

Chapter 3

Quality of River water

Issues

Although the Yamuna River flows only for 54 KM from Palla to Badarpur through Delhi, the 22 KM stretch from Wazirabad to Okhla, which is less than 2% of the river length of 1370 Km from Yamnotri to Allahabad, accounts for about 76% of the pollution in the river. During the dry season, spreading over nearly nine month of the year, the river has no fresh water downstream of Wazirabad and the only flow available is sewage, both treated and untreated, flowing through 22 drains that join the river Yamuna all through it journey from end to end within Delhi.

NGT had directed setting up of Sewage Treatment Plants (STPs) and Common Effluent Treatment Plants (CETPs) to ensure that the sewage/industrial effluent does not find its way to drains which eventually join the river, besides several other measures, and that the quality of river water be monitored by CPCB and DPCC.

Present Status:

As per the report of CPCB (2017) the river receives about 3911 MLD of sewage, which includes industrialeffluent, and has a BOD at Okhla ranging from 31 mg/L to 64 mg/L with virtually no DO and a Total Coliform varying from 1.3 million to 16 million MPN/100 ml. The limits prescribed for the Delhi stretch are 3 mg/L and 5000 MPN/100 ml respectively. Specifying a goal which is clearly unattainable needs to be revisited.

The DJB has raised the issue of intermittent pollution, including high levels of Ammonia in river at Wazirabad with periods of near normalcy. During the period 30th December, 2017 to 11th March, 2018 however there was continuous pollution.

A suggestion has been made to MC that this can be prevented by bifurcation of e-flow (352 cusec) into two parts- wherein 176 cusec is to be released through River Yamuna and the balance at DD- 8 (Bindroli, Sonipat, Haryana) near Palla. It has been assured by DJB engineers that this will circumvent the water getting polluted on the way and would greatly improve the quality of water. DJB's CE Water has stated that Haryana authorities would have no objection to making this arrangement.

There are two stations set up by CPCB for online monitoring of water quality in river Yamuna which are non-functional. Separately, DPCC on a monthly basis carries out manual quality testing of river Yamuna at 9 places and CPCB at 5 places. Whereas DPCC test results for water quality at Palla show a BOD level of 3 mg/L, CPCB test results show BOD levels varying between 2 and 9 mg/l.

Action Plan:

1. MC proposes to examine the adequacy of the water quality monitoring stations set up on Yamuna by DPCC and CPCB. Already both organisations have been told to simplify reporting systems and to invariably give a critical analysis which can be compared with the month on month and year on year data. Hence comparative reports on these lines would become available.
2. A mechanism will be worked out jointly with DPCC and CPCB to install an online system for quality testing of water in Yamuna at Palla and Wazirabad. Not only standard parameters would be included but also Ammonia because this is brought up as a recurrent problem which impacts drinking water supply to Delhi.
3. MC, in response to media reports and information as and when received through informal sources about pollution in Yamuna or any other violations of NGT orders, has decided to constitute a team of Scientists from CPCB, DPCC and other Institutions like the IIT Delhi or NEERI to carry out inspections and submit reports to MC for issue of directions to concerned agencies for remedial action. The instructions issued by MC to CPCB and DPCC are at [Annexure III](#).
4. With no flow in the river downstream of Wazirabad and 3900 MLD of sewage (both treated and untreated) released into the river with a BOD level in excess of 30 mg/L and virtually zero DO for most part of the year there is no scope for any dilution which can improve the quality significantly. In the short and medium term, there is no possibility of achieving a BOD level of 3 mg/L for a C Class river as categorized by the CPCB. The MC therefore will monitor incremental change in the quality parameters of river flow consequent to commissioning of the Interceptor Sewer projects, setting up or upgrading the STPs and other connected activities like creation of biodiversity parks and wetlands on the floodplains.