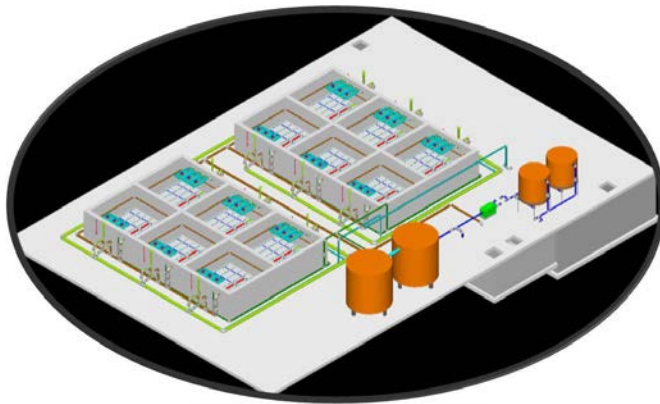


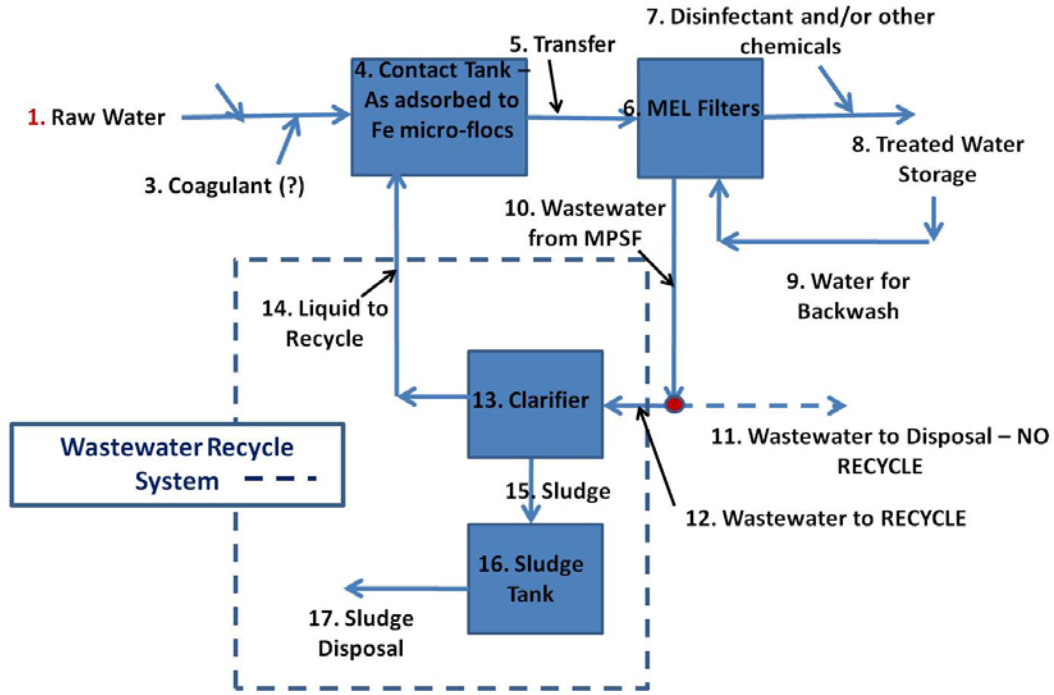
**Saskatchewan Landing (Kyle) Water Treatment Plant
Saskatchewan, Canada (Completion Spring 2014)
Iron and Manganese Removal using
MEL type Filters as polishing sand filters (PSF's)**



Design constraints and objectives:

- Groundwater supply not under direct influence of surface water.
- Iron above 0.30 mg/L.
- Manganese above 0.5 mg/L.
- Arsenic concentration near allowable limit.
- Significant complexing of both iron and manganese.
- Required treatment capacity of 2,400 m³/day or 100,000 litres per hour.
- Minimum chemical requirements.
- Minimum level of automation.
- Minimum complexity.
- Backwash water to be recycled.
- Sludge disposed of in Kyle sewage lagoon.

Process flow diagram for Fe and Mn removal with 100 % recycle of wastewater.



- 12 (4 m x 4 m) MEL-PF type filter cells
- Each cell can treat a maximum of 10,000 litres per hour (maximum loading of 0.6 m³/m²/h)

