

Ambient Air Quality

Ambient air quality monitoring has been carried out twice a week in each location during the study period. The baseline data of ambient air has been generated for PM10, PM2.5, Sulphur-dioxide (SO₂), Nitrogen dioxide (NO₂) and Carbon monoxide (CO). 10 monitoring stations were selected to conduct AAQ monitoring. The 98th percentile value of PM10& PM2.5 remained within the limits in all the stations monitored. The values of Sulphur pollutants, in this case, were found well below the NAAQ standard. NO₂ were also well within the limit. The values recorded were below the prescribed standard of NAAQ the 98th percentile of CO.

- The minimum and maximum concentrations for PM10 were recorded as 42µg/m³ to 70µg/m³.
- The minimum and maximum concentrations for PM2.5 were recorded as 23.1µg/m³ to 42.0µg/m³.
- The minimum and maximum SO₂ concentrations were recorded as 4.80µg/m³ to 18µg/m³.
- The minimum and maximum NO₂ concentrations were recorded as 14µg/m³ to 32µg/m³.
- The minimum and maximum CO concentrations were recorded as 0.39 mg/m³ to 0.89mg/m³.
- The minimum and maximum O₃ concentrations were recorded as 30µg/m³ to 48µg/m³.

Water Quality:

Water quality in the study area was analyzed for ground and surface water bodies. Eight groundwater samples & eight surface water samples were taken and were analyzed for physio-chemical and biological parameters. The groundwater samples were found well within the permissible limit of IS 10500:2012 and do not indicate any industrial contamination.

Study area water quality

Parameters	Surface water	Ground water
pH	7.28-7.82	7.24-7.82
Total Hardness	61-126 mg/l	98-120 mg/l
Ca as CaCO ₃	46-92 mg/l	25.6-36.8 mg/l
Mg as CaCO ₃	12-40 mg/l	2.91-8.26 mg/l
TDS	134-238 mg/l	162-240 mg/l
DO	5.6-9.2 mg/l	--
COD	18-80 mg/l	--
BOD	3.5-18 mg/l	--
Total Coliform	840-4260 MPN/100ml	<2
Faecal Coliform	460-2210 MPN/100ml	<2

Soil Characteristics

- The Soil monitoring has been conducted for determination of Soil quality at 08 locations in the study area. It has been observed that the pH of the soil in the study area ranged from 6.84 to 7.62 which indicate that soil is Neutral in Nature.
- The Nitrogen values range between 12.6 to 13.9mg/100gm.
- The Phosphorus values range between 0.62 to 0.93mg/100gm
- The Potassium values range between 8.02 to 9.09 mg/100gm.

Noise:

The noise monitoring has been conducted for determination of noise levels at 8 locations in the study area. The Leq levels during day time varies from 40.5dB to 58.5 dB while the Leq levels during night ranges between 36.2 dB to 42.4 dB. The noise level show that the Noise Level at study area is within the Ambient Noise Standard Limits.