

## Chapter 4.

### Sewage Treatment Plants (STP)

#### ISSUES

Delhi which has a population of 18 million, as per DJB estimates consumes 900 MGD (4086 MLD) of water (both surface and ground water) and generates 720 MGD (3268 MLD) of waste water, reckoned at 80% of the fresh water used. The present capacity of all the existing STPs in Delhi is 607 MGD (2756 MLD) against which the sewage actually received at the STPs is 458.75 MGD (2083 MLD) - which means there is only a 75% capacity utilization. Out of the 458.75 MGD of treated sewage, only 89 MGD is presently being utilized, mainly for irrigating parks and gardens and the rest is being released into drains, where it gets mixed with untreated sewage, and eventually empties into the river Yamuna.

#### **i) Functioning and Upgradation of Existing STPs**

The order dated July 26, 2018 of NGT gives a list of 41 STPs at 22 locations, although the Judgement dated 13-01-2015 had listed 23 locations. Out of these 41 STPs, 6 STPs are closed and 5 out of these 6 are proposed to be rehabilitated/ upgraded. Twenty (20) STPs are receiving waste water (sewage) below their installed capacity, the deficit ranging from 10% to as high as 90%. Five plants as per the DJB test reports are not meeting design parameters, although as per DPCC's test report dated 23-08-2018, as many as nine (9) STPs are not meeting the standards. NGT in its order dated 13-01-2015 and 08-05-2015 had directed that plans should be prepared for the up gradation of STPs, optimal utilization of capacity of those STPs that are receiving waste water/sewage below capacity and removing deficiencies in the STPs that are not meeting design parameters for treated waste water.

#### **Setting up of new STPs**

NGT's order dated 13-01-2015 records that 32 new STPs will be set up by the DJB. This was based on the recommendations of the Expert Committee appointed by NGT and DJB's own Sewerage Master Plan 2031.

## **Present Status:**

MC has reviewed the matter in detailed meetings with the Delhi Jal Board and based on the review the DJB has been asked to furnish information on the STPs commissioned during the last three and a half years after the judgement. In particular details were sought on:

- STPs under construction,
- The progress of construction and
- STPs which are still at the planning or tendering stage,
- STPs for which financing or land issues still remain to be resolved.

The DJB has clarified that the 32 new STPs were to be constructed as per the Sewerage Master Plan (SMP) 2031 and that none of the 32 planned under that Plan have been commissioned. These included 14 STPs proposed to be set up in Najafgarh basin. Seven out of 14 STPs have been sanctioned by the NMCG and Rs 45 crores released in July 2017. No construction has yet commenced even in these seven STPs after a lapse of more than a year. The reasons are mostly non availability of land. Even the two sites where land is in possession of DJB, work has not commenced as the Board is undertaking a fresh sewage flow study. This clearly shows a complete lack of direction and seriousness on the part of DJB to move forward on its commitment to NGT given from time to time.

Though not part of 32 STPs covered in the order dated 13-01-2015 four (4) STPs of a total capacity of 80 MGD have been commissioned during the last three and a half years and seven (7) STPs are under construction/up gradation/rehabilitation. The list of STPs commissioned and those under construction is at [Annexure IV](#). The status of 32 STPs as per the SMP 2031 which includes 14 STPs that are proposed to be set up on Najafgarh drain and its tributary drains are at [Annexure V](#). After a joint meeting with all engineers and CEO DJB held on 04-10-2018 the same points were repeated. A time of one week was agreed upon for giving the fresh time lines which was not received by the time this report was going for printing. The minutes of the meeting held by the MC with the officials of DJB are placed at [Annexure VI](#).

Based on the information received new timelines and deliverables will be worked out and finalized and reflected in a modified Action plan and included in the Progress report to be sent to NGT as directed by 31.12.18.

The Plans for up gradation of the STPs functioning below capacity and those not meeting standards are also a part of this exercise and had not been provided earlier.

## **Action Plan**

### **Existing STPs**

Sewage treatment at the optimal level is partially a design problem and partially because the sewage does not reach the STP. For each STP a time frame for up gradation / modification, reduced into short and medium term milestones like making DPRs, getting financial and administrative sanction and tendering the work will be got prepared with milestones to be crossed. Thereafter, every quarter this would be updated on the basis of information provided. The sources from where funding is likely to become available would be asked for as the only two sources are budgetary support and funding from NMCG.

### **New STPs**

New timelines for completion of new projects broken down into the various sub activities like DPR, land, sanction, tendering and construction will be got prepared and new timelines reported to NGT. A revised list of STPs required, if different from the original planned 32, will be got projected so as to cater to all the sewage likely to be generated in Delhi in the next 10 years with plants adhering to the new standards for STPs. The revised schedule will be informed to NGT.