

Water Life Systems Africa Company Profile

- DRINKING AND WASTE WATER TREATMENT
- HYDROGEN BASED RENEWABLE ENERGY SOLUTIONS
- GREEN INDUSTRIAL ZONE DEVELOPMENT

water life
systems
africa



Prepared by
Water Life Systems

Content

1. **Overview**
2. **Water Life Systems Solutions**
3. **Target Markets**
4. **Green Industrial Zone Development**
5. **Financing Capability**
6. **Project Execution**

Annexures:

WLS Technology and Capability

Local Content – Procurement and Human Resources

Positioning Statement

From the viewpoint of WLS, global populations in need of water supply, sanitation services, renewable energy, and food security can deploy a manageable number of our decentralized Water-Energy-Food Nexus projects to targeted populations that provide resilient and sustainable life support systems before the 2030 UN SDG deadline arrives. Our scalable, IoT Connected off & on-grid capable solutions let every urban, peri-urban, and rural community in need to economically implement world-class sustainable life support solutions. Traditional utilities can integrate WLS technologies throughout their operations for existing system upgrades.

Overview

INTEGRATION OF WLS WATER AND WASTEWATER TREATMENT AND HYDROGEN BASED RENEWABLE ENERGY SOLUTIONS INTO THE NATIONAL INFRASTRUCTURE DEVELOPMENT PROJECTS

- **The Water Life Systems group of companies (in USA, Canada, South Africa, and [your nation] to be registered upon MoU) (WLS)**, provide water and wastewater treatment R&D, manufacturing, and consulting. WLS has developed scalable drinking water and wastewater treatment technologies, such as electrolyzers, filters, sensors, logistics, and remote communications systems that **produce virtually zero Green House Gas (GHG) emissions or other pollutants**, and zero sludge is produced for added cost savings and health benefits.
- WLS electrolyzer technologies produce hydrogen both as a wastewater treatment byproduct and for dedicated electrolysis-based **Green hydrogen production for major economic and environmental gains**.
- WLS has partnered with Madini Ltd, an engineering consultancy who has been active in the mining and infrastructure sectors for over 20 years in various African nations. **Madini has a successful track record** in its various mining and civil infrastructure projects.
- **Proposed National Water & Sanitation Infrastructure project finance strategy** developed to date include:
 - Phase 1: USD15M to be invested during 2022 and 2023 for feasibility studies, logistics preparation, site selection, and initial pilot deliverables
 - Phase 2: USD500M to be invested between 2023 and 2030 for full scale deployments
 - ***Additional financing is immediately available for Green Infrastructure projects that utilize WLS and partner technologies***



Why WLS

SUPERIOR TECHNOLOGY – FULLY FINANCED – EXPERIENCED TEAM – FOCUS ON LOCAL CONTENT

- **Strategic Fit** – The proposed project are 100% aligned with the African strategy to grow industrial development on a sustainable basis.
- **Fully Funded** – The 10% investment by African upon signature of contract triggers WLS sourced investors to commit the additional funds to secure the full project budget and is available through a series of monthly drawdowns over a 2 to 3-year period.
- **Integrated Solution** – WLS are different from typical service providers in that they bring the complete project finance, next generation equipment supply, installation and operation and maintenance solution to Africa.
- **>20-year Execution Experience in Africa** – WLS partner Madini has a proven track record of delivering large infrastructure projects on time and budget.
- **Focus on Local Content** – Operational strategy based on very high local content standards to maximize project impact on African social and economical development.
- **Build-Operate-Transfer Solution** – Minimizing upfront investment requirements and long-term repayment schedule.

Water Life Systems Solutions

WLS Technologies

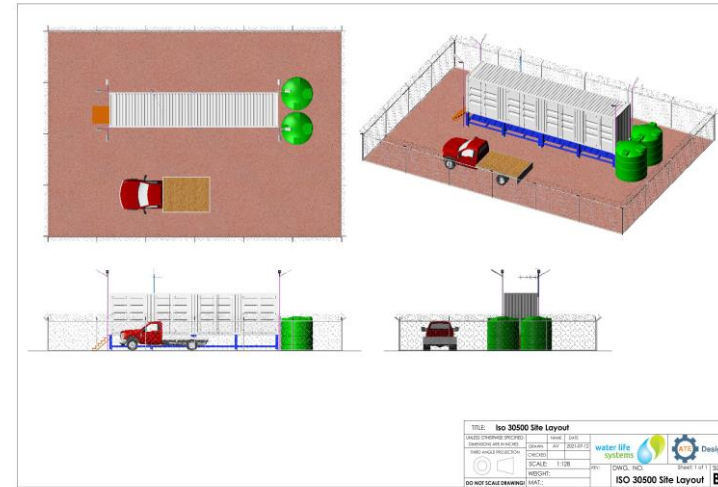
WASTEWATER TREATMENT SYSTEMS – PUREBOX™

- **Solutions are scalable** and can either be containerized (60m³/day) for fast deployment or configured in centralized facilities (circa 5,000m³/day) for higher demand locations.
- Water inflow, process and product quality are **remotely monitored to ensure optimal performance and quality standards**.
- **Ability to handle changes in inflow quality** through onsite addition of additional filtration components.
- The systems can be **independently powered by renewable energy sources in urban or remote rural locations**.
- Systems are based on **Electrolytic Treatment Process (ETP)** and not traditional biological treatment processes (BTP) which is preferred due to the superior pollutant treatment capacity, significantly lower Green House Gas emissions and the wide variety of water supply and wastewater treatment applications in all municipal and industrial sectors.

WLS Technologies

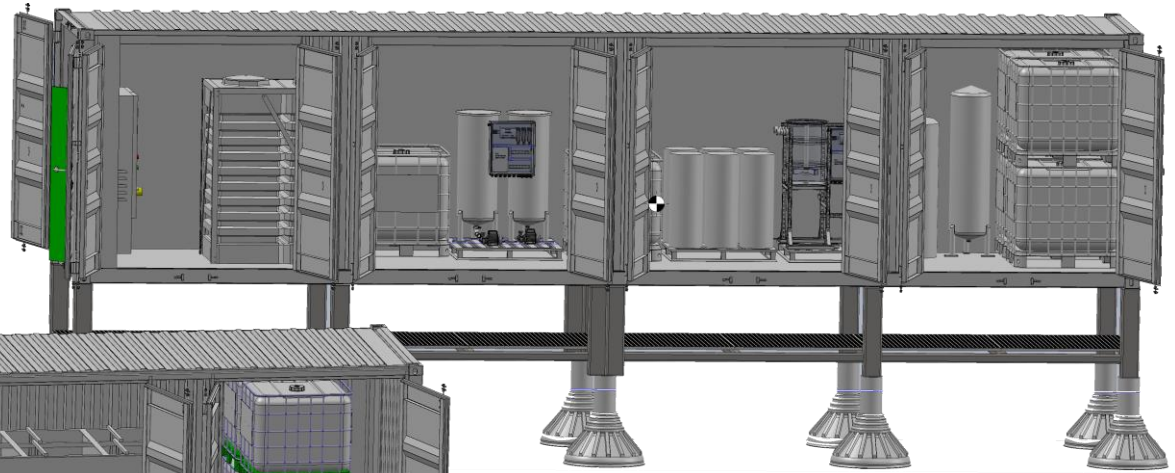
PUREBOX™ POTABLE AND WASTEWATER TREATMENT SYSTEM

- An insulated container house the PureBOX™ mechanical treatment components.
- Wastewater treatment systems only require additional filtration capacity, making for easy operations and maintenance.
- Ability to maximize scarce freshwater resources with closed-loop plumbing infrastructure that recovers freshwater and other resources for reuse.
- Components housed within the PureBOX™ include:
 - Internal piping and ports.
 - Proprietary Foam Filtration systems.
 - Proprietary Ozone Generators.
 - Sensors for live reading of performance, water quality and pressure.
 - Electronic Coagulation (EC) system.
 - External system tanks to temporarily store the source water before it runs through the filtration process, or after treatment for potable water storage.

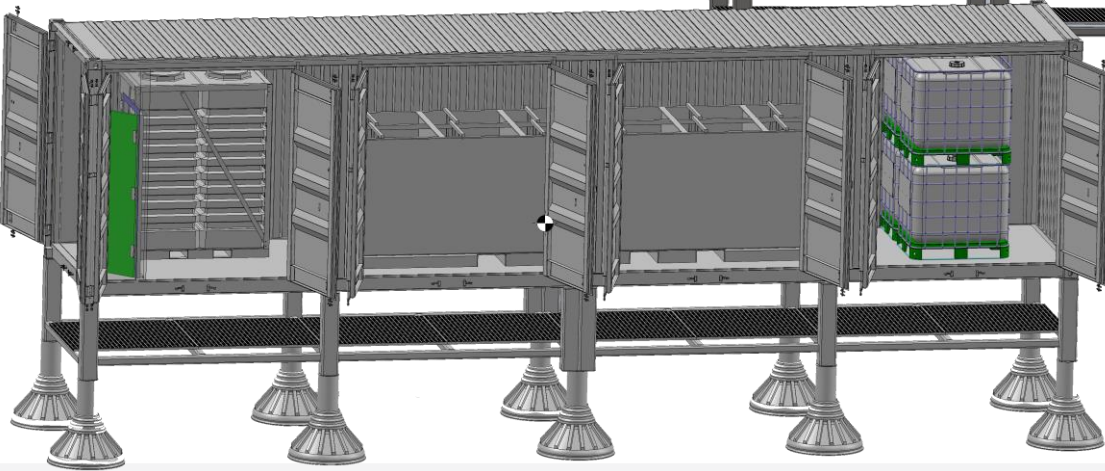


Our Solutions

Scalable and modular designs for quick manufacturing and deployments.

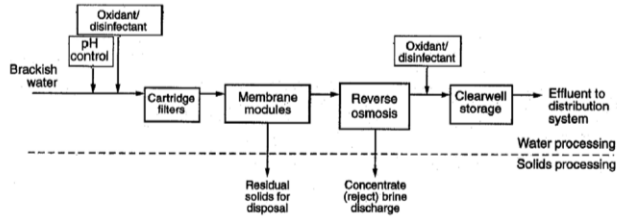


Can adapt to the desired application and environmental changes over time.

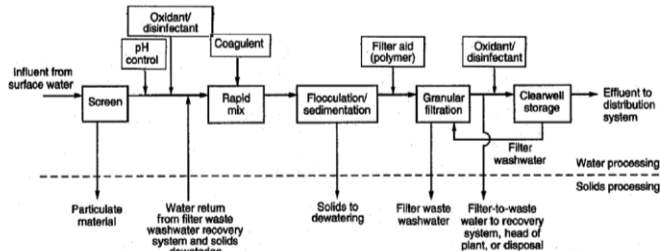


WLS Technologies

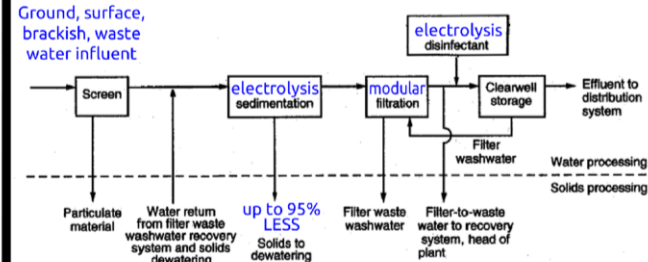
COMPARISON BETWEEN ELECTROLITIC AND BIOLOGICAL PROCESS FLOW



Traditional Drinking Water Treatment



WLS Drinking Water Treatment

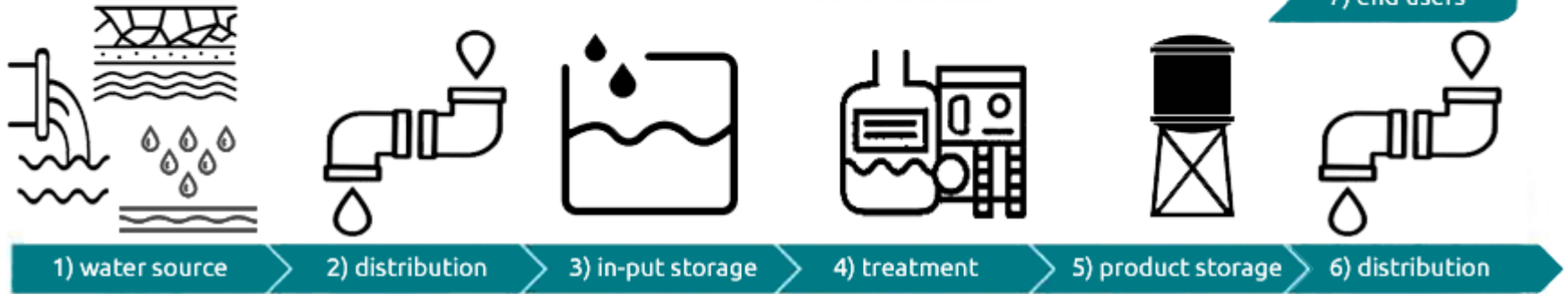


- versatile influent sources
- simplified treatment process
- resource recovery, no waste
- adapts to any environment

WLS Technologies

PUREBOX™ POTABLE TREATMENT SYSTEM

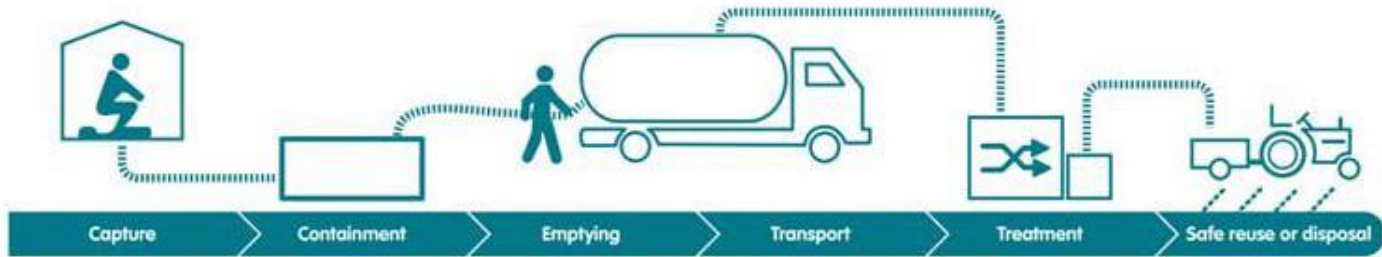
- The WLS electrolysis-based drinking water treatment allows a wide variety of water sources to be treated by one system, with more effective pollutant removal and significantly lower GHG emissions than traditional systems.



WLS Technologies

PUREBOX™ WASTEWATER TREATMENT SYSTEM

- A septic tank or pit is emptied by a vacuum truck, which delivers the waste to a treatment plant for safe reuse in agriculture or environmental discharge.



- Or wastewater is treated securely onsite for safe reuse in agriculture or environmental discharge at reduced costs (minimal piping, transfer pumps, energy use).



WLS Technologies

RENEWABLE ENERGY AND HYDROGEN GENERATION

- WLS water and waste water treatment systems come delivered ready to be powered by solar or grid power connections.
- The dedicated hydrogen production units, when powered by hydroelectric, solar, or wind power sources produce Green Hydrogen. Virtually zero GHG emissions are emitted by the WLS hydrogen production process.
- WLS dedicated hydrogen production and energy supply projects will be initially powered by third party hydroelectric, solar, or wind power sources. The intermittent energy supply of these renewable energy sources can be made constant, while retaining the Green environmental standard, with the use of Green hydrogen to store energy.
- Hydrogen can be produced in abundance in Africa for both domestic use and export.



Target Markets

Water & Wastewater Treatment Targeted Markets

Scalable systems to address more markets

Water Supply



Wastewater Treatment



Agriculture & Aquaculture



On-site or Centralized Treatment for

- Ground & Surface Water Source
- Purification to Drinking Water Quality
- Bulk Water Storage Quality Maintenance

On-site or Centralized Treatment for

- Industrial Wastewater (non-radioactive)
- Municipal Wastewater
- Closed-loop Plumbing Systems to Minimize Water Use
- Resource Recovery

On-site wastewater treatment for

- Targeted Treatment & Resource Recovery for Irrigation, Fertilization, Processing, Operation Applications
- Water Quality Monitoring & Treatment for Healthy Stock, Closed-Loop Plumbing

Green Hydrogen Energy Targeted Markets

Scalable systems to address more markets

On-site H₂ Production



On-site Hydrogen for

- Laboratory
- Meteorology
- Hydrogen Refueling Stations
- Power to Gas Conversion

Industrial On-site Energy Storage



Industrial Energy Storage for

- Emergency Grid Power
- Complimentary Grid Power
- Off-Grid Autonomous Power

Small On-Site Energy Storage



Small Energy Storage for

- Renewable Energy Storage
- Seasonal Energy Storage

Green Industrial Zone Development

Green Industrial Zone Development Overview

GREEN INDUSTRIAL PARK DEVELOPMENT

- The development of industrial parks has been recognized as an efficient way to bring together industrial activities with commercial and infrastructure services.
- Water Life Systems Inc. (WLS) is interested in **participate in the funding and development of Green Industrial Parks in Africa.**
- WLS has developed a unique **Green Infrastructure Development Fund with partners** that could be structured in such a way that will provide Africa access to significant financing for Green Infrastructure Projects.
- WLS's focus would be the **Financing, Engineering, Procurement and Construction Management** of value engineered **Bulk Services and Support Infrastructure.**
- WLS will work with the African Ministries and Agencies to enable a **“Plug and Play” foundation** that will attract tenants to establish their own specific infrastructure within the development.

GREENING OF EXISTING INDUSTRIES

- Water Life Systems Inc. (WLS) is interested in **reducing the environmental and social impact of operational industries** through the deployment of wastewater treatment for reuse technologies.



Green Industrial Zone Development

- WLS provides Financial and Technical partners who will work together with African stakeholders to develop and promote the development of Green/Eco industrial zones.
- The Industrial Zones will be composed of industrial land and buildings, commercial buildings, housing, spaces greens, roads and parking lots.
- Bulk services to include power generation, water production and distribution facilities, water, wastewater and solid waste treatment facilities.
- WLS can participate in the development of on-demand process water supply, agro-industrial wastewater treatment systems and renewable power generation.
- WLS envisage an 8-year period, starting in 2022/23, for the engineering and construction of agreed water supply, wastewater treatment, energy supply, and other infrastructure and a 15-year operational and maintenance management contract through to 2036/37.

WLS Partner Solid Waste Processing Solutions

WASTE TO ENERGY & PRODUCT RECOVERY

- Water Life Systems Inc. (WLS) and its solid waste processing partner PlusPunkt Energy (PPE), are interested in **reducing the environmental and social impact of operational industries** through the deployment of Green waste-to-energy-and-reuse technologies with **ENERGY** production and recovery of **GAS, METALS, and BLACK CARBON** as by-products.
- Hybrid GASIFICATION and PYROLYSIS technologies produce Green Energy, Black Carbon Coatings, and Advanced Insulation materials. The number of recovered products that can be derived from the PPE technologies is in excess of 8,000.
- PPE is eligible to participate in the **WLS Green Infrastructure Development Fund** that will provide African nations access to the financing required for PPE Green Energy & Product Recovery Project costs and a BOT program. Seed financing can be derived from the proposed African Industrial Zone Development Project, existing waste processing funds, and private investment.

GREENING OF EXISTING INDUSTRIES

- PPE modular systems can be deployed onsite at existing industrial operations in need of waste processing and Green Energy solutions. African businesses can participate in the WLS Green Infrastructure Development Fund to access Green Energy solution financing.
- WLS will work with the Ministry of Industry and Commerce and AGESPI to enable a **“Plug and Play” foundation** that will attract tenants to establish their own specific infrastructure within the development, as well as centralized Industrial Zone plants for municipal and industrial waste processing.



WLS Partner Solid Waste Processing Solutions

ENERGY PRODUCTION FEATURES

- PlusPunkt Energy Factory can be run completely CO-2 neutral.
- PPE technology is the most resource-efficient way of generating energy and produces 100% clean energy.
- Decentralized - any landfill site in the world can become a new industrial site for a PlusPunkt Energy Factory
- Waste recycling - a wide range of 290+ materials can be used for energy production.

SPECIAL COATING PROCESS

- PPE Climatic features unique coating process transforms flat surfaces into heating, cooling, lighting or darkening and entirely without using limited raw materials such as rare minerals.
- All coated surfaces can be used as Solar Panel modules and connected modularly with other technologies.
- The black carbon paste can be used as a power storage device for various applications.
- 520+ different coating applications

ADVANCED INSULATION MATERIALS

- A PPE waste processing by-product is a breathable, non-combustible, weather-resistant insulation material, available in almost any color and entirely environmentally friendly.
- Initial tests and evaluations showed 10x higher efficiency than conventionally used materials.
- Unlike other insulation materials, disposal is completely non-residual for safe and 100% environmentally friendly disposal.

URBAN AND RURAL APPLICATIONS

- The modular PlusPunkt Energy Factory is scalable from a small container that can be deployed to rural communities for domestic waste management applications, to multiple large container plants that are daisy-chained for centralized urban domestic and industrial waste processing solutions.
- PPE Factory by-products create more Green business opportunities for the African population.

African Industrial Park Project

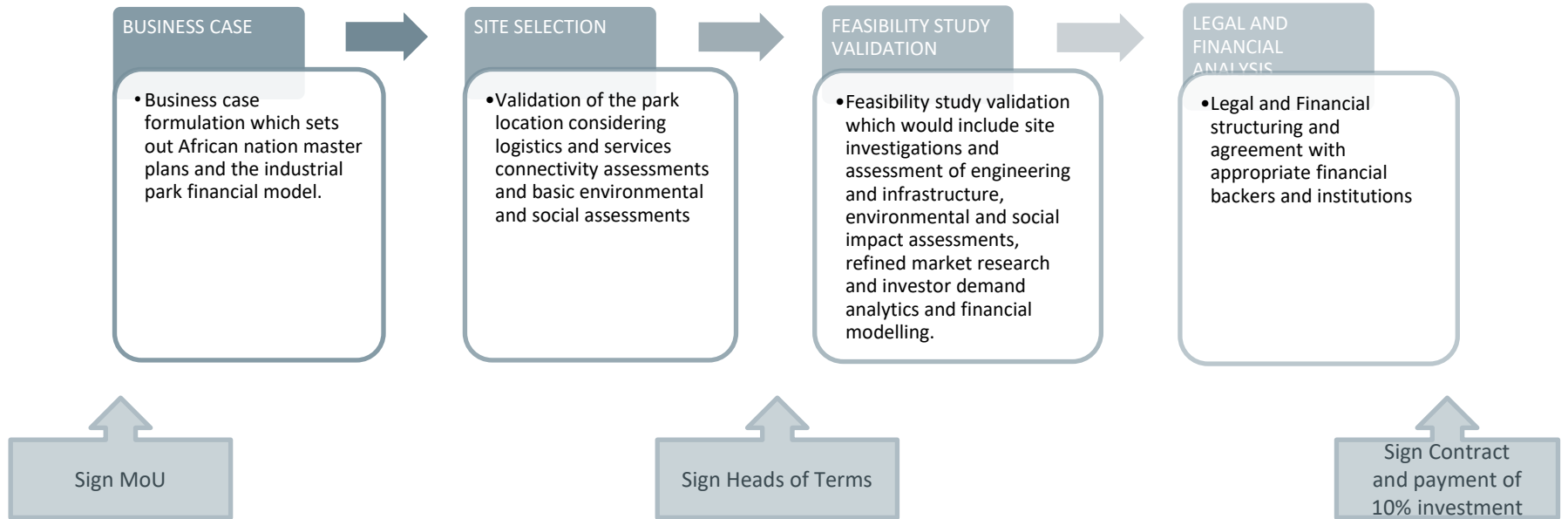
THE FOLLOWING ELEMENTS WILL BE VALIDATED AS PART OF THE PLANNING PHASE

- **Location/site selection:** Comparing selected sites for establishing an industrial park, in the contexts of their relative market suitability, connectivity or linkages for transport, power, water, geotechnical and hydrological conditions etc.
- **Environmental and Social assessment:** Evaluating the social and environmental considerations for the proposed industrial park with respect to relevant national requirements and international commitments, providing a proposed impact mitigation and management strategy.
- **Policy analysis and stakeholder mapping:** Considering the existing policy, legal and regulatory environment in which the project would be grounded, and providing a high-level overview of any opportunities for review thereof to attract more investors.
- **Market/industry identification and forecasts:** Assessment of the sectoral niches likely to be attracted to the proposed industrial park, as well as their country of origin, expectations and needs.
- **Demand projections:** Projecting anticipated sector specific demand for an industrial park based on historical investment patterns and current trends internationally, nationally and in the prospective location.
- **Financial analysis:** Modelling the costs and revenue streams of the potential industrial park project, based on its expected demand and exploring a range of possible financing structures, mechanisms, and funding sources.
- **Economic impact projections:** Modelling the anticipated economic impacts of establishing the proposed industrial park in terms of investment, public finance expenditures, jobs, net exports, tax revenues and foregone revenues, and other factors, based on the results of the demand and financial analysis.

African Industrial Park Project

PLANNING PHASE PROPOSAL

- WLS will undertake a review of the existing feasibility studies and prepare the project for funding and execution.



Financing Capability

Financial Capability

WLS FINANCING FOR WLS GREEN TECHNOLOGY INFRASTRUCTURE PROJECTS

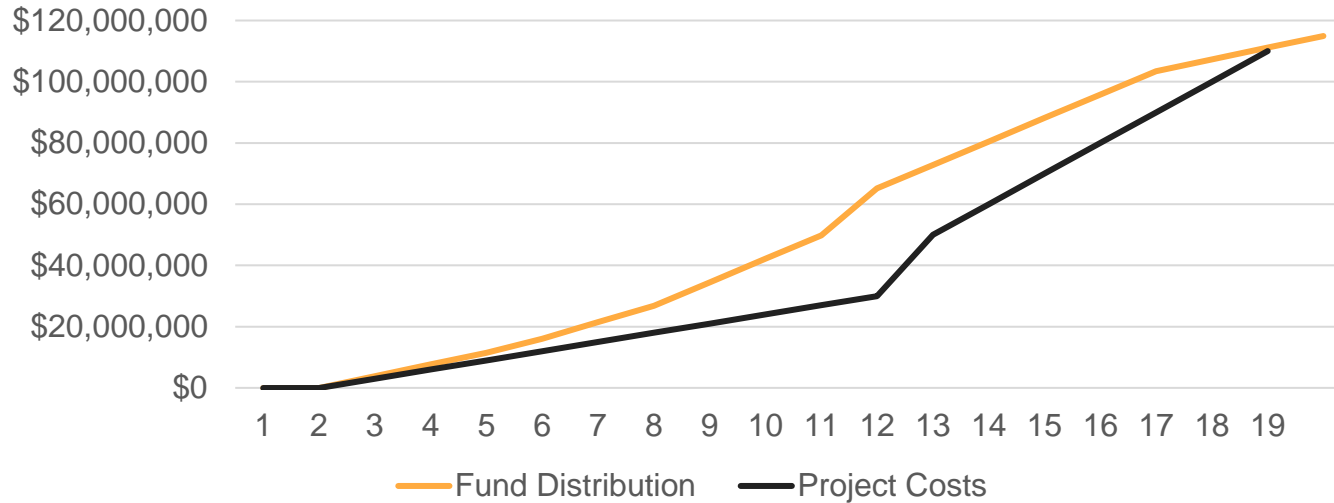
- **WLS leadership has >40 years experience in raising funding and delivering projects similar to the proposed African Green Infrastructure projects.**
- WLS uses its private investor and banking relationships to provide project funding for one or multiple WLS Green Infrastructure projects. Long-term BOT arrangements are structured with 15-25 year investor payback periods with revenues from traditional water, wastewater, and energy utilities (WLS established domestic utility companies), systems sales to existing African utilities/businesses, and other Industrial Zone components based on the individual project scope.
- **An African sourced Government or Private investment of 10% of the project contract size is required to trigger outside investment and funding.**
- Example: USD100 million investment can be structured in 2 months to provide monthly distributions exceeding USD1 billion over 2-3 years.
- **The initial African 10% investment is repaid in full at the end of the investment program or rolled over into new projects.**
- Investment can be removed at any time, but this stops project funding.
- **Additional authorized Green Infrastructure projects and accompanying initial investments can be added at any time to the WLS Financing vehicle.**

Typical Cashflow Model

TYPICAL CASHFLOW MODEL OVER THE DEVELOPMENT AND CONSTRUCTION PHASE

- Example cashflow generated for rural or urban water project by the WLS Green Infrastructure Fund upon \$11M fund transfer over time and how it meets the development and construction costs: Final schedule to be established with facilitating bank.

Cumulative Monthly Fund Distribution & Monthly Costs



Project Execution

Overview

ASSET SUPPLIER, OPERATIONS MANAGEMENT AND FINANCING

- **Water Life Systems Inc. (WLS)**, is a Water, Energy, & Food Security systems R&D, manufacturing, engineering, and consulting company . WLS has developed scalable water supply and wastewater treatment technologies that **produce virtually zero Green House Gas (GHG) emissions or other pollutants** and zero sludge for added cost savings and health benefits. The WLS mechanical and electronic systems, resource recovery filters, and other proprietary components are currently manufactured and assembled between Wisconsin, USA and British Columbia, Canada. Technology transfer protocol is ready for domestic manufacturing operations where contractually justified.
- **WLS electrolyzer technologies produce hydrogen** both as a wastewater treatment by-product and dedicated electrolysis H2 generation units **for major economic and environmental gains**. WLS develops H2 storage and application tech with partners.
- Industrial Park Development services provided internally and with specialist partners include:

Project Investment and Development

Programming

Site Plan

Structural Engineering

Electrical Engineering

Construction Management

Project Planning

Scheduling and Budget Control

Architectural Design

Mechanical Engineering

CADD Service / Rendering

Facility Management

Project Execution

SYSTEMATIC APPROACH TO SCOPE DEFINITION, SITE INVESTIGATIONS, ENGINEERING, CONSTRUCTION, COMMISSIONING AND OPERATIONAL MANAGEMENT

- **Scope Definition** – Working closely with the relevant agency to understand their need and supporting data and to define the scope of work. Also undertaking a gap analysis of additional work required to be implementation ready.
- **Site Survey and Investigations** – Undertake site surveys and investigations to 1) validate demand, water source type, production capacity and quality and 2) distribution, energy and earthworks requirements.
- **Engineering and Procurement** – Undertake the necessary engineering and procurement of services, equipment and consumables for the installation. Output is a site-specific cost estimate that is approved prior to mobilization.
- **Installation and Commissioning** – Develop water supply, distribution network to water treatment facility, equipment laydown area, fence, electrical supply, installation of container units, water reservoir and product distribution network and commissioning of each system to ensure proper function prior to operations.
- **Operations Management** - Operations and maintenance management services will include remote monitoring of system function and safety, dispatch of service and maintenance technician personnel for repair and scheduled maintenance of system and guarding of the system site.

WLS International Team

Team member	Summary Experience
Brad Reams Executive Project Manager: African Industrial Zone Development	<ul style="list-style-type: none"> Employed by Water Life Systems as an industrial zone development consultant due to his academic knowledge, leadership, communication, technological, strategic thinking, and organizational skills, and his passion to serve admirably, and tirelessly, as a professional and volunteer. Facilitates Public and Private organization collaboration through various public and private administrative roles, including his current role as Industrial Park Director of the Great Plains Development Authority, USA's only net-zero carbon emission industrial park located in Kansas. Other Industrial Park Development experience includes grant writing, sits on Rail and Power Utility boards, creates Foreign Trade Zones, founded local Economic Development Zones, designed and implemented new revenue streams.
Jamie Gordy Co-Founder, CEO	<ul style="list-style-type: none"> 35 years' experience of building Utility Infrastructure for Industrial, Commercial and Construction Industries Founder of Smart Waters Systems, Inc., Canada and Wisconsin Economic Development Corporation 2016 BREW Award Winner Was instrumental in delivering the following projects: <ul style="list-style-type: none"> Plutonic Power Corporation Green Hydro Energy Projects with Toba Montrose (CAPEX CAD663M), Dobie Wind Farm Project (CAPEX CAD227M), Miller Western Pulp & Pater Bio Digester Power Project (CAPEX CAD225M), YVR Canada Post (CAPEX CAD240M), Walmart Canada Facility Development (CAPEX CAD250M)
John Murphy Co-Founder, CFO	<ul style="list-style-type: none"> 35 years' experience of building successful start-up companies as software designer, CEO, COO, CFO and Board Member Perot/Dell, executive in charge of design/implementation of a financial health care and computer system for Abu Dhabi, UAE (CAPEX USD125M) Executive director for implementing large systems installations with Epic Computing Systems. The largest Healthcare computer system in the world (CAPEX USD1.5B) Financial Executive for the largest implementation of a Cerner computer system in Qatar (CAPEX USD410M)
Thomas Murphy Co-Founder, COO	<ul style="list-style-type: none"> 18 years' experience as Sustainable Systems Designer & Developer and Small Multi-Asset Fund Operator Various Advisory Board Member and Conference Speaker and InnovAction Fellowship Africa
Thomas Yeung Operations Engineer Specialist	<ul style="list-style-type: none"> 20 years' experience in engineering boiling water purification systems (PwC, Logica, and AT Kearney) Developed and delivered utilities in urban communities in Canada, MENA region, and Caribbean region Six years in Saudi Arabia working on various power and water projects for municipal and industrial zone applications, including three as Aramco's representative on the national Long-Term Planning team and as Contract Manager for new (Fadhili) and existing (PCPC) cogeneration plant located on Aramco sites (CAPEX USD800M) Developed and delivered utility services (power, water, waste-water, district cooling, and solid waste management) for Masdar City – a zero-carbon city being developed in Abu Dhabi, UAE (CAPEX USD620M)
Peter L. Akari Operations Engineer Specialist	<ul style="list-style-type: none"> 30 years' experience as designer for irrigation, sanitation and water supply infrastructure Worked at the World Bank, African Development Bank and International Fund for Agricultural Development Memberships of Ghana Institution of Engineers, Ghana Science Society and International Water Association



Annexures

1. **WLS Technology and Capability**
2. **Local Content – Procurement and Human Resources**

Water Life Systems

ASSET SUPPLIER, OPERATIONS MANAGEMENT AND FINANCING

- Water Life Systems (WLS), is a group of registered companies in USA, Canada, South Africa, and [your nation] to be registered upon MoU signing, that provide water and wastewater treatment R&D, manufacturing, and consulting. WLS is self-funded with USA, Canadian, South African based ownership and leadership.
- WLS has developed scalable drinking water and wastewater treatment technologies that produce virtually zero Green House Gas (GHG) emissions or other pollutants, and zero sludge is produced for added cost savings and health benefits.
- All units are delivered ready to be powered by Solar Power sources and can operate independently.
- Nutrient and Water Recovery can be enabled for Irrigation and Closed Loop Hydroponics and Aquaculture Infrastructure.
- WLS has developed electrolysis-based wastewater treatment technology, among other proprietary technology, that recovers Hydrogen for Green Energy production. The same technology can be used in centralized Hydrogen production plants.
- WLS has partnered with Madini Ltd., an engineering consultancy who has been active in the mining and infrastructure sectors for over 20 years in Africa. Madini has provided significant resources to advance the project planning phase and has become the formal African domestic operations management partner with WLS. WLS and Madini have a deployment plan that is ready to execute for the African Water and Sanitation National Infrastructure Project.

Water Life Systems - Experience

INDUSTRY LEADER

- WLS is a Water, Energy and Food Security product and service provider.
- WLS is working with Singapore based TÜV SÜD, the world-renowned ISO certification institute to establish a WLS sponsored academic institutional partner as North America's first certification body for ISO 30500 Non-Sewered Sanitation Systems.
- WLS was recognized in 2019 by the Gates Foundation as a key contributor to the roll-out of the newly created ISO 30500 by the South African National Government, where it will provide urban and rural sanitation infrastructure.
- While WLS technology has been successfully deployed in North America, it has been designed for the varied African environments in consultation with TÜV SÜD and the South Africa Water Research Commission. WLS's virus/bacteria monitoring and disinfection technology will greatly benefit the African population.
- WLS electronics engineers are low-power systems specialists and have developed highly efficient, low cost, and easy to maintain water and wastewater and monitoring systems.



Water Life Systems - Technology

INDUSTRY LEADER

- **Pre-fabricated, Mobile and Modular** - WLS systems are factory built to spec at a price point 25-35% lower than other industry leaders due to new technology.
- **Brick and Mortar Build-Out - Not Required** - WLS scalable package plants are self-contained and delivered in a turn-key ready status only requiring a source water feed and power. Systems can be powered by their own hydrogen production, solar, grid or other power sources.
- **External Chemical Feed/Replacement – Not Required** - WLS systems generate on-demand ozone and chlorine from the flow of source water, providing rapid purification with minimal maintenance at low cost. A by-product of the cleaning of wastewater is hydrogen which our system is calibrated to produce and store. The system can be used for cleaning water and/or producing hydrogen for clean energy.
- **Disposable Filter Replacement – Not Required** - WLS filtration utilizes proprietary foam and ceramic filters for cleaning pollutants out of the water. These filters are highly reusable requiring only flushing before reuse.

Low Cost

Rapid
Deployment

Easy to
Operate

Easy to
maintain

Sustainable Competitive Advantage

WLS develops the IP for all proprietary primary technology components and integrated systems.

The core technologies can be applied to a wide variety industrial and municipal water treatment applications, such as:

- **Drinking Water** (*On-Demand Supply; Storage Tank Quality Maintenance*)
- **Wastewater** (*Zero Sludge Production Primary Treatment; Refined End-Of-Pipe Effluent Discharge*)
- **Process Water** (*Boiler & Cooling Tower Make-Up Water; Coating and Plating; Rinsing, Washing, Spraying; Many Others*)
- **Resource Recovery & Water Reuse / Recycling** (*Water; Phosphorous; Custom Mineral / Chemical; Closed-loop Plumbing; Zero Liquid Discharge*)
- **Hydrogen Production** (*As a wastewater treatment byproduct or dedicated H2 production units*)
- **Irrigation & Food Security** (*Irrigation Water & Nutrient Supply; Crop Species Nutrient Optimization; Aquaculture Water Savings & Quality Maintenance*)
- **IoT Connectivity** (*Remote Monitoring; Remote Systems Operation; Wi-Fi, Lo-Ra, Satellite Networking*)

Procurement of Goods and Services

PROCUREMENT AND CONTRACTING OF LOCAL COMPANIES TO SUPPLY MATERIALS, EQUIPMENT AND SERVICES

- The Project will develop and implement a Local Content Strategy and Policy that outlines its Local Content targets, performance KPIs, requirements for all contractors, development strategies and communication strategies that meets best practice standards in African.
- **Local Content: Qualifying Criteria** - Local Content criteria typically include:
 - Company is producing goods in your African nation,
 - Company is registered in you African nation, and
 - Company has over 50% ownership from your African nation and/or
 - Company has over 50% citizens from your African nation in management positions.
- **Local Content: Minimum Threshold** - The targeted Local Content thresholds for engaging qualifying SMEs/SMIs for the supply of goods and services over during the different operational phases are:

• Development Phase	30%
• Construction phase	45%
• Operations phase 1st – 5th Year	55%
• Operations phase after 5 th year	70%

Human Resource Management

CAPACITY DEVELOPMENT

- The Project will strictly comply with the provisions relating to employment, training and labour as per your African nation's laws and regulations. The Project will put in place an effective management structure to deliver safe and efficient outputs during construction and operation phases.
- The Project will promote and maximize employment from the host communities where it operates.
 - Imperatively reserving unskilled positions for people from the immediate communities;
 - Semi-skilled and skilled positions from surrounding and regional centres; and
 - Limit employment of foreign experts to providing competencies which are not immediately available in Africa.
- The Project will actively support the development of the national workforce during the construction and the operation phases, promote career advancement of African talents through training and certification, identify, mentor and coach high potential national employees with the aim of "Africanizing" in the mid-term.

- **Minimum Thresholds Targeted**

Category of workers	Development phase	Construction Phase	Operational Phase
Senior Managers	33%	20%	60%
Managers	50%	30%	80%
Qualified Workers	66%	40%	80%
Unskilled workers	100%	100%	100%

Legal and Tax Compliance

COMMITMENT TO DEVELOP PROJECT TO THE HIGHEST STANDARDS

- WLS is fully committed to comply with all legal and tax requirements of African nations in a very transparent manner.
- WLS will work closely with the relevant authorities and request and secure all the required authorizations and permits prior to start of construction and the operational phase.
- WLS is fully committed to the highest standards, with a specific focus on the environment and sustainable development.
- WLS will undertake an Environmental and Social Impact Notice for each phased deployment and will develop appropriate management and monitoring plans and systems to ensure the effective operation of the installations and minimizing the risk for potential impacts.

For more information:

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