Taylor Run Infrastructure Improvement Project Public Comment Response Matrix

Public comments were gathered after meeting on Thursday, March 26th, 2026

First Name	Last Name	Date	Public Feedback	City Response
Jeremy	Flachs	03/26/26	Not a fan of rock packing and gravity walls. What happened to natural stream flow control? If you add walls to the channel aren't you going to increase the volume and force of stream flow? I do not agree with rip rap inside the plunge pool. Weirs and rip rap are not consistent with what I recall were the advisory group's recommendations. I have no objection to daylighting parts of Taylor Run but building concrete weirs and aprons will overwhelm the natural view and character of Taylor Run. I understand we need to protect the sanitary sewer, but the footprint you are proposing is more extensive than what the Taylor Run advisory group recommended. A rock facade finish on the outfall is preferable to plain concrete. My sense of the presentation is that it is too engineered and inconsistent with our recommedations. I also do not understand why or where a fence is needed. Unfortunately, urban streams in forested areas are subject to erosion and trees and branches will fall into the stream, but the occasional use of a chainsaw can remedy most of those problems and trees adapt to streamsides, as does the wildlife. It is definitely a bad idea to construct in March - May 2027 when birds are both migrating and nesting. Whitney's question/comment that the genesis of the problem is run off upstream is on point. To date, I am unaware of any concerted effort to capture upstream water. The torrents of water will only increase with climate change, and without capturing the upstream water funneled into the pipe and the outflow, the proposed walls and terraced pools will soon be washed away.	The design is based on and consistent with the consensus recommendation for a minimal intervention approach focused on protecting critical sewer infrastructure, which includes targeted stabilization measures such as rock and grade control where necessary. These features are intended to reduce water velocity and erosive forces rather than increase flow and are being refined to minimize construction footprint, preserve natural character, and incorporate aesthetic treatments where feasible. The 'rock packing' was proposed and presented in the 30% design meeting, and is proposed to protect the large tree on the bank from being fully undermined and collapsing into the stream. Rip rap in required in the plunge pool to dissipate energy and was discussed with the Consensus Building Group (CBG). The gravity walls are required by the structural engineer given the results of the geotechnical investigation determining that the soils are not stable, and also for safety purposes, while the fence is required for safety purposes as well. We are not 'daylighting' any portion of the stream that is currently in a culvert, such as the upstream portion. The concrete is needed to encase the exposed sanitary sewer lines and was discussed in the CBG. The original design was going to use natural channel design and would have re-buried the exposed sewer lines. But given we are now using a 'minimal approach,' the concrete is necessary. Construction timing will comply with environmental regulations, including restrictions to protect nesting and migratory species. Upstream stormwater management is being addressed through broader City programs but cannot fully resolve existing in stream infrastructure risks. City staff worked to model upstream BMPs and a white paper was produced for the CBG and posted online that the approach would not protect the exposed sanitary sewer lines.
Karen	Kroopi	03/27/26	The City project manager camile was very skeptical about the main aspects of the project like duration, coordination with the Alex-renew and overall long and short term impact on traffic and neighborhood areas.	The project schedule is provided on Slide 26 and reflects the anticipated duration based on current design assumptions. Coordination with AlexRenew is not required for this project. The work is located within the stream corridor and is not expected to result in notable long term impacts to traffic or surrounding neighborhoods. Requisite Movement of Traffic (MOT) and other items will be developed in later phases and discussed with the public. The City owns the sanitary collection system, which is what the exposed sewer lines are, therefore, no coordination with Alex Renew is necessary.
Michael	Olex	03/27/26	I believe that the NRCS plunge pool design is the best alternative for area 1 of the Taylor Run project. It involves less disturbance than the original VDEQ plunge pool but is aesthetically pleasing and similar to the proposals for the other areas. I understand that the reduced sized was based on different design criteria than the VDEQ option. I assume that nevertheless the designers are confident that it is a robust alternative. I see the stilling basin as an ugly concrete structure that according to the presentation may be a maintenance issue. I think that some of the critics of the project fail to realize that Taylor Run is an urban steam and therefore the inclusion of manmade structures like the gravity walls should be expected. They may have unreasonable expectations. Taylor Run is not a waterway in a pristine natural environment. PS - I would like to see the exit culvert faced with the same rock facade finish proposed for Area 1 VDEQ and NRCS designs and Area 2 culvert but the expense undoubtedly can't be justified!	The City acknowledges and appreciates this feedback and will consider it as design details are finalized. Staff concurs that this is a modified urban stream (staff shared aerial images dating back to the 1930s that when compared to successive images, show that the stream was straightened in the past and a sanitary sewer main is contained in the western bank of the stream, that crosses the stream to the east side where is exposed in the stream bed). The exit culvert is outside of the project area and no discussion has been had to date about placing a rock facade on the exit culvert. Also, this would expand the limits of disturbance and staff doesn't feel the aesthetics warrant the impact.
Russell	Bailey	03/30/26	We find Alt. 2 for the Taylor Run upper culvert and plunge pool to be acceptable, though we would prefer that, if applicable safety standards can be met, the fence be wood rather than metal, in keeping with the look of a nature park. We look forward to providing our views on the other elements of the proposed infrastructure fixes at a subsequent time. For each of those elements, please provide the options that were presented to the CBG during the IEN process so we may compare those earlier-presented options with the current ones. We also look forward to working with the City on the development of a comprehensive ecological restoration plan for the project areas in accordance with the Consensus Building Group recommendations. Thank you, Russ Bailey, Kathie Hoekstra, Roy Byrd, Carter Flemming, Michael Olex, Biil Gillespie	The City acknowledges and appreciates this feedback on Alternative 2. Fence materials will be evaluated for consistency with safety requirements, durability, and overall project aesthetics typical of the types of fencing found in other City parks. The City demonstrated how the selected design elements relate to the options discussed during the CBG process at the 30% design meeting, and these elements will be carried forward as the design advances. A restoration and landscaping plan will be presented at the 60% design stage.

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Andrew	Macdonald	03/30/26	Here are our comments (Attached) regarding the recent Taylor Run Stabilization presentation. We don't believe that any of the 3 alternatives discussed are consistent with minimal intervention into the stream channel and ecosystem. We believe that all public comments related to this request should be made public and posted on the City's web site. Sincerely Andrew Macdonald Rod Simmons	Part 1 of Response The design advances the consensus recommendation for a minimal intervention approach focused on protecting critical infrastructure, and elements that did not reach consensus (as were noted in your comments) have not been included. The alternatives presented were developed to address documented infrastructure risks while minimizing impacts to the maximum extent practicable. Public comments received during the design process are part of the public record and will be made available in accordance with City practices. (As discussed at previous meetings, and as done for the prior engagement, the comment/response will be posted to the website.) Not completing this work increases the risk of a sanitary sewer pipe breaking and raw sewage discharging directly to the stream, analogous to the raw sewage that was discharged from the DC Water Potomac Interceptor collapsed sewer line. Here are responses to notable comments to address specific concerns in the attached tech memo this public comment represents. **Gravity Walls:** The gravity walls designed at various locations are in support of the infrastructure stability. Due to the near vertical stream banks, these walls are needed in locations to maintain stability with the additional installed stabilization practices for the infrastructure. As discussed in the March 26th, 2026 meeting, the gravity walls along Design Area 1 are needed to support the banks near the plunge pool and reduce nearby tree loss. Without these gravity walls installed, the banks would need to be laid back, which would include an increase in earth works and a loss of more trees in those areas. **Tree Removal and Protection:** Discussing tree removal, the 30% design plan set shows the trees to be removed and the trees the CBG specifically requested to be protected. The fewer trees proposed for removal due to these alternatives for Design Area 1 discussed at the March 26th, 2026 meeting would be located within the LOD for Design Area 1. No tree removals would be reduced in other design areas. The City will verify the tree type noted as being different by the public comment. All proposed tree removals and LOD are visible on the 30% design set that has been available online since November 2025. Please see below for continued response.
Andrew	Macdonald	03/30/26	Here are our comments (Attached) regarding the recent Taylor Run Stabilization presentation. We don't believe that any of the 3 alternatives discussed are consistent with minimal intervention into the stream channel and ecosystem. We believe that all public comments related to this request should be made public and posted on the City's web site. Sincerely Andrew Macdonald Rod Simmons	Part 2 of Response **Large Wood Option**: This option was discussed at length with the CBG. Staff had serious issues from an engineering and maintenance standpoint with regards to the option. During the discussions, the CBG didn't come to a consensus on this approach. The City Council directed staff to move forward with the elements of the CBG recommendation that met full consensus. Therefore, this approach was not considered as an option and not discussed during the 30% design and will not be an option moving forward. **Project Scale and Scope:** The project scale and scope was presented in the meeting and in the 30% design set. **Wetland Delineation**: The LOD does not overlap the previously determined and approved wetland delineation. There is no construction access on any wetlands. The construction access is only on the trail and will be using swamp mats to protect tree roots. An updated wetland delineation performed by a professional confirms the previous wetland delineation and will be provided as part of the 60% design package. **Grading in Design Area 3**: Grading in this area is required as the bank has been eroded away and the sanitary sewer pipe is near visible.

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First Name	Last Name	Date	Public Feedback	City Response
Jeremy	Flachs	3/30/2026 - Emailed	Part 1 of Comment: Dear All: As a member of the CBG and after much thought, and in supplementation of my previous comments, I believe the City and AECOM have strayed from what City Council issued as guidelines 3 years ago, and together they are taking one step forward and two steps backwards. I make the following comments and recommendations for Project Area 1, which has been defined as the upper reaches of Taylor Run including the outflow pipe which daylights from underneath the field in front of the Chinquapin Aquatic Center. I agree with adding a stone face to the outfall, so long as the structure enclosing the outfall is not expanded much beyond its current footprint. I agree there might be a need to shore and support the outfall so it is stable. This “shoring up” refers to the pipe itself and not the plunge pool. I am fine with a fence, preferably wooden, to prevent someone from toppling over the outflow/outfall pipe into the water below, but I find no need for a fence along the stream banks. While I am uncertain that it will improve the health of the stream, I am OK with removing some of the concrete slabs, although they may be functioning to impede and reduce the stream flow during heavy rain. I think the City is foolishly spending resources on unnecessary engineering (as I describe in more detail below), and instead should allocate much of that money to BMPs upstream of Taylor Run and collect and hold the water that gushes off parking lots, roof tops, roadways and shopping centers (Bradley for instance) before it reaches Taylor Run. That will solve the erosion problem. These comments focus primarily on Project Area I, but I have significant concerns about the construction outlined in the slides for Project Areas 2-4. There is no sewer infrastructure in Project Area 1. Therefore the 3 Alternatives proposed for Project Area 1 do not directly address any of the sewer crossings or infrastructure downstream of the outfall which are in need of some repair and encasement. For that reason, I do not agree with any of the 3 Alternatives which require the use heavy equipment to excavate the plunge pool to bury rip rap into the stream bed. This will in the short term elevate the stream bed near the plunge pool and create a separate artificial “boulder weir and pool”. I say short term because after a few big storms, its likely to all wash away. I am concerned about modifying the plunge pool in an effort to reduce the flow downstream. Stream scientist John Field proposed the use of natural stream control, such as trees which fall into the stream, and which are now in the stream and function as storm water control.	The design advances the consensus recommendation for a minimal intervention approach focused on protecting critical sewer infrastructure, which includes targeted stabilization measures such as rock and grade control where necessary. Elements that did not reach consensus have not been included. These features are intended to reduce water velocity and erosive forces rather than increase flow and are designed to minimize construction footprint and preserve the character, with aesthetic treatments incorporated where feasible. The plunge pool design is needed to slow down the flow of water entering this urban stream segment. As has been discussed previously, City staff worked to perform analysis and presented a white paper to the CBG and discussed it. The study concluded that no amount of upland BMPs would have a positive, near term impact. This urban stream segment has been channelized and sanitary sewer installed along the length of the western bank, until it crosses the east side farther upstream. Staff discussed aerial images dating back to the 1930's with the community and subsequent images show the impact to this stream segment. The segment was straightened and with removing the sinuosity of the stream, you lose the features that slow down the water. The increase flow of the water creates erosive forces that widen the stream, threatening the trail that ACHS students use every day, and undermines trees that increasingly topple into the stream and block it, causing the stream flow to 'end around' the blockage and further accelerates erosion. The fence proposed on top of the gravity walls is needed for safety per the structural engineer working on the project. Staff is working with staff from Recreation, Parks, and Cultural Resources to identify the specific type of fence. However, the fence needs to be of a material to provide the intended safety and how a useful life beyond that of wood. The plunge pool is being designed, as discussed, to slow down the flow of water and must be fixed. The sewer crossing will be encased in concrete under this minimal approach, as discussed with the CBG, since the approach of natural channel design that would bury the line, is no longer being moved forward given the consensus of the CBG and the direction of the City Council. If something isn't done, we could have the sewer pipe break and raw sewage in the stream, analogous to the discharge of raw sewage that occurred with the collapse of the DC Water sewer line in MD. Delaying this work further puts the environment in more jeopardy.
Jeremy	Flachs	3/30/2026 - Emailed	Part 2 of Comment: Log jams can occasionally be reduced by chainsaws, but otherwise are part of the ecology of a forested stream. I do not agree that the stream bed should be excavated downstream from the outflow, killing all the valuable insects and larvae and other stream life in the process. But even more objectionable is the plan to add retaining walls to both sides of the stream for a distance (as I understand the drawings) of over 100 feet from the outfall pipe. These walls will channelize the stream and increase the flow of water downstream by hardscaping the banks. These stone walls are not designed to protect the sewer infrastructure in any direct sense, but instead are designed to support the eroded streamside banks. But it has already been determined by CBG volunteers that there is no problem with sediment in Taylor Run, before, during or after heavy rains. The proposed walls are inconsistent with Appendix E, which contains the City’s recommendations following the meetings held by the CBG. In fact, because it will increase the force of the stream flow during high water events, channelizing the steam with rock walls will likely damage the sewer infrastructure. And, the rip rap, boulders and retaining wall are unlikely to last multiple heavy storm events. The construction necessary to create the walls will require a significant amount of excavation, use of heavy equipment in the stream bed, and the use of excavation equipment to hack away at the existing natural (mostly clay) stream banks. Footers will be excavated to support the walls, and how deep will they need to go? No information was provided to us on these details during the March 26 slide presentation by the City and its contractor AECOM. These actions are inconsistent with Appendix E and the CBG recommendations. Even worse is Alternative 3 which results in large scale grading and earth removal using heavy equipment on both sides of the stream near the outfall to eliminate the stream banks, (at least that is what the slides depict), while at the same time include construction of a bunker-like structure called a “stilling basin” surrounded by tons of rip rap. This is classic over engineering to solve a problem created by water flowing into Taylor Run due to the failure to capture it before it flows into Taylor Run. And to my knowledge, no one has bothered to measure the rate of erosion of the stream banks at Taylor Run over the past three years to determine if it is significant. Remember that the only stream scientist to offer testimony during the years the CBG was meeting was John Field, who testified that the stream had reached “equilibrium” with the clay banks holding their own. I cannot endorse this kind of channelization which in my view will hasten the loss of stream life in Taylor Run, from top to bottom. Bare (and eroded) stream banks are used by many animals for food, shelter and nesting materials and while they may not look pretty, these stream banks function in a satisfactory manner to support the native fauna at Taylor Run. I also object to the insistence that this construction occur in the Spring when migrant birds are passing through and in need a place to drink, feed and rest after flying thousands of miles to reach the US mainland. And our native birds use the forest to nest and raise their young during these same months.	Please see corresponding response in Part 1 of Comment.

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Jeremy	Flachs	3/30/2026 - Emailed	Part 3 of comment: I am attaching the entire Final Report summarizing the CBG process, the CBG recommendations, and the City's guidelines, Appendix E. If the construction proposed by AECOM and the City is not consistent with "a minimal impact on the stream bed and banks", it should not occur. The fact that what is proposed is designed to withstand flow rates (whatever that means) does not greenlight construction which will have a maximum (destructive) impact on the stream bed and stream banks. Appendix E Construction Practices: Work on the infrastructure protection shall be done within the portions of the stream shown on the engineering proposals presented to the CBG in a manner calculated to have minimal impact on the wetlands and key forest communities adjacent to the stream and on the stream bed and banks. Selected options should be engineered to withstand flow rates. Construction paths should be clearly outside the boundaries of the wetlands. Between the upper sewer line crossover and the mid-stream crossover, trees on the Chinquapin Park side of the footpath should not be cut or harmed by affecting their root structure or otherwise PREVIOUS COMMENTS SUBMITTED MARCH 26 Jeremy Flachs's comments just submitted Not a fan of rock packing and gravity walls. What happened to natural stream flow control? If you add walls to the channel aren't you going to increase the volume and force of stream flow? I do not agree with rip rap inside the plunge pool. Weirs and rip rap are not consistent with what I recall were the advisory group's recommendations. I have no objection to daylighting parts of Taylor Run but building concrete weirs and aprons will overwhelm the natural view and character of Taylor Run. I understand we need to protect the sanitary sewer, but the footprint you are proposing is more extensive than what the Taylor Run advisory group recommended. A rock facade finish on the outfall is preferable to plain concrete. My sense of the presentation is that it is too engineered and inconsistent with our recommendations. I also do not understand why or where a fence is needed. Unfortunately, urban streams in forested areas are subject to erosion and trees and branches will fall into the stream, but the occasional use of a chainsaw can remedy most of those problems and trees adapt to streamsides, as does the wildlife. It is definitely a bad idea to construct in March - May 2027 when birds are both migrating and nesting. Whitney's question/comment that the genesis of the problem is run off upstream is on point. To date, I am unaware of any concerted effort to capture upstream water. The torrents of water will only increase with climate change, and without capturing the upstream water funneled into the pipe and the outflow, the proposed walls and terraced pools will soon be washed away. Jeremy Flachs	Please see corresponding response in Part 1 of Comment.
Jeremy	Flachs	04/01/2026 - Emailed	Regarding Alt 3 which includes stilling basin: 1.Where exactly will the grading be done such that there is no need for the stone retaining walls? 2.Are the stream banks to be in any way graded or degraded if Alt 3 is chosen? 3.Where are the trees to be removed if Alt 3 is selected? Only those trees adjacent to the outflow pipe?	The below responses are provided by AECOM, the designer for the project. 1.) Grading would take place around the new stilling basin and along the nearby stream banks. Mostly, soil would be reshaped rather than held back with walls. The concrete structure would be built slightly below the existing ground level, so once construction is complete, most of it would not be very visible. At the downstream end, a rock apron would be added. This rock area would sit about three feet higher than the current stream bottom, which helps slow the water and protects the stream. To make everything fit safely: •Soil would be cut back on the north side of the stream. •Soil would be added (filled) on the south side to blend back to existing ground. The general area of grading was shown in the last presentation (Slide 20, purple contour lines). More detailed drawings would be shared later in the design process. 2.) Yes. The stream banks on both sides would be reshaped to make them more stable to support the new structures. •On the north side, some bank grading would occur to install rock and boulder features. •On the south side, soil would be added so the bank adjacent to the stilling basin so the grading in this area gently meets existing ground. Bank grading on the south side would be required to key in the boulder weir structure. 3.)No. A total of twelve (12) trees would need to be removed under the stilling basin alternative. Tree removal would occur not only near the outflow pipe, but also along affected portions of the stream banks to accommodate the riprap placement and boulder weir installations required under this alternative. Tree removal of all alternatives would be limited to areas necessary for construction.

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Russell	Bailey	04/03/2026 - Emailed	Thank you for the continued updates on the development of design options for the Taylor Run infrastructure repair and improvement project. And thank you for the effort to ensure that the proposed work is in keeping with the CBG recommendations. I have a few thoughts that might facilitate the City-community discussion as we move to the 60/90/100 percent stages. Thought one. I believe that a meeting of the whole community group with you and Brandon at the stream would be immensely helpful. I greatly appreciate the two of you walking the site with a part of the group after the 30 percent presentation – that was quite beneficial for us. I think that having the whole group do the same at this juncture will provide a valuable opportunity for everyone to have an "on site view" to aid their consideration of the project area proposals. I propose a meeting in the April 14-17 period, in the afternoon so that working members of the community group have a better chance of attending. Thought two. When options are presented for project areas 2, 3 and 4, the City and/or AECOM should identify how the options match with the options presented during the IEN process. This is in keeping with the CBG recommendations which state that for those project areas the City is to select from the options presented to the CBG. There may be reasons for presenting different or modified options – e.g., cost, technical changes, changes in stream area circumstance. If so, it would be useful to have those explained. Thought three. The AECOM proposal for project area 3, the manhole protection, shows the construction access path running along the existing footpath from the lower sewer line crossing up to the manhole. This is inconsistent with the construction practices recommendations, which state that "construction equipment access and work . . . should take place, to the extent possible . . . along the stream bed between the crossovers." There is considerable – perhaps universal – concern on the part of the community members that having a work path that runs along the wetlands would have detrimental consequences for the wetlands and for the key trees whose roots systems would be crossed by the work path. The proposed northward segment of the work path along the seepage swamp should be omitted from future proposals. Thought four. Satisfactory post-work restoration will be essential to achieving a successful project. Under the CBG recommendations "the City and the community group are to work together throughout the design and work process to develop and accomplish a comprehensive ecological restoration plan for TR that the City and the community will be proud of." I believe that this key objective of a satisfactory restoration can be met by following the stated recommendation. A possibility to consider when we work on this is discussing planting options with an entity (such as Earth Sangha) that has expertise in local natural area restorations. I recognize that it may be a while before the City is ready to start on a restoration design, but this is an idea that I would like you to be thinking about now. Thank you for considering these views. Each of them is offered with the goal of keeping the review process on track and achieving the goals set forth in the CBG recommendations. All the best, Russ	Thank you for your thoughtful comments and continued engagement throughout the design process. Regarding a site visit, we're glad the previous walkthroughs were helpful in providing context for the project area. At this stage, we believe those visits have established a strong shared understanding of existing conditions, and our focus is on advancing the design toward the 60% milestone. Additionally, the site is not marked out at the project location. We will continue to provide clear materials and opportunities for input as the design progresses. With respect to the project area options, at the 30% meeting in November 2025 we presented how the current design concepts align with the options and input developed during the IEN/CBG process. The design features chosen will continue further in the design process. The City will continue to update the public on this ongoing process. With respect to construction access in Project Area 3, your quote is not consistent with the minimal approach agreed upon by the CBG. While staff understands the recommendation to do work "along the stream bed,", utilizing an existing upland access path is proposed to reduce in-stream disturbance for areas, while also serving to reduce permitting complexity, and risks related to sedimentation and instability. The access path will be outside the wetland and additional erosion and sediment control features will be between the wetland and the path. The design will continue to prioritize minimizing overall ecological impact while maintaining constructability and safety. We agree that successful post-construction restoration is essential to the overall success of the project. AECOM is currently developing a comprehensive restoration and landscaping plan that will be presented at the 60% stage, and we look forward to incorporating community input as that effort moves forward. Staff cannot work directly with a private company without a contract per purchasing rules. Thank you again for your thoughtful input and continued participation. We look forward to continuing to work together as the project advances.

Taylor Run Infrastructure Stabilization Comments

Analysis of Three Area 1 Alternatives Against Appendix E Standards

Prepared for Community Review | March 30, 2026

From: Andrew Macdonald & Rod Simmons

Background

At its March 26, 2026 community meeting, the City of Alexandria presented three alternative designs for Area 1 of the Taylor Run Infrastructure Stabilization Project — the location of the 72" outfall with an undersized plunge pool causing bed scour and bank erosion. This memo evaluates each alternative against the consensus-based construction standards established by the Taylor Run Consensus Building Group (CBG) and recorded in Appendix E of the April 2023 Final Report prepared by the University of Virginia's Institute for Engagement & Negotiation (IEN).

The other project areas (2, 3, and 4) each have a single pre-determined approach involving gravity walls, boulder weirs, concrete encasement, and rock packing. Those are not addressed here but warrant separate review under the same Appendix E standards.

Appendix E Standards: What "Minimal" Means

The CBG reached consensus on a set of binding construction principles recorded in Appendix E. The key standards relevant to the Area 1 alternatives are:

- Work must be "calculated to have minimal impact on the wetlands and key forest communities adjacent to the stream and on the stream bed and banks."
- Construction paths must be "clearly outside the boundaries of the wetlands."
- Equipment access between the two sewer crossovers should use the existing park path and stream bed only — not new cut paths through the riparian zone.
- Specific named trees (identified by tag numbers 646, 647, 648, 619, 613, 608, 609, 136, 138, 139, 141, 142, 143) must not be cut or have their root structures harmed.
- The purpose of work is infrastructure protection — not broader stream reconstruction or bank channelization.
- Seven of nine community CBG members recorded that the City should consider including a large wood component in its infrastructure maintenance package.
- Post-work ecological restoration must be funded as part of the project and developed collaboratively with the community.
- The CBG retains input rights at the 30%, 60%, 90%, and 100% design stages.

The Three Alternatives (Area 1)

Alternative 1: VDEQ Plunge Pool (Original 30% Design)

Key elements as presented:

- VDEQ-sized plunge pool: 36' L × 30' W × 3' H, with riprap placed 3.5' deep
- Gravity wall with safety railing extending downstream from the outfall
- Rock façade finish on the outfall structure
- Boulder weir and pool
- 31 total trees proposed for removal (19 living, 12 dead)

Alternative 2: NRCS Plunge Pool

Key elements as presented:

- NRCS-sized plunge pool: 26.3' L × 29.4' W × 0.8' H, with riprap placed 4.12' deep
- Gravity wall with safety railing extending downstream from the outfall
- Rock façade finish on the outfall structure
- Boulder weir and pool
- 29 total trees proposed for removal (18 living, 11 dead)

Alternative 3: Stilling Basin (No Wall)

Key elements as presented:

- Stilling basin (specific dimensions not provided in the presentation)
- No gravity wall — the wall is eliminated in this alternative
- Boulder weir and pool
- Grading and seeding
- 22 total trees proposed for removal (12 living, 10 dead)

Side-by-Side Comparison

The table below summarizes the key design elements across the three alternatives and their consistency with Appendix E.

Criterion	Alt. 1 VDEQ Plunge Pool	Alt. 2 NRCS Plunge Pool	Alt. 3 Stilling Basin
Plunge pool / basin dimensions	36' L × 30' W × 3' H Riprap 3.5' deep	26.3' L × 29.4' W × 0.8' H Riprap 4.12' deep	Stilling basin (dimensions not specified)
Gravity wall downstream of outfall	Yes	Yes	No

Criterion	Alt. 1 VDEQ Plunge Pool	Alt. 2 NRCS Plunge Pool	Alt. 3 Stilling Basin
Total trees removed	31 (19 living, 12 dead)	29 (18 living, 11 dead)	22 (12 living, 10 dead)
Riprap / hard armoring	Yes — extensive	Yes — extensive	Yes — reduced
Large wood component	None	None	None
Consistent with App. E 'minimal' standard	No	No	Closest — but still deficient

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Detailed Analysis Against Appendix E Standards

1. Minimal Impact on Stream Bed and Banks

All three alternatives involve substantial excavation of the streambed. Alternative 1's plunge pool alone measures 36 feet long, 30 feet wide, and 3 feet deep — a significant reshaping of the stream channel at and below the outfall. Alternative 2 is marginally smaller in surface footprint but places riprap even deeper (4.12'). Alternative 3 substitutes a stilling basin, which still requires excavation and grading, but eliminates the gravity wall and uses grading and seeding rather than hard armoring on the banks.

Alternative 3 appears to reduce the overall construction footprint and avoids one of the most disruptive elements — the downstream gravity wall – but still requires a lot of grading and excavation.

However, none of the three fully satisfies the "minimal impact on the stream bed and banks" standard.

2. Gravity Walls Downstream of the Outfall

This is the most significant point of conflict with Appendix E. Alternatives 1 and 2 both include gravity walls with safety railings that extend downstream from the outfall along both stream banks. Appendix E authorizes work to protect specific infrastructure — the sewer crossings, manhole, and outfall structures themselves. Retaining walls running along stream banks downstream of the outfall are bank stabilization and channelization structures, not direct infrastructure protection.

The downstream gravity walls also raise the durability concern noted by community members: hard armoring placed in the path of the full force of stormwater exiting a 72" pipe is subject to displacement during major storm events. Once the stream is partially channelized, erosive velocities downstream are likely to increase, not decrease.

Alternative 3 is the only option that eliminates the gravity wall. On this specific and critical point, it is the only alternative consistent with Appendix E.

3. Tree Removal

Appendix E names specific trees by tag number that must not be cut or have their root structures disturbed. The three alternatives propose removing 31, 29, and 22 total trees respectively — with 19, 18, and 12 living trees. The presentation does not indicate whether any of the specifically protected CBG trees (tag numbers 646, 647, 648, 619, 613, 608, 609, 136, 138, 139, 141, 142, 143) fall within the removal zones. This should be explicitly confirmed before any design advances.

Alternative 3's 12 living trees removed is the least harmful, but even this figure warrants scrutiny against the specific tree protection list in Appendix E.

4. Large Wood Components

Appendix E's "Other Considerations" section records that seven of nine community CBG members believed the City should include a large wood component in its infrastructure maintenance package. None of the three alternatives presented includes any large wood elements — all rely exclusively on riprap, concrete, rock facing, and gravity walls. This is a notable omission from all three alternatives and should be addressed in the next design stage.

Dr. John Field, the stream scientist who testified at the September 2022 CBG meeting and conducted a stream walk with the community, agreed that a modified plunge pool could be useful for managing flow, and recommended large wood approaches. His testimony that the stream had reached "equilibrium" with clay banks holding their own is also relevant to whether any of these alternatives is truly necessary in its proposed scale.

5. Fencing and Safety Railing

Community members have indicated acceptance of a short, aesthetically appropriate fence (preferably wood) to protect the public near the outfall — consistent with Appendix E's direction to use "aesthetically pleasing materials per the Park Facilities Standards Manual." Alternatives 1 and 2 attach safety railings to substantial gravity wall structures, which goes beyond a simple protective fence. Alternative 3, with no wall, is more consistent with the community's stated position on this element.

Conclusion

None of the three alternatives fully meets Appendix E's minimal intervention standard, primarily because all involve significant streambed excavation and riprap, and because none incorporates a large wood component as the CBG majority recommended.

Ranked against Appendix E from most to least consistent:

- Alternative 3 (Stilling Basin, No Wall) — closer to “minimal” since it eliminates the downstream gravity wall, removes fewer living trees (12 vs. 18–19), and uses grading and seeding rather than bank channelization. This is the only option defensible under Appendix E for the wall issue, though the extent of streambed excavation and absence of large wood raise serious concerns.
- Alternative 2 (NRCS Plunge Pool) — smaller plunge pool footprint than Alternative 1, but retains the gravity wall and deep riprap placement. Not consistent with Appendix E.
- Alternative 1 (VDEQ Plunge Pool, Original 30% Design) — largest footprint, most tree removal, gravity wall, and deepest riprap. Least consistent with Appendix E of the three.

A fourth option more consistent with the CBG consensus — protect the outfall structure, allow a limited plunge pool modification as Dr. Field agreed was useful, use a short wood fence, but no downstream retaining walls or channelization, and incorporate large wood elements — is not represented by any of the three alternatives as presented. **The community is within its rights under Appendix E to request that this approach be developed and evaluated alongside the three City-proposed alternatives before design advances beyond 60%.**

Unresolved Issues from the March 26, 2026 Presentation

The March 26, 2026 community meeting raised a number of specific concerns that go beyond the choice among the three Area 1 alternatives. These issues are unresolved from the last substantive CBG meeting in March 2023 and remain critical to the project's success. They are documented here because they are prerequisite to any meaningful community sign-off on design direction — the City's framing of the community's role as choosing a surface finish ("what veneer we want on the concrete") conflates aesthetic preference with the substantive ecological and engineering review the CBG is entitled to perform under Appendix E.

Slide 6 — Project Scale and Scope

The project covers approximately 600 non-contiguous linear feet — roughly the length of two football fields — across a total construction area of 1.7 acres. It is not clear whether this figure includes the full extent of construction access routes and associated disturbance areas. **Community members are entitled to a precise accounting of total disturbed acreage, including temporary access roads, staging areas, and grading limits, before any design stage is approved.**

Slide 8 — Wetlands Delineation: An Unresolved Prerequisite

The "What Have We Done So Far?" slide lists topographic survey, tree survey, geotechnical investigation, hydrologic/hydraulic modeling, sewer inspections, and design submissions — but makes no mention of a wetland delineation. This is a critical omission.

The Acidic Seepage Swamp within the project area was the subject of a prior delineation that the community regards as methodologically deficient. That earlier delineation was performed in a manner that physically damaged the wetland — surveyors cut Fringe Tree, Highbush Blueberry, and other wetland shrubs to the ground for sight lines, damage that was photographically documented by community members. More fundamentally, the mapped delineation appears to have traced only the footprint of visible surface water, placing the wetland boundary conveniently outside the construction limits of disturbance on the south side of the path.

In fact, the Acidic Seepage Swamp extends across the trail to the stream bank and the large pool, and includes a small, perennial outflow seepage braid. The actual wetland boundary and the construction limits of disturbance overlap — a conflict the current plans do not acknowledge.

Appendix E is explicit: construction paths must be "clearly outside the boundaries of the wetlands," and work must have "minimal impact on the wetlands and key forest communities adjacent to the stream." None of this can be verified — let alone guaranteed — until the City, its contractors, professional wetland scientists on the CBG, and the community reach agreement on where the wetland boundary actually is. This remains an unresolved prerequisite to any further design approval.

Slides 10 and 12 — Construction Access Through the Old-Age Tree Grove

As shown in the plans, the construction access footprint and limits of disturbance pass directly through the grove of old-age trees on the north side of the Acidic Seepage Swamp and along the stream bank. The plans also appear to show a new path footprint — possibly a boardwalk — extending further south into the Acidic Seepage Swamp itself.

This is directly inconsistent with Appendix E's requirement to preserve and protect mature trees and wetlands and to keep construction paths outside wetland boundaries. Routing heavy equipment access through an old-age grove and into a sensitive seepage wetland cannot be characterized as a minimal intervention approach.

Slide 12 (Project Area 3) — Regrading Through Protected Tree Root Zones

The hatch pattern denoting regrading and construction disturbance in Project Area 3 overlaps with the critical root zones — and in some cases the trunks — of old-age trees that were specifically promised protection under the CBG consensus. Grading within a tree's critical root zone causes irreversible structural and physiological damage. Showing a tree as "preserved" on a plan while grading through its root zone is not tree preservation in any meaningful sense.

Slides 13 and 14 — Misidentified Tree and Unnecessary Intervention (Project Area 4)

The plans misidentify the large tree with the shallow root wad as a Red Maple (Acer rubrum). It is in fact a Tulip Tree (Liriodendron tulipifera) — a species with a fundamentally different root architecture, growth form, and ecological role. The distinction matters because the proposed intervention — "root packing" using riprap boulders — is predicated on a condition (instability) that does not exist for this tree. The 18-inch root wad is stable; the tree is not at risk of falling. Forcing riprap boulders into the exposed roots of a Tulip Tree would cause irreparable harm to a healthy specimen providing critical aquatic habitat for fish and macroinvertebrates.

Additionally, Slide 14 appears to be cropped and does not show the full extent of proposed tree loss and limits of disturbance south of the frame. Community members cannot assess impacts they cannot see. Complete plan sheets — not presentation-ready excerpts — must be provided before the 60% design review.

Overall Assessment: Premature to Proceed to 60% Design

The issues documented above are not minor technical details to be resolved in later design stages. They are substantive unresolved questions about wetland boundaries, construction access routing, root zone protection, species identification, and the fundamental scope of disturbance — questions the CBG was grappling with when it last met substantively in March 2023 and that remain unanswered today.

Appendix E gives the CBG input rights at the 30%, 60%, 90%, and 100% design stages precisely so that community members can raise these concerns before they are locked into engineering drawings. The current 30% design has not resolved the issues that justify those review rights. Proceeding to 60% design without addressing them would render the review process meaningless.

The community's role under Appendix E is to evaluate construction practices, tree impacts, wetland protection, and infrastructure design — not to select surface finishes for pre-determined

concrete structures. Framing the Area 1 decision as a choice among aesthetic treatments for a plunge pool wall conflates landscape design preference with the substantive ecological and engineering review the CBG is entitled to conduct.

In our opinion, the CBG should decline to endorse any of the three alternatives until the prerequisite issues identified in this document are resolved.

Sincerely,

Andrew Macdonald

Rod Simmons