

# ARKAVATHI POLLUTION ANALYSIS

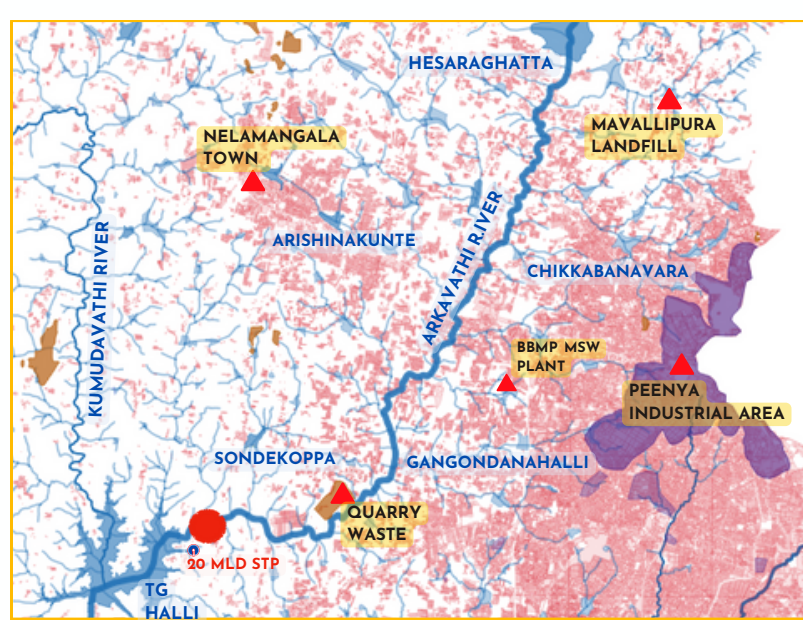
With government proposals to expand treatment and use of Arkavathi River water in Bangalore, it is important to identify, monitor, and stop the spread of harmful pollutants. The results below show trends in pollution at site 104, one of eight Arkavathi sites where Paani conducted sediment and water testing.

## TESTING INFORMATION

SITE 104

UPSTREAM OF  
TG HALLI RESERVOIR,  
ARKAVATHI

28  
FEB  
2024



**Legend:**

- Built-up Area (Pink)
- Drainage lines (Blue)
- Sampling location (Red dot)
- Potential pollution sources (Red triangle)
- Quarry (Brown)
- Industrial area (Purple)


Industrial activities, agriculture, quarries, and solid waste and wastewater flows from built-up areas, as shown above, contribute to the water pollution at this site.

## POLLUTANTS OF CONCERN

Water and soil tested at this site did not meet international standards for pollution due to high amounts of chemicals including:

**Cr(VI)**  
Hexavalent chromium


Industrial Carcinogen causes cancer & skin irritation



**100x above**  
Canada Water Quality Guidelines (Aquatic Life)

**DDT**


Illegal Pesticide toxic to aquatic life, endocrine disruptor



**75x above**  
EU Water Quality Standards

**Hg**  
Mercury


Poisonous Metal harms nervous, digestive, and immune systems



**16x above**  
Canada Sediment Quality Guidelines (Aquatic Life)


**C<sub>22</sub>H<sub>14</sub>**  
Dibenz[a,h]anthracene


PAH causes skin & eye irritation




**497x above**  
US Recommended Water Quality Criteria (Human Health)

KEY

Industry

Agriculture

Various sources

## APPROPRIATE USE FOR WATER AT SITE

Water tested did not meet Central Pollution Control Board guidance

**CPCB Designated-Best-Use of Sample**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>N/A</b>
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Due to high levels of ammonia, Biochemical Oxygen Demand\* (3 day) and Electrical Conductivity, water sampled was not suitable for drinking, fishing, irrigation, nor any of the Designated-Best-Uses.

## ACTIVITIES AT SITE

Activity + Designated-Best Use		Points of Concern
TG Halli water supply	<b>C</b>	Do current treatment levels address pollutants of concern?
Contract fishing in reservoirs	<b>D</b>	Mercury and DDT may harm fish and transfer to humans through consumption
Irrigation on private farms	<b>E</b>	Farm workers may be exposed to pollutants, and bioaccumulation of contaminants in food

## SITE 104 IMAGES



Water hyacinth infested river channel



Foaming downstream of sample point