



COMPANY PROFILE

2024





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TIKAL HISTORY

A History Of innovation

The ancient city of **Tikal** in the Maya civilization was a marvel of innovation. Its inhabitants were skilled engineers, mathematicians, and astronomers. But one of their most impressive achievements was their water treatment system.

The major center for water treatment innovation.

Tikal was built in a tropical rainforest, where the climate is hot and humid. This made it difficult to find clean drinking water. But the Maya were determined to solve this problem.

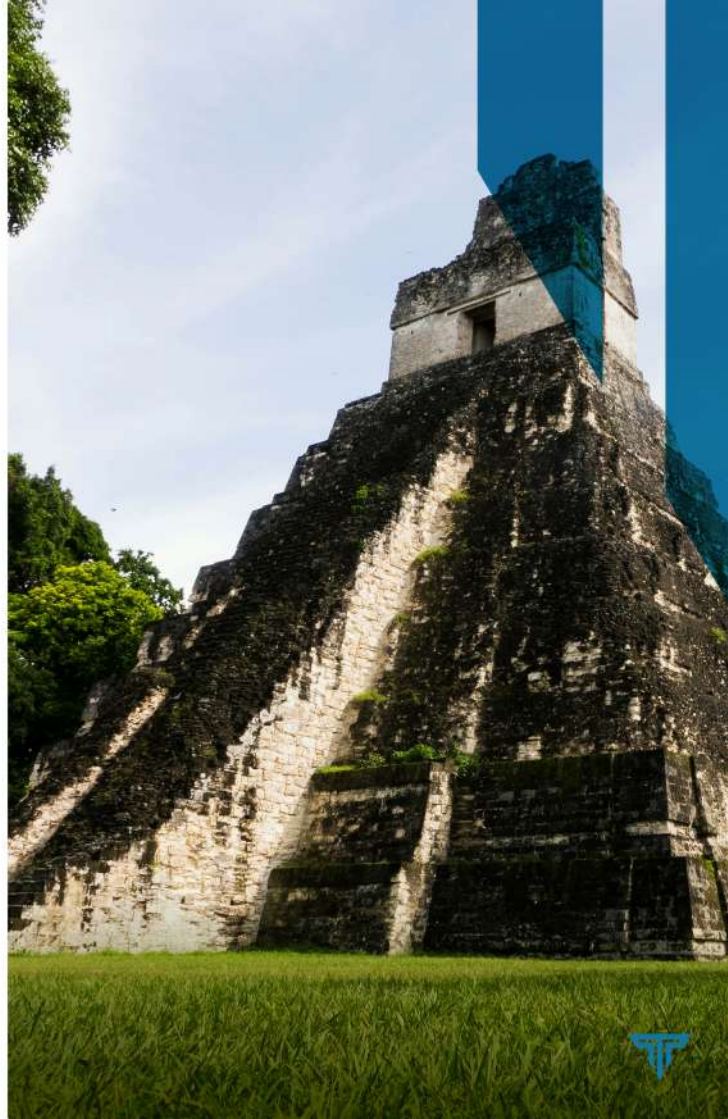
By building a complex system of reservoirs, canals, and water treatment facilities. The reservoirs collect rainwater from the surrounding hills, the canals distribute the water throughout the city, and the water treatment facilities clean the water to make it safe to drink.

Excellence filtration systems with sustain mindset.

- 1- One of the key components of Tikal's water treatment system was the use of the mineral zeolite. Zeolite is a natural substance that has the ability to filter out harmful microorganisms and toxic chemicals from water. The Maya collected zeolite from a nearby source and used it to line their reservoirs and canals.
- 2- They also used other methods of water treatment, such as boiling water to kill harmful bacteria, and using lime to neutralize acidity.
- 3- They also built filtration systems using sand and gravel.

Tikal's water treatment system was advanced for its time. It is believed to be the oldest known example of a water treatment system and is still functional today. By learning from the Maya, we can develop more sustainable and effective water treatment solutions for the future.

Tikal was a remarkable place. Its people were pioneers in many fields. Their legacy continues to inspire us today.



2 ABOUT US

Mission Statement

ABOUT US

- **At Tikal** Water & Irrigation Systems, we hold the belief that everyone deserves a sustainable environment free from pollution and resource wastage.
- **Tikal** was Founded in **2019** by a group of engineers driven by initiative, innovation, and renewal, it was established to address the pressing challenges of untreated water, and unsustainable irrigation practices.
- **Our concern** is to provide a range of integrated solutions and services that play a crucial role in physical, chemical, and biological challenges, and apply them through Vital national projects.

Tikal also attaches special importance to small communities by

- designing customized and intelligent solutions that allow using modern technologies and meet all needs and standards.

At Tikal, we aim to preserve and sustain water resources and are committed to delivering the latest solutions and services to our

- clients. To achieve this, we invest in research and development to enhance access to modern technologies and make a positive impact on the world.

SUSTAIN water

MISSION

Preserve water resources from waste, non-use, and pollution by providing innovative and affordable water treatment and irrigation systems that are more up-to-date with technology.

VISION

Empowering our region to become a global role model in water resource protection by strategically addressing physical, chemical, and biological challenges.



3TEAM

United by purpose, driven by passion.

Our team is the force that turns challenges into triumphs and dreams into reality." By some of pillars "Values, Culture and Consultancy".



Company Values

- 1. Sustainability:** We are committed to sustainable practices that preserve water resources for future generations.
- 2. Innovation:** We embrace innovation, constantly seeking and implementing cutting-edge solutions in water treatment and irrigation.
- 3. Integrity:** Integrity is at the core of everything we do, from our relationships with clients to the quality of our solutions.
- 4. Collaboration:** We believe in the power of collaboration, both within our team.
- 5. Excellence:** We strive for excellence in every aspect of our work, setting high standards for the quality of our services and products.
- 6. Responsibility:** We take responsibility for our environmental impact and work towards minimizing it in all our operations.

TEAM

United by purpose, driven by passion.

Our team culture is characterized by:



Team Culture

- 1. Inclusivity:** We foster an inclusive environment that values diverse perspectives, ideas, and backgrounds.
- 2. Continuous Learning:** We encourage a culture of continuous learning, where every team member has the opportunity to grow and develop their skills.
- 3. Innovation Hub:** Our workplace is an innovation hub where creativity is nurtured, and new ideas are welcomed.
- 4. Teamwork:** Teamwork is the foundation of our success, and we believe that collaboration enhances individual and collective achievements.
- 5. Empowerment:** We empower our team members to take initiative, make decisions, and contribute to the success of the company.



TEAM

United by purpose, driven by passion.

Our team culture is characterized by:



Consultancy

At Tikal, we believe in the power of expertise and collaboration. Our Consultancy pillar stands as a testament to our commitment to seeking guidance from consultants and industry experts. In the dynamic landscape of water treatment and irrigation, we recognize the importance of tapping into specialized knowledge to pinpoint challenges and devise optimal solutions.

This collaborative approach not only enriches our problem-solving capabilities but also reinforces our dedication to delivering top-tier solutions. At Tikal, we embrace the wisdom that comes from consulting the best minds in the industry, propelling us towards excellence in water treatment and irrigation solutions."

Some of our Consultants:



A. **Professor** and environmental consultant.



B. **Engineers** with more than 35 years of experience.



C. **Pioneers** in manufacturing.



4 WATER SOLUTIONS:

Your challenges Are Our Concern

Tikal has more than **71%** coverage of basic water treatment processes.

"Through its water solutions, Tikal Company aims to simplify the process of preserving and benefiting from water resources by providing comprehensive and integrated solutions for most vital processes in water treatment.



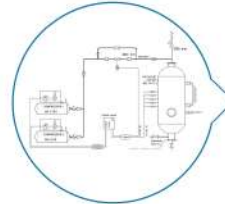
4.1 A. Utilities Solutions

1. Pump Station:

At Tikal Water Systems, our Pump Station Solution is a cornerstone in the efficient movement of water through various stages of the treatment process. We specialize in delivering end-to-end solutions.

Services:

- Technology Identification
- Process Design
- Engineering
- Project Execution
- Installation
- Start-Up
- Commissioning & Performance Testing
- Rehabilitation
- Maintenance & Operation

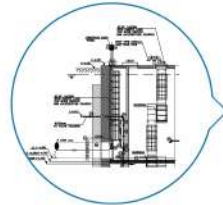
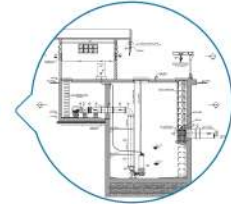


Water Hammer System

Surge Tank, Piping System, Compressor.

Screening System

Basket Screen, Bar Screen, Screens Accessories.

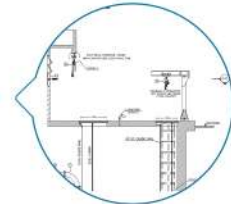


Cranes

Overhead Bridge Cranes, Jib Cranes.

Controlling flow system

Penstocks, Stop log, actuators, Gearbox, Gate accessories.

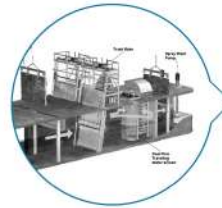


2. Headworks Solution:

Tikal Water Systems excels in Headworks Solutions, a vital starting point for water treatment. Our comprehensive services cover technology selection, project execution, and ongoing operation and maintenance.

Services:

- Technology Identification
- Process Design
- Engineering
- Project Execution
- Installation
- Start-Up
- Commissioning & Performance Testing
- Rehabilitation
- Maintenance & Operation

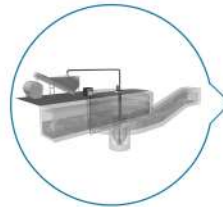
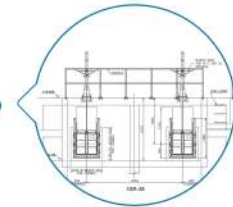


Screening system

Manual screen, Mechanical Screen, Drum screens, Belt Conveyor, Waste box.

Controlling flow system

Stop log, Slide or Sluice Gate, Penstock, Isolation gate, Channel water control.



Screen & grit removal Compact

Separating System

Aerated Grit Removal, Vortex Grit removal, Sand silo, Sand separator & waste box.

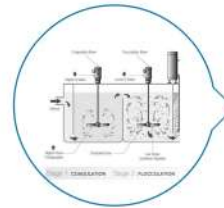


3. Clarification Solution:

Introduction: In the Clarification domain, Tikal Water Systems stands out for providing advanced solutions that ensure water quality. From technology selection to ongoing maintenance, we offer a complete suite of services.

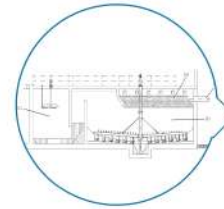
Services:

- Technology Identification
- Process Design
- Engineering
- Project Execution
- Start-Up
- Commissioning & Performance Testing
- Rehabilitation
- Maintenance & Automation

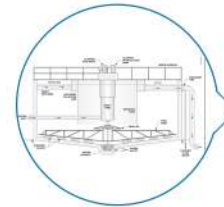


Flocculation

Mixing Equipment (Gentle/Slow Mixer).



Lamella Clarifier

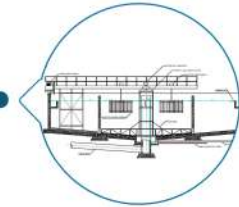


Effluent Collection

Weirs, Piping Systems, Launder Systems, Channels.

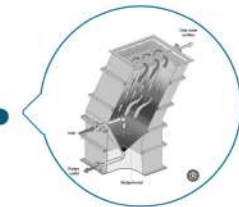
Coagulation

a. Coagulants (Alum, PAC, Ferric Salts),
b. Mixing Equipment (Flash Mixers).



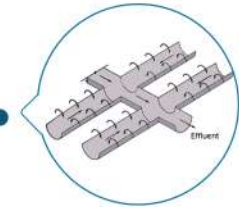
Sedimentation

Lamella Parallel Plate, Hexagonal, Chevron
Tube Settler, Tube Settler, Lamella Sheets,
Lamella Support, Lamella Washing System.



Scrapers

Full/Half Bridge, Clariflocculator,
Rotating, Traveling Bridge.



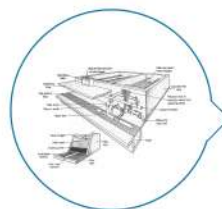
4. Filtration Solution:

Our Filtration Solution at Tikal Water Systems focuses on delivering pristine water by removing finer particles post-clarification.

We provide integrated services from technology selection to ongoing maintenance.

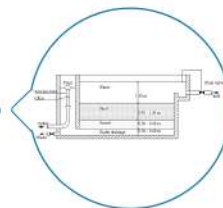
Services:

- Technology Identification
- Process Design
- Engineering
- Project Execution
- Start-Up
- Commissioning & Performance Testing
- Rehabilitation
- Maintenance & Automation



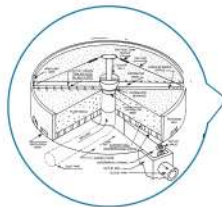
Rapid Sand Filter

Filter Nozzle, Nozzle Slabs, M-Block, Piping System, Sand, Gravel, Air Blower.



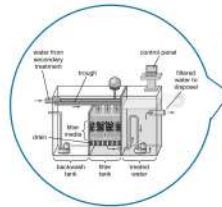
Slow Sand Filter

Sand, Gravel, Under drain system, Gates.



Pre-filtration

Pressure vessel, FRP vessel, Nozzle System, cartridge filter (PVC, 51.st), Cartridge membrane, Media, Anthracite, Carbon, Piping system, control Head, control panels, dosing pump, dosing tank.

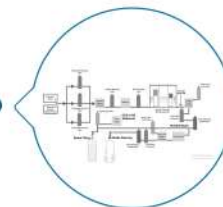


Ion Exchange

Pressure vessel, FRP vessel, Nozzle System, Ion exchange resin, Media, Carbon, Mixed bed, Piping system, control Head, control panels, regeneration system.

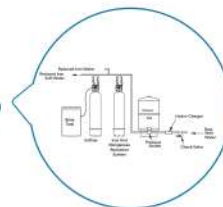
Gravel Filter (Bio)

Distribute Arm, Gravel Under drain system.



Tertiary Filtration

Gravity Filters by its components, Pressurized Filter, Dosing System.



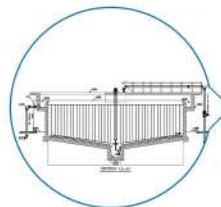
5. Sludge Treatment Solution:

Tikal Water Systems excels in Sludge Treatment, offering eco-friendly and efficient solutions from technology selection to ongoing operation and maintenance.

Services:

- Technology Identification
- Process Design
- Engineering
- Project Execution
- Installation
- Start-Up
- Commissioning & Performance Testing

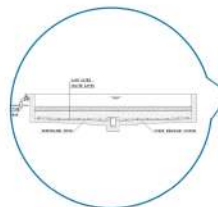
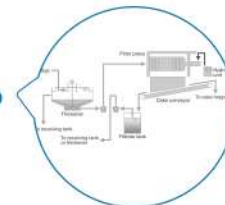
These clear points **highlight Tikal Water Systems' commitment** to delivering innovative, reliable, and sustainable solutions across the entire spectrum of water treatment processes.



Thickening System:
Sludge Thickener Bridge.

Dewatering System:

Screw Press, Belt Press, Filter Press.



Drying Beds:

Gravel, Sand, Under drain system.

B. Small Communities

Under Process

- **TikalOne™**, a pioneer division within our corporate framework, is strategically poised to revolutionize water treatment for small communities, ranging from **500 to 50,000 residents**.
- Born out of a commitment to excellence and guided by the principles of precision and innovation, **TikalOne™** offers a visionary approach to integrated water solutions.
- At its core, **TikalOne™** is not just a brand; it's a scientific breakthrough in water treatment. Embracing the concept of modular intelligence, our bespoke systems include Sea Water Reverse Osmosis (**SWRO**), Brackish Water Reverse Osmosis (**BWRO**), Municipal water treatment (**MW**), MBBR (**Moving Bed Biofilm Reactor**), and SBR (**Sequential Batch Reactor**).
- **These units are designed** to the distinctive characteristics of each water source. with cutting-edge, adaptable approach allows **TikalOne™** to transcend traditional water treatment models. With a palette of technological sophistication and an unwavering commitment to sustainability,
- **TikalOne™** aspires to be the hallmark of professional water management, setting new standards for efficiency, reliability, and environmental consciousness.



5 IRRIGATION

75% of the worlds consume from water resources

Tikal aims to achieve 12% of the Egyptian irrigation system supplies market.

Content: Irrigation and Agriculture Solutions for Your Soil, Crops and Livestock.

As a member of an industry that uses **75%** of the world's water resources, you understand that quality, delivery, and management of water are critical to your success. Your bottom line depends on it and so do the health and well-being of people around the world.

That's why agriculturalists and producers rely on Tikal's irrigation products and solutions to supply water, treat wastewater, and analyze, even under the most challenging conditions.

• Irrigation Products:

Water handling systems are designed to irrigate every part of your field; products that stand tough in the harshest environments. We listen, learn, and adapt to your local environment, helping your agricultural operations thrive wherever you are in the world.

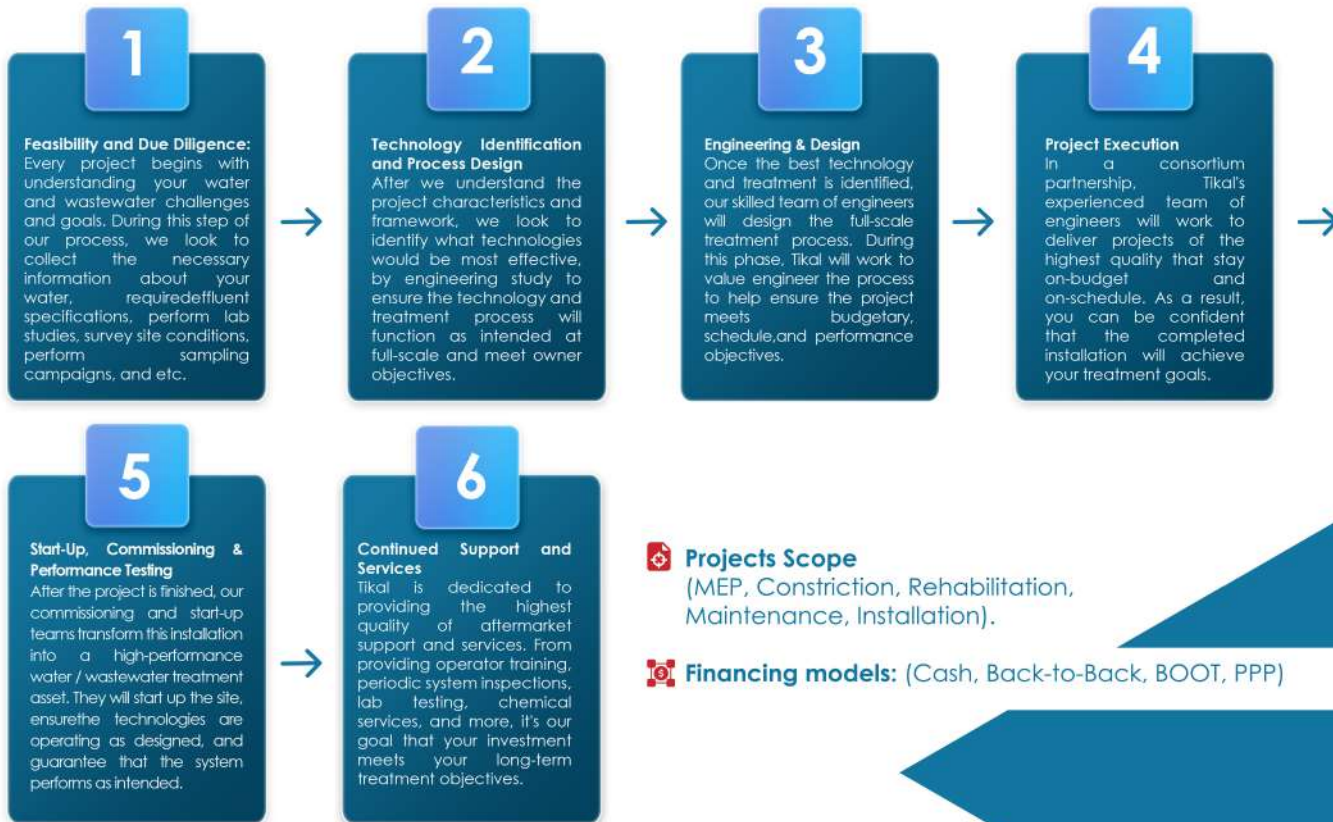
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6 PROJECTS

Successful Projects Begin with Understanding Client Needs and cooperation with a proven partner network.

• Our Project processes





1. Digital water services

combination of digital tools and the expertise of Tikal employees to deliver operational and environmental efficiency.

2. Mobile water services

Tikal offers reliable, secure, 24/7 services to meet all requirements. Pre-packaged on a trailer, skid, or container for maximum mobility and responsiveness, a portable water treatment plant will instantly enhance your facility.



3. Spare Parts, After market services

At Tikal Water systems, we recognize replacement equipment and spare parts are critical to implementing and maintaining your water and wastewater treatment systems. We supply a wide variety of equipment, instrumentation & spare parts from the most respected manufacturers.

4. Operating Services

Experienced on-site specialists to assist with start-up, commissioning, and troubleshooting, operating, maintenance & repair services.

8 FIELD OF USE

Pump Station



Portable Water Treatment Plant



Agricultural Wastewater treatment plant



Sewage Treatment Plant



Brackish Water Reverse Osmosis



Sea Water Reverse Osmosis



Industrial wastewater treatment Plant





9 TIKAL'S SUSTAINABILITY COMMITMENT

Transforming Challenges into Solutions

At Tikal Water Systems, sustainability is not just a commitment; it's the essence of our mission. Founded to address the core challenges of wastewater, pollution, wastage, and non-use, we are pioneers in creating innovative solutions for a cleaner, more efficient future.

Our Core Mission:

1. Wastewater Revolution:

- Transforming wastewater into a sustainable resource.

2. Pollution Mitigation:

- Pioneering technologies for cleaner waters.

3. Minimizing Wastage:

- Driving a paradigm shift for responsible water use.

4. Non-Use Transformation:

- Turning non-use scenarios into resource optimization.

Innovation for a Sustainable Future:

1. Smart Technologies:

- Addressing challenges with cutting-edge solutions.

2. Circular Water Economy:

- Closing the loop on water resource management.

3. Community and Ecosystem Impact:

- Engaging actively for positive and resilient ecosystems.

4. Transparent Practices:

- Operating with accountability and transparency.

Join Us on the Journey



10 Our market

Without Partners, Nothing Valued.

MINISTRIES



AUTHORITIES



HCWW





OTHER PARTNERS



REAL ESTATE DEVELOPORS



WATER TECHNOLOGY





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