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SUBJECT:	Comments on Wheaton Branch Flood Mitigation Project

Friends of Sligo Creek would like to suggest improvements and request clarifications regarding the Wheaton Branch Flood Mitigation Project. The Wheaton Branch stormwater ponds provide important wildlife habitat in Sligo Creek while mitigating the harmful effects of polluted runoff on the environment.

MORE STORMWATER MITIGATION UPSTREAM OF DENNIS AVE BRIDGE

Please consider installing strategically-placed green infrastructures upstream of the area of concern and in the new lowered floodplain. These would provide year-round stormwater mitigation, control for the 100-year floods, and would become more effective as the vegetation within them matures. A low-impact cistern could also be considered to compliment the stormwater infrastructures to capture any additional runoff that poses a flood risk. Considering green infrastructure alternatives is consistent with the County's approach to integrate stormwater mitigation and stream restoration efforts into its development plans. It is DEP policy that upstream retrofits are considered a critical consideration for effective stormwater projects.

Please consider drafting an environmental impact statement for the Wheaton Branch floodwater mitigation project that considers longer term alternatives to the one

proposed. The effects of climate change and more intense storm events need to be incorporated into the plans.

Replace concrete channel along Bucknell Drive with green infrastructure

The plan should be expanded to address the total lack of infiltration for a lengthy stretch of Wheaton Branch along Bucknell Drive, from Windham Lane to Evans Parkway Park (Figure 1). The primitive concrete stream bed, stretching nearly 1,600 feet, dramatically increases the speed and volume of water rushing downstream towards the problem area near Glenhaven Drive and the stormwater ponds beyond. There is almost no point in "fixing" problems downstream as long as this major problem, and eyesore, goes unaddressed. The concrete stream bed feeds directly into Evans Parkway neighborhood park (Figure 2). The Evans Park pond should be examined to see it can be improved to reduce the impact of polluted sediment before approaching the proposed mitigation area.

Stabilize stream banks

Stream bank stabilization along upstream channels such as at Etna Place should be examined (Figure 3). The minimal streamside vegetation makes these streambanks more susceptible to erosion during extreme rainfall events. A riparian zone of some kind on either side of the creek consisting of shrubby and herbaceous growth would encourage stream bank stabilization.

ADDRESS SEDIMENT/DREDGE MATERIAL TOXICITY RISKS

The proposal includes dredging Cell 1 of the stormwater pond of polluted sediment collected from 770 acres of highly developed watershed. Dredge spoil should be tested for priority pollutants as defined by the Federal Clean Water Act (CWA) as well as for the toxicity characteristic as defined by the Federal Resource Conservation and Recovery Act (RCRA). Sediment in Lake Whetstone contained polycyclic aromatic hydrocarbons (PAHs, organic compounds with varied toxicity) the last time it was dredged. Where will the dredge be placed after removal? Will sediment be monitored in the future?

PROVIDE WATER METRICS TO RESIDENTS

Residents downstream of the stormwater ponds are concerned that changes to the storage capacity of the ponds and upstream areas may negatively impact the integrity of the high-hazard earthen dam retaining the ponds, threatening their homes and safety. Information should be provided about the existing capacity of the ponds (in cubic feet of water), the projected increase in the volume following dredging of Cell 1, and the volume of the proposed lower flood plain water storage area above Dennis Ave.

Residents should also be told the existing threshold level in Cell 3 that triggers outflow to Wheaton Branch below the downstream riser and the new, lower threshold level that will trigger outflow after the proposed work is completed.

Climate change is causing more extreme rainfall events, resulting in flashier storms. It is not just the total volume of water in a rain event, but the speed of rainfall and therefore instant volume as well as the speed of the flow that are concerning. Residents would like to know the current and projected flow rates after mitigation along the following sections of Wheaton Branch:

- concrete channel along Bucknell Drive
- proposed lower floodplain area just upstream of the Dennis Avenue bridge
- outflow from the riser in Cell 3

ADDRESS PROJECT IMPACT ON DOWNSTREAM AREA

The current proposal does not address the effects of the project on Wheaton Branch downstream, particularly the area immediately downstream of the ponds. If more, faster water is released from the Cell 3 riser, it may damage the streambanks along Woodman Avenue. While the residents immediately upstream of the Dennis Avenue bridge have suffered flooding, the residents immediately below the stormwater ponds face the threat of a dam failure. The county should address their concerns since they have so much at stake.

CONCLUSION

The Wheaton Branch Flood Mitigation project is an important step to reduce the damages caused by uncontrolled stormwater. The project could be more successful by looking beyond the immediate project area and incorporating green infrastructure projects both above and below the project area to slow stormwater even more. The project could gain community support by providing more information to the public regarding sediment toxicity testing, water volumes and flow rates.

FIGURES



Figure 1. Concrete channel along Bucknell Drive.



Figure 2. Concrete channel feeds directly into Evans Parkway neighborhood park.



Figure 3. Wheaton Branch stream bank in need of stabilization.