

Baseline Environmental Profile

Soil

The soil of the project affected area is found to be Clayey in nature. Soil samples were collected from 3 representative locations for assessment of soil characteristics for proposed project. pH of soil along project section were found in the range of 7.52 to 7.82, therefore the soil is slightly basic. Conductivity of soil in the proposed study area is found to be in the range of 298 $\mu\text{m}/\text{cm}$ to 362 $\mu\text{mhos}/\text{cm}$. Available phosphorous in soil samples along the study area ranges from 45.5 mg/kg to 65.5 mg/kg. Potassium content as K in soil samples in the study area is found in the range of 152.5 mg/kg. to 174.5 mg/kg.

Ambient Air Quality (AAQ)

Ambient air quality monitoring has been done at evenly distributed 3 locations along the proposed alignment. The results indicate that all air quality parameters are within the standards specified in the NAAQS in absence of any major pollution generation activities near study area.

Ambient Noise Level (ANL)

Noise monitoring has been carried out once during the entire study period at 3 locations along the proposed alignment for a period of 24 hours. Day & Night-time Leq has been computed from the hourly Leq values as per standards. The Noise quality result shows that Leq Day time varies from 46.2 to 47.1 dB(A) and Leq Nighttime varies from 37.7 to 38.1 dB(A) and it is found well within the Standards.

Surface Water

Surface water quality along the project stretch was monitored at 3 representative locations along the proposed alignment as per the parameters laid down by Central Pollution Control Board for surface water quality criteria. The surface water results for project section showed that the pH of the collected Surface water in the study area was found to be in the range of 7.29 to 8.29. The value of TDS found to be in the range from 143 to 233 mg/L. The chloride and Sulphate values of the samples were observed from 24.5 to 37.5 mg/L and from 7.9 to 16.5 mg/L respectively. Dissolved oxygen found from 7.9 to 8.1 mg/L. Most of the trace metal concentration is observed below limit of quantification.

Ground Water

Keeping in view the importance of ground water to the local population, 3 representative ground water sampling locations along the proposed alignment were identified and samples were analysed for assessment of ground water quality.

The results for project section shows that pH was found ranging from 6.93 to 8.04 in ground water samples taken along the proposed alignment. The chloride content varied between 28.49 to 52.49 mg/l. The Fluoride content was found within the maximum permissible limit (1.0 mg/l) in drinking water as prescribed by BIS. The concentration of Nitrate ranges between 2.0 to 4.3 mg/l. The concentration of iron in ground water has been found within the permissible limits at all locations.