

Project: Flood Control works

Location: Bengaluru

Project completed: 2019

Owner/s: Bengaluru
Development Authority

Applicator/Contractor: Sri
Vinayaka

Designer/Architect/Specifier:
E I Technologies

Market sector: Water
Managment

Products used & amounts:
MasterSeal 7000 CR (9000
Sqm)

Flood Control Works Bellandur & Yamallur Lakes



India, Bellandur Lake, Bengaluru

The background

Bengaluru is known as Garden city of India surrounded by around 189 lakes which comes under Bengaluru Development Authority (BDA) and Bruhath Bengaluru Mahanagar Palike (BBMP). With rapid urbanization and cyber parks; Bengaluru is also recognized as the Silicon Valley of India. Numerous commercial, industrial and residential establishments have sprouted around Bellandur Lake, the largest lake in the city.

The presence of sewage & chemicals in the water causes the froth generation due to hydraulic jump at overflow near weir and gets into the mother valley, resulting in catching fire of froth generated and storm carrying away with wind directions caused environmental hazards to nearby residents and choking traffic nearby the vehicular bridge.

The challenge

An independent consultant, E I technologies on behalf of BDA as Project Management Consultant (PMC) consultant came up with any idea to create a diversion canal adjacent to the weir and hence avoid hydraulic jump to avoid the toxic froth generation.

It was very crucial to protect the concrete structure (channel) from short / long term corrosion from a sustainable viewpoint. Project was delayed as per timelines provided by national green tribunal, which created a big concern.

One of the major challenges was to ensure the durability of structure against aggressive chemical attacks. Consultants reached Master Builders Solutions to provide a holistic solution to meet the longevity of structure at the same time ensuring faster completion of work.

Contact:
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Our solution

Master Builders Solutions came up with an Innovative solution MasterSeal 7000 CR powered by "XOLUTEC" technology which can be applied to even highly humid substrates compared to traditional system in market. Even before the next pour of concrete casted protective coatings were completed from first pour concreting done. Xolutec cross-linked chemistry when applied at site provided superior protection against the aggressive chemicals and helped withstand the higher abrasion the concrete was exposed to. MasterSeal 7000 CR gave confidence to consultants after lab trials were carried out on accelerated testing of Sulphur attack on concrete and Industrial effluent test made in our R&D, making the decision faster on the selection of right system to the critical requirement for the project.

The customer's benefit

- Timely delivery of the project came as big relief to BDA, thanks to Xolutec technology.
- Project completion within the deadline of the contract agreement.
- MasterSeal 7000 CR ensured protection of concrete against the aggressive chemicals present in sewage water
- Bellandur lake regained its charm as a step to retaining the water bodies of the city

Projects facts at a glance

- Total application areas of MasterSeal 7000 CR 9100 sq.m.
- Works completed in span of 15 months including the civil works for 3 packages (Bellandur, Varthur & Yamallur)
- India's first project reference for MasterSeal 7000 CR for a Government project.
- Diversion tunnel at Bellandur lake was 145 mtr. long, 6.4mtr. in height and 3.6mtr in width.
- Success story at Bellandur project extended the further works at Yamallur and Varthur projects.

Master Builders Solutions by MBCC Group

The Master Builders Solutions brand expresses MBCC Group's expertise in providing customized chemical solutions for new construction, maintenance, repair and restoration of structures.

Master Builders Solutions is built on the experience gained from more than a century in the construction industry. At the core of the Master Builders Solutions brand is the combined know-how and experience of a global community of construction experts, who connect with you to solve all of your construction challenges.

Further information is available at:

<https://www.master-builders-solutions.com/en-in>