

Pollution of the River Yamuna

In the early 20th century the Yamuna waters were described as clear blue. However, due to high-density population growth and rapid industrialization today the Yamuna is one of the most polluted rivers in the world, especially around New Delhi, the capital of India. Though only 2% of the river length flows through Delhi between Wazirabad and Okhla, the city contributes about 76% of the total pollution load in the river. According to estimates of Delhi Jal Board (DJB), the present water supply in Delhi is 900 Million Gallons per day (MGD) equivalent to 4086 Million liters per day (MLD). Reckoning that 80% of this becomes waste water, the city as a whole generates 720 MGD (3268 MLD) of waste water. There are 41 Sewage treatment plants presently available with a total sewage treatment capacity 607 MGD (2756 MLD) and the actual capacity utilization is 458.75 MGD(2083 MLD), which translates into capacity utilization of 75% attributed mainly to absence of sewerage networks and conveyance systems particularly in unorganized colonies that came up without town planning or building plans. Most of the sewage after treatment is again released into drains which gets mixed with the untreated sewage which defeats the purpose of treatment. Only about 89 MGD (404 MLD) of treated waste water is utilized for irrigating parks and gardens and other horticultural uses.

The Government of India and GNCT have prepared plans to set up new sewage treatment plants and upgrade and rehabilitate those that have outlived their life or are unable to meet the present standards for STPs notified by the CPCB. Projects that are aimed at providing new sewer networks in areas not covered by sewage systems as well as rehabilitation of old sewage systems which are dysfunctional are at various stages of planning and execution. There are plans to use treated water for horticulture but presently this strategy is used minimally- not even 20%.

Sources of Pollution

Municipal sewage and industrial effluent discharge carried by Delhi's drainage system ends up in the river. Monitoring of drains in Delhi is carried out by CPCB on a monthly frequency through grab sampling methodology (Pollution as evident from the sample at that given point of time).

(i) Wazirabad to Okhla(Drains Discharging into the Yamuna)

The Delhi stretch of River Yamuna receives wastewater from 14 drains between Wazirabad to Okhla, the drains are Najafgarh, Magazine Road, Sweeper Colony, Khyber Pass, Metcalf House, ISBT & Mori Gate, Tonga Stand, Kailash Nagar, Civil Mill, Delhi Gate (power house), Sen Nursing home, Drain no. 14, Barapulla and Maharani Bagh.

(ii) Okhla to Badarpur Stretch Drains.

Between Okhla and Badarpur the Yamuna receives wastewater from 4 drains viz. Abu Fazal, Jaitpur, Tuglakabad and Shahdara drain. Shahdara drain flowing across eastern part of Delhi meets the river downstream of Okhla barrage on the right bank.

(iii) Agra Canal and Gurgaon Canal Drains

There are four drains discharging into the Agra Canal and Gurgaon Canal within the territory of Delhi. These drains are at Okhla Vihar and at Kalindi Kunj and they carry city waste and waste water from Sarita Vihar, Tehkhand and Molarband. The list of drains is below:

List of Drains

| SL.NO. | Drains between Wazirabad and Okhla |
|------------------------------------|--|
| 1 | Najafgarh |
| 2 | Magazine Road drain |
| 3 | Sweeper Colony drain |
| 4 | Khyber Pass drain |
| 5 | Metcalf House drain |
| 6 | Kudsia Bagh + Mori gate drain |
| 7 | Tonga Stand drain |
| 8 | Moat drain (Vijay Ghat)- Dry |
| 9 | Civil Mill drain |
| 10 | Delhi Gate (power house) drain |
| 11 | Sen Nursing home drain |
| 12 | Drain no.14 |
| 13 | Barapulla drain |
| 14 | Maharani Bagh drain |
| Downstream of Okhla Barrage | |
| 15 | Abu Fazal drain |
| 16 | Jaitpur drain |
| 17 | Tuglakabad drain |
| 18 | Shahdara drain |
| Discharge to Agra Canal | |
| 19 | Abandoned Agra Canal At Okhla Vihar (Only Yamuna River Water) |
| | Abandoned Agra Canal At KalindiKunj (After Receiving City Waste) |
| | Input of Waste water in Abandoned Agra canal (1-2) |
| 20 | Sarita Vihar Drain |

| Discharge to Gurgaon Canal | |
|-----------------------------------|-----------------|
| 21 | Tekhhand Drain |
| 22 | Molarband Drain |

[Annual Average flow and BOD load of drains](#)