Takoma Park City Council Meeting – March 16, 2022
Agenda Item 1

Presentation
Presentation of a Community Science Fellow Project – Assessing How to Prioritize Stormwater Infrastructure Under a Changing Climate

Recommended Council Action
Hear the presentation

Context with Key Issues
In 2019, Councilmember Dyballa notified the Department of a program facilitated through the Metropolitan Council of Governments, where municipalities could request assistance through the Thriving Earth Exchange to be partnered with a Community Science Fellow who would identify a student scientist to assist the City with a project. The City requested assistance in developing a systematic approach for assessing existing stormwater infrastructure capacity to prioritize infrastructure improvement projects to enhance resilience in light of climate change.

In the spring of 2020, the City was partnered with Gustavo Coelho, a PhD student in the Department of Civil, Environmental and Infrastructure Engineering at George Mason University through Kathryn Semmens, the Science Director of the Nature Nurture Center. The project description was to develop and calibrate a model using GIS and hydrology modeling analysis. Mr. Coelho applied climate and precipitation models to identify possible locations where the existing stormwater infrastructure would not be sufficient to meet the higher rainfall events. The project scope was narrowed to focus on the southern portion of the City. Mr. Coelho will present his project and analysis to the Council.

Council Priority
A livable Community for All; Engaged, Responsive and Service-Oriented Government

Environmental Considerations
The impacts from climate change on the City's ability to manage stormwater is an increasing concern and it is essential for the City to prioritize those areas where the impacts will be most greatly affected, in advance so as to facilitate implementation of projects and programs to address those area and build resiliency.

Racial Equity Considerations
The City's initial analysis of the existing stormwater infrastructure overlaid on maps illustrating areas with lower socio-economic factors did not show evidence of inequity in the distribution of the system. Communities most vulnerable to climate impacts tend to be the least prepared to manage and recover from the physical, economic, mental, and social devastation climate change can cause.

Attachments and Links
Presentation

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