Wastewater





Wastewater treatment and collection are critical components of your infrastructure. WSB's team evaluates the full life cycle of wastewater management including ease of maintenance, energy consumption, capital improvements, financial impact, safety and satisfaction. Our history of working with regulatory agencies keeps your project from encountering regulatory or permitting obstacles while identifying funding opportunities to help make your projects work within your budget.

With our teams of engineers, permitting and construction staff, we bring the expertise to design and implement the following services:

WASTEWATER TREATMENT SYSTEM DESIGN AND PERFORMANCE EVALUATION

Natural Systems

- Facultative Lagoons
- Aerated Ponds
- Spray Irrigation/Subsurface Drip Irrigation
- Overland Treatment

Advanced Technologies

- Activated Sludge
- Fixed Film
- Nutrient Removal
- Tertiary Filtration
- > Innovative Technologies
- Odor Assessment and Odor Control
- Process Evaluation and Optimization – BioWin Modeling
- Water Reuse
- Energy/Heat Recovery

Biosolids Management

- Aerobic Digestion
- Anaerobic Digestion
- Autothermal Thermophilic
 Aerobic Digester (ATAD)
- Dewatering
- Heat Drying

Regulatory Compliance Support

- TMDL, watershed management
- > Chloride mitigation
- Contaminants of emerging concerns (CEC)
- Source Controls
- Pretreatment Program
- > I/I reduction Program
- › Fat oil and grease Program

Asset Management

Policy Review and Development

Value Engineering

Grant and Funding Support

WASTEWATER COLLECTION SYSTEM PLANNING AND DESIGN

- Sanitary sewer and interceptor sewer design and hydraulic modeling
- Trenchless Technology sewer installation and rehabilitation design
- Lift stations and Forcemains design
- Pump evaluation and optimization
- Flow monitoring
- > Future flow projections



Recent example of Wastewater work:





Monticello Wastewater Treatment Plant

MONTICELLO, MN

POPULATION: 13,000

PLANT CAPACITY: 2.36 MGD

The Monticello WWTP discharges into the stretch of Mississippi River designated as an Outstanding Resource Value Water and is required to meet very stringent permit conditions. WSB provided subject matter experts to perform plant wide process evaluation and address specific needs. The most recent upgrades included an enhanced chemical phosphorus removal system which resulted in the removal of additional phosphorus and reducing the risk of surface water algae blooms. Equipment replacement at the anaerobic digester and sequencing batch reactors significantly increased operational efficiencies.

