



Pollocks Branch

Walkable Watershed

healthy waters : healthy communities

Community Input Session

June 8, 2015





Purpose

Build on existing efforts to develop a Walkable Watershed concept plan and list of potential green infrastructure projects to improve water flow and pedestrian amenities in the lower Pollocks Branch Watershed.





Overview

- **Welcome**
(Dan Frisbee, City of Charlottesville)
- **Presentation**
 - **Project Overview and Watershed Information**
(Amber Ellis, JRA)
 - **Concept Plan Overview**
(Alisa Hefner, Skeo Solutions)
 - **Related Local Efforts**
(Matthew Slaats, The Bridge PAI)
- **Visit Stations to Provide Input on Plan and Capstone Projects**
- **Closing Remarks**

Meeting Purpose

Gather public input on a draft concept plan and project recommendations for improving walkability and stormwater management in the lower Pollocks Branch Watershed.



Partners and Funding

Partners



Funding

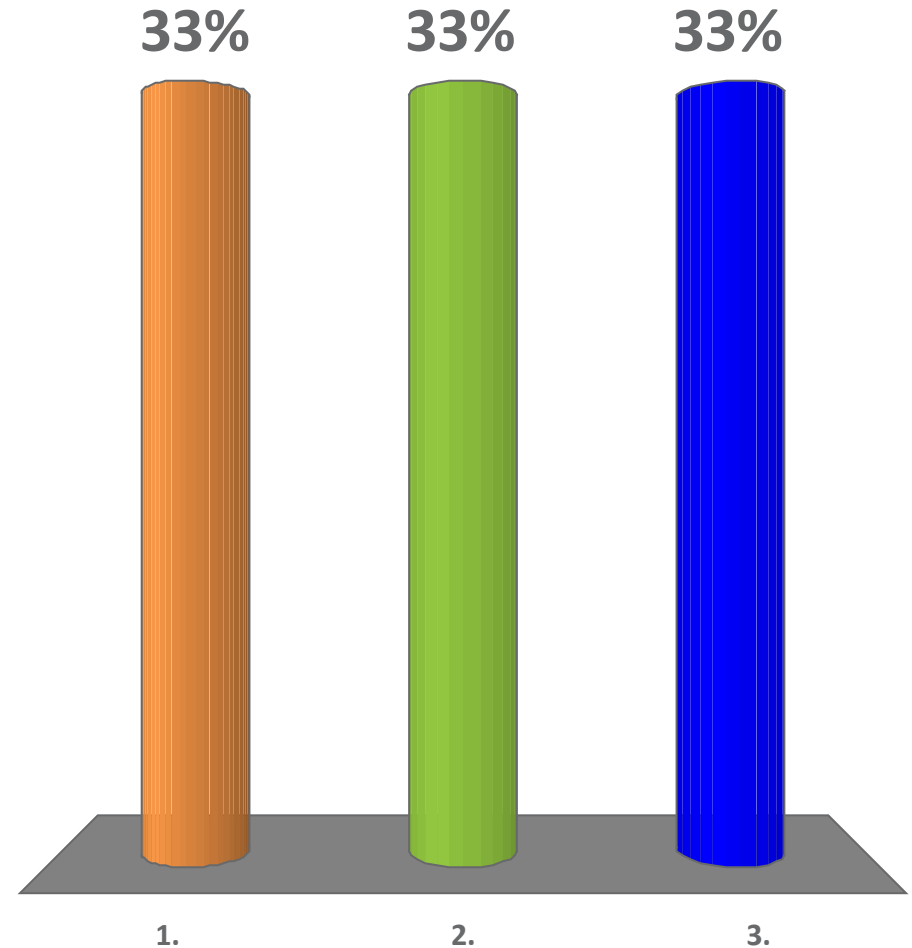




Have you ever used one before?

- A. Um...how do I turn this thing on?
- B. A couple of times.
- C. I'm an expert!

The June 8 Public Meeting incorporated audience participation polling. This slide is a placeholder and does not reflect actual polling results.

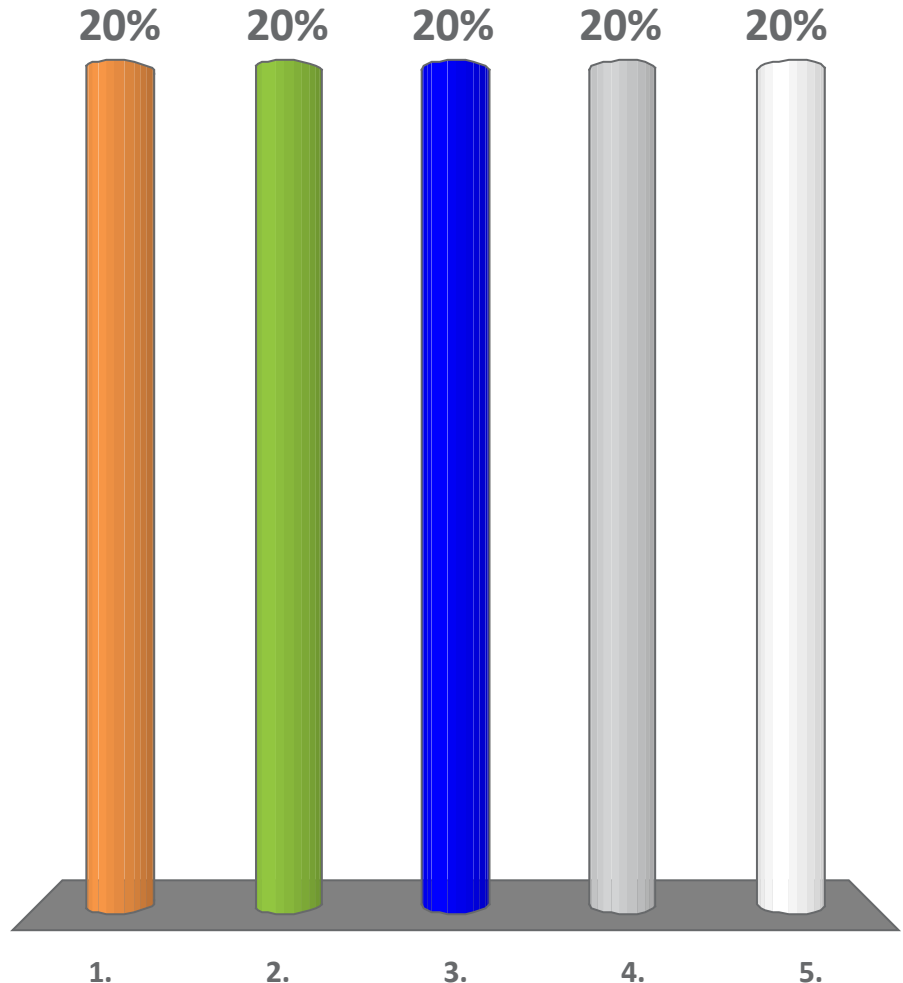




How long have you lived here?

- A. 0-5 years
- B. 6-15 years
- C. 16-30 years
- D. Over 30 years
- E. I don't live here

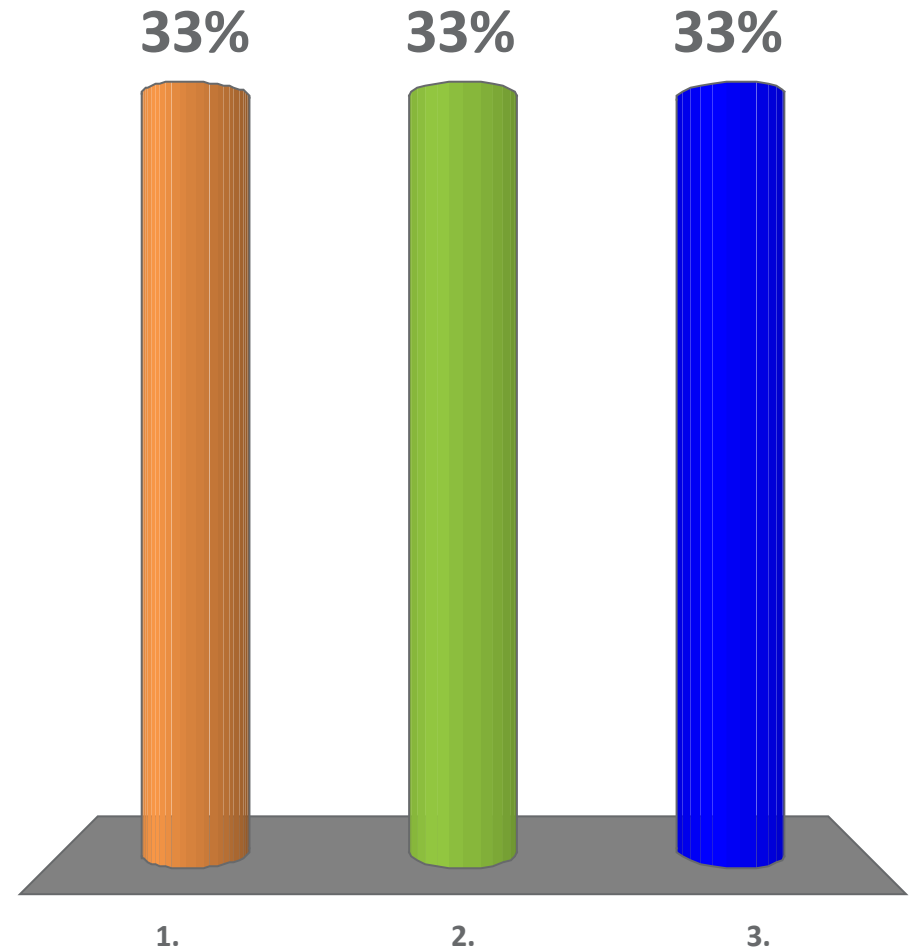
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What is a watershed?

- A. A shed that holds water.
- B. Area of land that drains into the same body of water.
- C. Water that pools in the street.

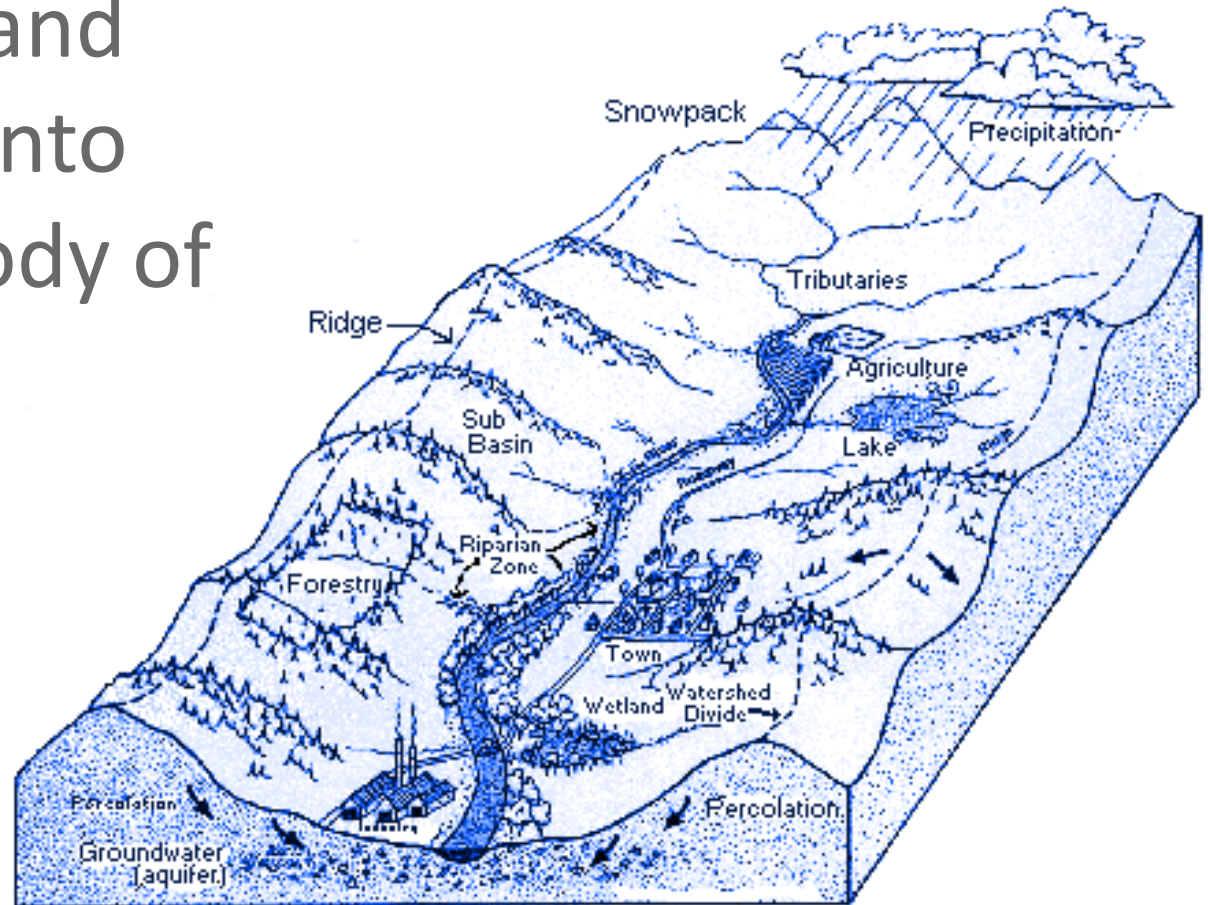


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A watershed is...

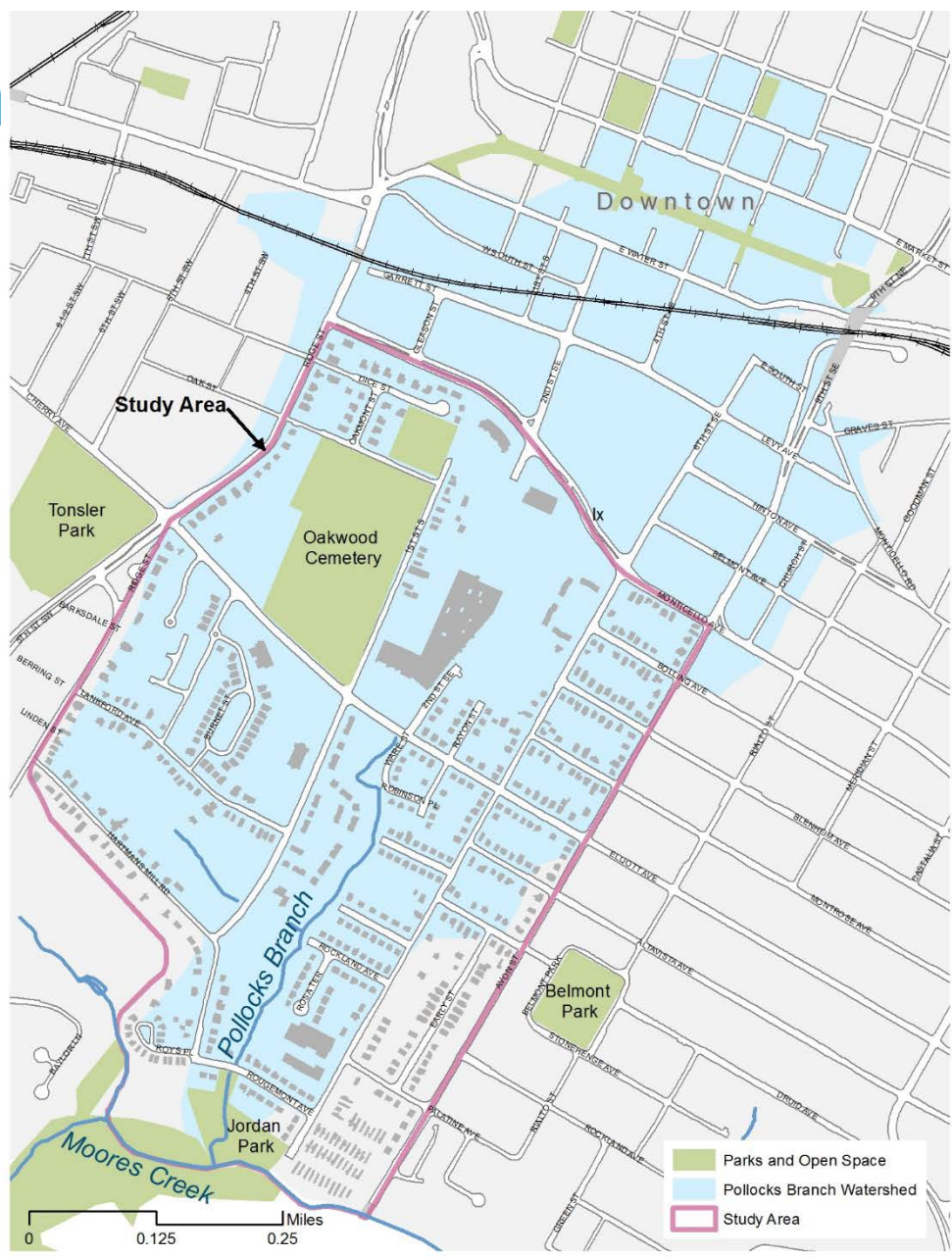
An area of land that drains into the same body of water.



Produced by Lane Council of Governments

Pollocks Branch Watershed

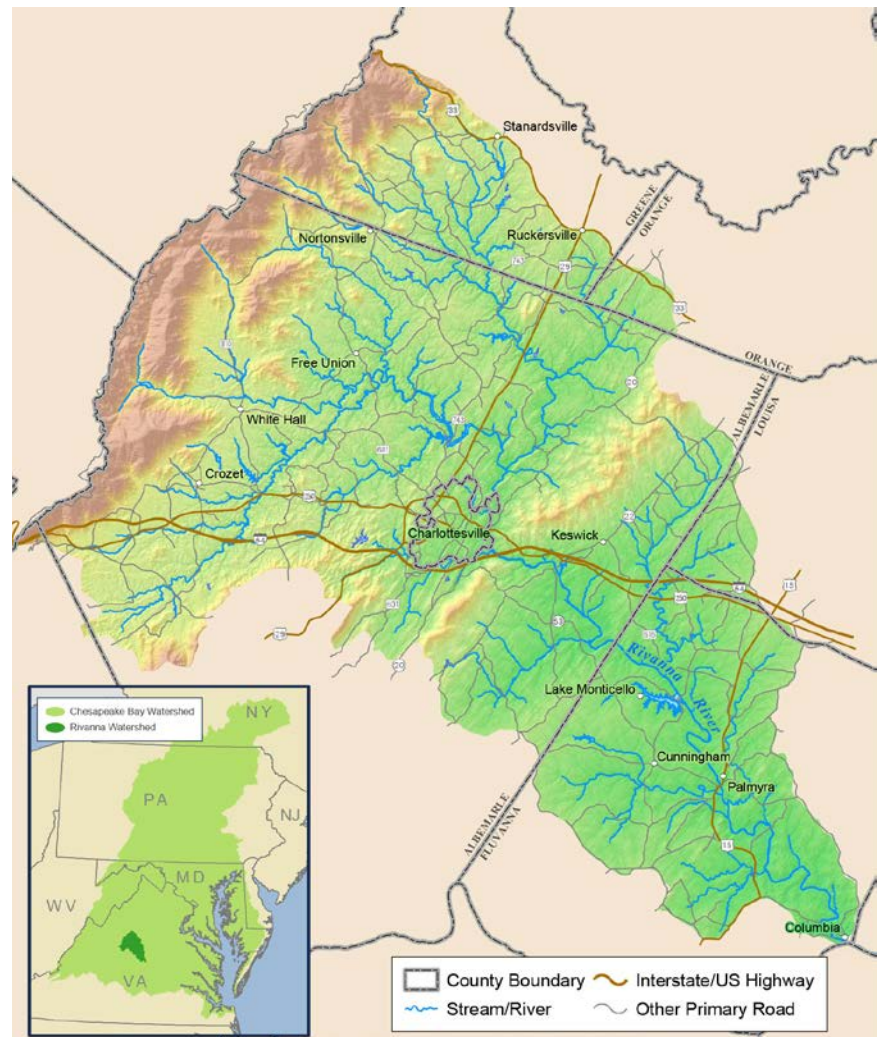
.48 square miles





Rivanna River Watershed

760 square miles

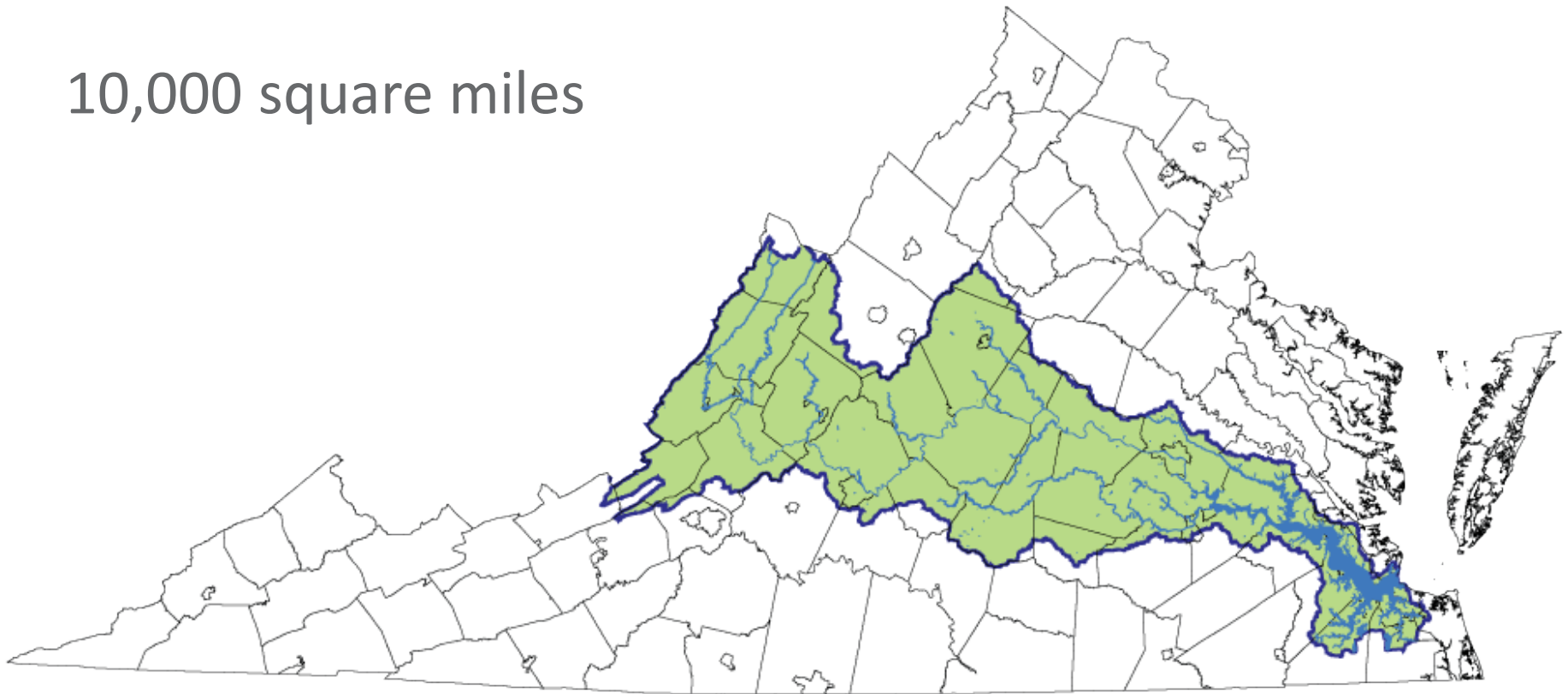


Source: Rivanna River Basin Commission



James River Watershed

10,000 square miles





Chesapeake Bay Watershed

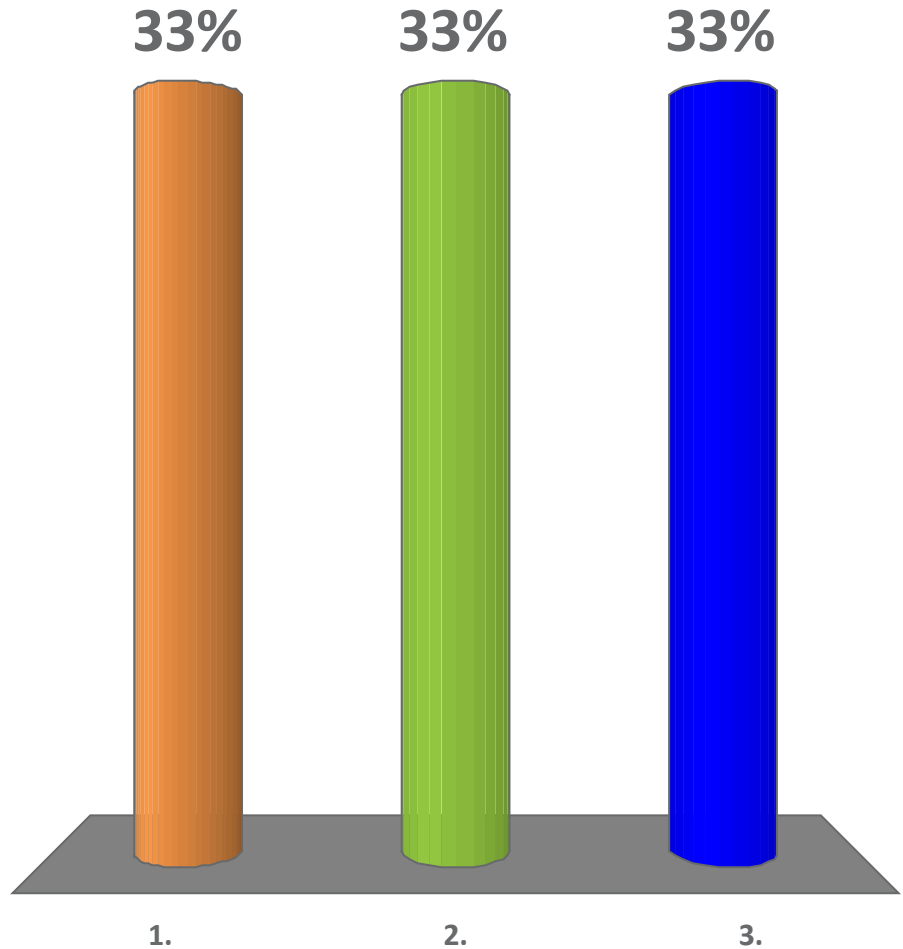
64,000 square miles





What is stormwater?

1. Rain
2. Rain that runs across land surfaces, often picking up pollutants along the way
3. Bottles of water that you have stored for an emergency

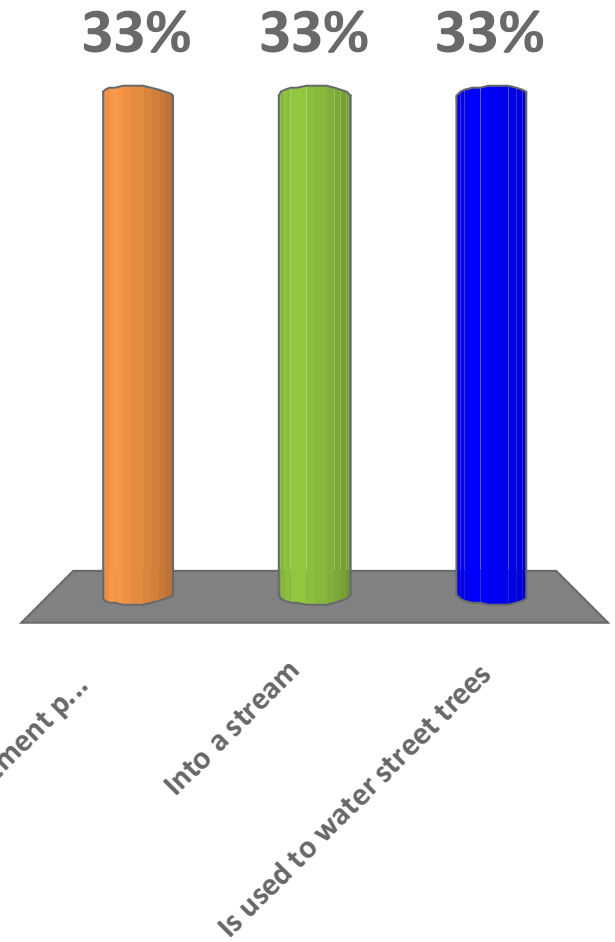


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Where does rain water go after it enters the storm drain?

- A. Wastewater treatment plant
- B. Into a stream
- C. Is used to water street trees



The June 8 Public Meeting incorporated audience participation polling. This slide is a placeholder and does not reflect actual polling results.

How does a rain drop travel through the community?

Rain water flows across the land surface and into storm drains



That water travels through a pipe and is released into a waterway

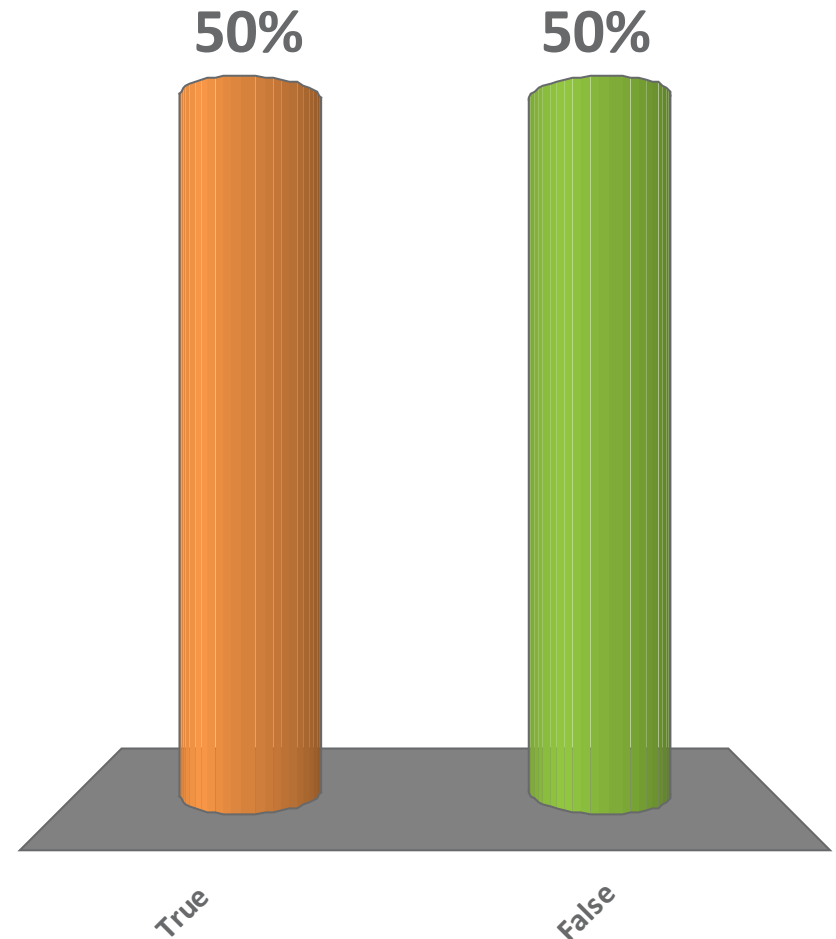




Stormwater does not come off my property.

- A. True
- B. False

The June 8 Public Meeting incorporated audience participation polling. This slide is a placeholder and does not reflect actual polling results.

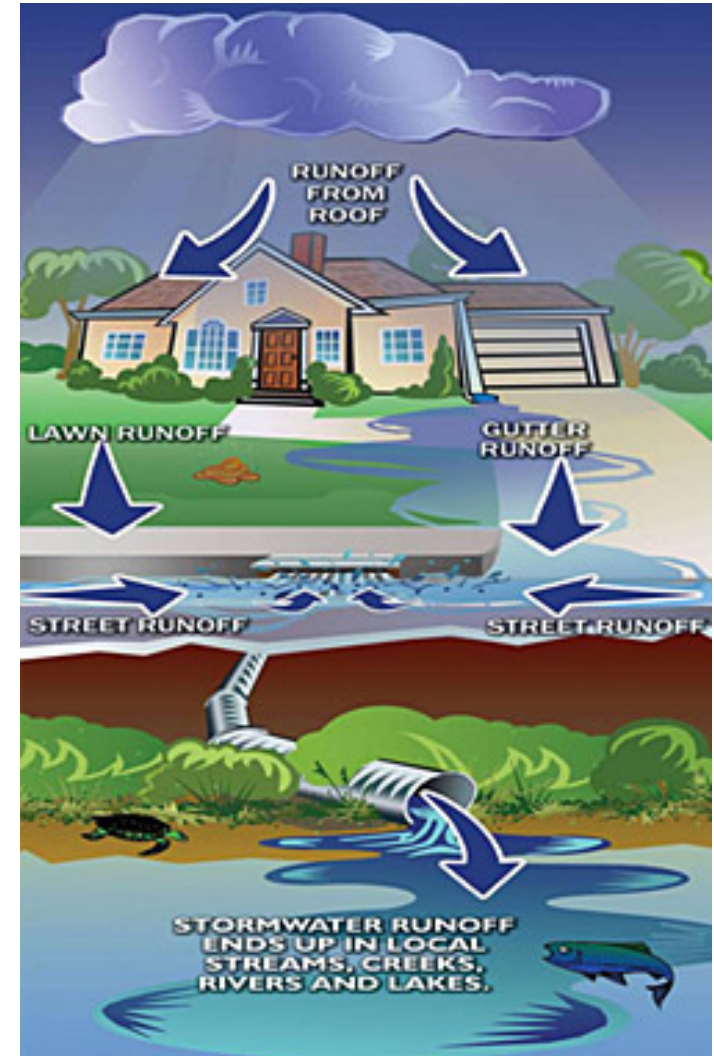




So what does it have to do with me?

Even if you can't see Pollocks Branch or the Rivanna River from your house, you can still impact its health!

The Rivanna River flows into the James River, which flows to the Chesapeake Bay.



Study Area Overview



Integrated Planning Approach

A Walkable Watershed integrates the flow of **water** and **people** into a cohesive strategy to improve the overall health of a community and the surrounding watershed.





Existing Plans & Initiatives

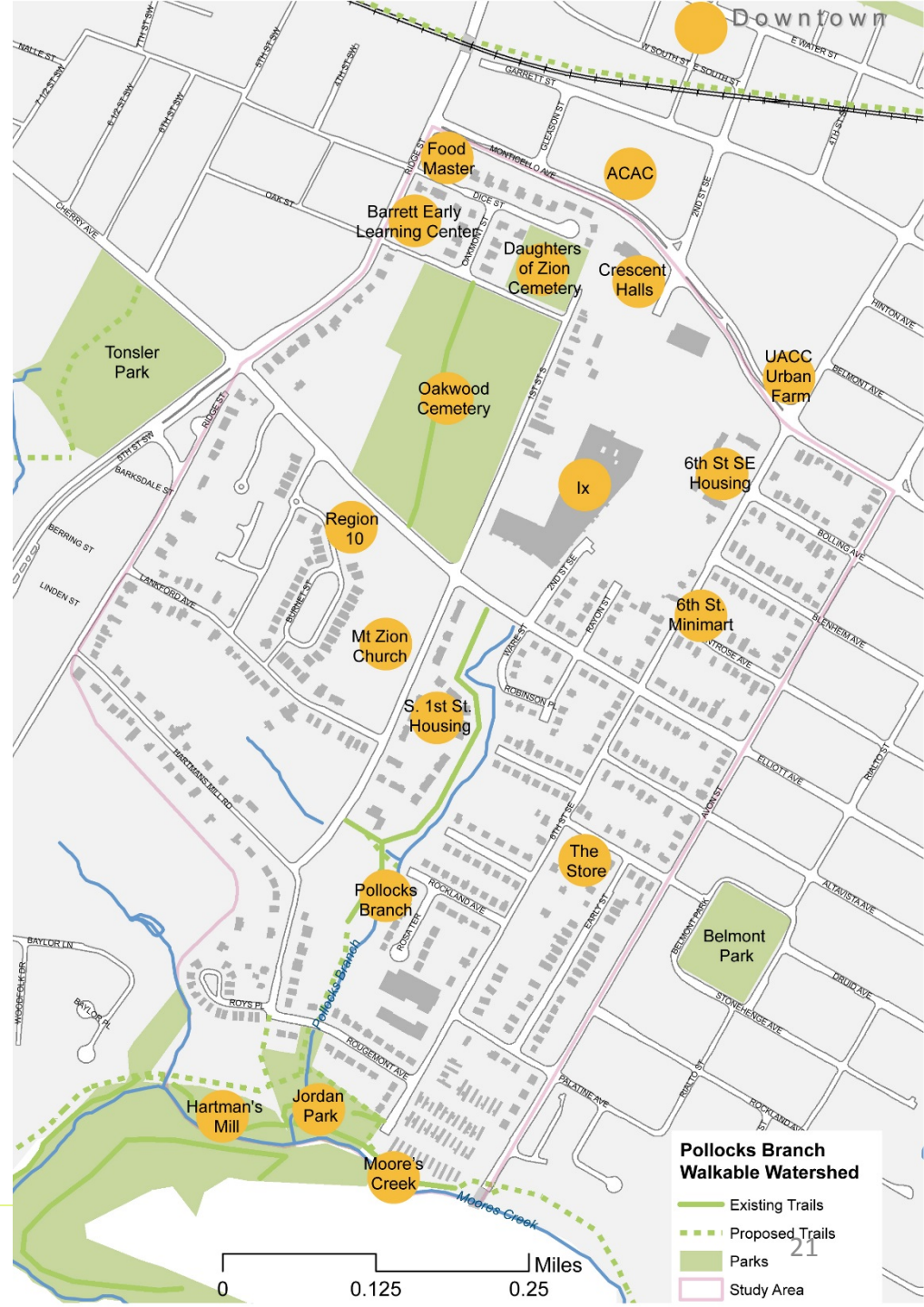
1. City park land acquisition
2. Monticello Avenue Bike Lanes and Pedestrian Crossings
3. The Bridge PAI community arts grant
4. Elliott Streetscape Project (Ridge to Ware St)
5. Moores Creek Trail (supporting Safe Routes to School)
6. Strategic Investment Area
7. City Green Infrastructure Effort
8. Stormwater Stewardship on Public Land – Jordan Park
9. UVA Class Project - Jordan Park Green Infrastructure Plan





Community Assets & Destinations

- Proximity to downtown
- Proximity to Elementary Schools (Jackson Via & Clark)
- Region 10 Community Services
- Public Housing – Crescent Halls, South First Street, and 6th Street
- Public open space: Jordan Park, Hartman’s Mill, Oakwood Cemetery, Rivanna Trail
- IX Art Park and businesses
- Pollocks Branch and Moores Creek natural environment





People Flow

1. Incomplete on-street connection to downtown and river due to missing sidewalks/safe crossings on major pedestrian routes.
2. Lack of trail connection to downtown, Jordan Park and river
3. Concerns with pedestrian safety crossing streets
4. Lack of creek crossing and steep banks
5. Limited Jordan Park access and connection to surrounding area





People Flow

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Water Flows

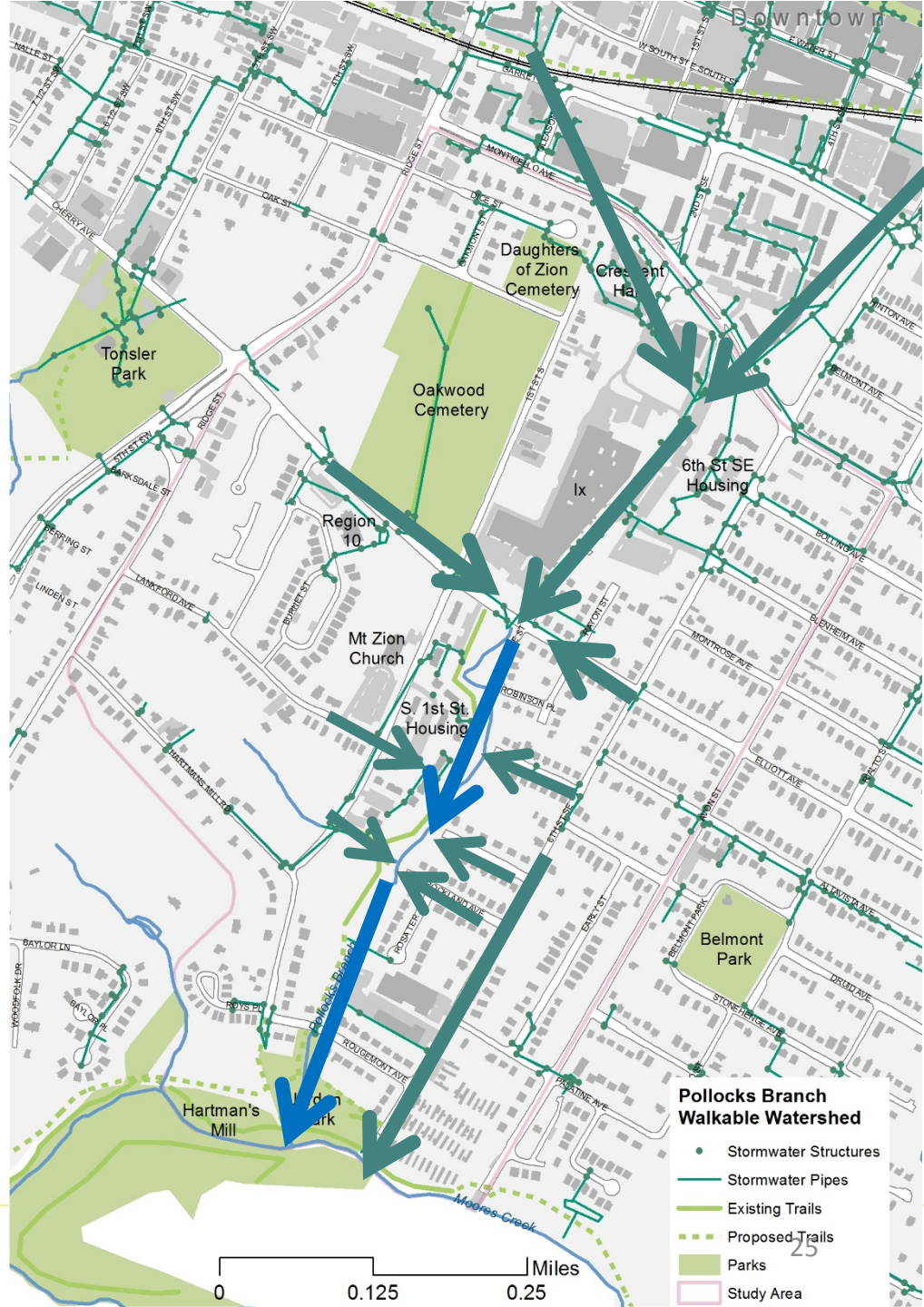
- Stormwater runoff flows through a series of pipes and drains to **Pollocks Branch**, which flows to **Moore's Creek**.





Water Flows

- Stormwater runoff flows through a series of pipes and drains to **Pollocks Branch**, which flows to Moores Creek.



Concept Plan

Projects that can address walkability, connectivity, and stormwater management simultaneously



Concept Plan Strategies

- 1. On-street Stormwater Flows –**
integrating natural drainage strategies into streetscape and infrastructure design to improve walkability and stormwater management.
- 2. Safe Crossings –**
integrating stormwater treatment and traffic calming measures at strategic intersections and greenway access points to improve safety and stormwater management.
- 3. Off-Street Stormwater Flows –**
incorporating rain gardens or swales to capture unmanaged stormwater runoff.
- 4. Trails and Greenways –**
establishing pathways to improve pedestrian and bicycle access to waterways and open space areas.
- 5. Promote Learning and Stewardship –**
celebrating the watershed and promoting stewardship through creative features such as signage and public art.





1. On-Street

On-street opportunities – where sidewalks and natural drainage strategies can be integrated to improve walkability

- Elliott Avenue
- 6th Street
- South 1st Street
- Avon Street

On-Street Opportunities

-  Primary
-  Secondary





1. On-Street



6th Street

Consider adding missing sidewalks and explore on-street stormwater management strategies



Avon Street

Consider adding missing sidewalks and explore stormwater management strategies with enhanced trail connection.



1. On-Street (Elliott Avenue)

Nearer term opportunities to improve walkability, connectivity and stormwater management:

- Move bus stop to creek crossing and improve bus stop amenities
- Prioritize area for storm drain painting (which might also provide traffic calming in this area)
- Add on-street demarcation of stream crossing under Elliott Avenue
- ✓ Add crosswalk on Elliott Avenue at South 1st Street
- Add crosswalk on Elliott Avenue at Ware St.
- Add a trailhead (see Pollocks Greenway)
- Modify road striping to narrow travel lanes to slow traffic
- Consider creating an Elliott Avenue Gateway to Pollocks Greenway

Longer term infrastructure upgrades to improve walkability, connectivity and stormwater management:

- Add missing sidewalks along north side of Elliott Avenue
- Integrate stormwater bump-outs with streetscape improvements or evaluate a curb cut and runoff diversion to a planted swale on Ix Property





1. On Street Opportunities

Green, Complete Streets enable **safe** access for all users and enhance **water quality** by cleaning and reducing stormwater runoff.

Swales are grassy or vegetated channels that safely hold and direct water from one place to another.



Green street



Curb extension retrofit



Water-filled planted swale during 25-year storm event



2. Safe Crossings

Safe crossings – where stormwater treatment can be integrated to provide safe walking and biking experiences

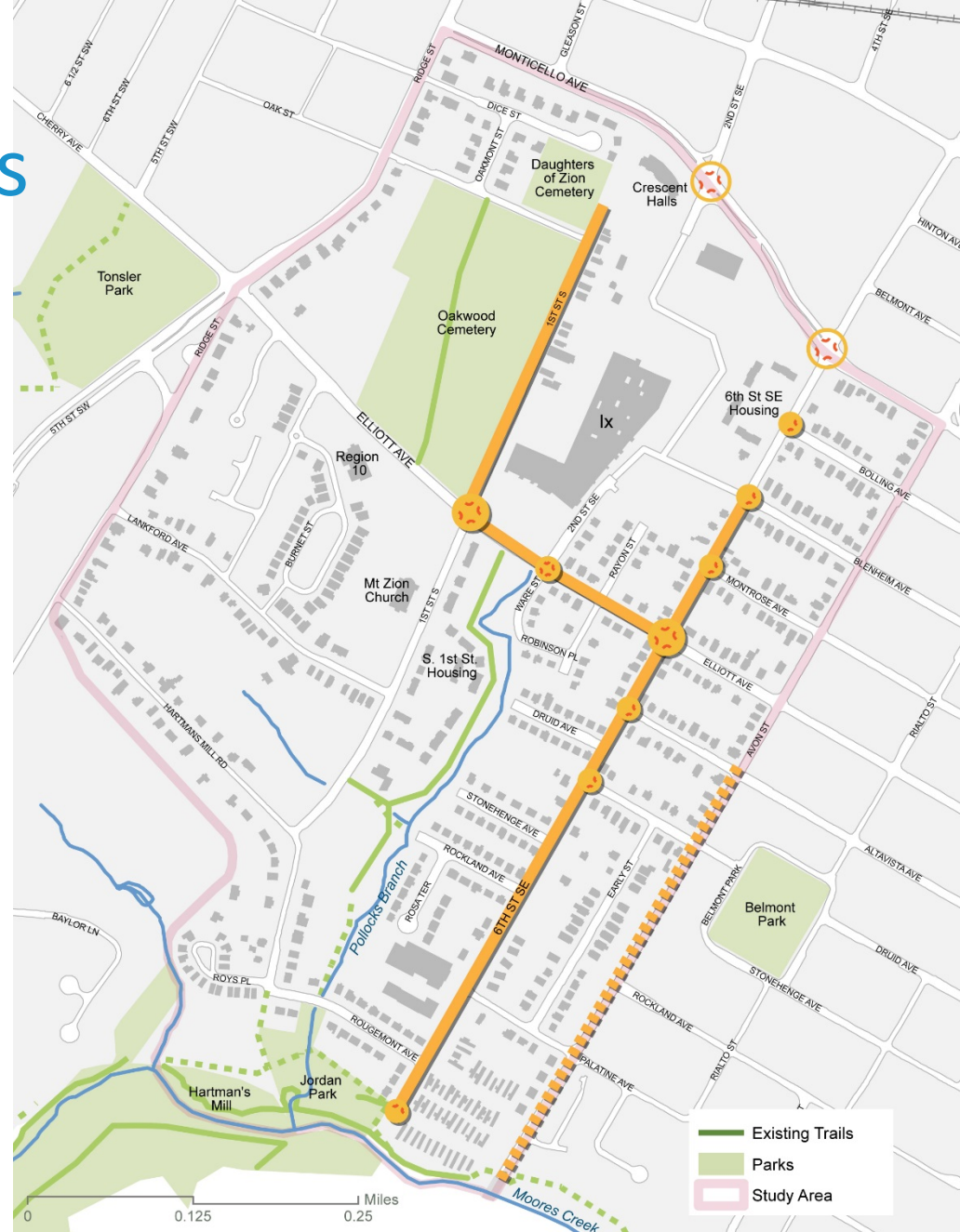
On-Street Opportunities

 Primary

 Secondary

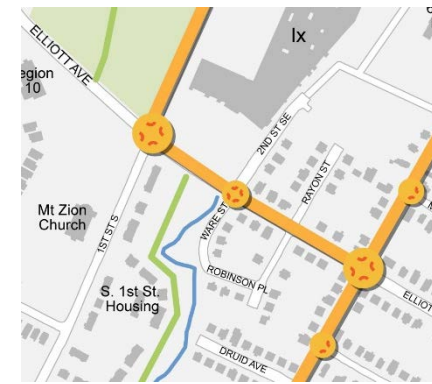
Safe Crossings

 Intersections





2. Safe Crossings



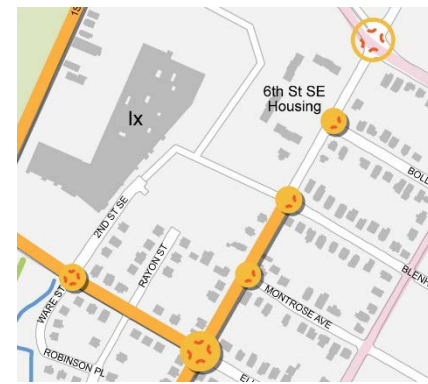
South 1st Street & Elliott Ave
(opportunity to integrate and improve bus stop with crossing improvements)



Ware Street & Elliott Ave
(informal crossing to Ix Property, opportunity to highlight stream underground)



2. Safe Crossings



Monticello Avenue & 6th Street
(informal crossing to Ix Property, opportunity to highlight stream underground)



6th Street Mid-block Nodes
(building on “LID Bulbout Rain Gardens” identified in Strategic Investment Area Plan)



2. Safe Crossings

Stormwater treatment can be integrated with safe pedestrian crossings.



Mid-block Stormwater Bump-out

Corner Stormwater Bump-out



Source: City of Philadelphia Green Streets Design Manual

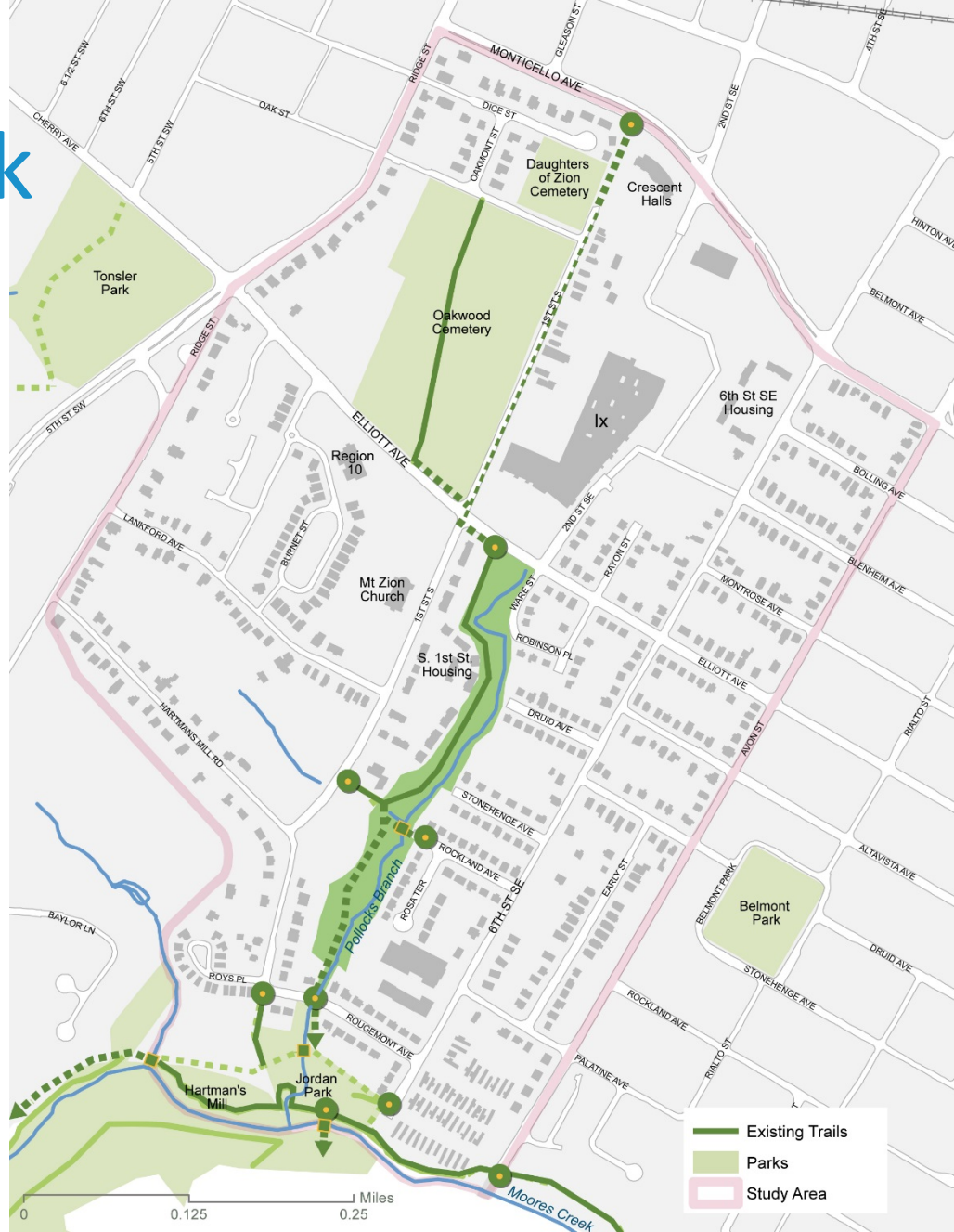


3. Trail & Creek

Trail & Creek Access – improve and extend trail access to connect the community to the creek and community amenities and to provide alternate routes connecting Jordan Park to downtown. Trail access points can be integrated with stormwater strategies.

Pollocks Branch Greenway System

- Potential Greenway Area
- Potential Greenway Extension
- Greenway Access Points
- Creek Crossing



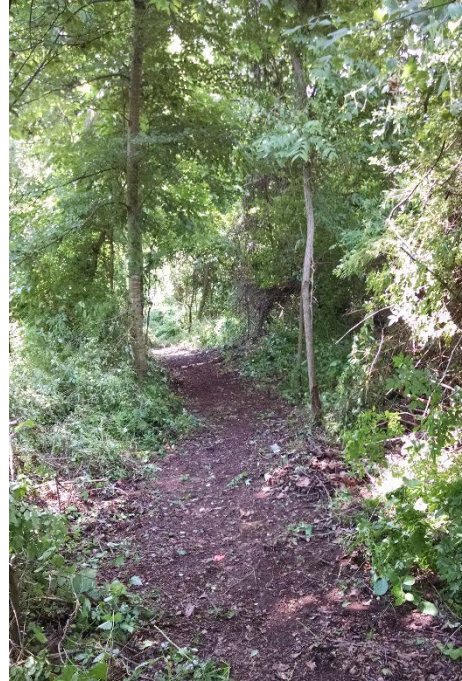


3. Trail Types



On-street trail system with signage

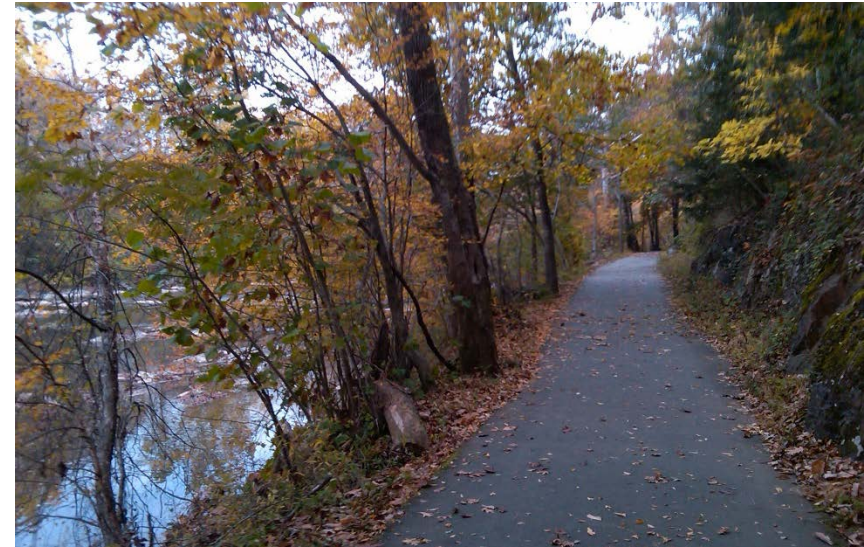
<http://familyride.us/>



Creek-side natural trail



Cross-creek connection



Creek-side paved trail



4. Off Street

Off-street stormwater opportunities – natural drainage opportunities that can be aligned with trail, park and neighborhood amenities.

- Natural drainage strategies at street ends along creek
- Natural drainage strategies at 6th St entrance to Jordan Park

Pollocks Branch Greenway System

- Potential Greenway Area
- Potential Greenway Extension
- Greenway Access Points
- Creek Crossing

Off-Street Stormwater Flows

- Planted buffers and bioretention





4. Stormwater Flow – Off Street

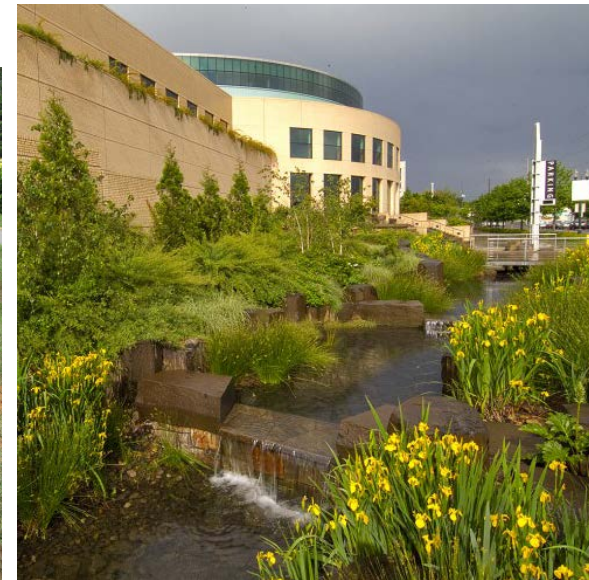
Rain gardens are planted areas that are sunk into the ground to collect rainwater runoff from urban areas (such as roofs, driveways and parking lots). Rain gardens can be added to front yards, public spaces and vacant lots.



Integrated into a community park (Greenleaf Park)



In public spaces with educational signage (Charlottesville High School)



Terraced rain gardens provide a visual attraction



5. Promoting Learning & Stewardship

Stormwater strategies can be designed to highlight how rainwater flows through the community to the river. **Creative features** such as signage, public art, bridges, crosswalks, storm drain inlets can be designed to celebrate the watershed.



Bridge reflects skeleton of native fish



Painted storm drains



Painted crosswalk



Concept Plan

- A. Monticello Avenue Connection
- B. Elliott Avenue Improvements
- C. 6th Street Improvements
- D. Pollocks Greenway
- E. Jordan Park Enhancements
- F. Avon Street Improvements
- G. Stormwater Treatment at Street Ends





Phasing

Potential sources of funding

| Project | Capital Improvement | Utility Fee | Volunteer / Community | Capstone (eligible) |
|--|----------------------------|--------------------|------------------------------|----------------------------|
| A. Monticello Avenue Connection | ✓ | ✓ | ✓ | ✓ |
| B. Elliott Avenue Improvements | ✓ | ✓ | ✓ | ✓ |
| C. 6 th Street Improvements | ✓ | ✓ | | ✓ |
| D. Pollocks Greenway | ✓ | | ✓ | |
| E. Jordan Park Enhancements | ✓ | ✓ | ✓ | ✓ |
| F. Avon Street Improvements | ✓ | ✓ | ✓ | |
| G. Stormwater Treatment Street Ends | ✓ | ✓ | ✓ | ✓ |
| Education and Stewardship | | ✓ | ✓ | ✓ |



Making Progress

- Elliott Avenue infrastructure improvements prioritized as part of the city-wide bicycle and pedestrian master plan.
- Pollocks Greenway improvements:
 - Clear trail (first phase completed on June 6, 2015)
 - Rougement Avenue connection planned for Fall 2015
- Add crosswalk on Elliott Avenue at S. 1st Street (complete)
- Monticello Avenue & 6th St improvements planned.
- Storm Drain Mural Project will begin summer 2015 (The Bridge PAI)



Capstone Projects

Projects that are eligible to be constructed with existing grant funding



Capstone

Specific Projects

A. Monticello Avenue Connection
Retrofit concrete stormwater channel at Crescent Halls

C. 6th Street Improvements
Jordan Park entrance stormwater improvements (on street)

E. Jordan Park Enhancements
Jordan Park stormwater treatment (on site)

Education and Stewardship
Educational components could be incorporated into capstone project

- Potential Opportunities**
- On-Street Opportunities**
 - Primary
 - Secondary
- Safe Crossings**
 - Intersections
- Pollocks Branch Greenway System**
 - Potential Greenway Area
 - Potential Greenway Extension
 - Greenway Access Points
 - Creek Crossing
- Off-Street Stormwater Flows**
 - Planted buffers and bioretention





A. Monticello Avenue Connection

Crescent Halls Channel Retrofit



Project Recommendation

- Retrofit existing concrete stormwater channel into natural drainage such as a planted swale.
- Include benches for residents.
- Consider plants that attract pollinators and birds.

Option

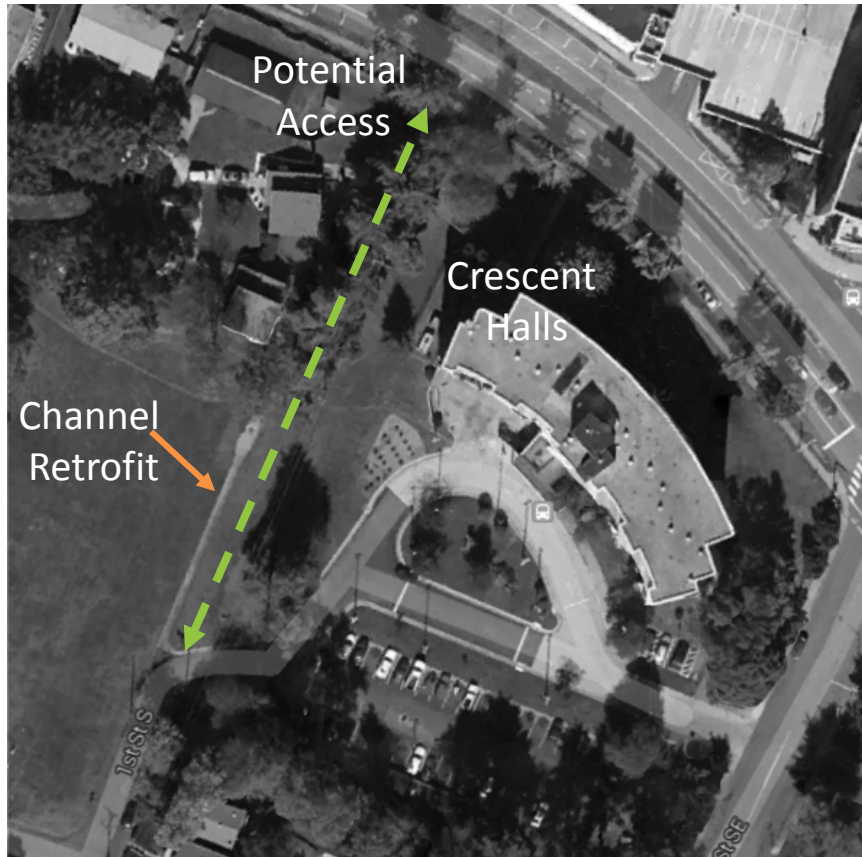
- Consider adding walking/biking connection to Monticello Avenue.





A. Monticello Avenue Connection

Crescent Halls Channel Retrofit



Capstone project recommendations



Planted swale with trail example
(Lynchburg, VA – Nelson Byrd Woltz)



C. 6th Street Improvements

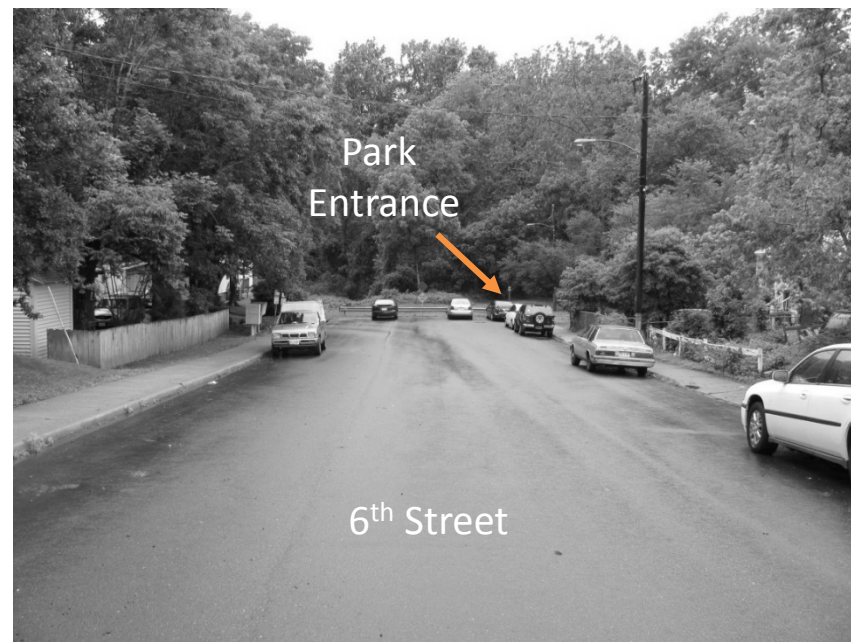
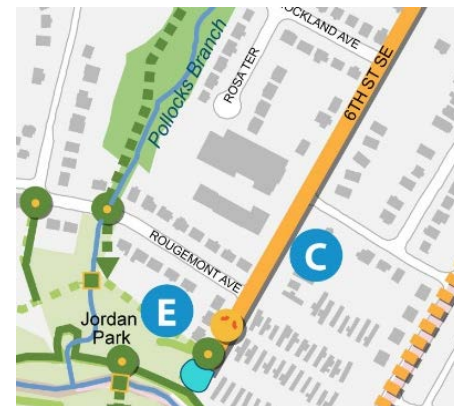
Jordan Park Entrance

Project Recommendation

- Integrate on-street treatment such as bulb-outs at end of 6th Street at Jordan Park entrance

Options

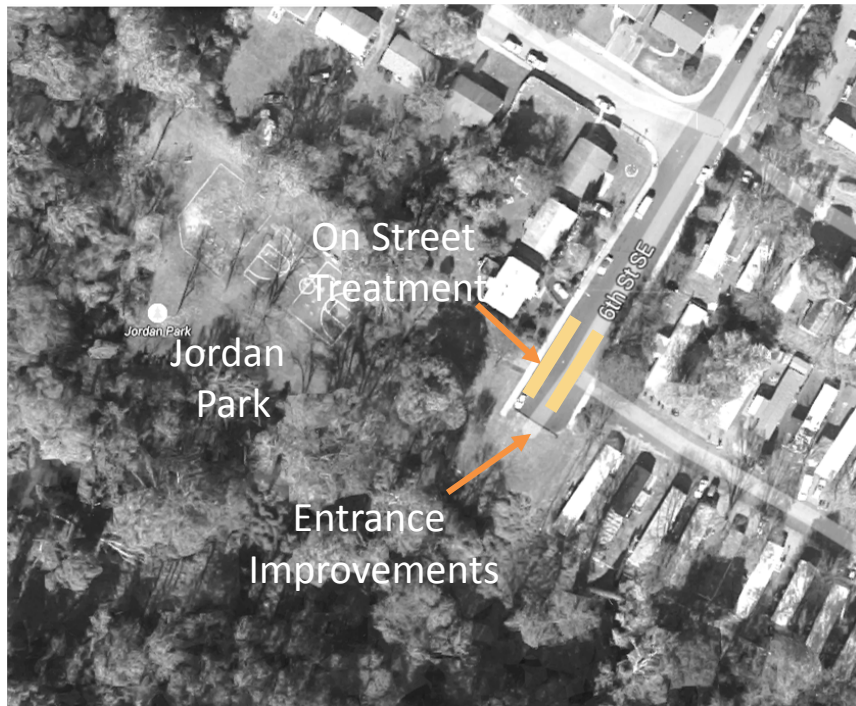
- Formalize parking spaces and park entrance
- Replace guardrail with more welcoming treatment, such as bollards
- Integrate education signage





C. 6th Street Improvements

Jordan Park Entrance



Capstone project recommendations



Example of a curb extensions to capture on street runoff



E. Jordan Park Enhancements

On-site stormwater treatment



Project Recommendation

- Natural drainage feature to slow and clean stormwater from large drainage area before it enters Moores Creek

Option

- Add footbridge crossing Pollocks Branch providing access to the park from the west and from the larger trail/bike route





E. Jordan Park Enhancements

On-site stormwater treatment



Capstone project recommendations



Example of natural drainage feature



Please share your initial preference for capstone project by voting for one of the three projects listed.

A. Monticello Avenue Connection

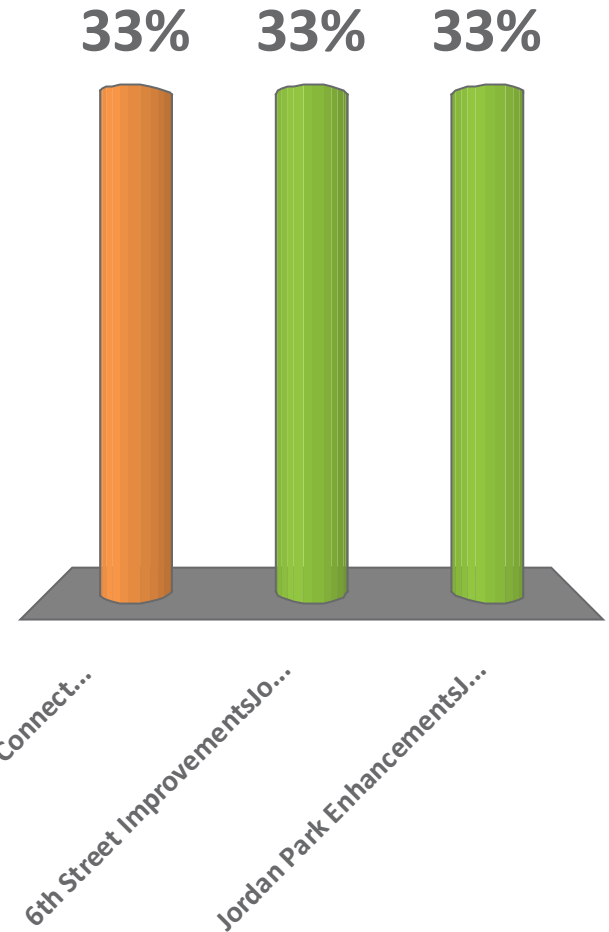
Retrofit concrete stormwater channel at Crescent Halls

B. 6th Street Improvements

Jordan Park entrance stormwater improvements (on street)

C. Jordan Park Enhancements

Jordan Park stormwater treatment (on site)



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Education and Stewardship

Educational components that could be incorporated with capstone project:

- Elliott Avenue – stream crossing demarcation, signage, kiosk, storm drain painting
- Creek overlooks
- Signage (signs highlighting the creek, Jordan Park, environmental education messages)
- Storm drain marking/art



Painted storm drains



Painted crosswalk



Signage



Storm Drain Mural Project



STORM DRAIN MURAL PROJECT



Discussion

- Visit stations
 - Concept Plan – Anything missing?
 - Capstone Projects - Any refinements or design suggestions?
- Any questions before visiting stations?



Polling

After visiting stations, please share your preference for capstone project by voting for one of the three projects listed.

A. Monticello Avenue Connection

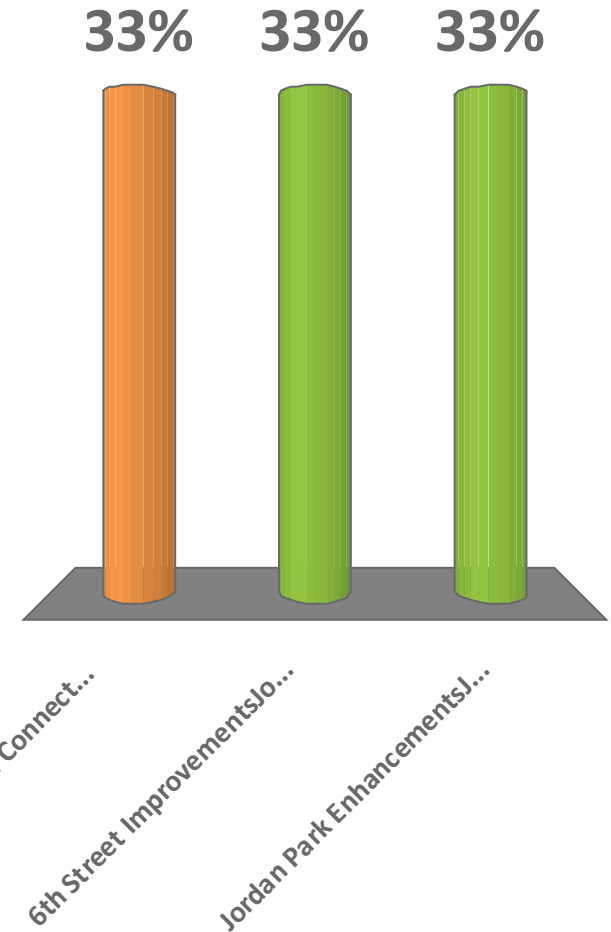
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Next Steps

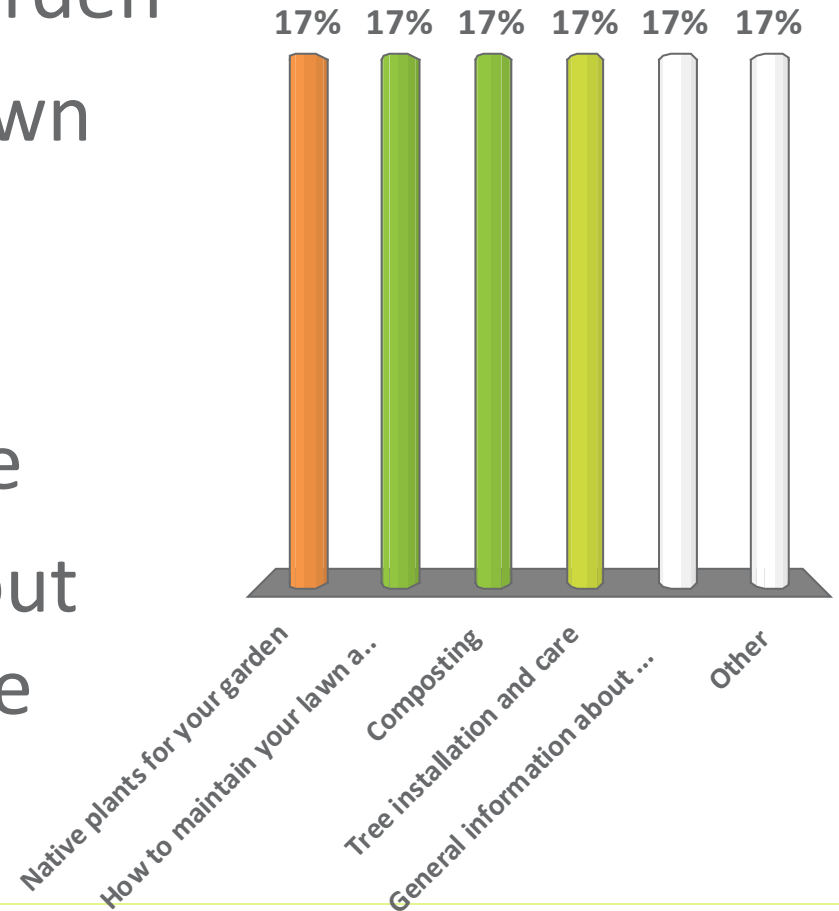
- Develop Final Concept Plan
- Move forward with implementation of the Green Infrastructure Capstone Project
- Staying involved –
 - Resident workshop (JRA)
 - Concept plan and capstone project updates as part of regularly scheduled community meetings (such as Ridge Street Neighborhood Association, CRHA Resident Meetings and The Bridge PAI events)



What type of resident workshop would you attend?

The June 8 Public Meeting incorporated audience participation polling. This slide is a placeholder and does not reflect actual polling results.

- A. Native plants for your garden
- B. How to maintain your lawn and garden
- C. Composting
- D. Tree installation and care
- E. General information about what you can do at home
- F. Other





For more information

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Or visit: www.walkablewatershed.com/charlottesville