

North London Bridge Creek Tide Gate and Pump Station

Windsor Woods, Princess Anne Plaza, and The Lakes Drainage Improvement Program

Overview

The project area is low-lying and located within FEMA's 100-year floodplain. The existing drainage system is aging, undersized, and unable to manage enough stormwater. Ocean tides further limit the system's ability to drain during storms. Rising sea levels, along with stronger and more frequent rainfall events, continue to increase flooding risks in the area.

The City of Virginia Beach Public Works Department conducted an extensive engineering analysis to identify ways to reduce flooding. The recommended solution includes installing tide gates and pump stations, creating additional stormwater storage, and improving drain piping throughout the system.

North London Bridge Creek Tide Gate

The tide gate across London Bridge Creek prevents high tides from moving upstream and raising water levels in London Bridge Creek and Windsor Woods Lake. This creates additional stormwater storage capacity, helping to manage runoff and reduce flooding.

On a typical day, the tide gate will stay open so water in London Bridge Creek can rise and fall naturally. When a major storm is expected, the gate will be closed at low tide to keep upstream water levels low and provide room for extra stormwater.

North London Bridge Creek Pump Station

The pumps work together with the tide gate to:

- Lower water levels before a storm so there is more room for stormwater, and
- Control water levels behind the tide gate while it is closed during a storm.

The pump station will generally operate during major storms (and beforehand to prepare the system). Most of the time, the pumps will remain off, and the gate will stay open, except during routine testing and maintenance.

Downstream Considerations

Closing the tide gate and using the pump station will not raise water levels or cause more flooding downstream in London Bridge Creek. The system creates additional storage so stormwater can be held and released gradually. Studies show that water levels after these improvements will be the same as or lower than the existing conditions. Water levels will be continuously monitored upstream and downstream to ensure there are no adverse impacts.



Learn More

Scan the QR code with your smartphone or visit VirginiaBeach.gov/Windsor-Woods to learn more about the Windsor Woods, Princess Anne Plaza, and The Lakes Drainage Improvement Program.

