

WATER



**EcOsmosis®**

**100% CHEMICAL FREE OSMOSIS**

**BIOLOGICAL AND MINERAL INHIBITION  
MEMBRANE SELF CLEANING AND ENERGY RECOVERY**

The EcOsmosis® Plant Design, as well as its name, are owned and patented by Water-On.



# The Challenge

Remove Chemicals; Self Clean Membranes; Recover Energy; Neutral Discharges

Unique Osmosis Multitreatment Technology 100% Chemical Free

IEPS inhibition and Biofouling, Embedding Inhibitor, Energy Recovery,  
Ultrasonic Membrane Self-Cleaning, Performance Prediction Software and  
ECO - Brine Discharge



## Goal

Improve the Sustainability and Efficiency of the Osmosis processes. Eliminate the injection of chemicals to control biofouling and mineral scale, significantly extend the life of the membranes by self-cleaning without chemicals, reduce energy consumption, predict the behavior of osmosis systems by increasing production, reduce the impact of the spillage of brine in the middle.



## Barriers

Ignorance of the possibilities offered by our EcOsmosis® system.

# Our Solution



EcOsmosis®

Reverse and Direct Osmosis

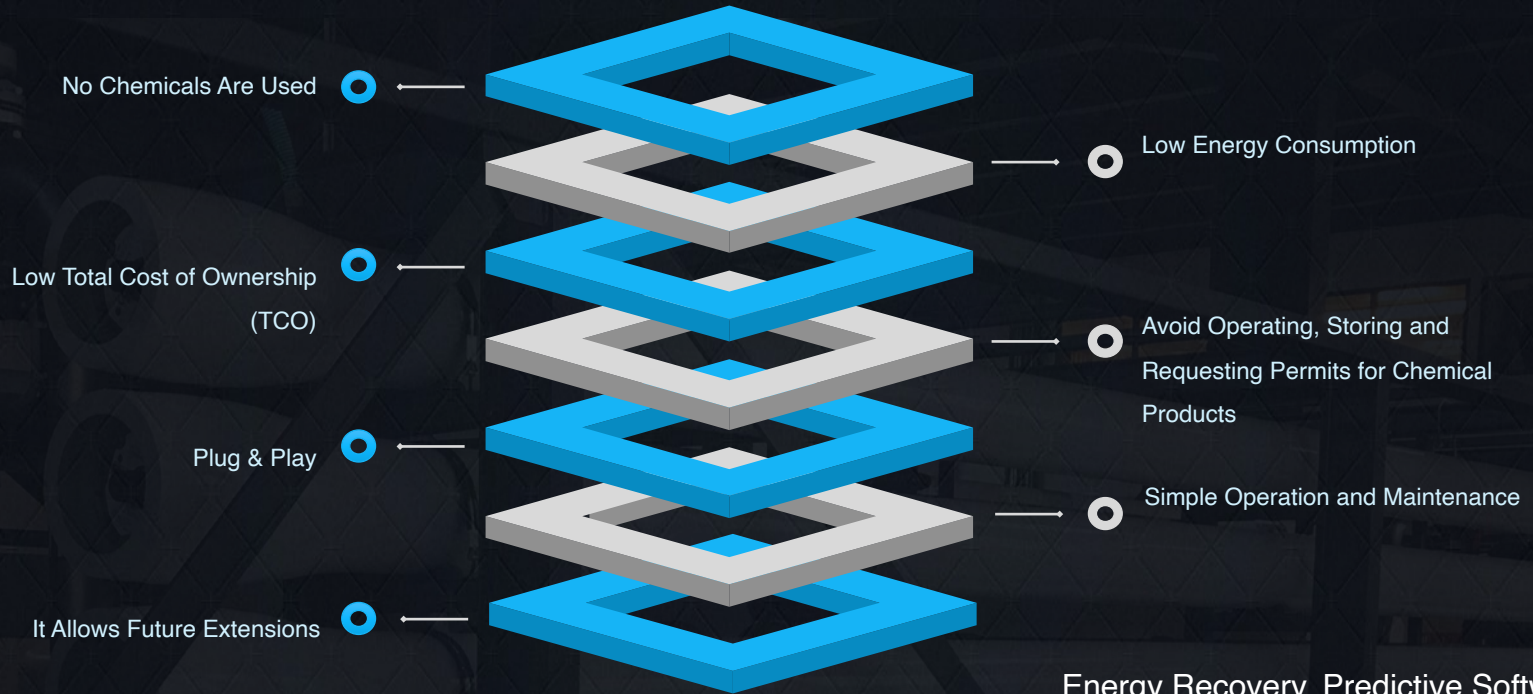
Modular System of

High Efficiency and Low Cost



# System Advantages

EcOsmosis®



## EPS inhibition, Biofouling, Mineral Scale:

EcOsmosis® uses a combination of technologies that make possible water productions with very low energy consumption. From 1.8 kW / h per m3 of water produced. The EcOsmosis® system allows you to get where others cannot. Our biological inhibition systems have proven their effectiveness by extending the life of the membranes even at double their standard ratio.

## Energy Recovery, Predictive Software and Eco - Brine Discharge:

The energy recuperator that incorporates EcOsmosis® is a compact module that integrates the recuperator, the pump and accessory elements into a single unit, which allows higher yields and ease in design and operation. The prediction software is able to analyze the behavior of the plant and determine in advance when it will be necessary to clean the membranes and pre-filtration equipment, it also allows diagnosing the percentages of improvement based on an eventual change of plant parameters. The discharge of EcOsmosis® is only composed of water and salt, without chemicals that can damage the flora or fauna of the area.



# EcOsmosis<sup>®</sup>

100% Chemical Free Osmosis (Patented by Water-On)

## Modular

Our systems are modular and can be supplied in Skid or in a Container for outdoor location. Capacities from 250 m3 / day to 35,000 m3 / day



## Inhibition

We use a module prior to the filtration modules, which includes the inhibitors of EPS-Biofilm and Mineral Scale, in order to protect the membranes and filters, while increasing their performance and efficiency.



## Cleaning

It incorporates modules of self-cleaning membranes by ultrasound without the need for human intervention or production stop.



## Energy Efficiency

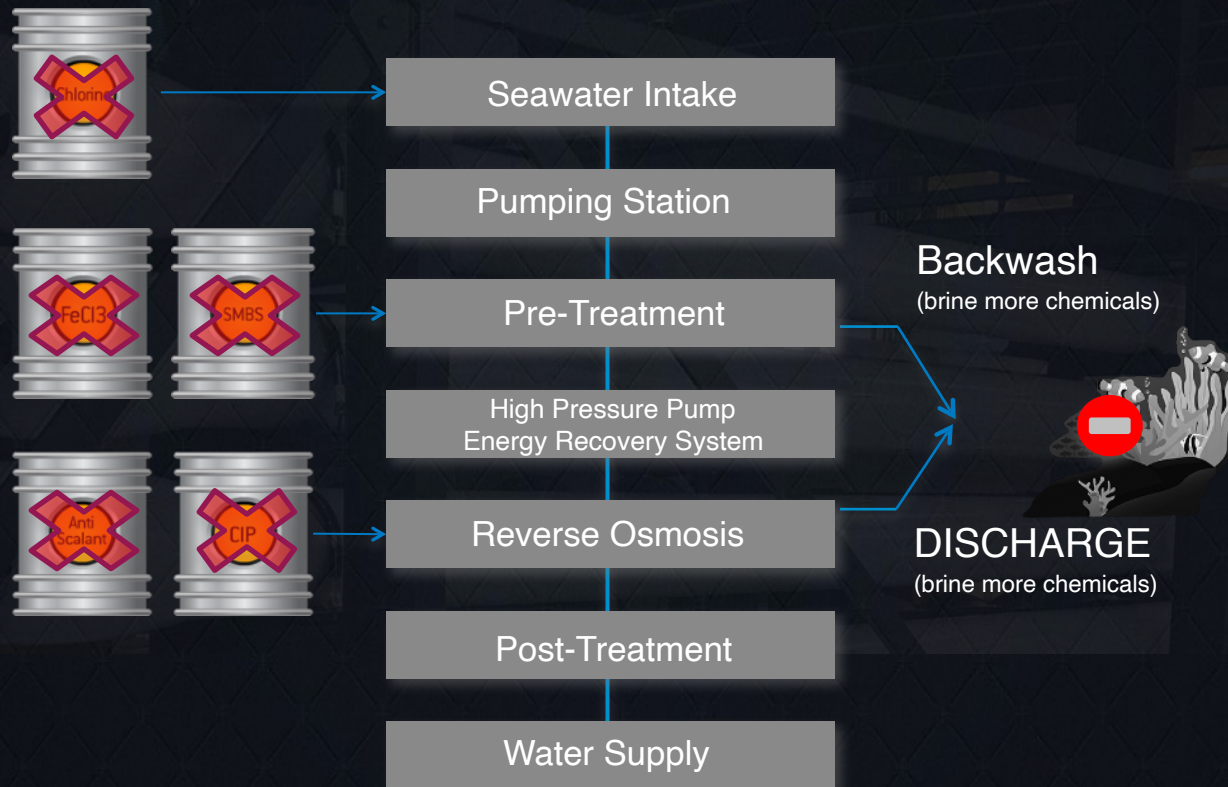
All our plants are equipped with energy recuperators that allow us to offer the best performance in kW / h per m3 of water produced.

# EcOsmosis <sup>®</sup> Osmosis without Chemicals

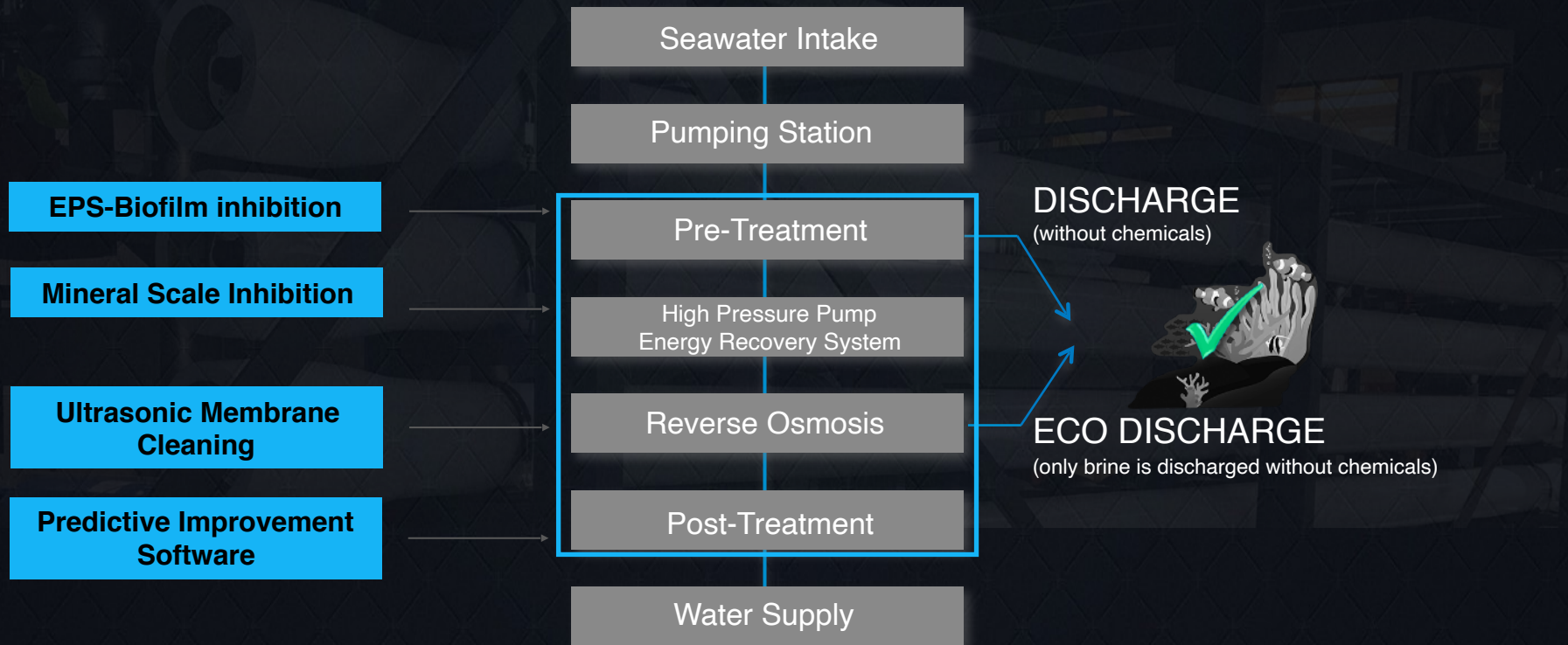
A Tailored solution



## Conventional Desalination Process



Desalination Process EcOsmosis® by Water-On





Eliminates the Technological and Operational Limitations of the O.I. Standard

## INSTALLATION

- Minimum OO.CC. and minimal need for space (footprint).
- Connect and Operate System (Plug & Play)
- Chemical handling permits are not required
- Modular systems. They allow easy and fast future growth.

## OPERATION

- High Availability - robust design, high quality materials, strict manufacturing, assembly and testing process
- Easy to understand control system
- Safe use - no chemicals in the process
- Low energy consumption (Thanks to Biological and Mineral Inhibition)
- Software predictive of maintenance and improvement of the operability of the system, including membranes and pre-filtration.

## MAINTENANCE

- Easy and safe maintenance - no chemicals in the process
- Longer cycles between maintenance. EcOsmosis® chemical-free inhibitor systems keep membranes clean and prevent wear by antifouling and CIP
- Remote monitoring of operations
- It significantly saves operating costs.

## Options

### POST TREATMENT

- PH correction and disinfection (can be included in the basic plant for generating oxidants by aero-electrolysis without chemicals)
- Remineralization
- Chemical handling permits are not required
- Modular systems They allow easy and fast future growth.

### ASSEMBLY

- Mounted on Skid
- Container Mounted
- Outdoor Insulation
- Acoustic Isolation
- Low energy consumption (Thanks to the combination of inhibitors and energy recovery)

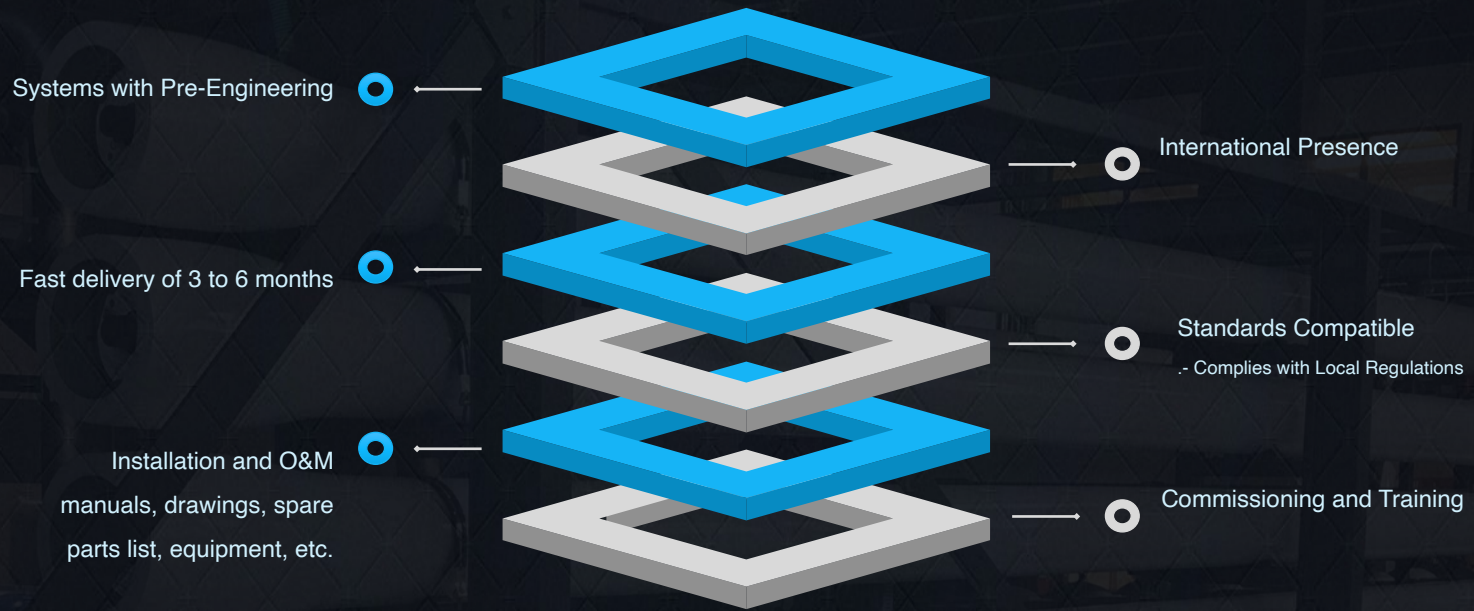
### OTHERS

- Second Step for Industrial Use
- Settings to add Redundancy
- Backup PLC
- Communication via Internet and / or Cellular
- Ultrasonic membrane cleaning system



# Commercial Advantage

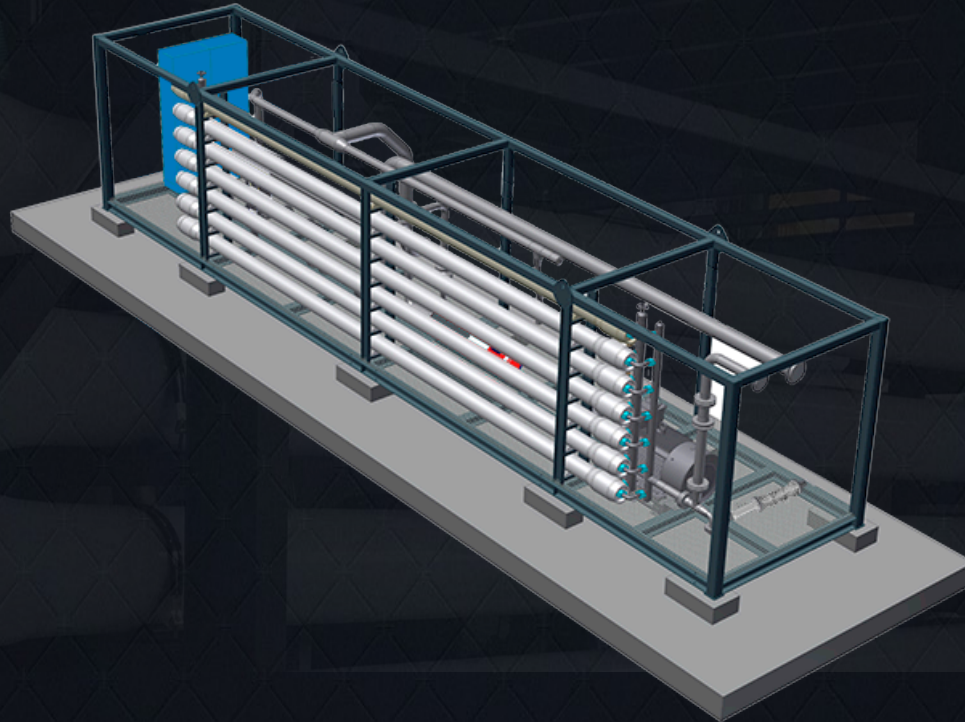
EcOsmosis ®





# Plant Infographic

EcOsmosis®



Are you interested in knowing what our system **EcOsmosis**® is?



## Contact Us

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