W2 AFRICA®

Company Profile

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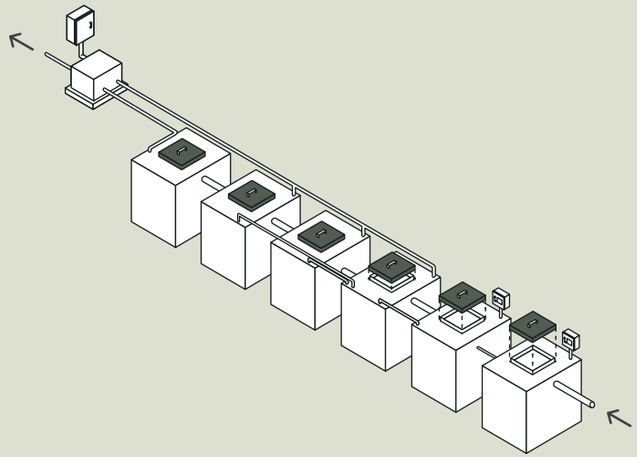
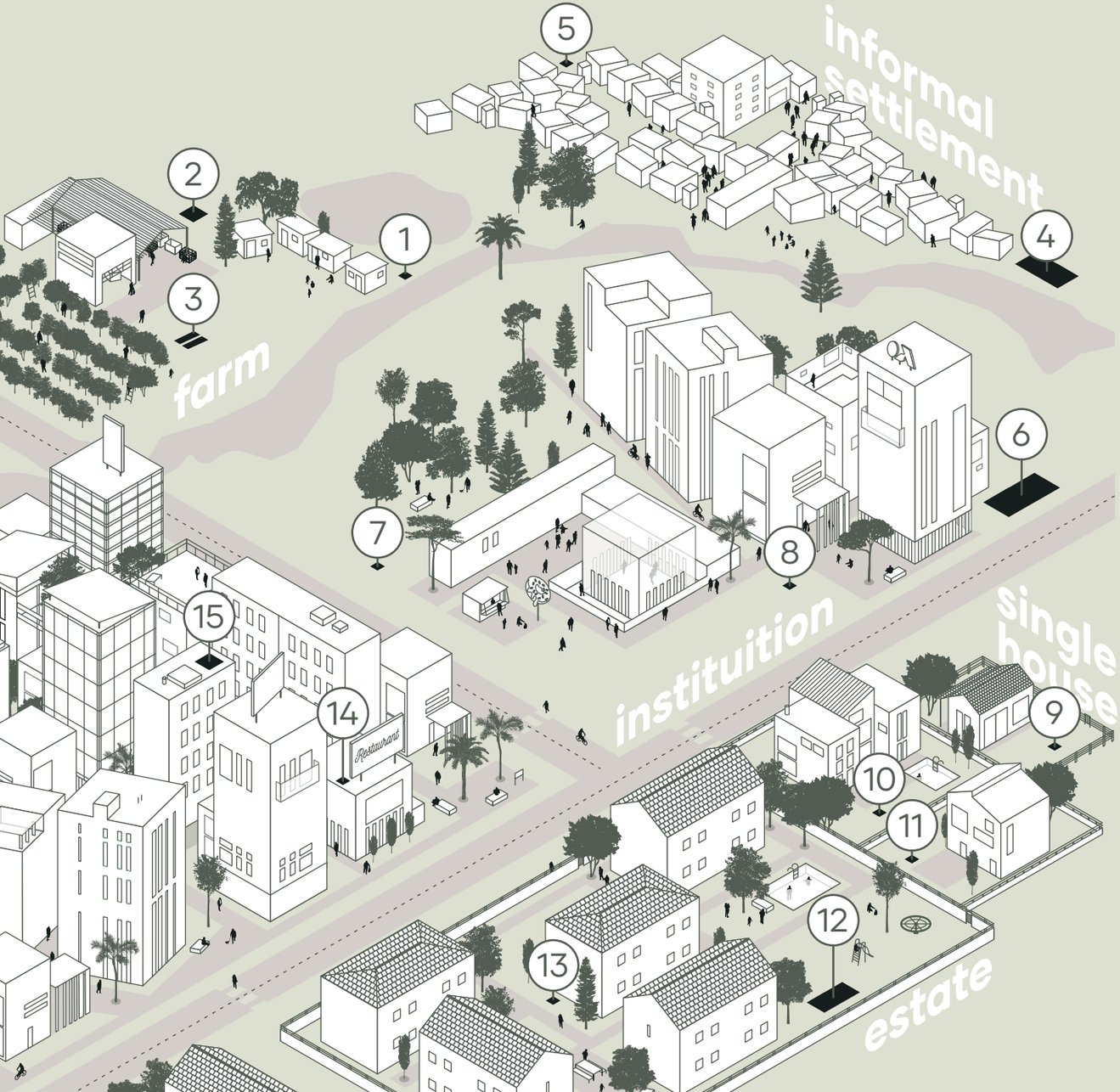
Decentralised Water & Wastewater Treatment Specialists

W2 Africa is a key provider of Decentralised Water and Wastewater Treatment Systems in South Africa, Africa and abroad by providing turn-key solutions through expert consultation, sustainable products, project management and services.





Map Key

- Sewage Treatment
- Greywater Treatment
- Borehole & Rainwater Treatment
- Surface Water Treatment
- Fat, Oil & Grease Removal

Applications

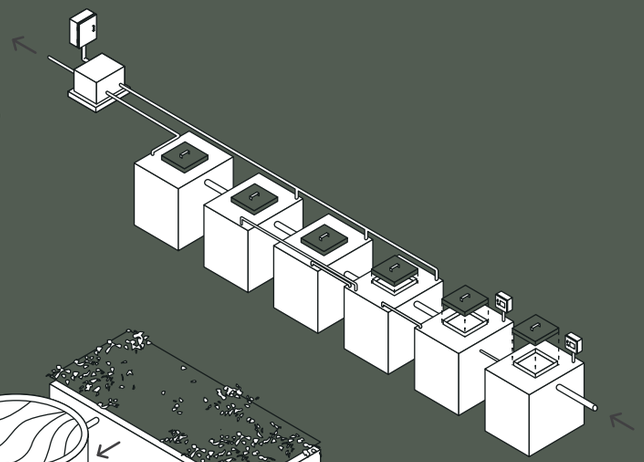
- Private Households
- Housing Developments
- Rural Communities
- Farms
- Schools
- Golf Estates
- Game Lodges
- Guest Houses
- Camping Sites
- Nature Reserves
- Hotels
- Shopping Malls
- Factories
- Mines
- Wineries
- Abattoirs
- Breweries

Water & Wastewater Treatment Systems

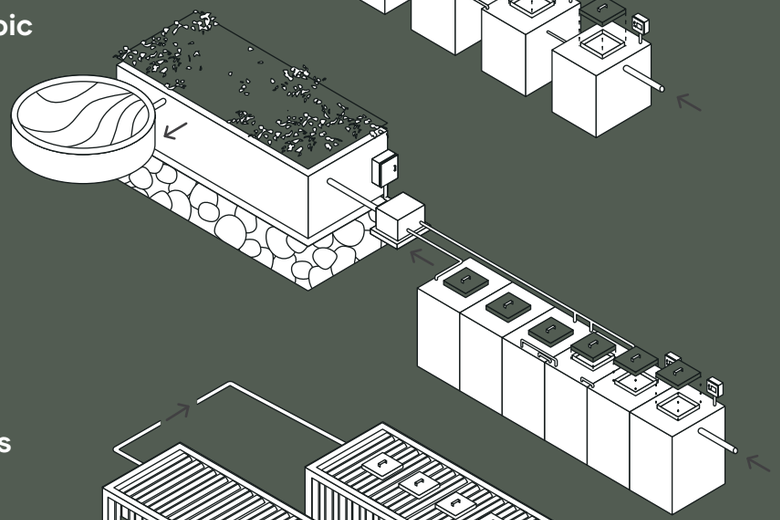
1. **SetFloc**
   Surface Water Treatment
2. **BioSub Anaerobic**
   Sewage Treatment
3. **OutHous**
   Sewage Treatment
4. **BioSub Anaerobic**
   Polluted Stormwater & Sewage Treatment
5. **BorWa**
   Borehole Water Treatment
6. **BioSub Anaerobic**
   Sewage Treatment
7. **BorWa**
   Borehole & Rainwater Treatment
8. **MicroDaf**
   Fat, Oil & Grease Removal
9. **BioSub Aerobic**
   Sewage Treatment
10. **BioSub Aerobic**
    Greywater Treatment
11. **BorWa**
    Borehole Water Treatment
12. **BioSub Mbr**
    Sewage Treatment
13. **BorWa**
    Borehole Water Treatment
14. **MiniDaf**
    Fat, Oil & Grease Removal
15. **BioSub Anaerobic**
    Greywater Treatment

Our Products

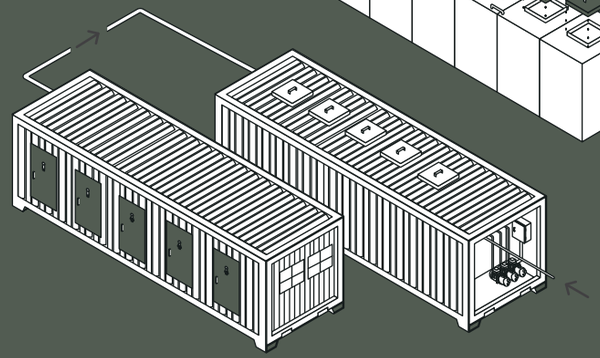
1 BioSub
Aerobic/Mbr



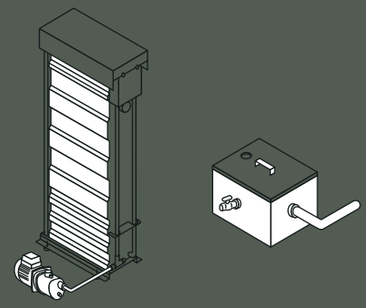
2 BioSub
Anaerobic



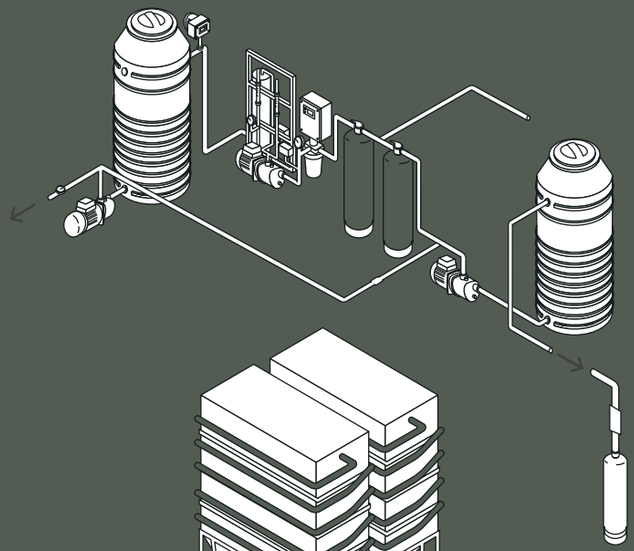
3 OutHous



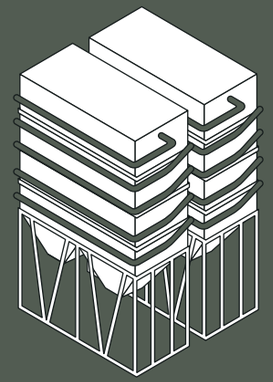
4 MiniDaf
& MicroDaf



5 BorWa



6 SetFloc

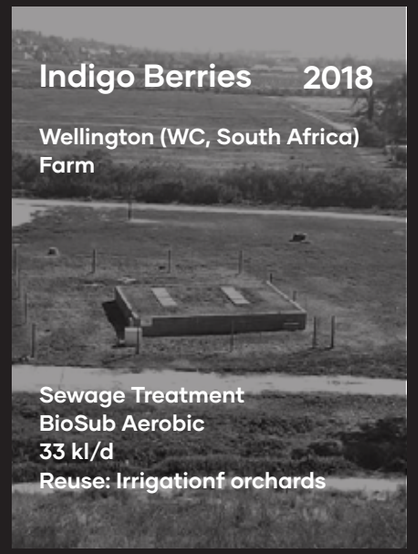


visit **w2africa.com** for more products & solutions

Rûens Kollege 2016

Bredasdorp (WC, South Africa)
Private School

Sewage Treatment
BioSub Aerobic
21 kl/d
Reuse: Irrigation of sportsfield



Indigo Berries 2018

Wellington (WC, South Africa)
Farm

Sewage Treatment
BioSub Aerobic
33 kl/d
Reuse: Irrigationf orchards

SANParks 2020

Cape Point (WC, South Africa)
Table Mountain NP

Sewage Treatment
Cape Point WWTP
45 kl/d
Reuse: Flushing of toilets
& aquifer recharge

Shoprite 2018

Nampula (Mozambique)
Shopping Mall

Sewage Treatment
BioSub Aerobic
30 kl/d
Reuse: Irrigation of gardens

Green School 2020

Paarl (WC, South Africa)
Private School

Borehole Water Treatment
BorWa
33 kl/d
Drinking Water

Ndlamba Municipality 2017

Bathurst (EC, South Africa)
Municipality

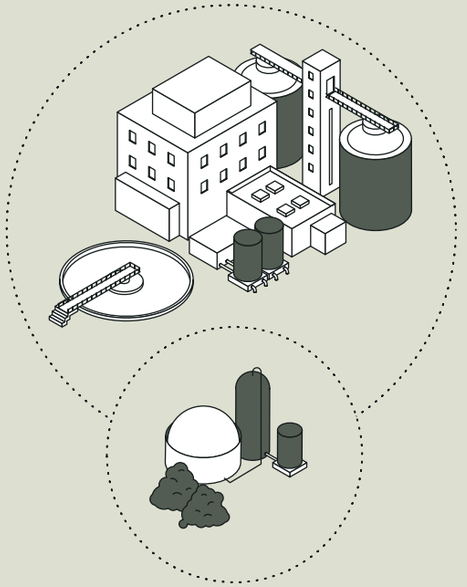
Surface Water Treatment
SetFloc
300 kl/d
Drinking Water

The Current Approach To Wastewater Management

The current approach is either on-site or off-site sanitation.

On-site sanitation includes open defecation, Ventilated Improved Pit (VIP) latrines, soap pits, and septic tanks. On-site sanitation poses a health risk, pollutes the environment and aggravates social inequality.

Off-site sanitation includes conservancy tanks, piped sewerage networks and centralised wastewater treatment works. Off-site sanitation is infrastructure and energy intensive, is expensive and requires a high level of skill to build, operate and maintain. Most distribution pipelines are old, resulting in increased water losses. Added to this, high urbanisation trends increase the strain on wastewater treatment works to comply, causing the discharge of large quantities of untreated or partially treated sewage into our water resources.

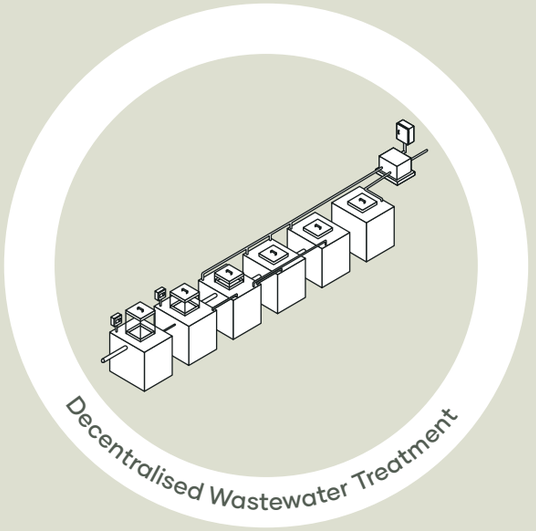


Bridging The Gap

We need to completely change our perception of wastewater, its treatment and reuse.

The solution is Decentralised Wastewater Treatment and local reuse.

It is based on the important principle of devolving level of application so that wastewater can be treated at affordable costs, cutting the costs of pumping long distances and promoting local reuse of treated wastewater.



Wastewater as a Resource Rather Than a Liability

A Paradigm shift towards Water Sensitive Design and Planning builds this bridge to more affordable, low-energy and easy-to-operate and -maintain water and wastewater management systems. These systems beautifully blend into the environment and limits the on-site water intake by recycling up to 90% of wastewater for on-site reuse.

1 **Reduces carbon footprint.** Little to no energy required

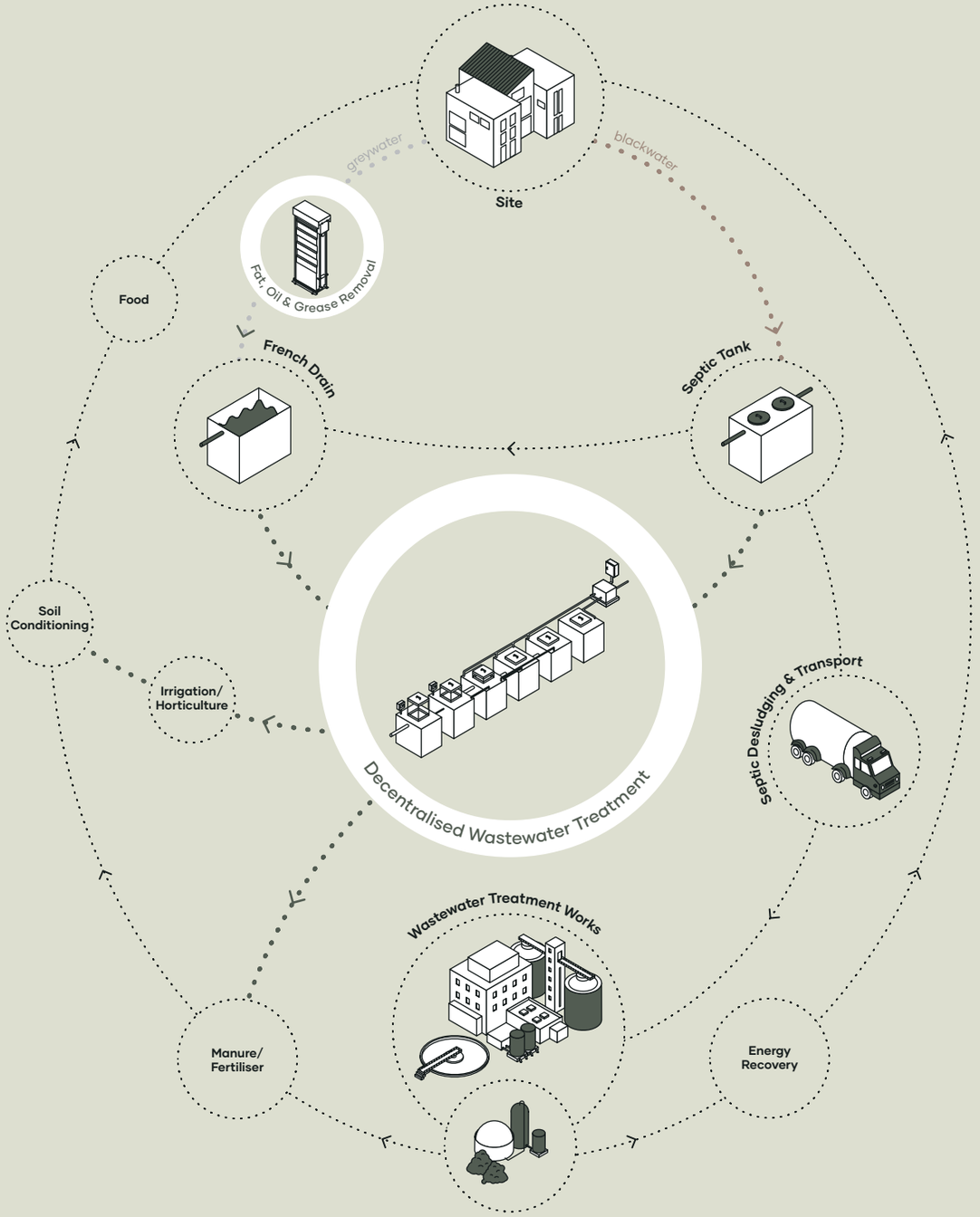
2 **Complete biological treatment.** No chemicals added

3 **Follows circular economy for recovery of resource**

4 **Eliminates risk of pollution** & less water & wastewater losses to environment

5 **Safe & compliant reuse of treated wastewater**

6 **Time efficient.** Implementation can be executed in less than 1 year



7 **Reduces scale of infrastructure.** On-site treatment cuts/reduces pipelines

8 **Suitable for organic wastewater flow.** 1-1,000 m3 per day

9 **Cost efficient.** Does not require sophisticated or costly maintenance

10 **Requires few basic skills to operate & maintain**

11 **No noise pollution, bad odours, or risk of mosquito breeding**

12 **Site specific & flexible to varying organic load & climate conditions**

13 **Promotes public-private collaboration**

14 **Promotes conservation of sensitive habitats & ecosystems**

15 **Restores dignity to communities & improves livelihood**

What Is Decentralised Wastewater Management?

Decentralised Wastewater Management includes the complete collection, treatment, and disposal and/or reuse of wastewater close to or at the point where wastewater is generated. This concept can be applied in rural settings and urban settlements.

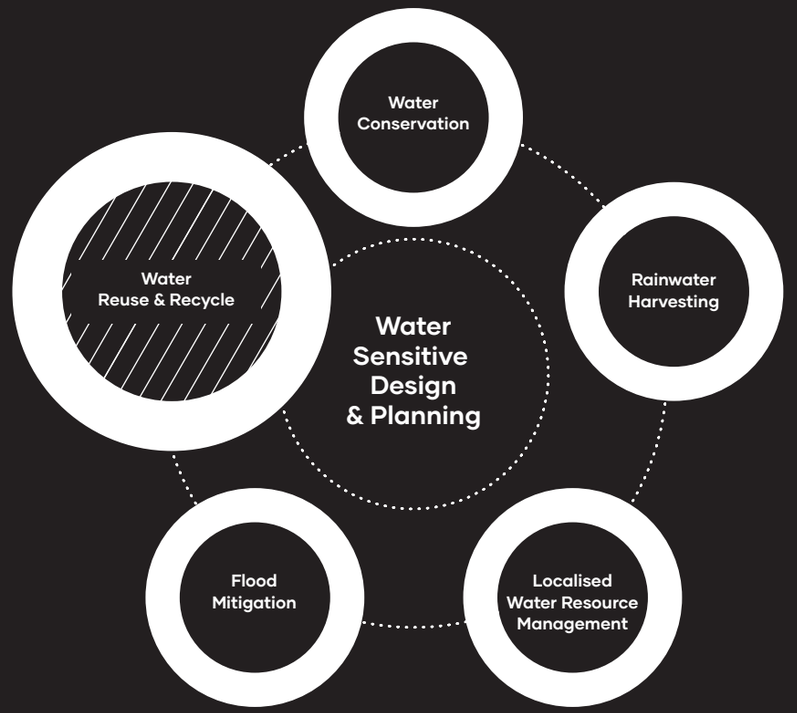
Design Approach

Decentralised Wastewater Management considers all necessary factors to best approach your individual scenario:

- Area available
- Size and density of the population
- Level of economic development
- Technical capacity and government systems in place
- Quality of wastewater required for discharge and/or reuse

Water Sensitive Design & Planning

It is an integrated approach to both the urban and rural water cycles which incorporates 5 strategies to achieve effective and optimal water preservation.



Moving Forward

It is important to assess all factors to determine the best wastewater management tactic, whether it be on-site, decentralised, centralised or a combination. Stakeholders need to make an informed decision and consider all possible options rather than the existing situation.

Once decided, it is crucial to establish continued management strategies. No system, regardless the management system, has the capacity to be "fit and forgotten". Operation and maintenance requirements need to be identified, planned and periodically implemented.

Ensuring availability & sustainable management of water and sanitation for all.

SUSTAINABLE DEVELOPMENT GOALS

WISA
Water Institute of Southern Africa NPC

Water Laboratory

Monitoring Your Water & Wastewater Quality

W2 Africa's in-house laboratory, W2A Services, provides affordable and reliable water and wastewater analysis. We promise high quality results through on-going intra- and inter-laboratory validation and annual SABS Proficiency Testing Scheme verification. Results are backed-up by expert advice to assist our customers to make informed decisions, saving them time and money, and ensuring environmental compliance of their treatment systems. Specialised services include process monitoring and bench- and pilot scale testing.

Reagents & Equipment

Visit our website for the complete list of products and prices.

Operation & Maintenance

W2A Services offers customised Operation and Maintenance packages, ranging from once-a-year site visits to full-time on-site support. With us looking after your water and wastewater treatment system, you'll have peace of mind, knowing you have a reliable, secure water supply and safe, sustainable wastewater re-use, or discharge.

Services Include:

- Technical assistance
- Emergency risk mitigation assistance
- Pre-scheduled service & monitoring agreements with limited operator intervention for low-risk treatment systems
- Full-time on-site operation & maintenance agreements for high-risk treatment systems
- Training of your staff to conduct basic checks and fault-finding

Waste Removal

W2A Services' Vacuum Tankers will safely remove urban and rural waste, including fat, oil and grease, sewage, sludge and other hazardous wastewater and dispose of it at a local municipal waste1water works.

Consultation

Auditing, Assessing, Planning & Implementing your water supply & Wastewater Management Systems

We offer specialised consultation with turn-key solutions. Because we have our own in-house water laboratory, turnaround time is fast and effective.

Let us assist you with your existing system, taking it step by step within your budget, to the final product - a sustainable water supply and/or wastewater management system that meets regulatory requirements, improves human health and contributes to a green environment.

Training

We offer on-site and online CPD-accredited workshops for professional engineers, scientists and process controllers, or any other interested persons or orginisations. Courses are standard or customised to fit your specific training needs.

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