

# CASE STUDY

## AGING APALACHICOLA WASTEWATER SYSTEM FACES CRITICAL UPGRADES

Apalachicola, Florida, United States

Apalachicola, Florida, a historic port city renowned as the oyster capital of the world, faces critical challenges regarding its wastewater management system. The city's reliance on the Apalachicola River and clean water sources for its vital fisheries and tourism industry necessitates a robust sanitation infrastructure. However, aging infrastructure and environmental factors pose significant threats, exacerbated by the region's susceptibility to tropical storms and hurricanes. In response to these challenges, Apalachicola's city officials have sought innovative solutions to safeguard the community's environmental integrity and public health.



Apalachicola, Florida USA

# CASE STUDY

## AGING APALACHICOLA WASTEWATER SYSTEM FACES CRITICAL UPGRADES

Apalachicola, Florida, United States

## THE CHALLENGE

Apalachicola's aging wastewater collections system, plagued by inflow and infiltration and exacerbated by extreme weather events urgently requires resilient upgrades to prevent surcharges, manage sanitary sewer overflows, and safeguard water quality.

The city's wastewater collections system, nearing the end of its design life, confronts issues of inflow and infiltration (I&I) that jeopardize water quality. Infiltration from various sources, including tree roots and damage from road construction, compromises the system's efficiency, leading to surcharges and sanitary sewer overflows (SSOs). Moreover, Apalachicola's coastal location exposes it to extreme weather events, such as Hurricane Sally, which overwhelmed the system and underscored the need for resilient infrastructure capable of withstanding severe inundation.

## key outcomes

- 1. COMMUNITY DEVELOPMENT AND GROWTH WITH REDUCED WASTEWATER FLOWS**  
By implementing innovative solutions, Apalachicola aims to foster sustainable development while mitigating the impact of wastewater flows on its delicate ecosystem. The integration of advanced monitoring technology facilitates proactive maintenance and enhances operational efficiency, contributing to the city's long-term growth.
- 2. REDUCTION IN INFLOW AND INFILTRATION THROUGH FLOVAC'S MONITORING TOOLS**  
The adoption of Flovac's vacuum sewerage system, coupled with state-of-the-art monitoring tools, has enabled Apalachicola to identify and address I&I issues effectively. Real-time data from Flovac's monitoring system alerts city officials to abnormal flow patterns, facilitating prompt intervention and preventing environmental contamination.
- 3. ENHANCED RESILIENCE TO EXTREME WEATHER EVENTS**  
Apalachicola's investment in resilient infrastructure, including vacuum sewer systems and monitoring technology, strengthens its capacity to withstand the impact of tropical storms and hurricanes. By proactively managing wastewater during severe weather events, the city minimizes the risk of system overloads and protects its sensitive coastal environment.

# CASE STUDY

AGING APALACHICOLA WASTEWATER SYSTEM FACES CRITICAL UPGRADES

Apalachicola, Florida, United States

## THE FLOVAC SOLUTION

Flovac Vacuum Sewer Systems emerged as a key partner in Apalachicola's quest for sustainable wastewater management solutions.

Recognizing the city's unique challenges, Flovac engineers proposed a comprehensive approach that integrates vacuum sewerage systems with advanced monitoring technology.

The Flovac Monitoring System (FMS) leverages sensor technology to track vacuum pressure and flow volume, providing real-time insights into system performance.

This innovative solution offers Apalachicola a cost-effective and environmentally sensitive alternative to traditional gravity-based sewer systems, particularly in areas prone to high water tables and storm surges.



The City Council getting a rundown on the installation



## CASE STUDY

### AGING APALACHICOLA WASTEWATER SYSTEM FACES CRITICAL UPGRADES

Apalachicola, Florida, United States



### proactive problem detection: flovac monitors enhance system reliability before alarms trigger

Because of the Flovac monitors, we're able to know where we have a problem, sometimes even before we get an alarm from our vacuum station auto-dialer.

**William Cox**, Lead Wastewater Plant Operator

## THE RESULTS

The implementation of Flovac's vacuum sewerage system and monitoring technology has yielded tangible benefits for Apalachicola's wastewater management efforts. City officials report improved operational efficiency, reduced instances of system overload, and enhanced environmental protection. By leveraging Flovac's expertise and innovative solutions, Apalachicola stands better prepared to address current challenges and safeguard its coastal community for future generations.

### for more information

Join us in shaping a sustainable future. To learn more about how Flovac is leading the change in environmental engineering and how we can assist in your wastewater management needs, contact us at [info@flovac.com](mailto:info@flovac.com)