BAJA SUSTAINABLE WATER





LOS CABOS, MX, MARCH 2024



71% OF THE EARTH'S SURFACE IS COVERED BY WATER, YET LESS THAN 1 % IS SUITABLE FOR HUMAN USE

CURRENT DESALINATION AND WASTEWATER TREATMENT METHODS PRESENT A VERY LIMITED SOLUTION TO PRODUCE CLEAN, FRESH, DRINKING WATER

THE PROBLEM WITH CURRENT DESALINATION AND WASTEWATER TREATMENT METHODS



THIS MEANS, TO THIS DAY

OVER 4 BILLION PEOPLE LACK DRINKING WATER AND PROPER SANITATION SERVICES ESSENTIAL FOR HEALTH

THE PROBLEM WITH CURRENT DESALINATION AND WASTEWATER TREATMENT METHODS



WHY?

CONVENTIONAL DESALINATION

6

BAJA SUSTAINABLE WATER / CONVENTIONAL DESALINATION CHALLENGES



CONVENTIONAL DESALINATION

PRODUCES WASTE

RELEASES TOXIC CHEMICALS

RESULTS IN BRINE AS WASTE PRODUCT

HARMS SOIL, WILDLIFE AND MARINE ECOSYSTEMS

PRODUCES GREENHOUSE GAS EMISSIONS

SOURCE: WORLD ECONOMIC FORUM WWW.WEFORUM.ORG



BAJA SUSTAINABLE WATER / CONVENTIONAL DESALINATION CHALLENGES

CONVENTIONAL DESALINATION

IT'S FOSSIL FUEL DEPENDENT

EXPENSIVE TO OPERATE

DEPENDS ON CHEMICAL CONSUMABLES

DELIVERS POOR WATER QUALITY

SOURCE: WORLD ECONOMIC FORUM WWW.WEFORUM.ORG

WASTEWATER^{*}TREATMENT



WASTEWATER TREATMENT PROBLEMS

ACTIVATED SLUDGE AS THEIR MAIN TECHNOLOGY

NEED CONSTANT BACTERIA REFILLING

HEAVY SLUDGE PRODUCTION AND TOUGH SOLID MANAGEMENT

HIGH ENERGY CONSUMPTION (about 2-3% of a developed nation's electrical power)

NEED TRAIN AND CERTIFIED INDIVIDUALS AS OPERATORS (30% of OPEX)

SOURCE: OXYMEM WWW.OXYMEM.COM



WASTEWATER TREATMENT PROBLEMS

UNABLE TO **SELF REGULATE** (that is, susceptible to influent and seasonal changes)

COSTLY TO CONSTRUCT AND OCCUPY SUBSTANTIAL LAND AREAS

END UP THROWING EXCEEDING BLACK WATERS TO THE OCEAN

PRODUCE LARGE AMOUNT OF METHANE EMISSIONS

CAN'T GET RID OF CHEMICALS SUCH AS CLARIFIERS AND CHLORINE

SOURCE: OXYMEM WWW.OXYMEM.COM



OUR COMPANY



After more than 10 years of research in water technologies, we developed a more sustainable way to do chemical-free, brine-free, seawater treatment, and an entirely new way to do solid-free, odor-free wastewater treatment.



With these innovations we were invited to participate in the <u>LIFE</u> <u>Programme</u> of the European Climate Infrastructure and Environment Executive Agency in 2020. In 2019 we won Third Place in the IVACE Water Accelerathon and were nominated for the Startup Europe Accelerathon. A year before, we won First Place at the Startup Europe Awards Mexico.



PATENT-PENDING TECHNOLOGIES



We are holders of two patent-pending technologies:

MX/a/2023/009851

sustainable wastewater treatment system to produce water for human consumption through a microbial digestory media

MX/a/2022/004081

sustainable low-pressure seawater treatment with applied magnetism



The product water from both of our processes is **drinking and potable** water.

Official Mexican Standard NOM-127-SSA1-2021, Environmental Health: *Water for human use and consumption. Permissible limits of quality and treatments to which water must be subjected for its purification.*



Our aim is to help our clients (real estate developers, industrial companies and farmers) to achieve TRUE SUSTAINABILITY, which we believe *begins with water*.

Water from our process is recovered, cleaned and put back into the system, so **we don't waste water to produce water.**





Our vision is to provide safe, clean **potable and drinking water** to every water-scarce corner of the planet, starting by the Baja Peninsula; with the help of our latest innovation:

> Official Mexican Standard NOM-127-SSA1-2021, Environmental Health: *Water for human use and consumption. Permissible limits of quality and treatments to which water must be subjected for its purification.*



THE SUSTAINABLE WATER FARM





WITH A TOTAL OF 38 SOLAR PANELS AND 20 BATTERIES FOR OFF-THE-GRID OPERATION, THIS 40 FT CONTAINER PRODUCES

60,000 L PER DAY FROM SUSTAINABLE SEAWATER TREATMENT 50,000 L PER DAY FROM SUSTAINABLE WASTEWATER TREATMENT

OF DRINKING WATER, WITHOUT CHEMICALS, CONSUMABLE EXPENDITURE OR MAINTENANCE FEES





OFFERING OUR CLIENTS THE POSSIBILITY TO

- TREAT THEIR WATER IN A CLEAN, FUSS-FREE, AFFORDABLE WAY
- PRODUCE FRESH WATER TO DRINKING STANDARDS COMPLETELY OFF-GRID
- BECOME SELF-SUFFICIENT IN THEIR WATER NEEDS, REMOVING MUNICIPAL SERVICES
 - **SUPPLY CLEAN WATER TO THEIR ENTIRE DEVELOPMENTS**
 - PRODUCE, BRAND AND SELL THEIR OWN DRINKING WATER
 - **GROW ORGANIC GREENHOUSE PRODUCE IN ARID AND REMOTE AREAS**





OFFERING OUR CLIENTS THE POSSIBILITY TO

- BUILD SMALLER, MODULAR, SCALABLE WATER TREATMENT FACILITIES WITH MINIMAL ENVIRONMENTAL IMPACT
 - SAVE IN OPEX AND ELIMINATE MONTHLY CONSUMABLE EXPENDITURE
 - ELIMINATE THE WATER TREATMENT RELATED ELECTRICITY BILLS
- SIMPLIFY THEIR DAILY OPERATIONS BY SUBSTITUTING SPECIALTY PERSONNEL FOR

COMMON MAINTENANCE WORKFORCE

• MEET GOVERNMENT REGULATIONS IN TERMS OF WATER QUALITY



HOW DOES IT WORK?





Our **sustainable seawater treatment process** pumps water from a brackish, 75-meters-deep well, strategically excavated to protect groundwater from the Santiago Aquifer. This way, the concession and permits for a brackish well are easier to process for our clients, saving time and resources in paperwork and aiding in the development of sustainable and circular communities that treat their own water and grow their own crops.





Our wastewater treatment process uses a US Green Patent A Biosafety 1 Bacteria that leaves no odors, **digests 98% of solids**, greases & oils, microplastics and greenhouse gases such as methane, ammonia and nitrogen.

Water is then treated for disinfection and purification, **brought to potable standards.**







OUR ACHIEVEMENTS



We produce live and alkaline water, with a PH of 7.8-8.3

We apply zero chemicals

We don't do solid management, since there's **no solid to manage**

We preserve land, oceans and entire ecosystems

Our plants are modular and scalable, with **no limited production**



When plugged, we use 70% less electricity to operate

We can operate fully on solar energy

We produce water in remote, water-scarce areas

We help preserve groundwater

We help our clients achieve true sustainability











www.bajasustainablewater.com