FAQs – Rock Creek Flood Study

Nord Small Communities Flood Risk Reduction Program

Why doesn't the County do something about the problem?

Great question and one that we receive a lot. There are three primary reasons why the County has not taken a sustained action in the watershed; 1) lack of real property rights; 2) no sustained funding for capital improvements or maintenance operations; 3) lack of technical design and/or environmental permitting. The County has received temporary access for certain locations during emergency conditions, but individual land owners own the channel, and there are currently no established easements. The County has very limited discretionary funds in general and does not have the capacity to expend discretionary funds for large efforts. Most programs with sustained maintenance operations and responsibilities have a designated funding source. While there may be good concepts and temporary efforts performed, a robust evaluation of technical options has not been performed. This current planning effort will provide a robust evaluation and provide detailed solutions for key locations.

How much is it going to cost?

Cost really depends on the solution. One of the objectives of this effort is to develop alternative solutions which will vary in both cost and level of flood risk reduction. The cost evaluation will be part of this feasibility analysis, and residents in the watershed will have the opportunity to comment and provide their preferred alternative based on available information. It is important to remember that funding will be needed to maintain the system, and the level of maintenance most likely will vary by alternative solution.

Why do we need another study when this has been studied so much? What is going to be different now?

The most recent evaluation was performed about 20 years ago. The planning process can be frustrating, but is critical to confirm decisions are made appropriately. The best outcomes for flood protection will consider the evolving flood channel conditions, incorporate contemporary modeling, use up-to-date engineering analysis, and consider existing residents' current desires when selecting feasible governance solutions. This planning process is also required for future grant opportunities for design and implementation of project solutions. This feasibility evaluation will be different in three important ways:

1. This evaluation will be significantly more detailed with more precise results.
2. This evaluation will provide an opportunity for resident involvement in alternative development and selection.
3. Technical design for the bifurcation is part of the project, which elevates the potential for implementation if "shovel-ready" implementation funding becomes available.

I'm not in a floodplain now. Why does this impact me?

It may not. However, based on observed flooding in recent years, and continued instability of the bifurcation, the flood risk has changed over time to include additional properties. Additionally, FEMA is currently in the process of updating the Flood Insurance Study and associated special flood hazard area maps (flood zones). Homes and parcels that have not been in a flood zone previously may be in a flood zone when those maps get updated. The current timeline is 2023 for the maps to become effective, and there will be opportunity to provide technical comments in that process.

If flooding is so bad, then why was my home/subdivision allowed to be built here?

Development within a flood zone is not prohibited, but certain provisions are required. These provisions include elevating homes out of flood depths and engineering to eliminate cumulative impacts to the surrounding area. Localized flooding from Keefer Slough overtopping its banks has been accounted for in certain subdivisions that are within or adjacent to the FEMA flood zones. The majority of the subdivisions were constructed in the 1990s, and requirements for subdivisions have increased since then. Additionally, the dynamics of the bifurcation were not fully understood due to access limitations and lack of governance for the system.

Isn't the new development causing all of the storm drainage/ flooding problems?

Subdivisions do have an urbanizing impact on stormwater runoff, but those impacts are mitigated to not discharge higher than the pre-developed condition for single storm events over a 24-hour period. Detention and retention ponds serve as attenuation mechanisms, and the 100-year storm is accounted for in these stormwater systems.

The primary cause of flooding is high rainfall intensity storms that arrive sequentially to saturate the soils and runoff yields are high. In 2019, it is important to remember the frequency and severity of atmospheric rivers that arrived in February.

What was the frequency of the floods in 2019? Was that a 100-year flood?

It is impossible to know the exceedance probability or return frequency of discharge events as there is no streamflow gage to accurately represent historical streamflow. That being said, evaluation of rainfall and potential antecedent moisture can help estimate a range of return frequencies. The Cohasset rain gage received rainfall over the course of 48 hours that is consistent with a 10-year return frequency. However, intense rainfalls occurred overnight that ran south-to north and didn't go over the Cohasset gage. It is estimated that the discharge event was between a 10- to 25-year event in 2019. A 100-year storm event would have significantly higher discharges than the 2019 events.

Who is responsible for flood management and channel maintenance in the Basin?

East of Highway 99, no one. There is no entity, district, or agency that has flood maintenance responsibility for Rock Creek or Keefer Slough. West of Highway 99, the Rock Creek Reclamation District has flood management jurisdiction over certain areas along Keefer Slough and Rock Creek.

Part of the process for the Rock Creek Flood Study will involve developing governance solutions for the area. A few elements that are needed to provide governance for this area east of Highway 99 include:

- Technical design

- Real property rights
- Regulatory permitting
- Capital and sustained maintenance funding
- Maintenance entity mechanism

These issues will be explored fully in the Rock Creek Flood Study process with the help of the community and a technical team that includes hydrologists, geomorphologists, geotechnical engineers, civil engineers, biologists, planners, and finance and management experts in public infrastructure improvements and services.