

Background

Recent History of Flooding in The Wharf, Remediation Efforts, and Response to Tunnel Structural Issues

In August 2020, two devastating floods, two weeks apart, impacted the City of Staunton, principally areas in downtown and at the Wharf.

At the **September 10, 2020** City Council meeting, staff briefed City Council. A main takeaway from that meeting was that City staff, wanted to commence urgent exploration of measures to improve the City's flood resilience. And at that meeting, staff was directed to engage a consultant to perform a hydrologic and hydraulic study of the city and present possible mitigation projects that could alleviate future flooding.

Staff returned to City Council on **May 27, 2021** with the findings of the hydrologic and hydraulic study conducted by Wiley|Wilson. Most of the potential solutions presented were determined to not be feasible to pursue. Examples of impractical solutions included removing historic buildings that sit over the creeks, entirely replacing sections of the tunnel, adding additional tunnels, building a stormwater pump station, and creating flood control ponds. The projects that would provide the most benefit were estimated to cost the City as much as \$62M.

- **Wiley|Wilson Flood Study**
<https://www.ci.staunton.va.us/home/showpublisheddocument/10330/637649730592370000>
- **Flood Study Appendix**
<https://www.ci.staunton.va.us/home/showpublisheddocument/10334/637649734860730000>
- **May 27, 2021 Presentation**
<https://www.ci.staunton.va.us/home/showpublisheddocument/10177/637577897268930000>.

Many of the engineered solutions presented in the study, while effective, were not achievable, given the city's limited fiscal resources. A team was assembled from various city departments and outside agencies to undertake a holistic approach to the problem. The team considered the study recommendations and other non-engineering solutions, and evaluated each based on the costs, effectiveness, and speed of implementation.

The team determined that it is impractical to entirely eliminate the impacts of events such as those that occurred in August 2020, but those impacts can be reduced and flood resiliency can be increased. At the **August 26, 2021** City Council meeting, staff returned with more feasible recommendations, specifically related to tunnel maintenance and improvements.

- **August 26, 2021 Briefing Memo—Possible Flood Mitigation Strategies**
<https://www.ci.staunton.va.us/Home/Components/MeetingsManager/MeetingAgenda/ShowPrimaryDocument/?agendaID=704&isPub=True&includeTrash=False>

Following this update and discussion, City Council made the decision to allocate a portion of American Rescue Plan Act funds towards flood mitigation efforts, which included **the study/design of addressing tunnel maintenance.**

The City of Staunton contracted with Wiley|Wilson in September 2024 for the tunnel maintenance study. The scope of work included a survey of the tunnel, hydraulic modeling updates, structural analysis of the tunnel, and design and preparation of contract documents for debris removal. One of the primary purposes of the updated modeling is to evaluate the conditions where Gum Spring Branch (often referred to as Peyton Creek) and Lewis Creek run underground. As structural engineers began to explore the tunnels, they identified some areas of concern with the structural integrity of the tunnel in several specific locations, primarily around the Wharf. At their strong recommendation, and out of an abundance of caution, on Friday, March 7, 2025, the city decided to limit traffic above those sections of the tunnel, which included limiting parking in the Wharf, closing a large section of Byers Street and blocking off the Police Department entrance to the Johnson Street Parking Garage.

City staff updated City Council on the situation and immediate response at the **March 13, 2025** City Council meeting, and returned on **April 10, 2025** with additional information on the structural issues, including photos of the impacted areas, the repair assessment and challenges, and news that no other areas of concerns had been identified in completion of the tunnel survey. Though, it was at this meeting that New Street was revealed to be an additional area that needed to be addressed and several parking spaces were blocked off as a result.

March 13, 2025

- Staff Presentation
<https://www.ci.staunton.va.us/home/showpublisheddocument/12929/638774855050700000>
- Briefing Memo
<https://www.ci.staunton.va.us/Home/Components/MeetingsManager/MeetingAgenda/ShowPrimaryDocument/?agendaID=1591&isPub=True&includeTrash=False>

April 10, 2025

- Staff Presentation
<https://www.ci.staunton.va.us/home/showpublisheddocument/12973/638799108709970000>

- Briefing Memo

<https://www.ci.staunton.va.us/Home/Components/MeetingsManager/MeetingAgenda/ShowPrimaryDocument/?agendaID=1620&isPub=True&includeTrash=False>