

Donaldson Run Civic Association - Tributary B Update – 2/5/20

Summary of Questions from the Meeting

What is a floodplain bench?

The floodplain is an area where the stream flows out of the channel during storm events. On the floodplain, water from the stream can spread out and slow down during higher flow events. A floodplain bench is a smaller section of floodplain, created in stream restoration projects when it is not possible to fully re-connect the stream to the floodplain (because of space constraints).

How far do the stacked stone walls from the Upton Street outfall extend down along the stream? The stacked stone walls do not extend along the length of the stream restoration area. They extend approximately 150 ft downstream from the outfall.

Is the July 8th storm considered an 100 year storm?

On July 8, 2019, 3.44 inches of rain fell at National airport, with approximately 3.3 inches falling in one hour between 9 am and 10 am, which is approximately 3.30 inches per hour intensity. Using [National Oceanic and Atmospheric Administration Precipitation Frequency Data System Atlas 14](#), the July 8th rainfall is approximately a 100-200 storm return period. Higher amounts of rainfall (4-5 inches) were recorded at other rain gauges in Arlington, but they are not official Nation Weather Service rain gauges.

How many large trees are planned to be removed?

The current plans identify 86 trees that will be removed. Twelve of those are larger than 24 inches, and 38 are less than 12 inches. The majority are tulip poplars. Fourteen of the trees are rated in poor condition. Only trees larger than 12 inches are given a condition rating. The County is planning to use trunk wrap, tree protection fence and root matting to protect trees during construction.

What size trees will be planted?

The new trees that will be planted will be in the ¾-inch to 1-inch caliper size range.

What is the plan to water/support the trees? The plants will have a 5-year warranty. The trees will be watered for the first year after planting.

Are you planning deer protection? Deer protection (Biodegradable tree shelters) will be used for the trees on the slopes.

When will the 100% plans be ready? We expect the 100% plans to be done in late spring.

What type of construction management will there be? Those of us on N. Upton street are concerned about access to the street and being blocked by construction equipment or vehicles.

The County will have a construction inspector and a construction manager. The construction inspector will be a contractor and the construction manager will be a County staff. The inspector will be on site full-time during the construction. The staging area is planned for the grassy area on N. Vermont St. Residents will have contact information for the construction manager during the project.

What happens if there is a big storm during construction? The construction contractor will be monitoring the weather in planning their work, and some construction activities can be planned during dry weather periods. There are also pump around and diversion systems that are used for stream projects as well.

What size of equipment will be used?

We understand the desire of the community to minimize the size of the construction equipment. However, the equipment will be sized so that it can safely transport and move the rocks and material that need to be used in the project. The contractor will be using the existing trail for access to the work area.

Will we do repairs on Tributary A at same time?

The County does understand the advantages to doing any needed repairs to Tributary A while Tributary B is under construction. We do not know at this time if this will be possible.

Will there be an arborist on site during construction? The project manager and construction manager work very closely with the County arborist during the tree removal phase.

Concern about slope along N. Upshur St. Generally, the center line of the proposed stream is aligned with the center line of the existing stream (as it existed in 2008). There are a few locations where the center line of the proposed stream shifts closer to the trail to protect the water line and the steep slopes on the north side of the stream. However, the existing trail will be replaced with a new 8-foot wide trail. During large storms, water will flow up and onto the trail reducing the energy of the stream. Erosion of the private property slopes on the trail side of the stream is unlikely to occur, and would require failure of the stone structures in the stream as well as erosion of the trail. Overall, modeling of the 100 and 500-yr storms also do not show an increase in the elevation of flood waters relative to the 2009 condition of the stream. If bank erosion occurs in the restored stream, the likely impact is to reduce the water level during storms since it would create more space for water to flow.