FRESE AND NICHOLS’ (FNI’s) COMPREHENSIVE EXPERIENCE integrates all aspects of water/wastewater (W/WW) master planning. From setting growth strategies to regulatory evaluation, FNI helps clients meet their goals and expectations.

FNI offers more than a century of experience in providing W/WW master planning services. From small rural towns to large metropolitan cities, we have developed more municipal water and wastewater master plans than any other consultant in Texas (as shown in the map below).
A Plan for the Future

Our master planning process assesses current conditions, identifies future needs and provides for growth planning. Through population/load projections, field testing, system modeling and treatment planning, the process results in a capital improvement plan (CIP) that serves as an outline for necessary projects. We also maintain a wide range of modeling software packages to accommodate our clients.

W/WW Master Planning Process

GIS COORDINATION
POPULATION/LOAD PROJECTIONS
MODEL UPDATE
FIELD TESTING AND CALIBRATION
W/WW TREATMENT PLANNING
W/WW SYSTEM PLANNING
WATER SUPPLY PLANNING
SYSTEM RELIABILITY ANALYSIS
CAPITAL IMPROVEMENT PLAN

STRATEGIC PLANNING

SERVICES

FNI’s W/WW Planning Staff is capable and ready to adapt to your current system stage and serve as an extension of your staff.

COMPREHENSIVE W/WW MASTER PLANNING

Rapid commercial and residential development requires expansion of W/WW systems and development of comprehensive plans.
- Strategic planning
- W/WW system modeling
- Capital Improvement Plan prioritization
- W/WW CIP development and tracking
- Operational assistance
- Pressure plane delineation
- Energy analysis optimization

FUNDING ASSISTANCE

FNI provides assistance in determining available funding sources and preparing applications.
- Impact fee programs
- Development agreements
- SRF project assistance
- Rate studies

WATER QUALITY

We help our clients respond to operational challenges such as population growth or decline and the corresponding changes in demand distribution. When W/WW systems become unbalanced, resulting in short-term water quality issues, corrosion, or other operational problems, we provide a number of water quality solutions to improve system functionality.
- Groundwater rule planning
- Water quality modeling
- Unidirectional flushing programs
- Nitrification investigation
- Water quality assessments
- Water age management
- Regulatory assistance
- Alternative disinfection strategies

ASSET MANAGEMENT

Our approach to risk-based asset management includes scoring lines and other system elements based on a number of critical categories and pairing it with a level of risk. We then determine the criticality for each element and prioritize improvements for system rehabilitation and renewal.
- Geodatabase development
- Utility prioritization renewal program
- Renewal of water and wastewater facilities
- Risk-based management
- Infiltration/Inflow studies
- Data integration services

Freese and Nichols has provided innovative engineering solutions for Texas since 1894, when founder John Hawley became one of the state’s first independent water and sewer engineers. We are a multi-discipline engineering, architecture, environmental science, construction services and master planning firm with offices across Texas to better serve our clients.