

# Frankfort Sewer Department

## Strategic Plan: 2025-2030

### 1. Executive Summary

The Frankfort Sewer Department (FSD) is currently undertaking a critical transformation of its wastewater infrastructure. Driven by a Federal Consent Judgment and the urgent need to support economic expansion in Frankfort and Franklin County, this Strategic Plan outlines a multi-year roadmap.

By integrating the findings of the *2019 Plant Assessment Management Plan* with the *2025-2026 Capital Improvement Plan*, FSD aims to replace aging treatment facilities, transport flows from existing and developing areas to the WWTP and eliminate sanitary sewer overflows. This plan requests funding to execute multiple projects that ensure environmental compliance and increase sanitary sewer capacity for industrial, commercial, and residential development.

### 2. Strategic Goals & Objectives

FSD has established three primary goals that guide all capital expenditures and operational improvements:

#### Goal 1: Regulatory Compliance & Environmental Stewardship

- **Objective:** Eliminate Sanitary Sewer Overflows (SSOs) and significantly reduce Combined Sewer Overflows (CSOs).
- **Driver:** Compliance with the Federal Consent Judgment and State regulations.

#### Goal 2: Increase Collection System Capacity

- **Objective:** Complete the East Frankfort Interceptor (EFI) and Prevention Park Consolidation (PC3) projects. Additional collection projects required to convey flows to the new interceptor lines.
- **Outcome:** Transport additional flows from the east and west sides of Frankfort to the WWTP, reducing system surcharging and discharges.

#### Goal 3: WWTP Capacity Expansion for Economic Growth

- **Objective:** Replace and expand the existing WWTP capacity.

**Outcome:** Provide necessary infrastructure to support future industrial, commercial, and residential growth in Frankfort and Franklin County.

### 3. Situational Analysis:

#### 3.1 The Treatment Facility

The *2019 Plant Assessment Management Plan* identified critical vulnerabilities in the existing WWTP. While the plant has functioned historically, it requires significant investment to maintain and increase capacity.

- **Life Safety & O&M:** The assessment identified immediate needs for safety improvements and operational maintenance upgrades to protect workforce health and ensure system reliability.
- **Energy Efficiency:** The current plant utilizes outdated technology that is energy intensive.
- **Conclusion:** Implement a series of small scale projects, while preparing a Facility Plan Update to guide WWTP expansion from 9.9 MGD to 30.0 MGD

#### 3.2 The Collection System

The collection system currently suffers from inflow and infiltration, leading to SSOs and increased CSOs during wet weather events. Furthermore, the system lacks the hydraulic capacity to transport future flows from economic growth.

### 4. Priority Projects & Implementation Plan

This section details how the funding will be utilized across the three strategic goals.

#### Priority A: Major Collection System Projects

*Focus: Transport & Consolidation*

These two projects form the backbone of the *25-26 Capital Improvement Plan* regarding the collection system.

<u>Project Name</u>	<u>Scope</u>	<u>Strategic Impact</u>
<b>East Frankfort Interceptor (EFI)</b>	Construction of a major interceptor sewer line to serve the east Frankfort.	Increases hydraulic capacity to transport East-side flows to the WWTP, freeing capacity on the existing sewer system which reduces SSOs and CSOs and enabling future development.
<b>Prevention Park Consolidation (PC3)</b>	Consolidation of pump stations and force mains on the west Frankfort.	Increases hydraulic capacity to transport west-side flows to the WWTP, freeing capacity on the existing sewer system which reduces SSOs and CSOs, and enabling future development. Project also collects Farmdale Sanitation District Flow for treatment.

## Priority B: WWTP Replacement & Expansion

*Focus: Treatment & Capacity*

Improving worker safety and energy savings, and treatment capacity.

- **Capacity Increase:** Designed to handle the increased flow from the new EFI and PC3 interceptors.
- **Technology Upgrade:** Implementation of modern treatment processes to ensure effluent quality meets regulatory permits.
- **Operational Efficiency:**
  - **Energy Savings:** High-efficiency blowers, pumps, and aeration systems (addressing 2019 Energy recommendations).
  - **Life Safety:** Modern design that meets all OSHA standards, eliminating hazards identified in the 2019 Assessment.

## Priority C: Compliance & Overflow Elimination

*Focus: Consent Judgment Requirements*

- **SSO Elimination:** By completing the EFI and PC3, bottlenecks in the system are removed, and allowing for smaller projects to eliminate SSOs.

**CSO Reduction:** The expanded WWTP capacity allows for the treatment of higher volumes of wet-weather flow, reducing the frequency and volume of combined sewer discharges into local waterways.

## 5. Expected Outcomes

Investing in FSD's Strategic Plan delivers immediate and long-term returns for the Frankfort Sewer Department.

1. **Legal & Environmental Resolution:** Full compliance with the Consent Judgment, removing the threat of further fines and improving the water quality of the Kentucky River watershed.
2. **Economic Development:** The "Additional Flows" capacity created by the EFI, PC3, and WWTP expansion directly translates to:
  - New housing developments
  - Industrial expansion
  - Increased tax base for Frankfort and Franklin County.
3. **Operational Sustainability:** Moving from an ageing infrastructure to a new facility reduces long-term O&M costs and energy consumption.

## **6. Conclusion**

The Frankfort Sewer Department is poised to execute a generational upgrade of its wastewater infrastructure. This plan moves beyond simple maintenance; it is a strategic expansion designed to solve regulatory mandates while simultaneously building the foundation for Frankfort's economic future.