Groundwater Treatment (before dredging)

Treat groundwater extracted by Gradient Control System to discharge criteria in NPDES permit issued by Indiana Department of Environmental Management (IDEM)

From 2007 to 2012 – ~200 million gallons treated

Primary groundwater contaminants
- Organic compounds (benzene, naphthalene, PCBs)
- Metals
- Ammonia
- Oil & grease

Primary processes
- Frac tank: flow equalization/primary settling
- Bag filters: metals removal
- Organo clay filters: oil removal
- Carbon filters: organic compound removal/polishing
- Chlorination: ammonia removal
- Sodium bisulfite addition: dechlorination
- Discharge to Canal

Plant capacity: 200 gallons per minute

Dredge Water Treatment (after dredging starts)

Treat water from the CDF cell to NPDES permit discharge criteria (parameter list expanded from groundwater only)

Water from CDF cell is combination of groundwater, dredge water, precipitation

Primary dredge water contaminants
- Organic compounds (PAHs, PCBs)
- Metals
- Ammonia
- Oil & grease
- Suspended solids

Proposed primary processes (future plant)
- Coagulation/Flocculation: metals removal
- Clarifiers: metals removal
- Chlorination: ammonia removal
- Organo clay filters: oil removal
- Carbon filters: organic compound removal/polishing
- Sodium bisulfite addition: dechlorination
- Discharge to Canal

Plant capacity: 200 gallons per minute