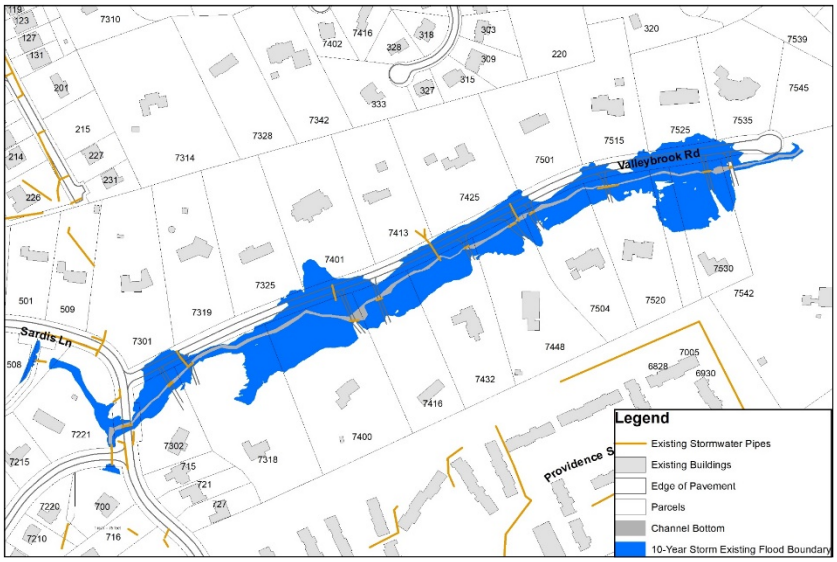
Valleybrook Storm Drainage Improvement Project
Public Meeting March 1, 2022
Questions/Answers

Q: The flood map included in the presentation does not show the flooding at the end of the street.

A: The map shown below from the public meeting presentation does not depict flooding from backwaters from McAlpine Creek as determined by FEMA.



The map shown below does include the flooding from McAlpine Creek. The FEMA 100-year floodplain from McAlpine Creek does not affect flooding on the upstream sections of Valleybrook Road.

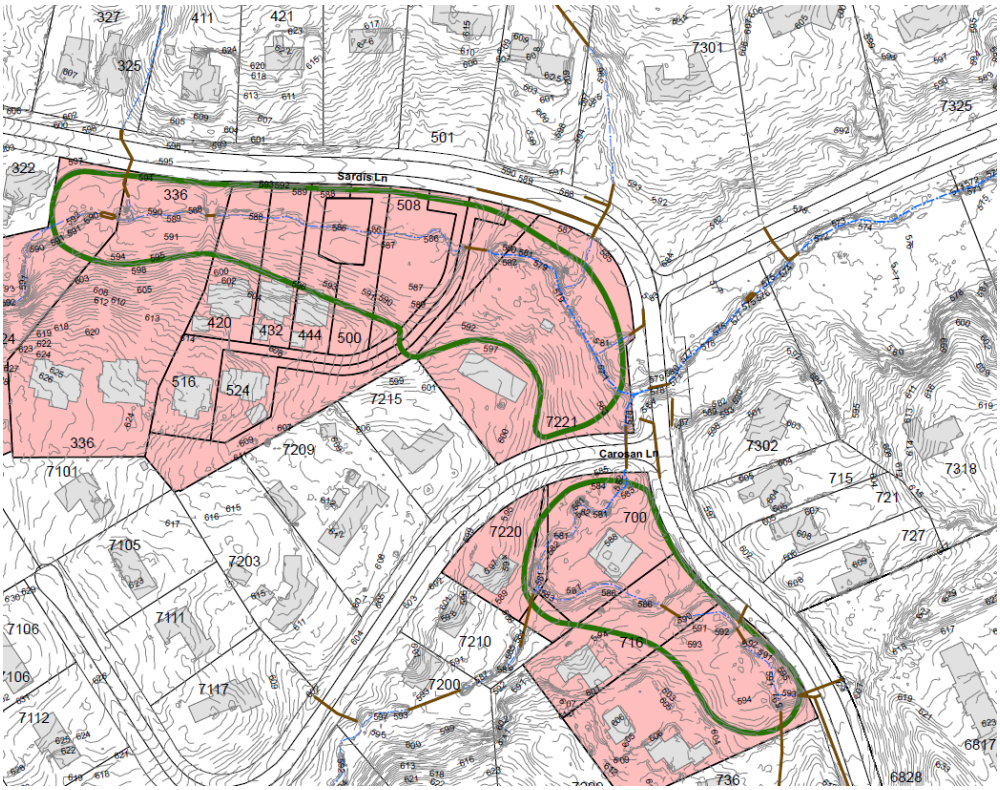
Q: The real problem is that we have too much water coming from upstream developments - those developments need to be forced to address this issue. The city needs a watershed plan.

A: There are a variety of upstream developments and larger homes in this project area. Storm Water Services does not control zoning or development regulations. These regulations are established by a larger set of stakeholders, committees, and elected officials. New subdivisions are required to install stormwater control measures which help detain the increase of stormwater runoff.

Individual single family home construction or renovations are currently not regulated by these ordinances. Storm Water Services cannot require developments or property owners to go beyond existing regulations to manage stormwater runoff.

Q: Instead of doing this project, the city needs to install a pond upstream of Sardis Lane.

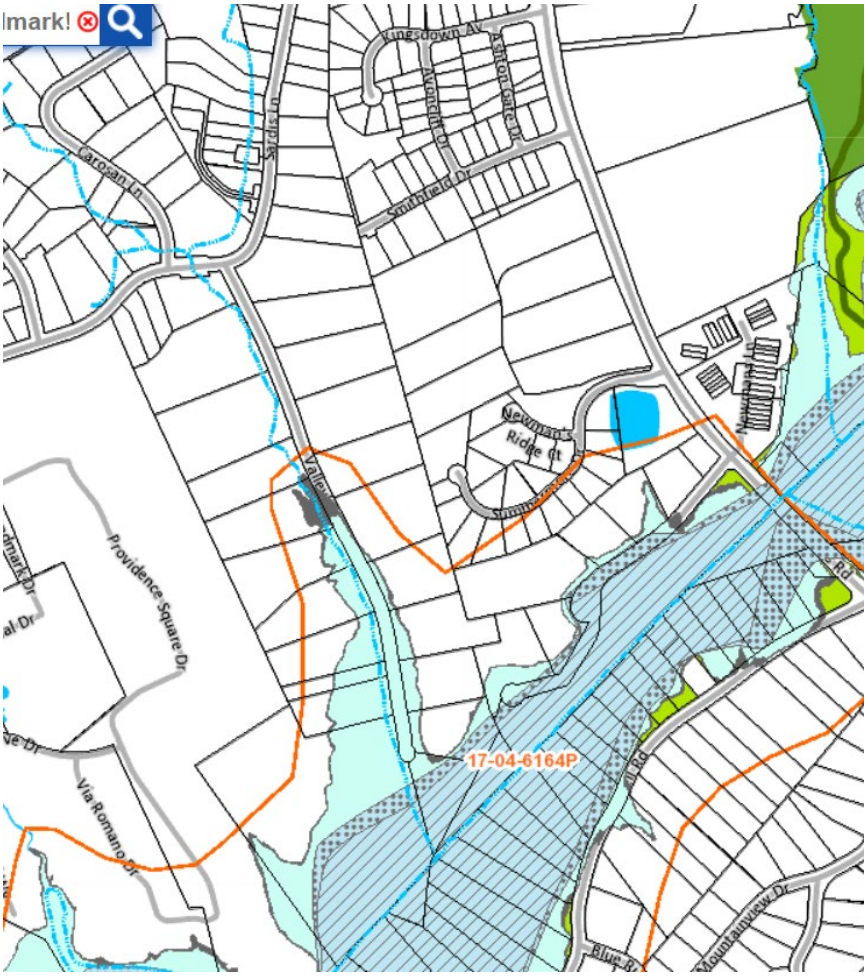
A: Due to the feedback received during the meeting, the city further explored the amount of detention needed to manage roadway flooding on Valleybrook Road during the 10-year storm event. That detention area is depicted in green in the figure below. The preliminary costs to acquire real estate and construct the improvements are approximately $40 million and would impact multiple residential properties. Detention of flows upstream of Valleybrook Road is simply not a viable option for the project to consider.



Q: The City's project does not address the issue of flooding that occurs from McAlpine Creek. Water backs up there and doesn't allow Valleybrook Road to drain.

A: This location of McAlpine Creek drains approximately 26,000 acres compared to approximately 400 acres that drain to the end of Valleybrook Road. This project is intended to reduce street flooding caused by water draining to Valleybrook Road. It cannot and is not intended to address the flooding of McAlpine Creek.

Pictures and video shared after the public meeting depict flooding on lower parts of Valleybrook Road due to the flooding of McAlpine Creek during Tropical Storm Florence. That storm was an extreme event with over 10 inches of rain at a nearby rain gage. 100-Year McAlpine Floodplain extends up to 7425 Valleybrook Road as depicted in the picture below.



While addressing McAlpine Creek flooding is beyond the scope of the Valleybrook Road Storm Drainage Improvement Project, raising the roadway along the lower portions of Valleybrook Road would help reduce some roadway impacts associated with McAlpine Creek flooding.

Q: Raising the road does not address our driveways flooding and could cause flood elevations on our property to increase.

A: Upsizing driveway culverts alone does not address flooding of Valleybrook Road or driveways as the creek itself would need to be widened with any driveway culvert size increase. Raising the road without adding any additional pipe or channel capacity to carry the flow would not significantly impact property flooding but would result in yard flooding depth to increase by up to 11 inches in some locations during a 10-year event.

Based on feedback received from residents, additional alternatives or combinations of alternatives will be investigated. A future public meeting will be scheduled to discuss findings from those alternatives.