

December 27, 2022

Urban Forestry Commission
Josh Morris, Co-Chair
Becca Neumann, Co-Chair
City of Seattle
Office of Sustainability & Environment
PO Box 94729
Seattle, WA 98124

RE: Urban Forestry Commission response to Taylor Creek Restoration Project process update

Greetings,

Thank you once again for allowing the project team to present this unique culvert replacement and shoreline, creek, and habitat restoration project to the Urban Forestry Commission (UFC) on October 19, 2022. We received your adopted comments and recommendations on December 10, 2022, and provide the following response:

1. Prioritize the management of stormwater before it flows into Dead Horse Canyon through Best Management Practices such as constructed wetlands, detention basins, or swales. Taylor Creek is one part of a larger watershed, and a holistic outlook towards hydrology will lead to the most successful restoration of the site.

Uncontrolled drainage and stormwater management are issues that both the City and County should be addressing, and the project team continues to raise the issue with King County. SPU recently met with members of their Stormwater Services Section and Drainage Design Groups, and they shared there is new interest in regional stormwater management. This may be an opportunity to partner and demonstrate progress on that vision via some work in the area. Even with a well designed and implemented stormwater management system, damage to the creek is already done. SPU's project proposes restoring the creek channel, which should be done regardless of basin-wide stormwater management (and ideally concurrently). To be clear, addressing stormwater before it flows into the Canyon is a multi-year and multi-agency planning process that is not part of SPU's existing Capital Improvement Project. However, the team is hopeful these issues will be addressed as more focus is placed on stormwater management planning in response to changing urban climate conditions.

2. In addition to what is planned for trapping in-stream sediment, consider approaches targeting the sediment source and that involve upstream sediment trapping. Sediment accumulated within placed large woody material will eventually surpass the storage capabilities of the structures, leading to stream bank erosion within Dead Horse Canyon and destabilization of the surrounding ecosystem and neighborhood.

SPU is not proposing to retain all sediment indefinitely. SPU expects the structures to fill and at the same time *reduce* bank erosion and create a new equilibrium for the creek—one that is healthier and more naturally sustainable. The large woody material (LWM) would initially trap the coarse material while releasing finer materials good for salmon habitat downstream. The strategy is to increase sediment

detention in the near term while simultaneously engaging to reduce erosion and sedimentation over time. Eventually, the structures will reach a point where they no longer retain sediment; however, at the same time, creek channel aggradation and slope reduction should have also reduced erosional processes and associated sediment loading. SPU's team of experts does not expect significant continued bank erosion after the structures are full because the creek will have: a lower gradient; slower and less erosive flows; and enhanced floodplain connectivity for high flows. If SPU can find a way to install the largest LWM structures, the system will be more sustainable without continued intervention.

3. Consider prioritizing the planting of climate adapted and evergreen trees throughout proposed disturbed areas of the project site. Dead Horse Canyon is a thriving ecosystem within a dense urban setting. The trees in this space provide important habitat value, erosion control measures, and other ecological functions. This project is an opportunity restore the creek to a more sustainable and thriving natural drainage system that provides habitat to aquatic and terrestrial species; both the creek health and the forest health should be prioritized in the renewal of the canyon ecosystem.

SPU intends to comply with this recommendation. We did not present our proposed planting pallet to UFC for review. However, SPR has reviewed earlier designs and provided comments of a similar nature. For vegetation removed in the final project, SPU will work with SPR (the property owner) to develop a site-appropriate restoration plan that anticipates expected climate conditions. SPU has committed to a 5-year plant establishment period to ensure restoration plantings continue to thrive through the toughest establishment years.

4. Consider breaking up the project into smaller pilot projects or phases to reduce the overall impact. Explore options for alternate sediment capturing materials and methods that can be assembled by human hands in place and not require removal of trees, but could still withstand large rain events.

The project team considered similar questions about project phasing. Work in the Canyon (Lakeridge Park) is only one part of a larger project to restore Taylor Creek all the way to Lake Washington. Completing the work in phases would lead to incomplete understandings of how the system will function when complete. Specifically, for federal permitting, regulators require a single and complete project with independent utility. Phases of a multi-phase project that depend upon other phases of the project do not have independent utility and are thusly not permissible under applicable federal regulations.

Additionally, the UFC adopted comments and recommendations posed several questions for which you find our answers below.

Q: We understand that some basic outreach as part of the permitting process occurred with indigenous tribes. We are curious if public documents are available from these meetings so we can better understand the level of engagement. Have direct communications occurred that allow Tribes to have direct input on the project designs?

A: Tribes have been provided with information about the project and design multiple times over the last 8 years. The project team periodically meets with the Army Corps of Engineers (USACE) and other regulatory agencies to provide project updates and seek direction. The Muckleshoot, Puyallup, Snoqualmie, Stillaguamish, and Suquamish tribes are routinely invited to those meetings. On at least two occasions over the past 8 years, two in-person field tours have engaged the Tribes and regulatory agencies. There are no formal meeting notes from these interactions, but Tribes have access to project materials presented at

these meetings and contact information for the project team. At the most recent meeting (August 2022), the project team updated USACE and Washington Department of Fish and Wildlife (Tribes did not attend) on the proposed sediment management strategy of using large wood to retain sediment and reduce erosion, as well as the community's aversion to options involving construction of a road through the Canyon. SPU indicated the project team would be evaluating alternatives to mobilize materials into the Canyon. SPU inquired if/how they permit large wood placements that need to be done frequently to supplement work (e.g., every other year), and if the agencies would support phased permitting for phased construction (possibly allowing the lower portion of work to be constructed first). Their response was as described above: that phases of a multi-phase project that depend upon other phases of the project do not have independent utility and are thusly not permissible under applicable federal regulations. We continue to extend invitation to the Tribes to continue discussion. In addition, the Tribes listed above as well as the Duwamish Tribe are included in the SEPA review process.

Q: What long term maintenance strategies does SPU foresee engaging in Taylor Creek, specifically if a road is built (Option 3), will it need to be kept in place permanently for maintenance? There seems to be conflicting information in documents about the permanence of a potential road.

A: Long-term maintenance would be required for hand-placed in-stream structures. Supplemental structures would likely be needed on regular intervals to continue trapping sediment that would allow the stream channel to aggrade. Hand-placed structures are constructed with smaller materials that can be carried into the forest without need for a road. SPR has been clear that any proposed road into the Canyon must be temporary. Therefore, SPU designed a temporary access road that could be more easily removed and would not rely on permanent structures such as piles. SPU is curious which documents provide conflicting information.

Q: We would like to know if SPU's plan for maintaining the sewer line that runs through the canyon involves removing trees and building a road.

A: A temporary access road would have allowed SPU to install additional maintenance holes on the sewer so that it could be maintained. This gravity sewer is not maintainable currently, although it is relatively new and not near "end-of-life". There are no access points into the sewer in the Canyon and there is no access for maintenance equipment to address issues, such as emergency repair or blockages. SPU would choose to install maintenance holes so the sewer could at least be inspected and is evaluating feasibility under various options. This may be possible without a temporary access road, but that is uncertain at this time. To reduce potential for sewer failure in areas with active, slow slope movement in the Canyon, SPU has proposed installing micropiles to stabilize slopes. This work is not dependent upon a road for completion.

Q: When additional options are identified and evaluated, we would like more information on the trees that would be removed with each considered project option.

A: The project team will continue to stay engaged with UFC as the project develops and would provide this information when available.

SPU welcomes the opportunity to share information on additional options with UFC at future board meetings.

Sincerely,

A handwritten signature in black ink, appearing to read "Cody Nelson". The signature is fluid and cursive, with the first name "Cody" being more prominent than the last name "Nelson".

Cody Nelson, Project Manager
Taylor Creek Restoration Project

CC: Patti Bakker
Jana Dilley
Ellen Stewart