

# TREATED SANITARY WASTEWATER DISCHARGES INTO NATURAL WETLAND SYSTEMS

## Why discharge into natural wetland systems?

### Conventional System Discharge:

- Meets at least secondary treatment standards
- May cause eutrophication
- Increases algae population
- Has adverse water quality impacts
- May require substantial additional capital and operational and maintenance costs to achieve standards more stringent than secondary treatment standards

### Natural Wetland System Discharge

- Provides natural advanced treatment of treated wastewater
- Enhances the quality of wetland systems
- Cost effective method of achieving treatment standards
- Decreases operation and maintenance costs

## How can Providence help?

### Providence can help you by:

- Conducting feasibility study involving engineering design studies and biological/ecological surveys
- Conducting a baseline study to characterize wetland system and establish baseline data
- Preparing and submitting a Louisiana Pollutant Discharge Elimination System (LPDES) permit application to the Louisiana Department of Environmental Quality (LDEQ)
- Negotiating the final LPDES permit with the LDEQ
- Conducting long-term wetland system monitoring in accordance with the final LPDES permit

## What's the process?

### Initial Evaluation, Identification, and Long-Term Monitoring:

#### Wetland Flora:

Monitoring of the tree and understory plant association

#### Sediment Chemical Quality:

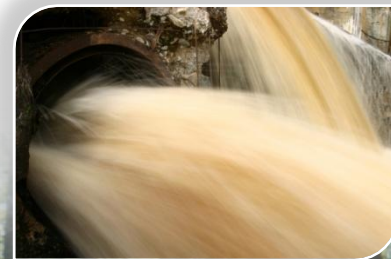
Monitoring of the sediment for trace metals and nutrients

#### Surface Water Level and Quality Analysis:

Monitoring of the surface water for metals, nutrients, and conventional parameters

#### Accretion:

Monitoring the buildup of organic and inorganic material up on the marsh surface



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