of other trees and shrubs against injury from equipment, excavation, dumping of materials/wastes
- vii. No harm to aquatic flora and fauna
- viii. Vehicles carrying construction material and debris shall also be covered

- ix. Construction material stored on the site shall be fully covered to avoid dispersal of dust in air
- x. At entry/exit gates of all construction sites, wheel washing system is provided for cleaning of tyres to eliminate pollution of public road
- xi. Water sprinkling on unpaved roads
- xii. Sweeping of paved roads
- xiii. Bio-toilet at Construction site
- xiv. Barricading of site to protect public from injury, safeguard equipments and workers and also to avoid exposure of dust and noise from the site
- xv. Environment quality monitoring at site.

Prof. C.R.Babu informed that such projects will increase the sediment load in River Yamuna.

Prof. A.K.Gosain enquired about the afflux being generated by the project on the river and also informed that the afflux estimated by the CWPRS is specific to this project only. The cumulative afflux generated by such projects may be on higher side. Further, it was also highlighted that with prevailing climate change conditions, such projects may also affect the flooding pattern in Delhi.

After detailed deliberation by the Principal Committee on the merits and de-merits of the project, the Committee recommended the proposal for approval of Hon'ble NGT, subjected to fulfillment of following conditions by DMRC:

- i. All the construction activities should be carried out with minimum effect on the floodplains
- ii. Restoration of the floodplain that may be impacted adversely or otherwise by the construction of bridge alignment in the Yamuna flood plain/ pillars.
- iii. The muck/ debris generated should be disposed off scientifically and no dumping shall be allowed on the floodplains.
- iv. Compensation of the trees to be cut during construction/ operational phase of the project to be carried out by DMRC without fail.
- v. Failure to abide by any conditions thereof will lead to withdrawal of permissions.

In order to have a better understanding, Principal Committee recommended that Department of Water Resources, RD&GR, Ministry of Jal Shakti may be requested to carry out an integrated morphological study of River Yamuna in Delhi stretch, for evaluating the impact

created by the existing bridge/ metro/ railway projects and the proposed projects, individually as well as cumulatively on afflux created and its impact on food levels.

Further, Member Convener PC informed that DMRC's another proposal requesting permission for allotment of five land pockets - Kashmere Gate, Sarai Kale Khan, Kalindi Kunj Station, Kalind Kunj Depot and Kalindi Kunj Feeder Bus Depot, in O-Zone from DDA was discussed in the 8th meeting of the Principal Committee held on 25.06.2019. It was suggested that the proposal may be discussed in the next meeting of the Committee in the presence of expert members of Principal Committee.

General Manager DMRC informed that DMRC during the period 2011-2013 had obtained working permission from DDA for construction of receiving sub-station, station, depot, ramp and feeder bus depot at the 5 land pockets. These structures have been constructed and operationalized. The construction at these 5 locations started prior to the NGT order of 13.01.2015, hence clearance of Principal Committee was not required at the time of obtaining working permission from DDA. However, when DMRC approached DDA in 2016 for allotment of these 5 land pockets, DDA informed that these 5 locations are falling under floodplain zone of River Yamuna and directed DMRC to obtain clearance from Principal Committee.

It was informed to the PC that certain activities were categorized as prohibitive activities in the O zone as per Delhi Master Plan-2011 and 2021 as well. DDA has already given working permission to DMRC for carrying out construction activities and infrastructure has already been created against the permission. Accordingly, DDA may have to decide on the issue.

After detailed discussions, Principal Committee suggested that as the working permission on the 5 land pockets was provided by DDA to DMRC prior to constitution of the Principal Committee, therefore the issue may be decided by DDA.

Agenda 3: Irrigation and Flood Control Department, GNCTD's proposal for "Development of the existing Chhath Ghat at ITO on the Right Bank of River Yamuna"

Official from WAPCOS, Consultant for the project, informed the Committee that the proposal aims at re-development of the already existing Chhath Ghat at a total cost of Rs. 1.99 Crore (presentation at Annexure – IV). The existing Chhath Ghat of 2750 m² was built by PWD Delhi in 2010 and was later allotted to Chhath Puja Samiti. The site is primarily used for Chhath Puja. It was informed that a total of 1 hectare area is proposed to be

developed into five zones, wherein different activities such as installation of signage, lighting, trash collection bins, benches for seating, development of changing rooms, ghat steps and plantation are proposed.

Member Convener PC informed that the Ghat lies in the active Floodplain of River Yamuna, just downstream of Lok Setu on the bridge connecting ITO to Tran-Yamuna area.

On enquire by Prof.C.R.Babu, it was informed that a total of approximately 1500 sqm is proposed to be concretized for development of staircase leading to the river and an apron as well as a strip of pathway for public.

Considering the directions of Hon'ble NGT vide its judgement dated 13.01.2015 in the matter OA No.06 of 2012, wherein it has been prohibited to carry out any construction activity in the flood plain, Principal Committee did not approve the project and suggested that activities such as plantation, installation of dustbins/ litter bins, changing rooms at already constructed and paved locations may be carried out as a part of CSR responsibilities/ activities.

Agenda 4: Compliance status with regard to the Hon'ble NGT's order dated 11.09.2019 (based on the NGT hearing dated 23.08.19) in light of the NGT judgment dated 13.01.2015 in the matter OA No. 06 of 2012.

Member Convener PC informed the Committee that based on the hearing dated 23.08.19 in the matter OA No. 06 of 2012 and considering the reports of the Monitoring Committee (Yamuna), Hon'ble NGT vide its order dated 11.09.2019, has given point wise and time bound directions to the States of Delhi, UP and Haryana for compliance (presentation at **Annexure – V**). Status of compliance was informed by the respective responsible agency:

State of Delhi

Environmental Flow

- i. Director General NMCG informed that NIH Roorkee had submitted an interim report with regard to the study of e-flow assessment of River Yamuna for the stretch from Hathnikund barrage to Okhla barrage. The same was reviewed in a meeting held in July 2019 at NMCG, which was attended by Shri. B. S.Sajwan, Member, Monitoring Committee, Director NEERI and officials from CWC, INTACH, UP Irrigation Department. Views of the experts members like Prof.A.K.Gosain were communicated to NIH Roorkee. Further briefing of the progress about the study was

also taken recently during September 2019. As per the directions of NGT, interim report to be submitted by December 2019 and the study is required to be completed by March 2020.

- ii. CEO DJB cum Secretary I&FCD Delhi informed that the pilot project of I&FCD regarding development of reservoirs (approx. 17.5 acres) in Yamuna flood plains area by retaining excess flood water during the monsoon season, was successfully implemented by 1st September 2019. Compilation of the impact of the pilot project in recharging the ground water is in progress and report in this regard shall be submitted shortly.

Demarcation and Rejuvenation of the Flood Plains

- iii. Official from DDA informed that the works of physical demarcation of the floodplain is in progress and the development of bio-diversity parks is being carried out as per their action plan submitted to the Monitoring Committee as well as Hon'ble NGT. Further, it was informed that DDA has deployed security guards and CCTVs have been installed at various location, in order to check illegal encroachment and dumping. Cases of illegal dumping has been reported to Transport Department Delhi for necessary legal action. For installation of remaining CCTVs, permission have been sought from various departments such as Railways, DMRC, NHAI etc for launching of optical fiber cable.
- iv. CEO DJB informed that Govt. of Delhi is taking appropriate measures to ensure that pooja material or any kind of other material is not dumped in river Yamuna or any of its drains and is permitted to be submerged only at designated sites identified by the Government.

Sewage Treatment Plants, Interceptor Sewerage Project (ISP) and Maintenance of Drains

- v. CEO DJB informed that based on the order, DJB has prioritized to bridge the gap in treatment by increasing the utilization capacity of the existing STPs in Delhi. Action Plan is under-preparation and DJB proposes to achieve 100% utilization capacity of existing STPs by December 2019. Further, the ISP shall be completed by 31st December 2019. Similarly action for upgradation of existing sewerage assets is also underway.

- vi. With regard to Qudasiabagh + Mori Gate, it was informed that 9 MLD plant is proposed to be establishment for treatment of untreated discharge from the drain.

Online Monitoring of STPs and CETPs

- vii. CEO DJB informed that online monitoring of STPs is being carried out by DJB.

Use of treated waste water

- viii. It was informed that DJB has already issued notification with regard to utilization of treated water from the STPs for non-potable uses such as in industries, horticulture, parks, construction activities etc. Further, it was informed that DDA, MCDs are taking appropriate measures to ensure that treated water are utilized.

Member Convener PC informed that similar directions have been given to the States of Haryana and UP for compliance. All works related to establishment of STPs to be completed by 31.12.2020, interim measures to prevent discharge of untreated sewage into the river such as bio-remediation/ phyto-remediation or any other method to be commenced from 01.01.2020, operational deficiencies of the existing STPs must be rectified within 3 months.

State of Haryana

- i. Engineer-in-Chief PHED Haryana briefed the Committee about the status of sewerage infrastructure under the jurisdiction of PHED in Haryana. It was informed that out of 33 towns which falls in the catchment area of River Yamuna, sewerage facilities in 31 towns (except Faridabad and Gurgaon) is provided by PHED. In these 31 towns, 43 STPs having total treatment capacity of 491.90 MLD are existing/ under-upgradation/ under replacement/ under-construction.
- Of which, 29 STPs having 377.90 MLD capacity are existing in 20 towns. Out of these 29 existing STPs, 4 are non-complying and balance 25 are complying.
 - 5 STPs having 22 MLD capacity are under upgradation in 5 towns.
 - 4 STPs having 43 MLD capacity are under construction in 3 towns
 - 5 STPs having 49 MLD capacity are under replacement in 4 towns

After completion of all works of STPs, out of 43 STPs, 27 STPs will be capable to treat sewage upto 10 ppm and 16 will meet BoD upto 30ppm. Out of 33 towns, laying of sewerage system in 9 towns is being executed by Urban Local Bodies Department under AMRUT scheme, sewerage system has already been laid

completely in the approved areas of 7 towns, sewer system in 16 towns is under execution by PHED and sewer in balance 1 town is yet to be taken up by PHED. In total, sewer line length of 171.67 km is to be laid, out of which 47.43 km has been laid till August 2019.

Further, it was informed that Jamia Milia Islamia University, New Delhi has been engaged for carrying out performance appraisal of existing STPs falling under the catchment of River Yamuna, and based on the finding, deficiencies in the existing STP shall be rectified.

- ii. Official from Municipal Corporation Gurgaon informed that against 350 MLD of sewage generation, treatment capacity of 401 MLD exists with 4 number of STPs operational in Gurgaon. 6 STPs of 13 MLD (micro-level) treatment capacity are under construction and shall be completed before the timeline directed by Hon'ble NGT of December 2020. It was also informed that 50 MLD STP which was under-construction previously has been successfully commissioned. These STPs are discharging their treated effluents into Badshahpur drain.
- iii. Official from Municipal Corporation Faridabad, informed that under the PHED Haryana, all the 4 operational STPs (3 based on UASB technology and 1 on SBR) of installed capacity of 160 MLD in Faridabad (against 198 MLD of sewage generation) are not being able to achieve desired discharge standards. 3 of these (with 140 MLD installed capacity) cannot be functionally made compliant, therefore proposal for establishment of new STPs having treatment capacity of 140 MLD in Faridabad by 2021 has been approved by the State Government and tender shall be floated after withdrawal of model code of conduct. In addition, proposal for 100MLD new STP in Pratapgarh has also been taken up by preparation of DPR.

Further, it was informed that HSVP Department is constructing 2 STPs of 77 MLD which is physically 55% complete and a new STP of 30 MLD has been proposed. It was also informed that in new sectors of Faridabad, as per HSVP policy for approval for construction of new house, sewer connections is mandatory.

- iv. Chief Engineer from Sonipat informed that the 2 CETPs of 2.5 and 21 MLD capacities have been constructed and commissioned in Panipat to treat the industrial waste, which were previously being discharged into the drains, and were joining the River Yamuna.

Principal Committee directed that action plans with specific timelines and compliance status with regard to the NGT order 11.09.2019 may be regularly submitted by the States of Delhi, Haryana and Uttar Pradesh to the Monitoring Committee and with a copy to Principal Committee for information.

The meeting ended with vote of thanks to the Chair.

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List of participants:

1. Shri. U.P. Singh, Secretary, Department of WR, RD&GR, Ministry of Jal Shakti - *in Chair-*
2. Shri. Rajiv Ranjan Mishra, Director General, NMCG
3. Shri. Nikhil Kumar CEO, Delhi Jal Board cum Secretary, Department of Irrigation and Flood Control, GNCTD
4. Prof. A. K .Gosain, IIT Delhi, Expert Member
5. Prof. C.R.Babu, Delhi University, Expert Member
6. Shri. D.P.Mathuria, Executive Director – Technical, NMCG (Member Convener -PC)
7. Shri Nisheeth Saxena, MS Wetland Authority, GNCTD
8. Dr. Anil Kumar, Director, Department of Environment, GNCTD
9. Shri Yogender Pal Singh, Director, MoEFF&CC
10. Dr. Pravin Kumar, Director T-III, NMCG
11. Ms. Poonam Dewan, DDA Additional Commissioner (Landscape)
12. Ms. Savita Bhandari, Advisor (Landscape)
13. Sh. R. S. Negi, Member(DR), DJB
14. Shri Pradeep Yadav, SE, I&WR Department, Haryana
15. Shri UW Hodd, Group General Manager, NCRTC
16. Shri. Tarun Beniwal, Chief Project Manager, NCRTC
17. Shri S A Verma, GM, DMRC
18. Shri Alok Kumar Mishra, CPM, DMRC
19. Shri Ashish Bhatia, Dy CEE, DMRC
20. Shri S N Agrawal, CEE, DMRC
21. Shri Rashid P Kaushar, DMRC,
22. Shri Mridul Kumar, GM Land, DMRC
23. Shri VikashSinghal, DGM, DMRC
24. Shri Asghar Ali, PM, DMRC
25. Shri Anil Kumar, PM, DMRC
26. Shri S K Roy, DGM, DMRC
27. Shri B N Vhaturvedi, PM, DMRC
28. Shri Anil J Kurian, Manager, DMRC
29. Shri. G.P.Srivastava, Irrigation, UP
30. Shri Ashish Rana, EE, Irrigation Department, Himachal Pradesh
31. Shri Manoj Kumar, EE, Irrigation & WR Department, Haryana
32. Shri Ranbir Singh, SDE, ULB, Haryana
33. Shri Mandeep Singh, EE, ULB
34. Shri B N Chaturvedi, SrGDM, DMRC
35. Shri R.K.Pahuja, TLE, WAPCOS
36. Ms. Nikita Gupta, ACE, WAPCOS, Ltd.
37. Shri O.P.Shrivastav, CE, I&FC, GNCTD
38. Shri T L Sharma, CE, Sonipat
39. Shri N D Vasishta, CE Gurgaon

40. Shri D.R.Bhaskar, CE, MC Faridabad
41. Shri Yajesh Mohar Mehra, Additional Chief Engineer, HSVP, GGM
42. Shri. S K Singh, SEE, DPCC
43. Shri. Gajender Tomar, SE, DJB
44. Shri SK Srivastwa, EE (ISP), DJB
45. Shri P. K. Tyagi, SE, DJB
46. Shri S.C. Vasisth, CE, DJB
47. Shri. K.C. Meena, SE, DJB
48. Shri J K Singh, SE, DJB
49. Shri Manipal Singh, Engineer-in-Charge, PHED Haryana
50. Shri. R.K Singhal, CE, PHED Haryana
51. Ms. Pratima Marwah, RFD Specialist, NMCG
52. Shri Kumar Ajitabh, Project Officer (Legal), NMCG
53. Mrs. Ruby Raju, Project Engineer, NMCG