

Town Branch Stream Channel Improvements Project Update

Doug Wagner, PE, Assistant Director of
Capital Projects

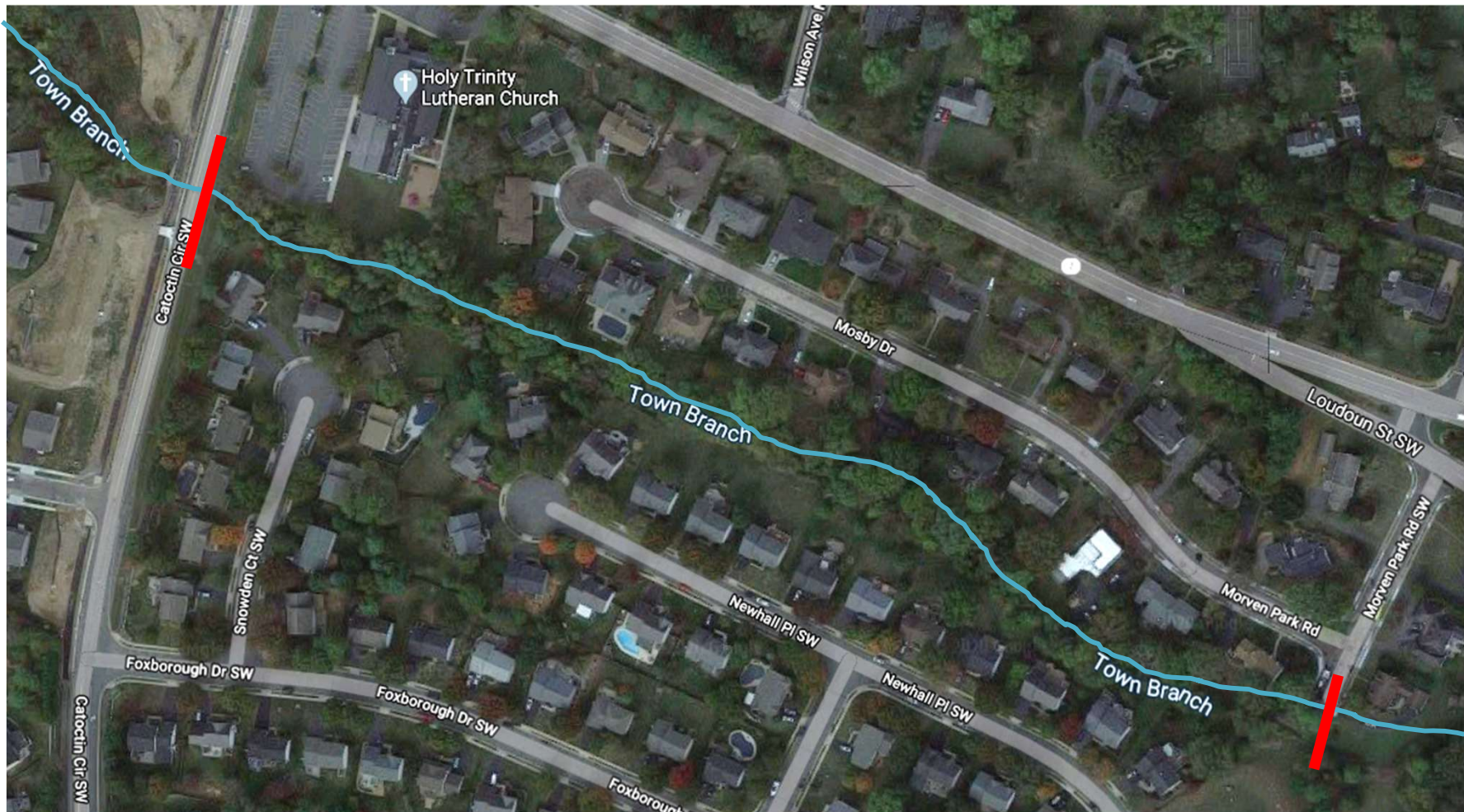
Renee LaFollette, PE, Director of Public Works
and Capital Projects

Karin Franklin, PE, Senior Project Engineer

Town Council Work Session
September 23, 2024



Project Location

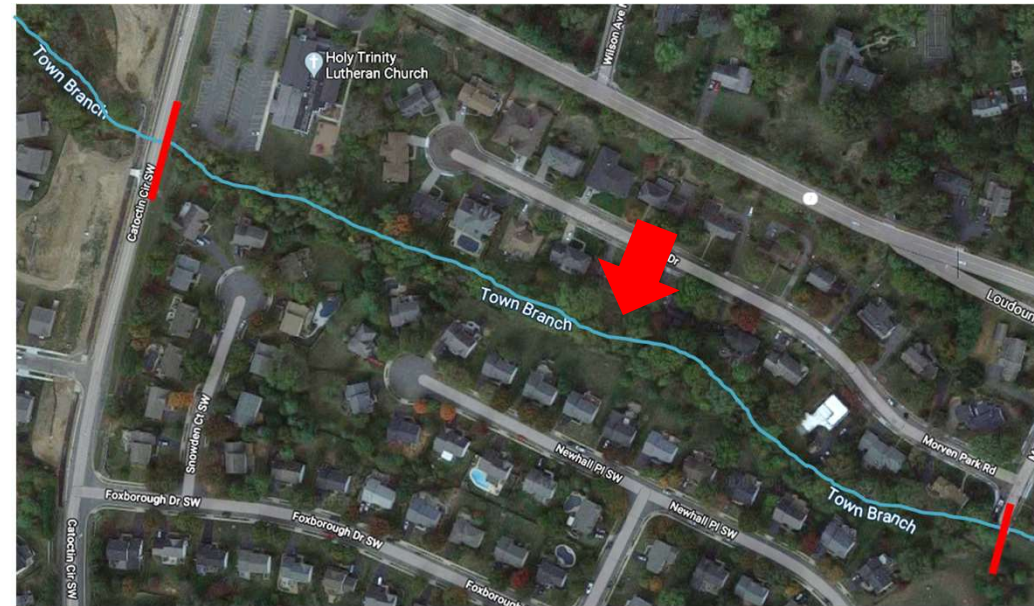


History and Background

1937



Recent



- Mosby Drive developed late 1960's/early 1970's
- Early 1980's the Bypass interchange was built
- Newhall Place developed in the mid-1990's
- Residents identified property risks ~ 2020
- July 2021, the Town completed a study & applied for \$1M from Department of Environmental Quality Stormwater Local Assistance Funds

Existing Conditions



Existing Conditions

- ▶ Trees are beginning to succumb to the stream



Trees were up on bank in January 2023



As of June 2024, they are in the stream

Existing Conditions

- ▶ Trees are undercut or falling

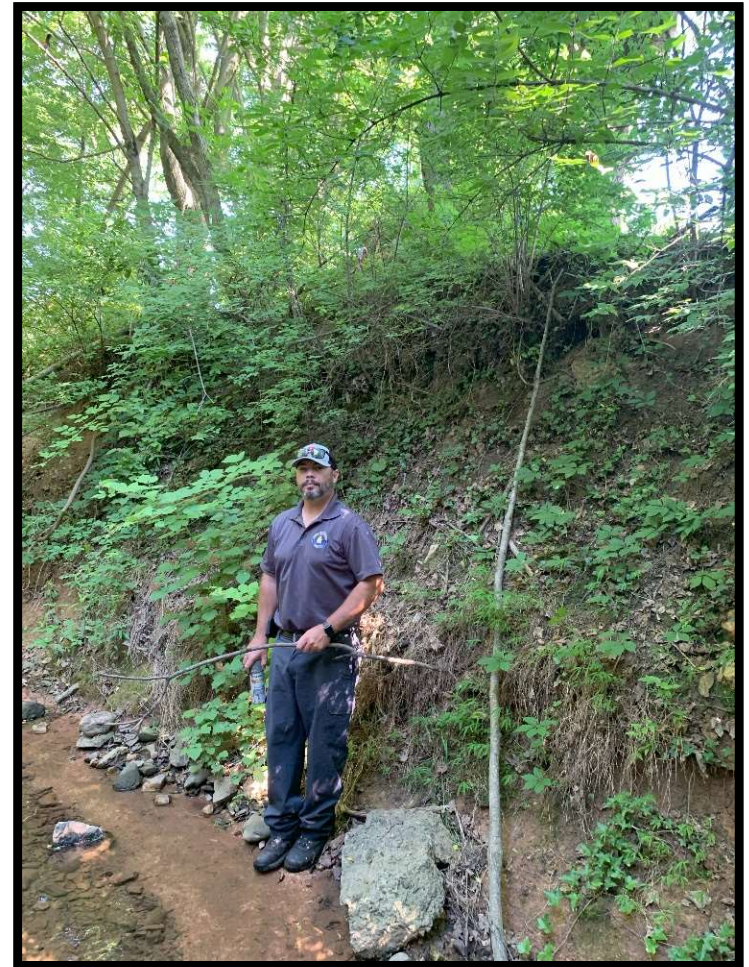


Trees impacting storm discharge



Tree behind 413 Mosby VERY undercut

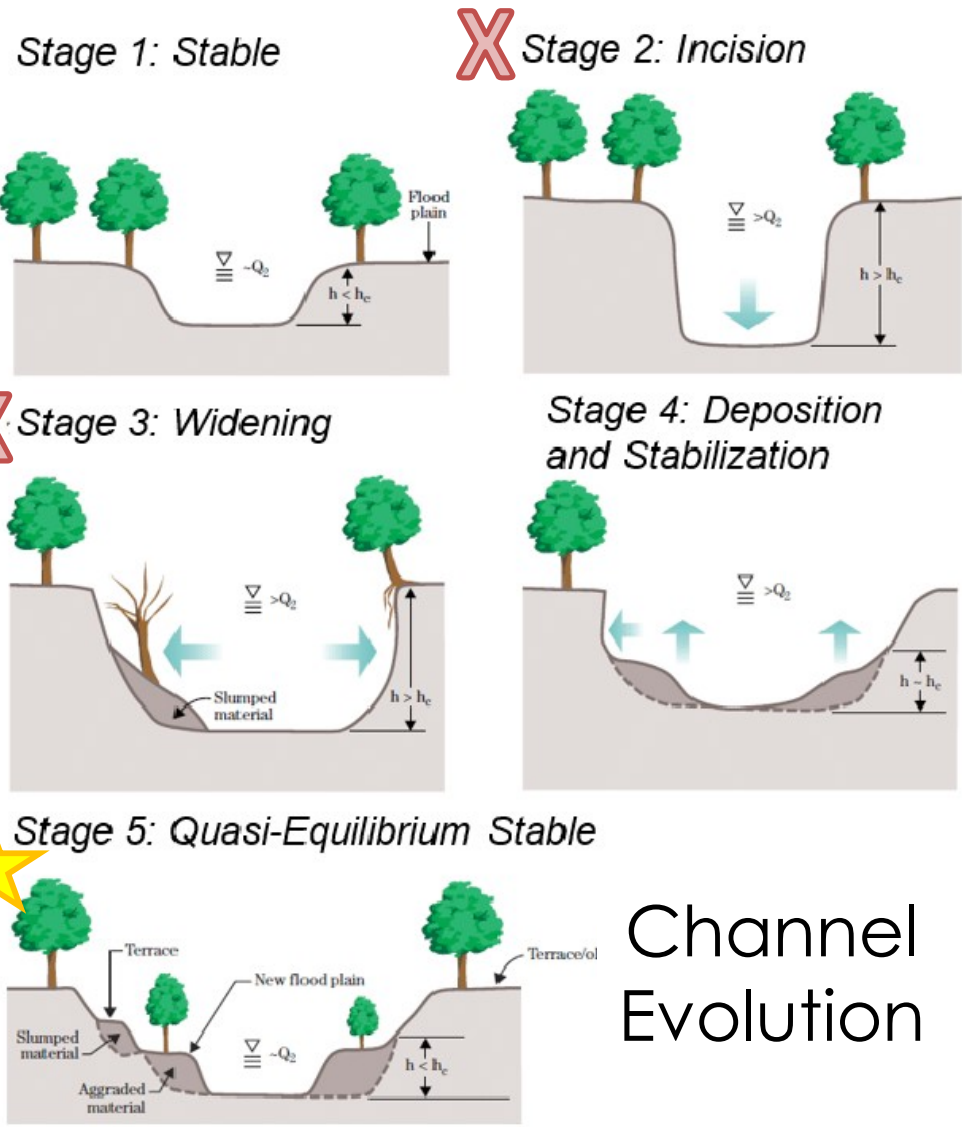
Existing Conditions



- ▶ Significant bank erosion
- ▶ Steep banks & instability
- ▶ Undercutting is threatening property, including trees, and causing safety issues
- ▶ **EROSION WILL CONTINUE**

Project Goals

- ★ Reduce property loss, downed trees and debris jams
- ▶ Restore stream to a more natural condition (Stage 5 - Stream Restoration instead of Stream Stabilization)
 - ◆ Minimize bank erosion during larger rain events
 - ◆ Improve wildlife habitat
 - ◆ Reestablish native plants
- ▶ Bonus: Reduce nutrient loading downstream and to the Chesapeake Bay (20% of 2028 TMDL goal)



Channel Evolution

▶ Current Stage along much of the stream

Project Benefits

- ▶ Maintain and improve habitat
- ▶ Improves water quality for Bay (TMDL)



Before



After

Town Branch (Confluence of
Tuscarora Creek) in Leesburg VA

Current Concept Design

- ▶ Regrade stream banks within existing storm easements
 - ◆ Requires removal of vegetation and structures within project limits
- ▶ Remove Berms and Gabion walls
- ▶ Remove failing walls and incorporate new walls where appropriate
- ▶ Add elements to reduce the energy of the water during larger rain events
- ▶ Replant with vegetation to stabilize stream banks
- ▶ Use onsite materials where possible
- ▶ Maintain water levels currently experienced during rain events as much as possible

Public Outreach to Date

- ▶ Public Meeting held 5/15/24.
 - ◆ Was well attended, lots of input
- ▶ 6 stream walks to date with Council and residents (late August – early September)
- ▶ Environmental Advisory Commission (8/6/24) and Tree Commission (8/20/24) project introduction.
 - ◆ Both commissions were generally in support of the concept with additional work on resident concerns.
 - ◆ Tree Commission supports working with residents on concerns
- ▶ Second Public Meeting will be scheduled in the coming weeks

A Main Concern is Loss of Trees

- ▶ Many large trees (over 50 yrs old) will require removal; reducing shading & screening as well as privacy
- ▶ Residents want us to identify and try to save specimen trees on the corridor
- ▶ Many Smaller trees and vegetation removed as well.



- ▶ Proposal destroys the character of the neighborhood
- ▶ Working with Town Arborist to minimize tree loss and identify specimen trees

Property Owner Feedback

- ▶ The proposed project will affect ALL property owners when only a few properties have serious problems with erosion.
 - ◆ Why can't spot fixes be proposed?
- ▶ Prefer stabilization vs restoration because it will have less impact.
- ▶ Flow has not been measured. Stream is a trickle most of the time. There is no significant water flow and thus no proven significant silt deposit to the Bay.
- ▶ One owner supplied a design on 9/16/24 that proposes piping the stream underground.

Approach Moving Forward

- ▶ All resident questions will be reviewed and answered in a revised draft FAQ to be posted to the webpage by October 4th.
- ▶ During tree board presentation on 8/20/24, staff relayed that the plan we shared was a starting point, and we will try to make design adjustments where feasible to meet as many of the needs as possible.
- ▶ An additional community meeting is planned in the coming weeks.
- ▶ Evaluating resident proposed design concept.

Approach Moving Forward, cont.

- ▶ Utility coordination research and field survey will begin this fall
- ▶ **Outreach will continue throughout the project**
 - ◆ The Concept Design is a **starting** point
 - ◆ We want to listen and revise the design where feasible. This will be an iterative process
 - ◆ We want this to be a partnership to balance everyone's needs

Proposed Milestones

Date	Milestone
Summer/Fall 2022	Initiated Design and completed Fieldwork
May 2024	Concept Plan Presented to Community
Late Summer 2024	Stream Tours, TC Update
Fall 2024	Hold Follow Up Community Meeting
2025 & 2026	Hold Additional Public Meetings – Continue dialogue w/ Commissions/Boards & TC. Continue design and adjust as much as possible to address feedback
*2026/2027+	Finalize Design – Complete Land Acquisition & Utility Relocation (if needed)

*Dates are contingent on time needed to complete earlier milestones

Questions?