Water Reuse: The Final Frontier?

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Water Reuse = Sustainable

- The only water resource on Earth that increases with increasing population and industrialization is wastewater.

- “Water reuse” is the most sustainable approach to meet future agriculture, energy, industry and domestic water demands + membrane filtration is the heart of the technological solution.
  - Industrial ➔ Title 22 ➔ IPR ➔ DPR

- However, the performance, cost and energy associated with reclamation of wastewater are plagued by membrane fouling.
Water Planet’s Products & Strategy

**IntelliFlux®**
Artificial intelligence self-optimizing controls lower OpEx 10-20% for any membrane filtration system with no CapEx

**PolyCera®**
Next-generation fouling-resistant membranes offer 10X lower CapEx and 80% lower OpEx than ceramic membranes

Sell Membranes & Controls through OEMs & EPCs
- International
- Municipal
- Large Industrial

Membrane Systems
powered by **IntelliFlux** with **PolyCera** inside

Direct Sales in US & Canada
- Industrial
- Water Reuse
- Services
Example 1: Oilfield to Ag-field Water Reuse

Water Planet’s *IMS-5000 Integrated Produced Water Solution* powered by *IntelliFlux* was able to treat 10 different water samples with salinity ranging from 8,000 to 78,000 mg/l, COD from 280 to 2500 and free oil from 2 to 250 ppm to a level that enabled advanced water polishing by standard BWRO.
Example 2: Mobile Tertiary Water Reuse

Over 6-weeks, Water Planet compared the performance of PolyCera and PVDF UF membranes to convert secondary effluent into high purity effluent to meet Texas’ Type 1 water reuse standards. PolyCera achieved >5-log removal of bacteria and <0.1 NTU turbidity with 50% lower OpEx than PVDF.
Small-Distributed versus Large-Centralized

• The technology exists to enable smaller, point-of-generation wastewater treatment (and, ideally, recycling/reuse) with:
  – Favorable total cost of water treatment
  – Intelligent controls to improve performance
  – Next-gen membranes to increase longevity
  – Remote monitoring to enhance reliability

• Where do we go from here…together?