

FACILITIES:

Water Pollution Management

Managing water pollution is essential in facilities operations for regulatory compliance, equipment protection, and ensuring a safe environment for employees and surrounding communities.

RANMARINE

Operational Challenges

Facility operation teams frequently encounter difficulties in managing waterbody upkeep because of rising pollution levels, overgrowth of biomass, and harmful algal blooms. Traditional methods are labor-intensive, costly, and potentially environmentally damaging.

Furthermore, maintaining water pollution control is usually reactive, which places facility operations at significant risk if problems are not swiftly resolved.

RanMarine Solution

RanMarine Technology is a pioneering company specializing in the design and development of advanced Autonomous Surface Vehicles (ASVs) technology to efficiently clean up pollution, bio-waste or algae, and debris from aquatic environments. Our innovative ASVs can manually or autonomously navigate water bodies, removing waste to ensure cleaner waterways.



Proactive Pollution Control: Deploy proactive pollution programs to safeguard operations and equipment, ensuring seamless efficiency.



Cost Efficiency: Reduced labor and operational costs compared to traditional removal methods.



Regulatory Compliance: Early pollutant detection and corrective actions ensure compliance and avoid penalties.



Environmental Sustainability: Zero-emission electric vessels promote sustainable practices to protect ecosystems, biodiversity, and public health.



Aesthetic Improvement: Cleaner water bodies enhance facility and environmental aesthetics.

Assessment and Planning

- Conduct a site survey to map the water body and identify high-density pollution and algae zones.
- Leverage RanMarine Connect for planning routes, scheduling missions, and tracking water pollution program impact.

Waste & Algae Removal

- Deployable on various water bodies such as lakes, retention ponds, clarifiers, and irrigation canals.
- Proactively monitor water conditions to identify potential environmental issues before outbreaks occur.

Biomass Management

- Effectively capture floating biomass and algae, preventing accumulation that can harm operations and water quality.
- Plan and execute regular deployments for a proactive biomass management program.

Data Collection and Analysis

- Consistently gather real-time water quality data during operations using a variety of more than 15 water sensors.
- Generate comprehensive impact reports to inform management decisions, update regulatory bodies and the public on the proactive water pollution mitigation efforts.