

## CASE STUDY

# SEWER CONDITION ASSESSMENT IN LEWISTON, ME

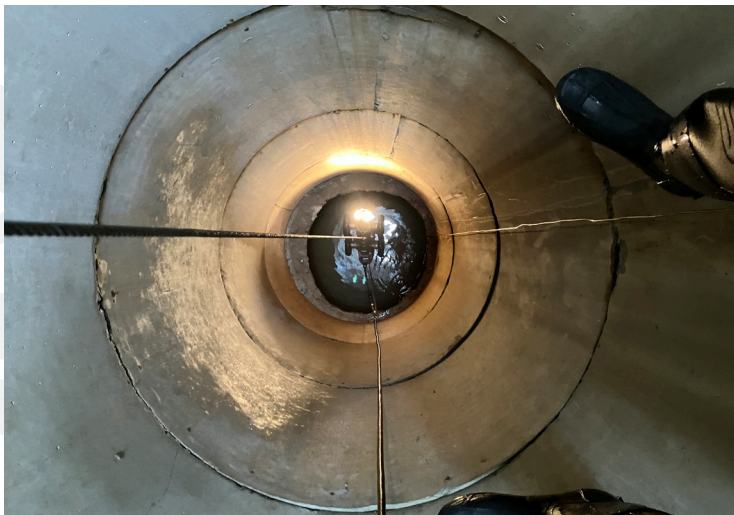
### City looking for sanitary sewer inspection solutions

#### THE CHALLENGE

Since 2014, the City of Lewiston, Maine has relied on Vortex Services to fulfill its sanitary sewer and stormwater pipe inspection and rehabilitation needs. So, when faced with a June 2024 deadline to complete inspections on all its sewer lines, the city knew exactly who to turn to. Due to Vortex Services' long history with Lewiston, the team was already familiar with the city's approximately 139 miles of sewer lines, 16 miles of stormwater pipes, and 26 miles of combined sewer pipes. In addition to inspecting the city's sewer lines, the crew would also assess a portion of the area's manholes.

#### THE SOLUTION

To kick off the project, the Vortex Services crew pre-cleaned the sewer lines, which vary from 4" to 48" in diameter. Next, they assessed 3,000 linear feet of sewer using multi-sensor inspection (MSI) equipment, which utilizes a combination of sonar, HD CCTV, and 2D lidar technology. Together, these tools measure and denote pipe defects, measure pipe conditions and profile above the flow level, and measure debris below the flow level. Once the MSI service was complete, the team then assessed the remaining sewer sections and several manholes using CCTV inspection cameras.



**VORTEX**  
services



#### PROJECT SNAPSHOT

##### PROJECT OWNER

City of Lewiston

##### CONTRACTOR

Vortex Services - Northeast Division

##### PROBLEM

The city's sewer lines and a number of manholes needed condition assessments on a time crunch.

##### SOLUTION

Used CCTV cameras and MSI equipment to carefully assess Lewiston's sewers and several manholes, providing the city with information on where to focus its future rehabilitation efforts.

##### CONTACT

Isaiah Bean

Vortex Services

[isaiah.bean@vortexcompanies.com](mailto:isaiah.bean@vortexcompanies.com)



## CASE STUDY

While inspecting, the crew ran into several remote, overgrown drainage easements. Lewiston's Public Works Department took on removing the debris and plant material to create access points where able while the team set up tracked easement machines and ran remote CCTV camera inspections. When the inspection scans were complete, the crew passed them along to the Vortex Data Team, who then analyzed the data and coded it for asset defects and other condition observations.



### THE RESULTS

With help from the Lewiston Public Works Department, the Vortex Services squad completed this project ahead of schedule in May 2024. The comprehensive assessments identified a number of pain points including several clogged manholes and pipes. If left unaddressed, these clogs could have led to sanitary sewer or combined sewer overflows, both of which would have polluted the city's nearby waterways and damaged its natural environment. Using this essential data, Lewiston can prioritize necessary capital improvement and asset rehabilitation projects going forward. In June 2024, Vortex Services will begin a new project in the city: CCTV inspections of its stormwater piping.



## IMPACT

1

The assessments identified multiple areas of concern in Lewiston's sewer system that, if left unaddressed, could have led to sanitary sewer or combined sewer overflows.

2

Despite the abbreviated project length, Vortex Services completed the job one month ahead of schedule.

3

Lewiston was so pleased with Vortex Services' work that it hired the crew to perform further stormwater line inspections.

