FREQUENTLY ASKED QUESTIONS

TOWN BRANCH STREAM CHANNEL IMPROVEMENTS AT MOSBY DRIVE CATOCTIN CIRCLE TO MORVEN PARK ROAD (Revised 10/11/24)

What is the purpose of the stream channel improvements?
This project is intended to restore approximately 1,500 linear feet of the Town Branch stream between Catoctin Circle and Morven Park Road. This work will include improvements to the existing stream channel to reduce significant erosion to the banks which is affecting adjoining properties. By reducing erosion, the project will reduce the amount of sediment being deposited downstream. Sediment transport is an area of concern for the Town's Chesapeake Bay Total Maximum Daily Load (TMDL) required reductions. The specific goals for the project include:

- Reduce erosion, sedimentation, safety risks and property loss in the project area.
- Ensure that the project does not increase current floodwater levels on adjacent properties
- Complete stream restoration as required by the Stormwater Local Assistance Fund (SLAF) grant to generate nutrient credits as outlined in the Town of Leesburg Stormwater Management Plan. This will help the Town meet the goals of the six minimum stormwater control measures as outlined in the Virginia's General Permit. (I'd elevate this)
- Develop a stream restoration project that overall will be the most beneficial to the stream and the residents.
- This project will also support the Town in in meeting nutrient removal requirements as established by the Chesapeake Bay Total Maximum Daily Load federal reduction requirements.

How can I keep up to date on this project?
You can receive regular updates by signing up for updates via the Project webpage.
https://leesburgva.gov/townbranchimprovements

Who can I contact with specific questions not answered in the FAQ?
Contact the Public Relations Coordinator, Abbie Valle, via email at Avalle@LeesburgVA.gov or call her at (703) 737-7091.

When will the work begin?
The design work began in 2022 and an initial concept plan was presented to the residents in May 2024. This starting point concept plan will be redesigned, using a collaborative process with the residents, to try to reach a design that best balances the residents wishes, the overall cost, regulatory needs and best addresses the construction challenges. The current schedule identifies the construction will begin late 2026 to early 2027; however, this could change depending on the time needed to coordinate with the residents, finish design and complete utility relocation.

How much will the project cost and how is the project funded?
The 2025 Capital Improvements Program has identified the total cost of the project (including design, utility relocation, land acquisition costs and construction) to be $7,360,000. Please note that this cost estimate is based on pre-concept plans in place since 2023 and will be updated with each budget year as the design progresses. This project has been awarded a $1,000,000 grant from the Virginia

Stormwater Local Assistance Fund. Additional funding, including any required grant match, are currently identified as Town funded; however, the Town is exploring other funding opportunities for this project.

How much will the financing costs be for this project?
The Town of Leesburg does not typically issue debt for a single project. Any information provided here are very rough estimates and should not be interpreted as a direct, entirely accurate estimate of total costs for this particular project. In addition, estimates shown here should not be applied to other projects as different variables may be involved when borrowing funds for different projects that may affect the financing costs.

The "Town Branch Stream Channel improvements at Mosby Drive – Catoctin Circle to Morven Park Road" project has a total project budget of $7,360,000 in the FY26 Capital Improvements Program Budget. This total includes $6,010,000 in Line of Credit financing which could be converted into a permanent 20-year General Obligation (G.O.) Bond at the end of the 3-year Line of Credit term. The other portion of the funding is from the State of Virginia in the amount of $1,000,000 and from PayGo (cash) in the amount of $350,000.

Leesburg is fortunate to be rated AAA, the highest possible credit rating. One of the benefits of this rating is borrowing costs that are lower than other entities in the market. Specific rates vary depending on the timing of bond issuances related to the market. For this project, the plan is to pay for the construction cost of the project with future 20 year GO Bonds. While current interest rates range between 3% and 4%, there is no certainty what rates will be in when this project is ready to go to construction and bonds are issued to pay for the project. Assuming rates are between 3% and 4%, interest costs could range from approximately $1.8 million to $3 million over the life of the bond**.**

This is a lot of cost to the Taxpayer. Is it really necessary?
Currently the stream banks are eroding and undercutting yards and large trees. The project is important to ensure the safety of the residents and property near the stream as it will help the stream reach a more stable condition with less erosion. This reduction in erosion will reduce impacts to the back yards of the properties along the stream and will also improve the water quality downstream of the project area including the Potomac River and the Chesapeake Bay, which will also allow the Town to meet nutrient removal requirements as established by the Chesapeake Bay Total Maximum Daily Load federal reduction requirements.

Will the public have an opportunity to provide input into the channel improvements?
Yes. In addition to previously provided information meetings held during the initial study phase and the concept phase of this project, the Town will hold additional public information meetings to present the different design options and discuss concerns from property owners before the design is finalized. These meetings will be scheduled, and notice provided to all affected residents in advance of each meeting. Check the project webpage to see when the next meeting will be held.

Has anyone asked the property owners that will be affected if they even want this?
The project was initially added to the Capital Improvements Program (CIP) because more than one resident along the stream corridor identified the project need. These residents attended a Town Council Budget meeting to request acceleration of the project in the schedule. The Town has also held two neighborhood meetings on this project and the feedback from the second meeting has been compiled and shared verbatim with Town Council. There are some residents with at-risk properties who are anxious to see the project completed and there are also some residents who do not support the project.

How does this project address impacts from previous construction on the other side of Catoctin Circle?
The development and general urbanization of the Leesburg area have added to the intensity of storm flows to the stream and the rapidity that the flows reach the project area. The purpose of the project is not to turn back the clock on development, but to help the stream corridor handle the storm flows currently experienced. The project will be designed to dissipate the "energy" of the stream, direct flows away from the banks, and protect banks, trees, and property from further loss due to erosion.

Staff has been further directed to look at the channels across Catoctin Circle to determine if anything additional would need to be done there to further protect the investment in this restoration project. In addition, the project will also review the County land development maps for the west side of the bypass to determine the worst-case scenario for future development in the western or upper reach of the drainage area, including widening of Route 7. This worst-case future predicted flow will be used for the design work.

If my property is surveyed, does that mean that it will be involved in the stream channel improvements project?
Not necessarily. However, the concept plan design effort suggests that all properties along the corridor will experience grading activities within the storm easements along the backs of the properties.

Will the design phase of the project require any additional entry onto my property?
Possibly. Although the consultant has attempted to anticipate all the surveying and testing activities needed on your property, as they continue the design work, they may determine that additional activities are necessary. If so, you will receive a new Request for Permission to Inspect letter prior to those activities being performed. In addition, Town staff and their consultant engineers will make periodic visits to view the stream corridor but will remain within the existing easements during those field trips.

Will trees be removed as part of this project?
Yes. Trees within the project area (especially those close to the existing stream bank) and shown as being within the Limits of Disturbance (LOD, shown as a pink dashed line on the Concept Design plans) likely will require removal to complete the stream restoration work. Trees that are not adjacent to the stream banks but are still slightly within the Limits of Disturbance for the project will be evaluated on a case-by-case basis to determine if they can be preserved. The Town's consultant has performed a tree survey of the project area to inventory all existing trees over 6 inches in diameter, which is smaller than the 12 inches required by the Town's Tree Management Plan process. Every attempt will be made to replace trees along the stream corridor that are impacted. Tree types and locations will be determined during the design process and will include input from the property owners as appropriate.

The concept drawings provided following the May 2024 meeting show only a fraction of the trees and vegetation in the Limits of Disturbance (LOD) area. Why are all impacted trees not shown on the drawings?
The survey located and assessed all trees 6" or greater in diameter as measured 4' off the ground. The Town Zoning Ordinance requires trees 12" or greater in diameter be located for tree preservation planning, but the Town project team voluntarily requested that the engineer assess all trees over 6" to better understand the sizes of trees along the stream banks. Showing woody plants smaller than 6" would overcrowd the drawings and decrease readability. There may be some trees that have grown since the initial survey to above the threshold that will not be shown on the plans, however.

How does removing all of the trees along the stream address the Town's "no net loss of tree" policy?
The project will meet the "No Net Loss Tree Policy" by replacing the lost trees over 12" in diameter with new trees. The policy uses a formula to determine how many new trees must be planted to equal one large tree lost. The formula takes into account the size and condition of the tree and determines how many new trees must be planted. This project will strive to plant all trees needed to meet this policy within the project area. However, if that is not possible, the project manager will coordinate with the Town Arborist to plant any remaining trees as nearby as possible. If more tree locations are needed, affected properties will be asked first if they would like one of these trees to be planted on their property outside of the project area.

Has the Town identified whether any Endangered Species are present along the stream?
The Town will coordinate with the United States Fish and Wildlife Service as part of the wetland permitting for the project. This coordination will determine if the presence of endangered species is likely within the project area and what steps, if any, are necessary to protect endangered species that may be present.

If my property is affected by the stream channel improvements project, what is the next step?
The project has been designed to keep the project footprint within the existing easements wherever possible. There is a 25-30 foot Storm Easement along the back properties on the Mosby Drive side and variable width 25-year and 100-year Floodplain Easements along the backs of the properties on the Newhall Place side. Once the project is designed, if additional impacts to your property are anticipated outside the existing easements, Leesburg's Office of Capital Projects in coordination with the Town's Land Acquisition Manager will oversee the acquisition of any necessary easements with you directly.

Is this project considered maintenance within the scope of the Town's existing easements?
Under Virginia law (both common law and in the State Code), the beds of streams/creeks are generally the property of the Commonwealth and not privately owned. In addition to the Town's access to the stream beds as public lands, the Town also has easements adjacent to the stream bed allowing the Town to access the stream bed and perform any work that is reasonably related to storm drainage within the easements on the stream banks. In determining what maintenance is reasonable and necessary on the stream bed and banks, it is important to keep in mind that Town Branch is a Potomac River/Chesapeake Bay tributary and is subject to certain requirements dictated by the Virginia Department of Environmental Quality. The proposed Town project helps to implement these requirements, and the project has been approved for funding by the Virginia DEQ. The relevant easements do not limit the scope of the Town's authority to perform the proposed activities as approved by the Virginia DEQ.

Are utilities affected by the project work?
The concept plan has identified some potential conflicts with existing underground Dominion and Verizon lines. Coordination has begun with the utilities to identify the impacts and determine if relocation is necessary. New utility easements may be requested from some properties, if needed.

Why can't the project involve installation of gabions or even Belgian rock in the stream bed to address the deepening of the stream channel?
The Town needed to develop a long-term, more permanent solution for the owners rather than present a stabilization option. Unfortunately, even installing stabilization elements will require removal of the trees in that area and the access needed for the equipment to complete this stabilization will also result

in substantial loss of the trees and foliage just to reach the problem areas. As there were so many areas along the corridor experiencing erosion, undercutting, and risk to properties and trees, the Town determined that a stream restoration project would provide a more holistic, stream-wide revitalization that would provide better long-term success.

It was stated in the presentation that the previous spot stabilization measures taken 20 years ago might have actually made the problem worse. What's to say these new measures proposed won't have a negative effect 20 years down the road?
The measures added to the stream in the past are stream stabilization measures and are typically more of a "band aid" approach used at specific locations to help stabilize the stream banks to reduce erosion. Because stabilization measures were added in only some locations along the stream, it has resulted in some of the degradation it was attempting to mitigate being redirected to other areas of the stream that were not as well protected. In contrast, the proposed project is a stream *restoration* project. This is a more holistic approach to stabilize the whole stream corridor with the goal of bringing the stream back to a more stable state. Because stream restoration occurs along the whole corridor, it addresses multiple issues at once and is intended to be a more permanent solution. The project uses a natural channel design approach that has been tested and proven in many streams across the country over the past thirty-plus years. Natural channel design is the method of stream restoration recommended by the United States Environmental Protection Agency, United States Fish & Wildlife Service, United States Army Corps of Engineers, Virginia Department of Environmental Quality, and many other experts in the field to create a resilient stream system resistant to future degradation.

If there is concern about reducing the TMDL (Total Maximum Daily Load) to the Chesapeake Bay, why can't you just install a sediment basin further downstream?
Sediment basins are temporary drainage facilities used during construction to detain sediment-laden runoff from disturbed areas before it reaches a stream channel. These structures are limited to a useful life of eighteen months and the maximum allowable drainage area into a temporary sediment basin is 100 acres (this site drains approximately 243 acres). Inline stormwater ponds would require a larger footprint (which is not available along the corridor), would likely cause increases in floodplain impacts (even downstream from the pond) necessitating the need for additional floodplain easements, and require long term maintenance. To secure an individual permit, the applicant would need to demonstrate that the proposed solution was the least environmentally damaging practicable alternative (which means that any self-mitigating options would be preferred over other options requiring mitigation). If a viable stream restoration option (which is self-mitigating) is possible, then an alternative option requiring mitigation through stream credits or another mitigation option may not be permitted. Typically, it is better for streambank erosion to be addressed within the channel itself.

The small portion caused by this section of Town Branch isn't really causing a detrimental impact to the Chesapeake Bay, is it? We wonder how the rest of the Town Branch and the miles of the Tuscarora Creek branch further down are treated with respect to the forgoing.
Each small section of stream by itself may not contribute a large amount of nutrients and sediments to the Chesapeake Bay, however when you combine all the small sections of streams throughout the drainage area, the number becomes much larger. The goal of this project is to eliminate the transport of sediment from the project area which not only reduces the impact downstream on Town Branch, the Potomac River and the Chesapeake Bay, but also reduces the loss of property and improves safety along the project stream corridor. A walk of the stream in June of 2024 revealed continued erosion along most of the stream corridor including two-to-three-foot undercutting of the stream banks in some areas. WSP utilized the Bank Assessment for Non-Point Source Consequences of Sediment (BANCS) to predict streambank erosion rates. The BANCS method evaluates the in-situ soil core samples and

identifies the nutrient concentrations of Total Phosphorous (TP) and Total Nitrogen (TN) as well as bulk density of the soil material. This information is used to develop an estimate of the rate and the amount of bank material being eroded from streambanks and deposited into the river system. Soil test results used in conjunction with the BANCS model allowed for the calculation of the following predicted reductions if the stream restoration project is completed: 196 tons/yr of eroded sediment, 106 lbs./yr of TP, and 339 lbs./yr of TN.

Won't the plunge pools, cross vanes and "cascades" used to slow down the water catch sediment and require regular maintenance?
While some sediment accumulation will occur in pools, there should not be enough accumulation to require regular maintenance or dredging like what is needed for a pond. Cross vanes and other structures use large boulders seated on footer stones or bedrock and keyed into the banks for stability. They will be held in place by their own weight and further stabilized by vegetation, and should not require routine maintenance. However, this does not mean that no maintenance will be needed throughout the life of the stream and regular reviews for sediment deposition will be made.

What alternative designs/approaches have been seriously considered that would be less destructive and less expensive to solve the erosion problem for the small number of impacted property owners?
What has been presented is a first concept plan that holistically addresses the entire corridor and is meant to be a plan that will be refined throughout the design process. All properties along Town Branch are affected by the erosion to some degree, therefore, the Town does not view the project as only solving a problem for a small number of impacted property owners but addressing erosion along the whole stream corridor. In addition, so many properties are currently impacted by the erosion and undercutting that piecemeal stabilization options for each of those areas will cause much of the same tree loss without the benefit of restoring the stream to a more stable state. The Town is proposing the stream restoration option because it will have long term communal benefit in terms of safety and water quality.

If the Town did not have $7m+ to spend, what would the approach be if only smaller amounts (i.e - $1m, $2m, $3m, etc…) were available? Would the Town choose to do nothing if only smaller funding amounts were available? Or would the Town seek less expensive targeted alternatives that address the issues being experienced by a smaller number of property owners?
Staff's recommendation for the Capital Improvements Program was a holistic stream restoration project to improve this entire stretch of Town Branch due to the amount of erosion and property loss that is occurring and the TMDL mandates to reduce Nitrogen, Phosphorus and Sediment making its way to the Chesapeake Bay. Council approved this project as part of the CIP and work has moved forward on it as approved. If smaller amounts of funding were available, staff would recommend that the Town continue with the design of the comprehensive stream restoration and accumulate the funding necessary for the larger project. As we continue with funding requests and design, the maintenance of the stream channel will continue. It is expected that some of the larger trees may require removal as they become undermined by the on-going erosion and fall into the stream. If trees are removed, nothing will be planted in their place as it will be considered stream channel cleanup to allow for the normal flow.

Given the water flow has not been measured, have sediment levels been measured, or is it theoretical like the water flow? Are there other much less expensive and less destructive ways to

capture and control sediment and have they been considered? The predicted streambank erosion rates have been modelled using the results from soil testing and the evaluation of the entire stream reach using the Bank Assessment for Non-Point Source Consequences of Sediment (BANCS) method. This methodology is approved by the United States Environmental Protection Agency (USEPA) and the Virginia Department of Environmental Quality (VADEQ) and was required for the VADEQ grant application process. The only methods of controlling in-stream erosion, with tall exposed vertical banks like those seen in Town Branch, are bank stabilization measures and stream restoration. Piecemeal bank stabilization measures will only protect some properties, would still require construction access and result in tree removals, and would not provide the same level of long-term stability and improved safety for the entire stream reach. The Town is proposing a long-term solution for the stream that will benefit the whole community.

With respect to the Gabion walls, it was stated during our on-property meeting during the Fall of 2023 that the Town could not locate the documents related to the Gabion wall project. Given the project would have required DEQ and EPA permits, have the missing documents been located and if not, have the DEQ and EPA been contacted for copies?
Based on aerial photos it looks like the gabion wall was in place prior to 2002 but after 1995 and was likely done around the same time as the development on Newhall Place. Wetland delineations and permitting regulations have been in place since the 90s, but it is harder to find records prior to 2010 when digital recording began. The USACE records for issued permits in Virginia back to 2010 can be found here: https://www.nao.usace.army.mil/Missions/Regulatory/Issued-Permits/

They also have a contact for FOIA requests, which could be used to try and find documents if a permit was filed, but there is no guarantee that they will find anything: FOIA Officer, 803 Front Street, Norfolk, VA 23510 or by email to: FOIA-NAO@usace.army.mil

Why does the current design stop at 401 Mosby when the stream continues further on adjacent properties?
The segment of Town Branch between Catoctin Circle and Morven Park Road has been identified by the Town as an area of concern by residents within the project area and has been identified as a potential project in the Town Capital Improvements Program off and on for the last 10+ years. The areas downstream of this area have not experienced the same rapid deterioration and therefore were not included in the project. The project area was determined based on the requests from residents and the deterioration of the stream corridor.

Does the DEQ and/or the EPA have an ombudsman program that affords direct contact and feedback by the public with respect to the Town's application for permits related to this proposed project? If so, please provide the contact information and any necessary permit information the Town has submitted.
The Town has not yet submitted permit requests to the United States Army Corp of Engineers (USACE) or Department of Environmental Quality (DEQ). This process will occur after the 90% design is completed. Regulatory contacts for the USACE can be found at https://www.nao.usace.army.mil/Missions/Regulatory/Contacts.aspx

How is the requested feedback from the residents being communicated to the Mayor and Town Council? We would like to ensure they are receiving unedited versions of the neighborhood

feedback.
The information has been compiled into a document that was supplied to all Town Council members directly. The feedback has been copied and pasted directly from the emails into the new document, therefore the feedback supplied to Town Council will NOT be edited. Any additional attachments supplied in the email will be referenced with the specific feedback and supplied at the end of the document.

Have Town Council members actually visited this area and analyzed the impact of this solution to the erosion issue?
Mayor Burk and five Town Council members have recently visited the project area and walked most of the stream corridor with staff.

How will the restoration affect Town Branch immediately below the project area?
The project will be designed so that the stream flows and water levels during rain events will stay as close as possible to the existing levels. Therefore, it is expected that the stream below the project area will not notice any marked difference after the project is completed.

Where will trucks and equipment be parked during construction and how will it affect Morven Park Road?
Staging areas will be provided to the contractor for storage of materials and equipment; however, these locations have not yet been identified for this project. On Morven Park Road, Mosby Drive and Newhall Place, the contractor will be expected to maintain access to all driveways. It is possible that staging may occur between the stream and the paved portion of Morven Park Road as well as in a triangle owned by the Town where Loudoun Street and West Market Street converge.

Who will maintain the improvements?
The Town of Leesburg will be responsible for maintaining the restored stream area where trees and shrubs are planted and there are no grass areas. For areas within the easement area that remain grass, the property owners will be responsible for routine mowing. In addition, any trees planted on property outside the permanent easement area will be the responsibility of the property owner to maintain. Any trees planted as part of the project will have a 2-year warranty provided by the contractor.