



Tigernix Smart Wastewater Asset Solution

Responsible Wastewater Asset Management Made Accessible

BROCHURE

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Solution Synopsis

Tigernix presents the Smart Wastewater Asset Solution that is designed to encourage the smooth flow of commercial initiatives to manage wastewater resources to meet current and future water demands in Australia and around the world. This software suite is based on a thematic strategy powered by Industry 4.0 capabilities that aims at the short-term goal of unchallenged water supply and the long-term goal of becoming a recycling society. Focusing the 3R module as the roadmap of the solution 'Recovery, Recycling and Reuse', the Tigernix Smart Wastewater Asset solution contributes to a healthier mechanism when the performance, risks, and costs are concerned.



4 Smart Modules

- Smart Collection Asset Solution
- Innovative Pumping Asset Management
- ESG-compliant Treatment Solution
- Predictive Reuse Solution



Sustainability and Waste Management

- I4.0 Encouraged Wastewater Management Plan
- Comprehensive Wastewater Treatment Initiatives
- A Closed-Loop System for Wastewater Nutrient Recovery
- AI-Driven Water Reclamation and Reuse System
- Smart Sensors and Satellite Utilisation



ESG Accountability

- Low Energy Consumption Rates
- Low-Chemical Usage in Pollutant Removal
- Social Responsibility Through Community Engagement
- Environment and Public Health Accountability Standards
- Transparency and Low Carbon Footprint
- AI-Powered Emergency Response Planning and Training



Cost and Performance Alignment

- Comprehensive and Unified Visibility
- Investment Planning Based on Historic, Actual and Future-proof Factors
- Financing Mechanisms of the Existing and Planned Systems
- Expansion or Upgrading Requirement Evaluations
- Integrating Development, Municipal, Financial and Capital Plans

Statistics



93% + of the Australian resident population covered by public wastewater treatment system



1350+ gigalitres of Annual wastewater are released to Australian oceans



450+ Million litres of daily residential wastewater generation



From 15 to 20 years of limited life expectancy for wastewater treatment equipment



380+ Billion of Global municipal wastewater generation per year



24% of expected growth in global Wastewater production by 2030



80% + of all global wastewater productions are released without no proper treatment

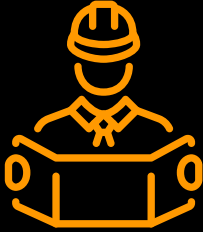


10+ Billion gallons of global sewage plant's untreated waste is released



Stakeholders

Asset Managers



- Real-time Visibility into the Wastewater Infrastructure
- Capacity to Detect Anomalies and Act Fast
- Guided Safety Protocols
- AI-powered On-time Notifications
- No Disruptions in Quality Water Production

Leadership Teams



- Future-proof Wastewater Asset Investment Planning
- Strategic Answers to Complex Situations
- Financial Stability with Uninterrupted Workflow
- Competitive Edge through AI-powered Insights
- Penalty-proof with Guided Regulatory Compliance

Community



- Uninterrupted Water Supply
- Smooth Flow of Commercial Operations
- Community with No Health Risks
- A Safety-proven Environment
- Disaster Readiness Capacity

Digital Capabilities

Bringing the powerful Industry 4.0 capabilities under one unified umbrella and providing a digitalised eye to conduct a laser-like scanning from its gathering to distribution of wastewater maintaining high-levels of environmental, social and legal standards. These technologies act as an accumulation to take care of the outlining of wastewater management, future development identification, investment planning, etc.



GIS



IoT



**Cloud
Computing**



Big Data



**Predictive &
Prescriptive
Analytics**



5G



Simulation



**Robotic
Automation**



AR & VR



Digital Twin

ESG-Sensitive Metrics You Can Track ...

- Energy Efficiency
- Pollution Prevention
- Sustainable Practices
- Green Infrastructure
- Waste Management & Recycling
- Data Security
- Ethics
- Regulatory Compliance
- Compensation
- Labouring Standards



Tigernix Smart Water Asset Solution

Collection Asset Solution



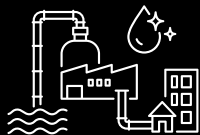
This Smart Solution is uniquely developed to ensure the optimal functioning of wastewater collection pipelines and basins and the unchallenged flow of operational background in the treatment plants. In order to keep the collection assets away from sludge build-up and congestion, this software especially addresses the related obstacles, starting from asset design, construction, and operation to maintenance of wastewater collection infrastructure.

Pumping Asset Solution



Transforming your pumping stations into smart in-plant pumping facilities with Tigernix Wastewater Pumping Solution, which drags the powerful technological advancements under one roof incorporating futuristic innovations to enhance pumping asset health and operational transparency. Simulating pumping scenarios through the implementation of digital models, it inspects the actual statuses of pumping assets, simplifying compliance with dynamic health, safety, and financial standards effortlessly.

Treatment Asset Solution



Tigernix clears the road to stay away from performance-breaching challenges inside the treatment plants through this exclusive technology suite. It creates a powerful combination of technologies to monitor and forecast precipitation, pH reactions, aeration, and various gas-liquid interactions, boosting the efficiency up to the next level. The consolidation makes it easier to receive a comprehensive analysis of risks, costs, and performances.

Reuse Asset Solution



Tigernix Wastewater Reuse Asset Solution spreads its I4.0 powered wings in order to take the weight of water recycling initiatives into our shoulders, which includes the entire process from producing reusable water to delivering it to various destinations. This software module ensures a consistent supply of recycled water, not compromising its expected quality and quantity levels backed-up by a solid foundation of scientific insights.

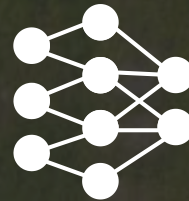
Wastewater Collection Asset Solution



Wastewater Network Maintenance

- Basin maintenance to keep up with the asset standards
- Longevity and infra-criticality data analysis
- Network degradation tracking system
- Smart algorithms enhanced IIoT surveillance
- Conditions evaluating event simulators

- Future-proofing finances with 10 year forecast
- Operational visualisation via network tools
- Extreme weather resilience simulators
- Inefficiencies addressing network analysis
- Sewer design integration digital models



Wastewater Network Design



Wastewater Network Construction

- Accurate 3D water analysis
- Bearable isolation technology management
- AI-powered regulatory adherence checkers
- Pipe installation digital analysis
- Visualising sewage rehab models

- Basin-pipe 3D tracking
- Data-driven risk prediction automators
- Incident simulations for clear understanding
- GIS-based area cartography
- Interactive pipe life cycle analysis



Wastewater Network Operations

Wastewater Pumping Asset Solution



Wastewater Pumping Station Monitors

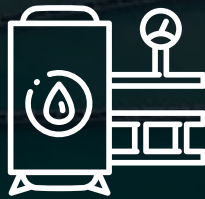
- Embedded pumping tank visualisation
- Tech-prescribed pumping efficiency
- Consolidated energy consumption analysis
- Pump station KPI automation
- AI-driven pump execution visualisation

- Tech-driven aeration plan implementation
- Chemical parameter odour management
- Maximum efficiency power management
- Budget-efficient pump station construction
- Tech-powered ventilation checkers



Wastewater Pumping Station Calibration

- Tailored infrastructure maintenance solutions
- Expense minimisation smart finance system
- ML and AI-powered wastewater reliability checkers
- 24/7 service coverage through technical operator availability model



Wastewater Pumping Station Maintenance

- Gas leak and odour detection technology
- Inflow trend-based designs
- IIoT health safety regulation sensors
- Tech-assisted decision backup analysis



Wastewater Pumping Station Integrity

Wastewater Treatment Asset Solution



Treatment Plant Designer

- Assessing demand via 3D models
- AI-driven control strategy
- Automated infrastructure validation tools
- Structured plant design generators
- Dispensable cost recovery enablers

- Tech-powered oxygen level maintenance
- Energy optimisation calculators
- AI-based health limit monitoring
- Operational factors screen analysis
- Real-time treatment progress trackers



Treatment Plant Optimiser

- Tech-enabled oxygen modelling strategy
- Smart financial barrier analysis
- Tech-fueled operating performance forecasting
- Water quality pH predictions
- Weekly safety with set-point highlighters



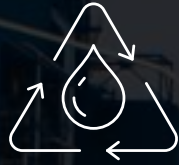
Intuitive Treatment Prediction

- All-scenario targeted AI investment profiling
- Consolidated life cycle monitoring technology
- User-friendly financial report archive
- Asset criticality guide estimation
- Tech-enabled viability statistics



Water Treatment Investment

Wastewater Reuse Asset Solution



Wastewater Reclamation Monitoring

- AI-enabled asset reclamation
- Safety breach prevention technology
- BNR process performance technology
- Real-time water quantity assurance
- Enhanced network monitoring tools

- Critical asset resilience simulators
- Water reuse maintenance via ArcGIS
- AI-enabled risk analysis
- Water network degradation prevention



Wastewater Reclamation Maintaining

- Consolidated ageing asset evaluators
- Specific scenario impact analysis technology
- Tracking performance trends via dashboards
- Predictive ML algorithms for demand forecasting



Water Renewal Production Performance

- Advanced tools for legislative automation
- 3D representations for community awareness
- Optimising value framework with informative data
- Industrial water reuse cloud repository
- Wastewater heat recovery innovation tools



Water Renewal Supply Optimisation

You Are Strengthened with Tigernix

- ✓ End-to-end tech-enabled water reuse solution ensures constant supply
- ✓ Tech-driven maintenance cuts costs at recycling facilities
- ✓ Promoting tech-driven treated wastewater reuse to alleviate freshwater stress
- ✓ Continuous water quality monitoring ensures industry standards compliance
- ✓ Technology backed-up adaptation to erratic weather for stable water supply



Why Trust Us?

SINCE 2006



5+

Countries
Served



17+

Years of
Experience



10+

Smart Asset
Suites



55+

Employees



5+

Industrial
Domains



10+

Digital
Capabilities



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