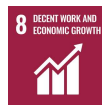




Tidal Artificial Wetland System

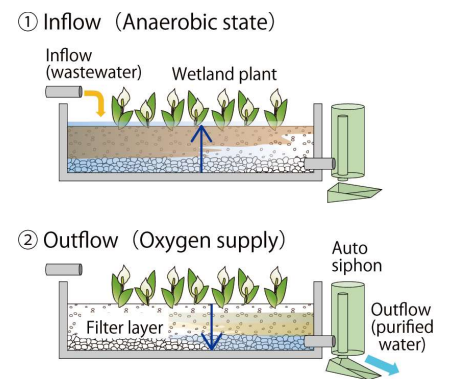
Water purification system using Tidal Artificial Wetlands

Wesco inc.



Proposal for water purification system using Tidal Artificial Wetlands


- The 'tidal artificial wetland' is a sustainable purification system that applies the natural purification mechanisms of tidal flats. By optimizing the shape of the constructed wetland, the filtration media, and the water flow method to suit the quality and quantity of the wastewater, the purification function is enhanced, achieving approximately ten times the purification capacity compared to conventional constructed wetlands.
- Due to the fluctuations in water levels within the wetland, as well as the actions of plants, animals, and microorganisms, the incoming pollutants are filtered without the use of electricity, chemicals, or specialized filters. The pollutants are then decomposed and removed through the combined actions of aerobic and anaerobic microorganisms, as well as the plants and animals within the wetland.





Four features

- | | | | |
|---|---|--|--|
| 1 Low maintenance costs No need <ul style="list-style-type: none"> Aeration power Chemicals Special equipment | 2 Easy to manage No need <ul style="list-style-type: none"> Chemical addition or filter replacement Sludge removal Professional inspections | 3 Clean and energy-efficient <ul style="list-style-type: none"> No greenhouse gas emissions Sustains purification function as the local flora and fauna become established water reuse | 4 Make the community happy <ul style="list-style-type: none"> Improve landscaping Can grow flowers If a disaster occurs, they can restore the functions on their own Useful for environmental education |
|---|---|--|--|

The anticipated outcomes

 With no greenhouse gas emissions, the development of green infrastructure supports the restoration of ecosystems and promotes sustainable land use.

 Improving public water supplies enhances living conditions and strengthens communities' resilience, enabling them to better cope with disasters.

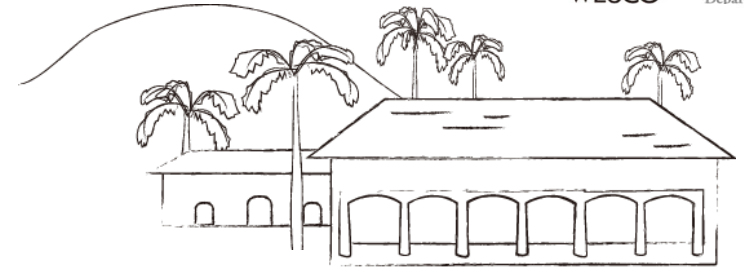
 In a country blessed with rich and beautiful nature, we aim to create a sustainable society while preserving the environment.

Water Reuse

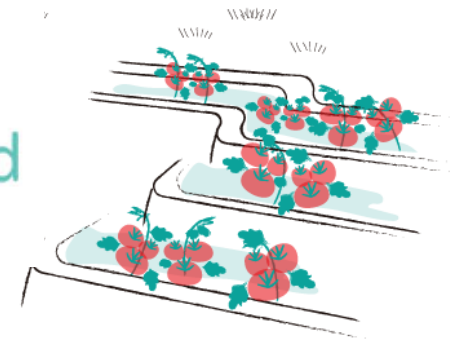
As tourism increases, so does wastewater. In this case, using artificial wetlands to purify wastewater has many benefits. In addition to purifying wastewater, the artificial wetlands can also grow vegetables to be served at the hotel. The purified water can also be used for hand washing and toilet water.

This initiative promotes environmentally friendly and sustainable hotel management.

Tourism impact
on wastewater ►►►



Artificial wetland
purification



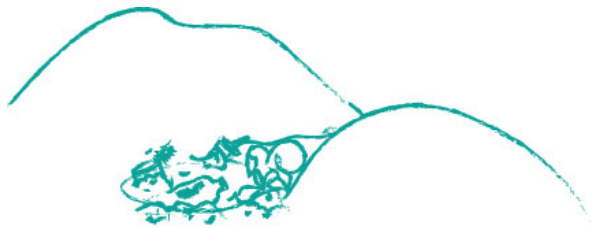
Fresh meal

Public Health Enhancement



Waste water from garbage dumps and factories becomes groundwater and flows out to rivers and the ocean.

By purifying waste groundwater in artificial wetlands before releasing it, we can preserve the beauty of nature..



Polluted groundwater ►►►



Artificial wetland
purification



Safe seafood



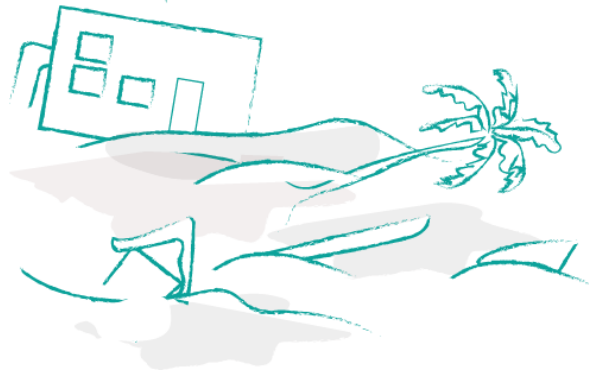
Resilience against Natural Disasters

Disasters are increasing due to climate change.

Purification systems using specialized equipment will be unusable in the event of a disaster.

However, artificial wetlands can be restored by residents even if damaged, and natural resilience can be expected.

Disaster disables
purification facilities



Artificial wetlands are resilient

Unbreakable

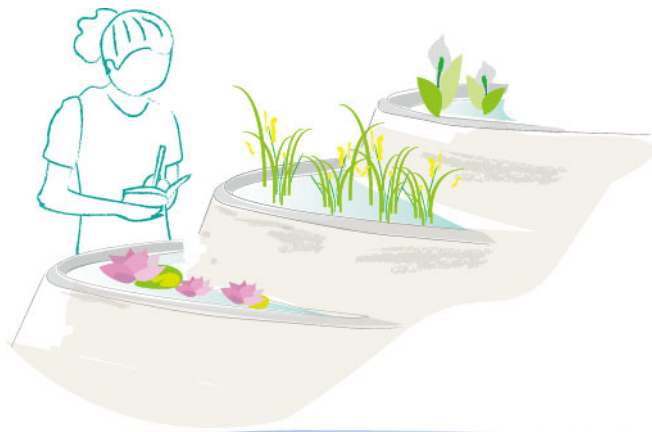


Employment

Environmental Awareness

Artificial wetlands are places where people learn to live in harmony with nature. Children who pick up trash will stop throwing it away. Understanding how nature cleans wastewater helps reduce water pollution, promoting an eco-friendly and sustainable lifestyle.

We treat our own wastewater. ►►►



Growing interest in wastewater treatment.



Organisms activity

Life without water pollution.

Tidal artificial wetlands

Proposals to solve social issues in the world