

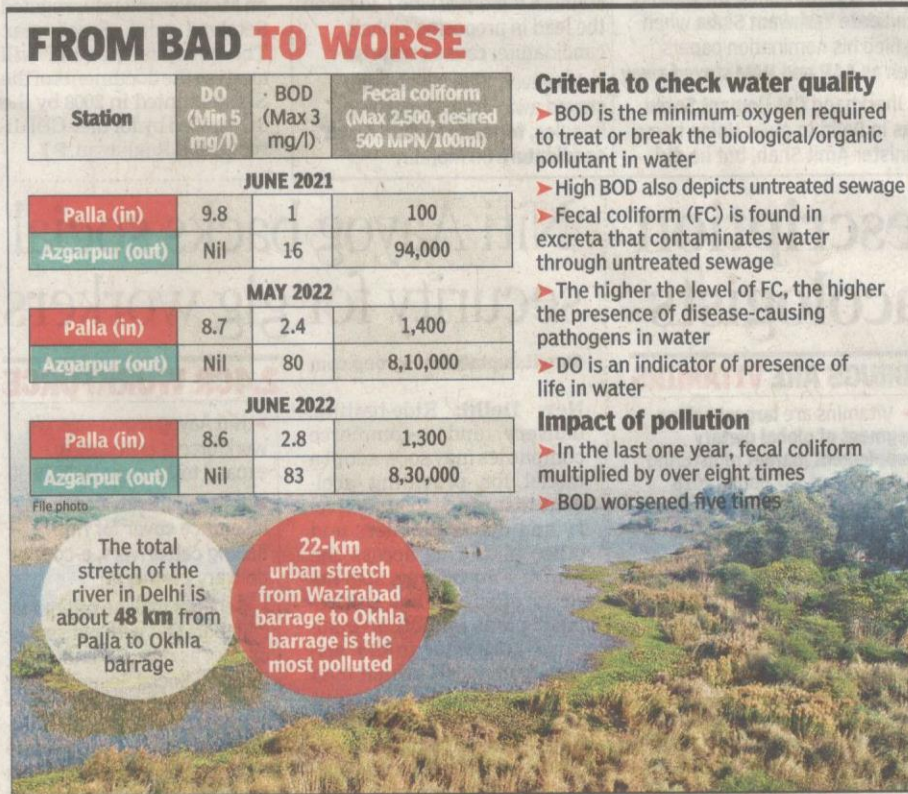
Yamuna even dirtier than it was a mth ago, sewage content 1.2k times higher than norm

Kushagra.Dixit@timesgroup.com

New Delhi: Just a month ago, the Yamuna was much cleaner than it is now. According to the monthly pollution assessment of the river carried out by Delhi Pollution Control Committee, while there was only a marginal deterioration in the dissolved oxygen and biochemical oxygen demand readings of the river water, the faecal coliform, or sewage content, was over 1,200 times higher than the accepted norm.

Dissolved oxygen (DO) measures the presence of the gas in the water, and therefore, life, while biochemical oxygen demand (BOD) is the minimum oxygen required by the river to break down and manage the organic matter in the water. The acceptable standard for DO is 5mg/l. BOD ideally should be 1mg/l and should not exceed 3mg/l.

In the analysis done in May, as the river water, when it entered Delhi at Palla, had permissible levels of DO, BOD and faecal coliform. However, by the time the river reached the exit point at Asgarpur, high levels of effluents had rendered the river more pollu-



ted. The pollution levels in June this year were also slightly higher than in May and in Ju-

ne last year and showed that a large amount of untreated sewage was still being dischar-

ged into the river.

Faecal coliform is found in excreta and any untreated se-

wage. The higher the FC count, the higher the presence of disease-causing pathogens in water. The June analysis established that while the faecal coliform level in the river at Palla was 1,300 mpn, or most probable number, per 100ml (against 1,400 last month), by the time it approached its city exit, the reading had shot up to 8,30,000 mpn/100ml (against 8,10,000 in May), 324 times higher than the maximum permissible limit of 2,500 mpn/100ml and 1,620 times beyond the desired limit of 500mpn/100ml. As it courses its way to Asgarpur, the Yamuna is joined by the Shahdara and Tughlakabad drains.

In May, BOD — which should not exceed 3mg/l — ranged from 2.4 to 80mg/l but rose to 2.8 to 83mg/l in June. According to the analysis, the BOD level was normal at Palla, but increased exponentially between Wazirabad and ISBT Bridge and then worsened after that.

The DO level too was within safe limits at the entry point at 8.6mg/l, but the river was virtually in no position to support life by the time it left the city at Asgarpur with the DO reading nil there.

Criteria to check water quality

- BOD is the minimum oxygen required to treat or break the biological/organic pollutant in water
- High BOD also depicts untreated sewage
- Faecal coliform (FC) is found in excreta that contaminates water through untreated sewage
- The higher the level of FC, the higher the presence of disease-causing pathogens in water
- DO is an indicator of presence of life in water

Impact of pollution

- In the last one year, faecal coliform multiplied by over eight times
- BOD worsened five times