

From Waste Water to high quality re-usable water



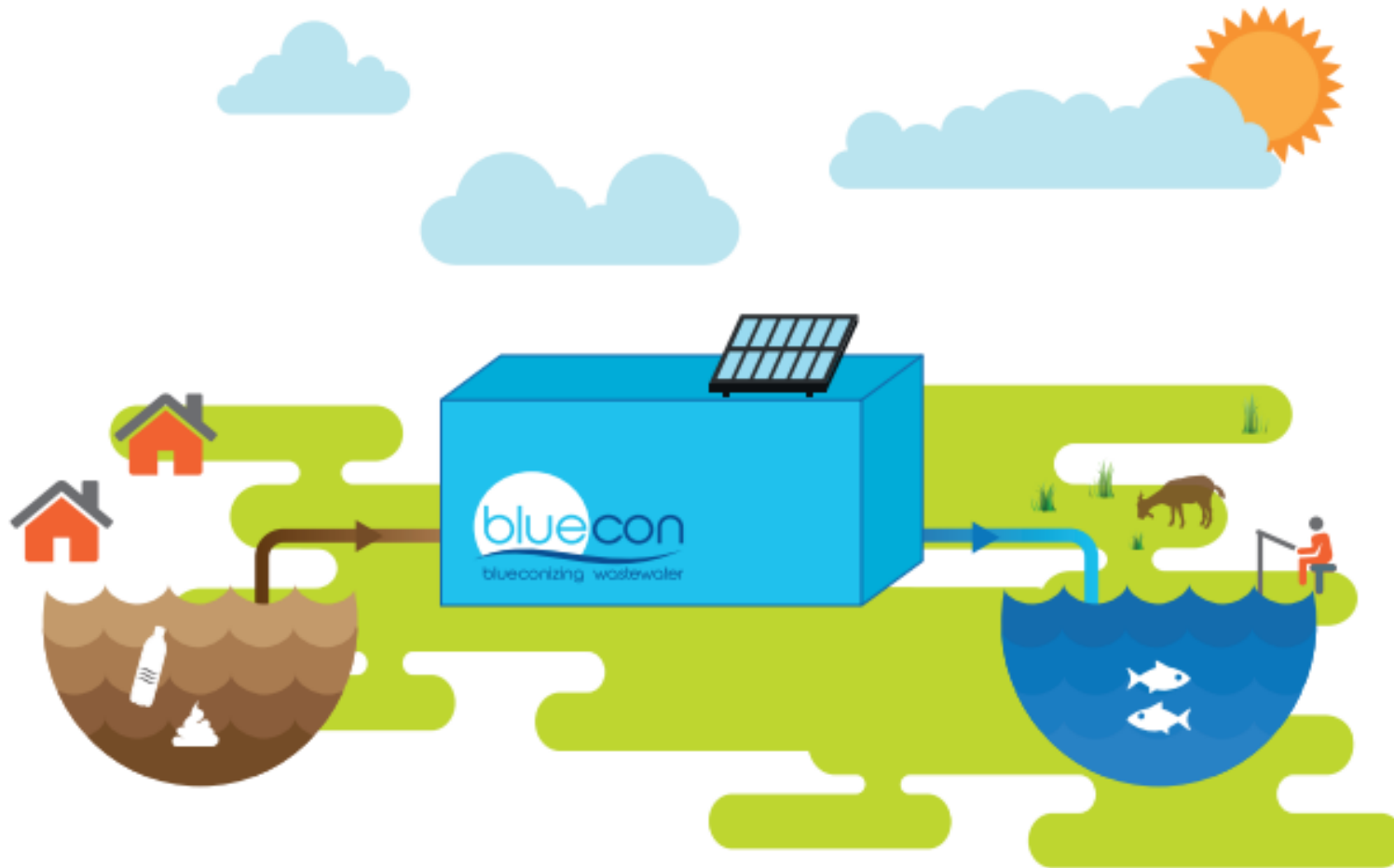
**DECENTRALIZED
WASTEWATER
TREATMENT**



FROM WASTEWATER TO RE-USABLE WATER

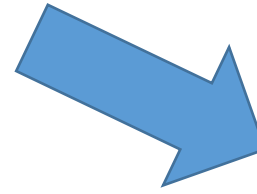


Unlock the potential of treated wastewater
for sustainable development





SUSTAINABLE DEVELOPMENT GOALS



6 CLEAN WATER AND SANITATION

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

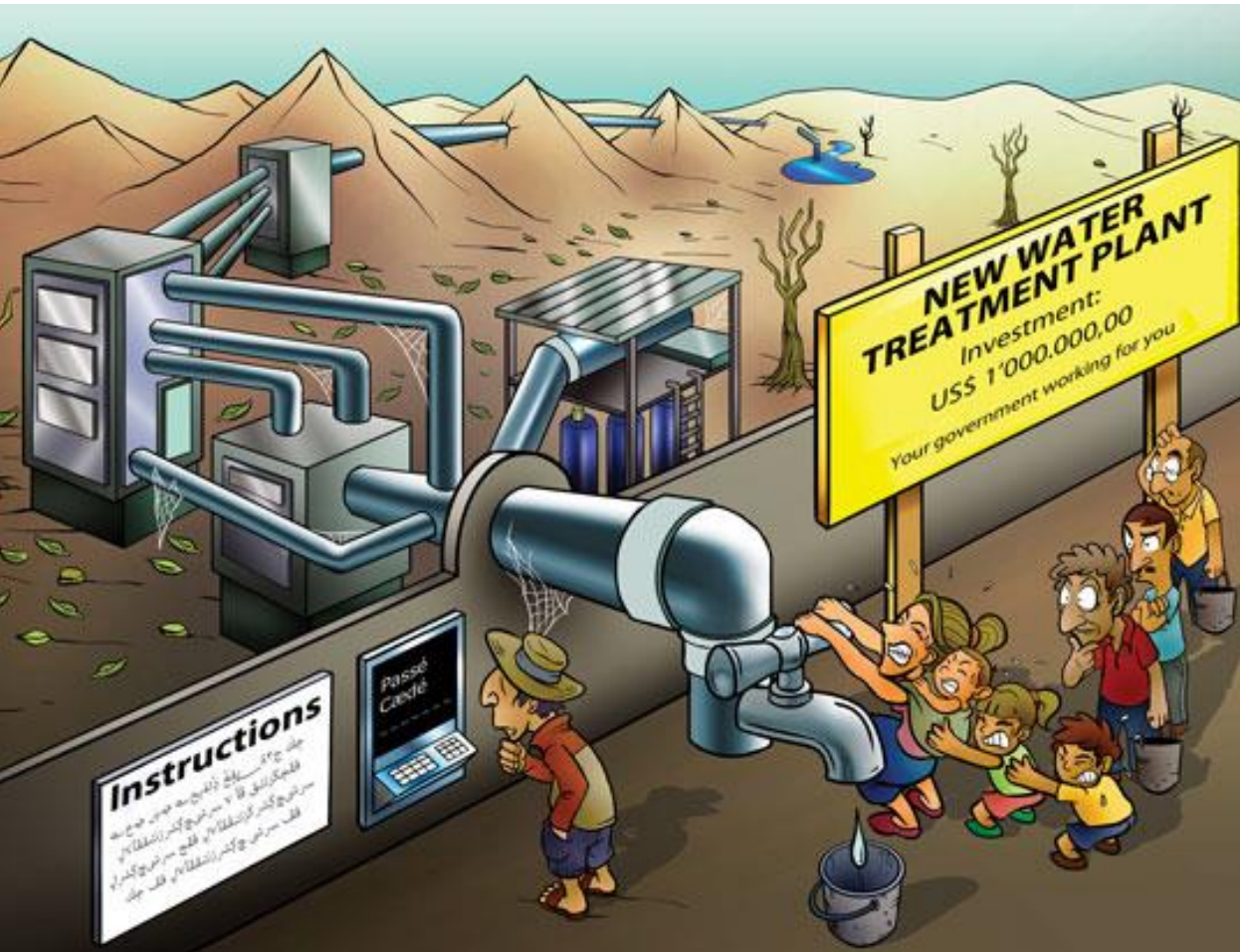
The Challenge

Worldwide, only 14% of municipal wastewater is being treated. Existing solutions are expensive, vulnerable and usually do not provide water for reuse.

Not only is valuable water wasted, a lack of (continuously properly functioning) treatment plants also cause sanitary emergencies.



The Challenge



Downscaling traditional biological treatment systems are not the best solution for small scale treatment:

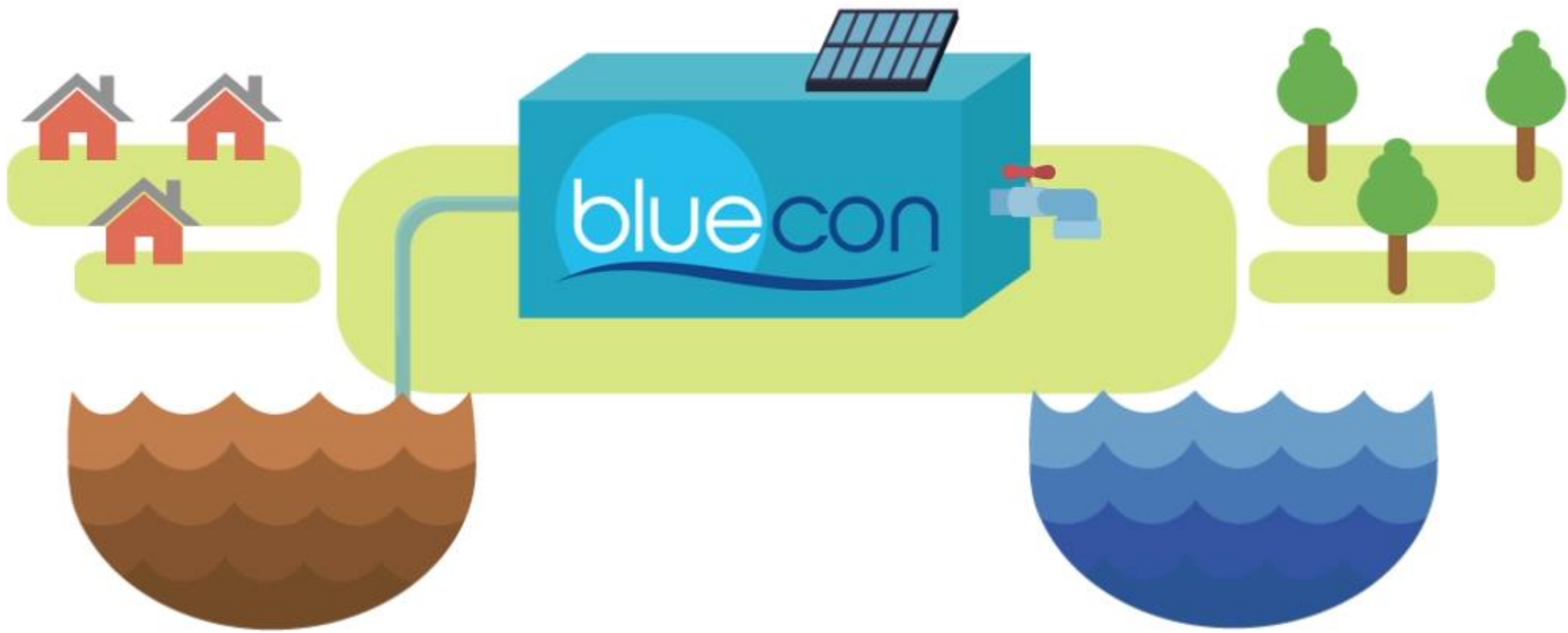
- **Systems are vulnerable**
- **Costs are high**
- **Inconsistent outfall water quality**



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An innovative process without the use of bacteria to purify wastewater to re-usable water.





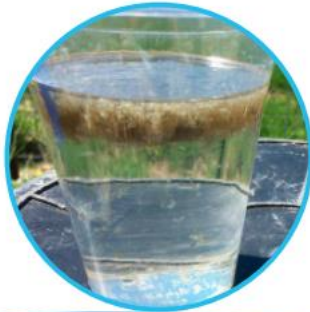
Just a few treatment steps



1. COAGULATION



2. FLOCCULATION



3. FLOTATION



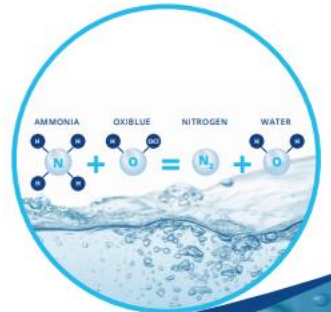
4. FILTRATION



5. DISINFECTION

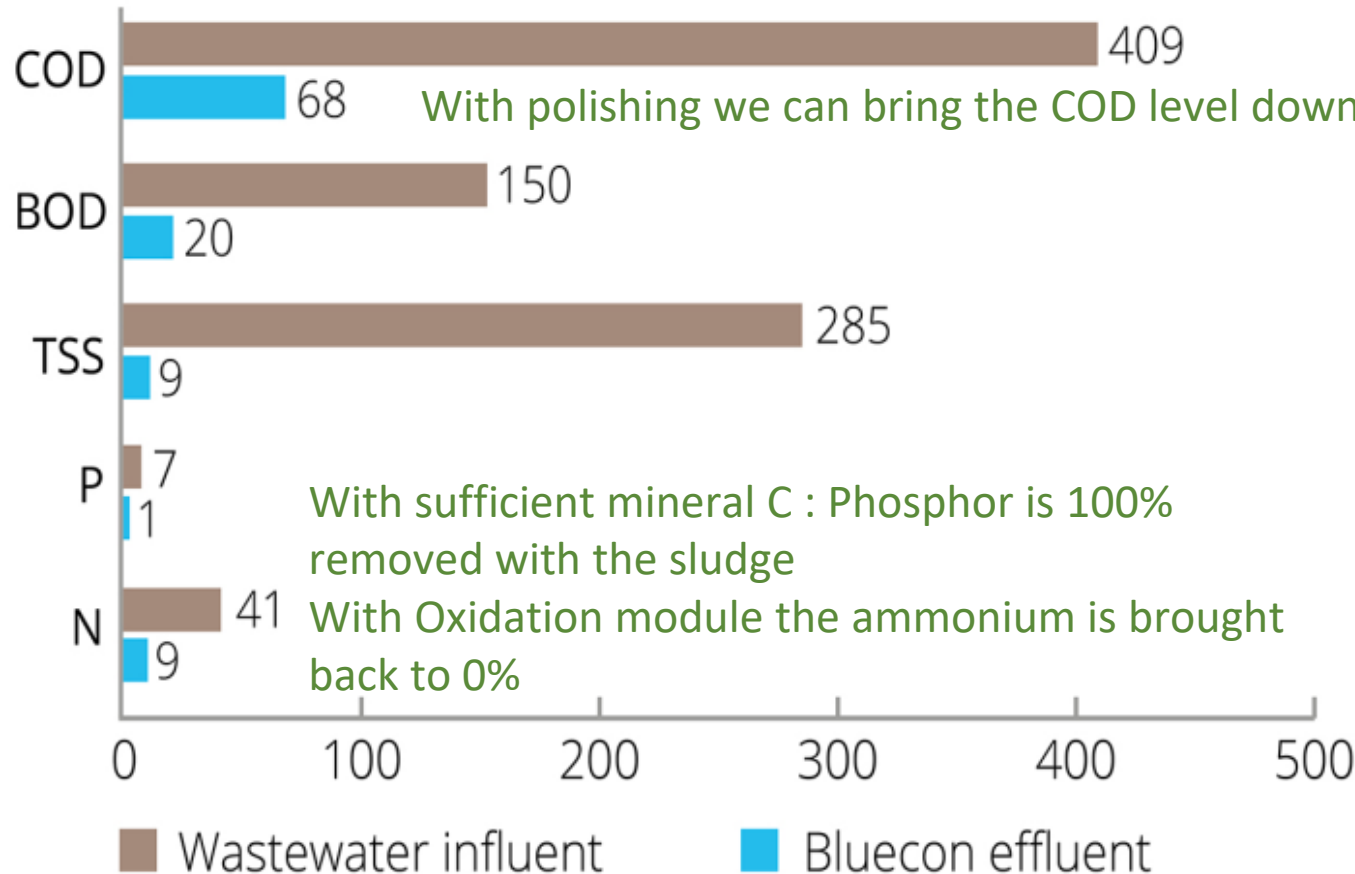


6. OXIDATION & POLISHING



Average discharge results of Bluecon®

For standard domestic wastewater



With polishing we can bring the COD level down to meet your requirements

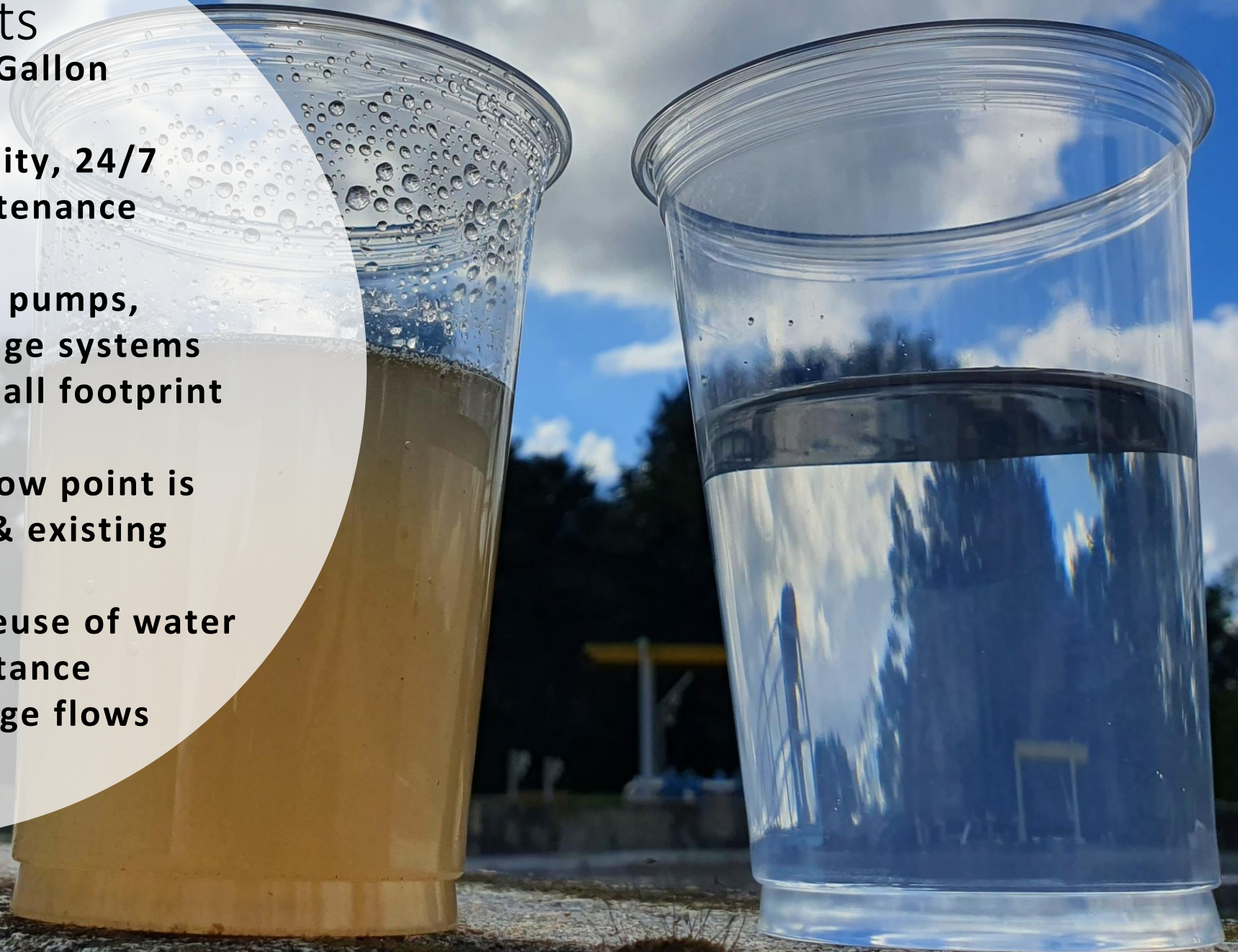
With sufficient mineral C : Phosphor is 100% removed with the sludge

With Oxidation module the ammonium is brought back to 0%

- COD = Chemical Oxygen Demand
- BOD = Biological Oxygen Demand
- TSS = Total Suspended Solids
- P = Total Phosphorus
- N = Total Nitrogen

Bluecon® Results

- Lowest costs per m³ / Gallon
- 30% less sludge
- Guaranteed water quality, 24/7
- Easy operation & maintenance
- Easy fit installation
- No large investment in pumps, infrastructure and sewage systems
- Scalable and(still) a small footprint
- Class 2 operator
- Treat where the local low point is
- Eliminate lift stations & existing infrastructure upsizing
- Different options for reuse of water
- Low or no odours emittance
- Option: pre-treat sewage flows





So we **Water the World** in these ways:

- ✓ Discharge into lakes, rivers, creeks, etc.
- ✓ Groundwater infiltration
- ✓ Irrigation
- ✓ Wetlands

Water processed by the Bluecon can be used for:

- ✓ Municipal, Provincial and National Parks
- ✓ Green zones
- ✓ Golf Resorts
- ✓ Ski Resorts (snow)
- ✓ Non-Point sewage systems
- ✓ Re-use: household, work camps, resorts



Organic Waste Processing:

- > Dewatering by big-bag/tote
- > Dewatering screw
- > Slurry discharge (pump)



- 30% less sludge
- Primary sludge only
- Good for biogas
- Rich of raw materials
- Disinfect with lime



Providing sanitation



Clean water for agriculture



Low operational costs (OPEX)

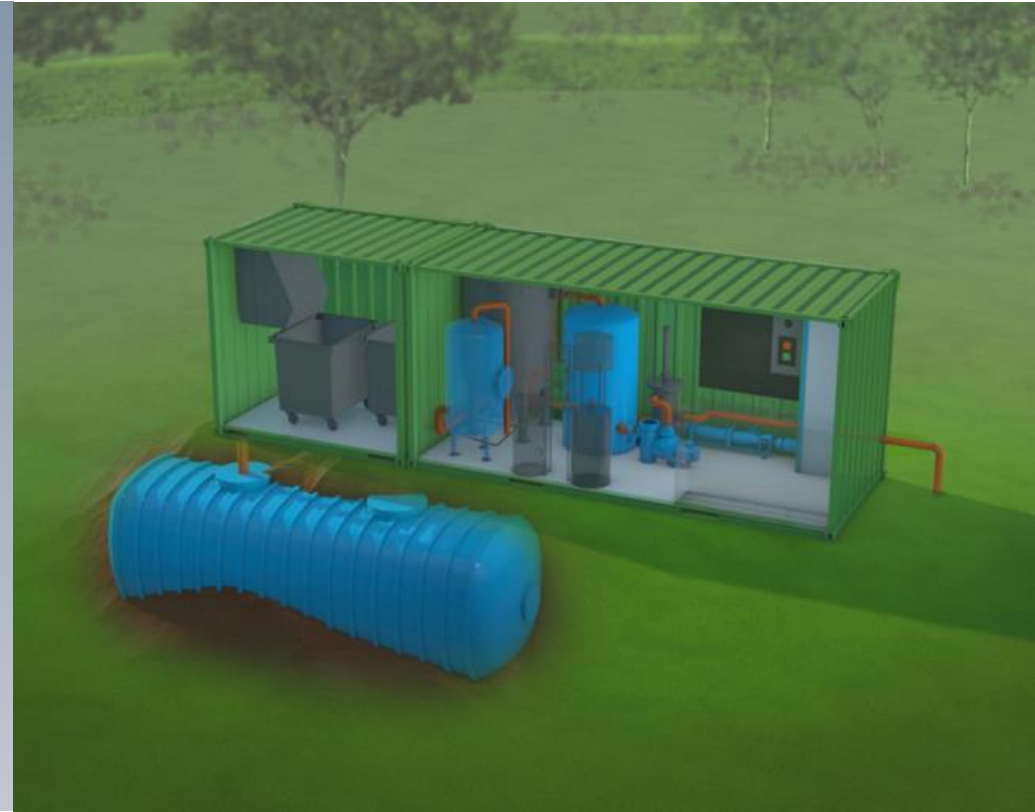
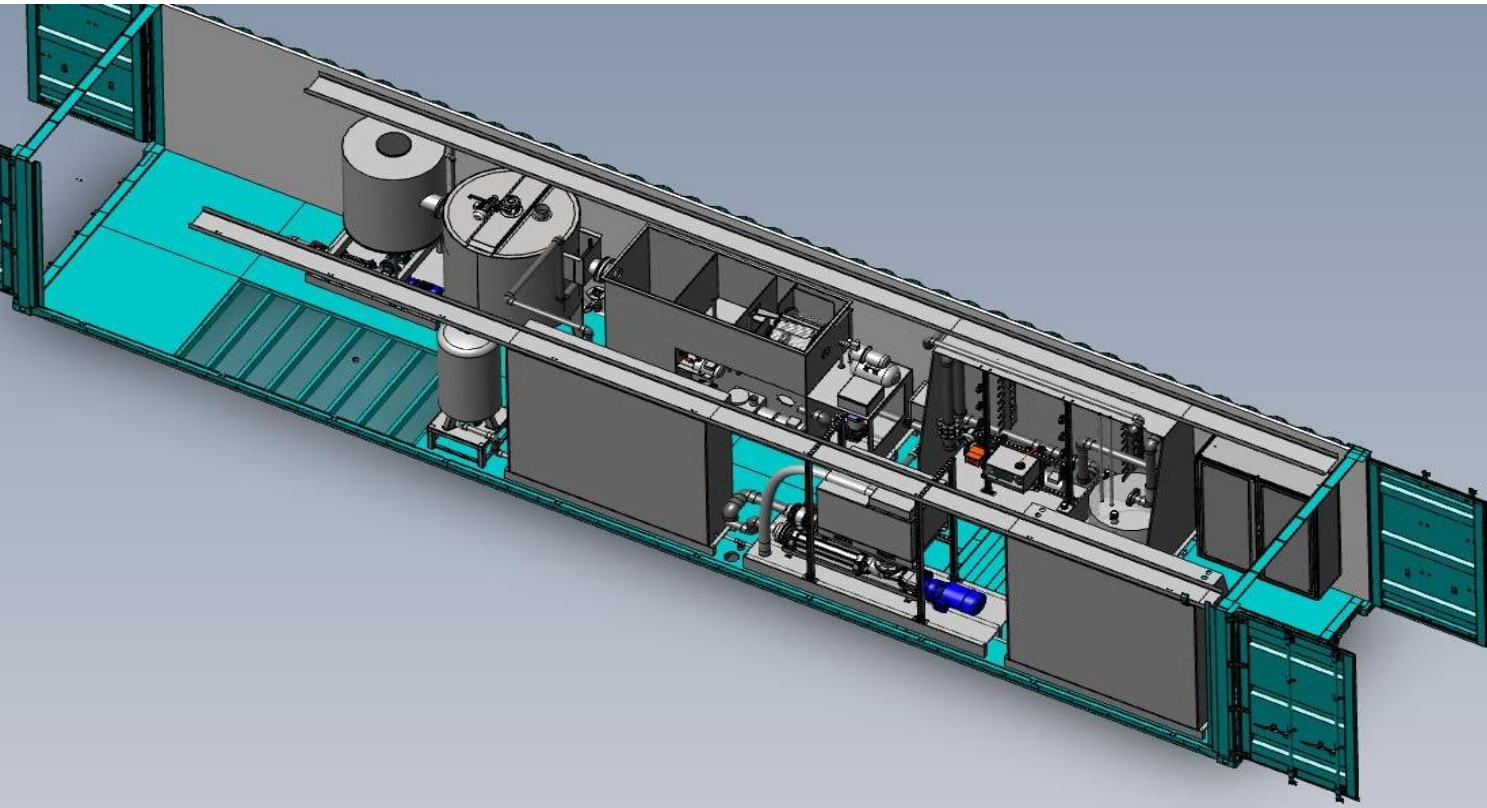


Easy to operate, Class2, and low in maintenance



Robust system

**The Bluecon[®] modular units are quick to built, install and commission...
and the system can be scaled up with multiple units at a single site**



**Bluecon[®] capacities currently available: 5, 10, 15, 20 and 25 m^{^3}
/ 22, 44, 66, 88 and 110 GPM**

The Result

Small footprint without need for large infrastructure



The Bluecon BC10 - Decentralized 44GPM /10m³/hr wastewater treatment system
- Serves a town with a population of about 1,500 people



The Bluecon BC10 - Decentralized and small foot print shown



GHG - Green house gases - Reduction of emissions to achieve carbon credits

> GHG from waste water are CH₄, CO₂ and N₂O

The Bluecon streams are:

- : Effluent in liquid raw sewage
- : Organic outflow slurry slib
- : Water outflow liquid water
- : N₂, O₂ gases neutral gases: Thus no / no significant CH₄, NO₂, CO₂ are emitted

Procurement, Engineering, Construction, etc.:

Municipalities are free to use their own engineer(s) and/or propose an engineering firm(s) of their choice, to be consulted with Canstar Solutions (NDA agreements do apply).

Municipalities are free to do their own construction and site preparation

Municipalities are free to operate the Bluecon system themselves, requiring a Class 2 operator

Alternatively:

Canstar Solutions can provide turn-key operating systems including engineering, construction, as well as operational services

Pre-arranged Financing available for the Bluecon systems :

Canstar Solutions has pre-negotiated financing for the Bluecon Systems (Basically it is Equipment financing)

Municipalities can utilize these financing services if so desired
some options to procure Bluecon technology are:

- > Outright purchase 100% payment, thus without financing
- > Purchase with financing with or without down payment (i.e. subsidy)
- > Lease arrangements, with or without Canstar Solutions operational services

Thank you for your interest in the Bluecon® Water the World technology:
The Unique wastewater treatment system w constant quality outfall water



DECENTRALIZED
WASTEWATER
TREATMENT

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BLUECON decentralized & scalable wastewater treatment systems

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