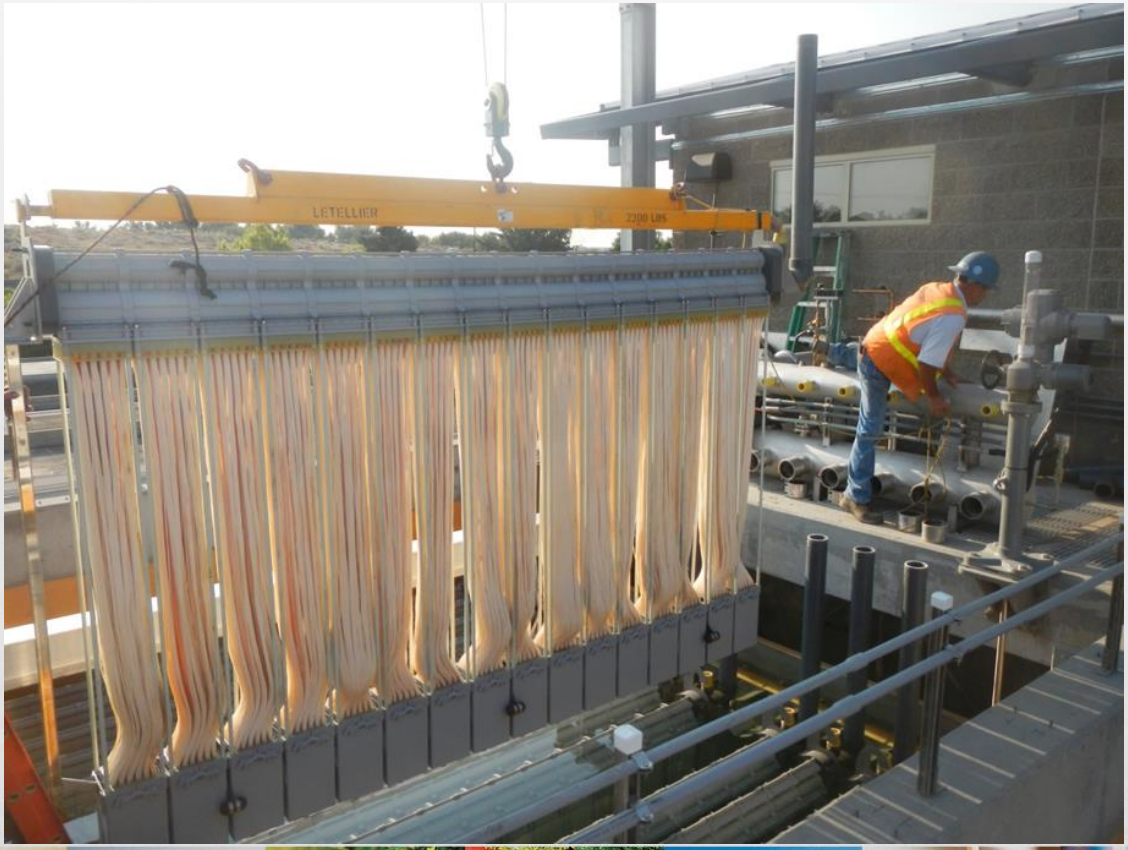
2018
HERMISTON RECYCLES WATER

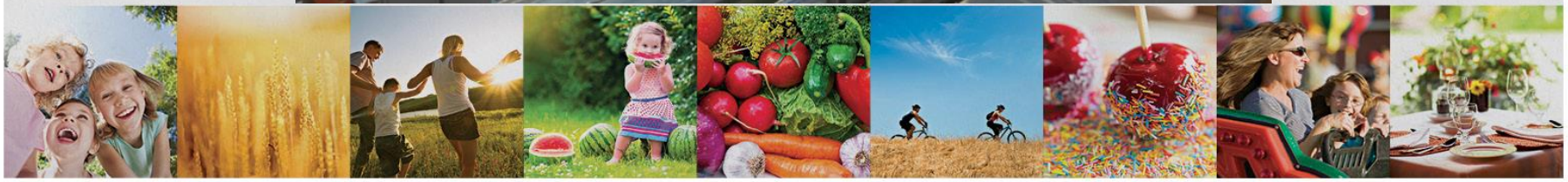
HERMISTON
OREGON
™

Plant Upgrade

- Why? Ammonia limits and Temperature limits
- Cost - $27 million
- Design Capacity – 6.2 MGD
- Slightly Under Budget
- Changed to a Membrane Bio-Reactor (MBR) Process
- The MBR's went fully operational on Oct. 1, 2014
- First Seasonal Canal Outfall began August 16, 2016

Membrane Cassette





New Building

New Piping

Treatment Comparison

	Old (RBC) August 2014	New (MBR) October 2014
Average Daily Flow	1.335 MGD	1.357 MGD
Turbidity	20 mg/l	<0.1 mg/l
Suspended Solids (SS)	14 mg/l	1 mg/l
Biological Oxygen Demand (BOD)	18 mg/l	1 mg/l
Ammonia (NH_3)	16.1 mg/l	<0.1 mg/l
E-Coli Organisms	26/100ml	<2/100ml
Percentage Removal		
SS	96.9%	99.7%
BOD	93.3%	99.7%
All values are monthly averages		

- Results are Class A Recycled Water

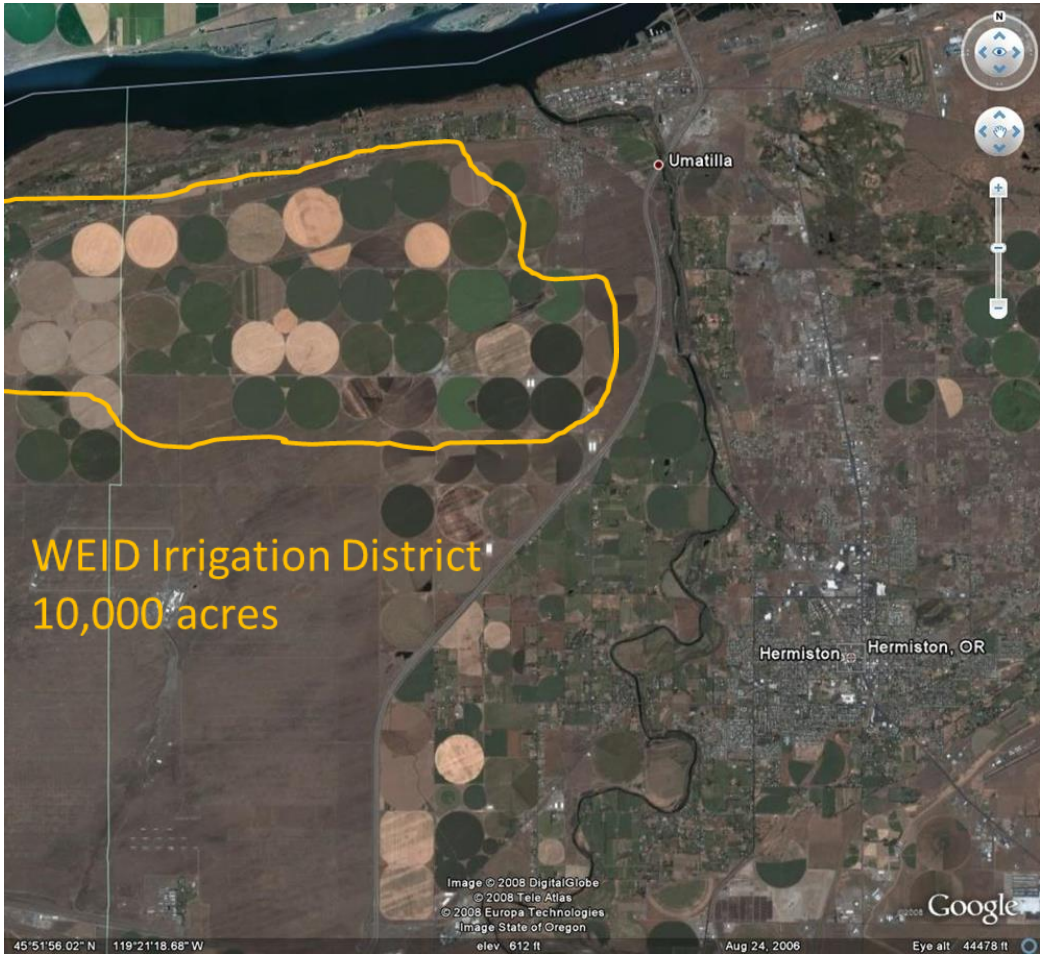
Locations

CANAL OUTFALL
RIVER OUTFALL
OUTFALL PIPELINE
UMATILLA RIVER ROAD
RECYCLED WATER PLANT
HERMISTON, OREGON
N

Outfall

- Summer Discharge May 1st to October 31st
  - Discharge to West Extension Irrigation District for Beneficial Agricultural Use

Irrigation Opportunities



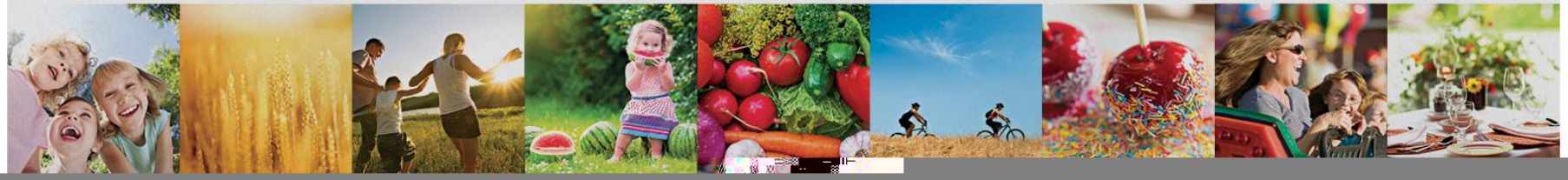
HERMISTON
OREGON

Outfall

- Winter Discharge November 1st to April 30th
  - Discharge to Umatilla River near USBOR Three Mile Dam
    - Into an outfall diffuser system for proper mixing submerged on the south side of the dam

Options

- Kennedy Jenks Consultants
- Many options considered
  - Chillers
  - Ground Infiltration – Green Property
  - Neighboring Farmer
  - Other Irrigation District



Solids Handling

- New MBR Process produces a lot more solids
- Installation of a new drying process will begin in a few months.
- Will Produce Class B biosolids

Questions??

Where Life is Sweet™