Construction of Water Conservation Measure within Eco-Park with Quality and Level Monitoring System

Eco Park (Prakriti Tirtha) is a recreational park in New Town, situated on a sprawling 480-acre plot. The park houses a 100-acre waterbody with an island in the centre, and significantly contributes to the ecological balance of the township and reinforces its commitment to large open spaces and waterbodies. It is divided into three broad areas: 1) ecological zones like wetlands, grasslands, and urban forest, 2) theme gardens and open spaces, 3) and urban recreational spaces.

The water body is one of the main attractions of the park, offering several water rides, such as speed boating, kayaking, shikara rides, and zorbing for the visitors. This makes the spot one of the visitor-favourites, witnessing a considerable number of visitors.

However, continuous thrust by the waves created due to the water-based activities/water sports on the lake is affecting the embankment, leading to its erosion, as well as affecting the aquatic life in the lake, which is a major concern in terms of environmental hazards that it entails.

Thus, to tackle this issue, a project has been conceived to conserve the waterbody. It will essentially include strengthening the embankment and enable monitoring of quality and level of water in the lake, thus contributing to the “Sustainability” of the city and “Integrating Natural Elements with the Built Elements” as conceived in the Smart City Plan of New Town Kolkata

The water body in Eco Park is a site for pisciculture, and home to diverse aquatic flora and fauna. Therefore, it is crucial that the quality and level of water in the lake be under constant scrutiny and monitoring to ensure that the aquatic life is not subject to the perils of water pollution, and the environment around is clean and green.

Additionally, this project envisages construction of a pedestrian pathway with solar light posts along the border of the water body. The pathway will allow visitors to take a stroll around the waterbody and also indulge in angling if they wish to, whereas the solar lights will be a

testimony to the township's commitment to alternative sources of energy that are sustainable and renewable. The key features of the project are elaborated below.

Strengthening and protection of the embankment from soil erosion owing to wave action caused by water-based activities through modern embankment techniques

Enabling constant checking of water quality in the water body through improvised techniques, along with regular maintenance and monitoring of water level

Constructing a 2-metre-wide pedestrian pathway along the periphery of the water body at Eco Park

Constructing light posts with solar LED lights along the pedestrian pathway for energy-efficient illumination as well as beautification of the area

Key Benefits of the project

- Conservation of the water body will protect the aquatic life of the lake, eradicate any hazard for pisciculture, and overall lead to the sustainability of the city

- Enhancement of the park's beauty through modern embankment techniques will contribute to social engagement

- Enhancement of visitor's experience, through construction of the pedestrian pathway, along the lake's periphery, together with a strengthened embankment unaffected by water sports

- Renewable energy source, viz. solar lighting, dotted around the water body, will increase the sustainability of the project

- Integration of embankment strengthening, along with water quality and level monitoring and solar lighting will significantly contribute to the sustainable development envisioned by New Town Kolkata.