



# Wastewater Treatment Solutions

Green and LEED™ Certified  
Developments



imagination at work

# Why Recycle Wastewater?

Several factors increasing worldwide water stress:

- Increasing global water scarcity
- Climate change
- Increasing urbanization
- Population growth

## **Green Buildings:**

Yield a short-term ROI

Earn points toward LEED™  
Certification



*Water is becoming our most  
precious natural resource*

# ROI in as little as a few years

Reduced potable water usage

Little or no wastewater contribution to sewers

Incentive programs for water reuse offer reduced fees (country dependant)



# Earn Points toward LEED™ Certification



## Water Efficiency

Credit 1.1 **Water Efficient Landscaping, Reduce by 50%** 1

Credit 1.2 **Water Efficient Landscaping, No Potable Use or No Irrigation** 1

Credit 2 **Innovative Wastewater Technologies** 1

Credit 3.1 **Water Use Reduction, 20% Reduction** 1

Credit 3.2 **Water Use Reduction, 30% Reduction** 1

## Innovation & Design Process

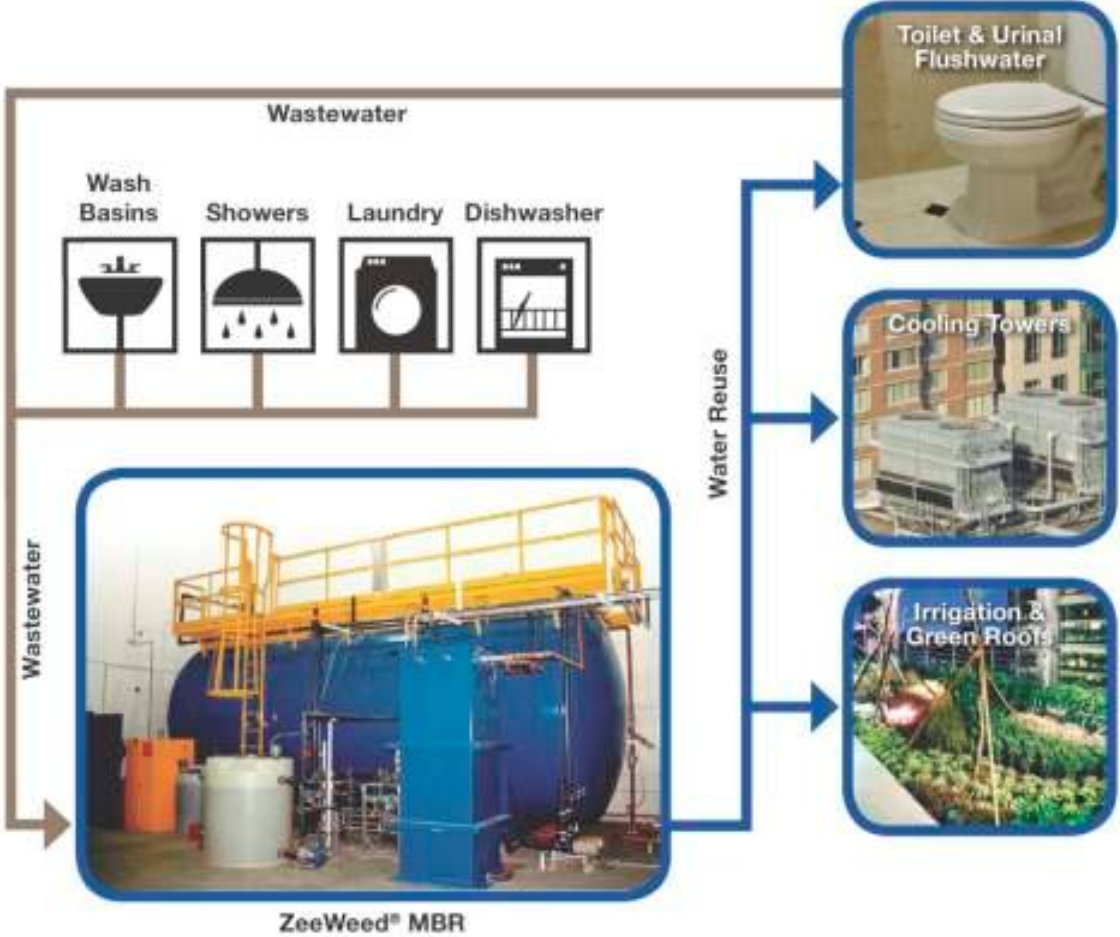
Credit 1.1 **Innovation in Design** 1

Certified	26–32 points
Silver	33–38 points
Gold	39–51 points
Platinum	52–69 points

*... Earn up to 6 points!*

# Turn Your Wastewater into an Asset

Treat *all* the building's gray and black water



# An Innovative Technology for a Revolutionary Design



ZeeWeed® membranes are hollow strands of porous plastic fibers that can separate particles and molecules from water

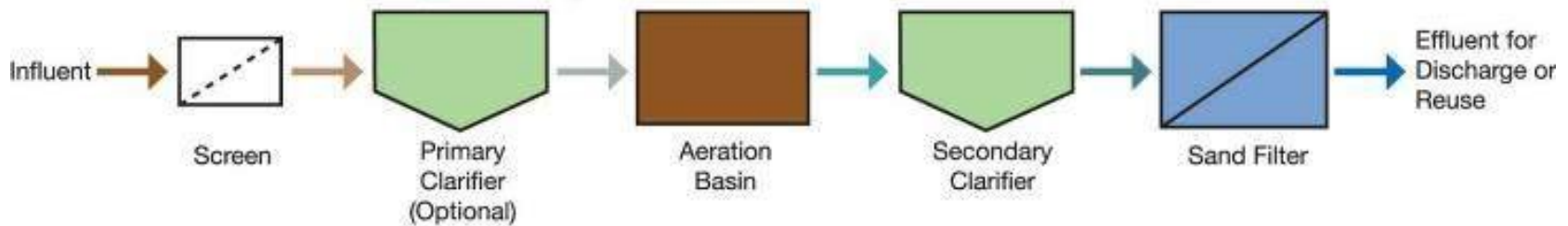
Billions of microscopic pores block the passage of any particle larger than the size of the pores ensuring crystal clear water at all times

ZeeWeed® membranes have set the standards for wastewater treatment since 1993

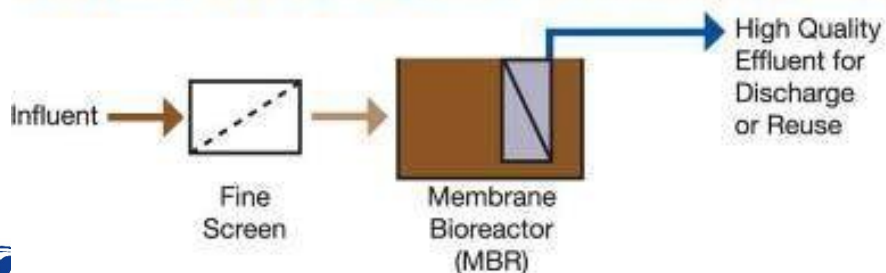
# ZeeWeed<sup>®</sup> MBR Process

- Advanced technology that combines ultrafiltration (UF) membranes with biological treatment
- Brings conventional clarification, aeration and filtration together into a single step

## Conventional Multi-Step Tertiary Treatment Process



## ZeeWeed<sup>®</sup> MBR Simplified Treatment Process



# MBR Advantages

- Fewer process steps to achieve high effluent quality
- Consistently reliable high quality effluent
- Effluent quality unaffected by upstream biological process upsets
- Small footprint
- Capability to expand plants modularly
- Cost-effective technology

# Trusted Water & Wastewater Solutions for Land Development

- Develop and expand unserviced or environmentally sensitive land
- Full line of cost-effective packaged plants offer low cost and simple operation
- Reuse water for:
  - Toilet flushwater
  - Landscape irrigation
  - Cooling Towers
- Ideal for green and high efficiency buildings
- Over 250 proven land development installations throughout the world

## Solaire Apartments Battery Park

- 27-story luxury building in Battery Park New York
- Nation's first environmentally responsible high-rise building
- Features the first onsite water recycling system in the U.S. built inside a multi-family, residential building
- ZeeWeed® membrane bioreactor treats and recycles the building's wastewater for toilet flushing, irrigation and cooling towers



# Trusted Water & Wastewater Solutions for Hotels & Commercial Properties

- Safely reuse water for:
  - landscape irrigation
  - toilet flush water
  - laundry facilities
  - cooling towers
- Reduce freshwater consumption by as much as 85 percent
- Virtually eliminate discharge to municipal sewers
- Extend potable water availability for continued residential and commercial development

**Coral Reef Club  
Barbados**



- Privately owned and operated, luxury resort recently expanded to 88 rooms and a guest capacity of 192
- Z-MOD packaged plant wastewater treatment system selected to manage additional flow from expanded facility

**Westin Resort St. John,  
U.S. Virgin Islands**



- The hotel's outdated wastewater treatment plant could no longer meet the needs of their soaring hotel occupancy
- By converting to a ZeeWeed MBR, the plant increased its capacity from 80,000 gpd (300 m<sup>3</sup>/d) to an average annual flow of 100,000 gpd (378 m<sup>3</sup>/d), with peak flows of 160,000 gpd (606 m<sup>3</sup>/d).

# Complete System Solutions to Meet Stringent Hospital Requirements

- Customized RO products to meet pure water needs
- Compact plants that are proven to treat variable and difficult hospital and pharmaceutical manufacturing wastewaters
- ZeeWeed® wastewater treatment plants exceed the world's most stringent regulations for wastewater discharge or reuse

**International Medical Center,  
Jeddah, Saudi Arabia**



- 300-bed, multi-specialty hospital will focus on healthcare services such as the treatment of diabetes, musculoskeletal and pediatric complaints
- ZeeWeed® MBR treats 60,000 GPD of the facility's wastewater and recycles for irrigation
- Commissioned in 2004

**ScinoPharm Taiwan -  
Pharmaceutical**



- High Resistivity Double Pass Reverse Osmosis (DPRO) for raw water treatment to meet potable water standards
- MBR system for wastewater treatment to meet discharge standards