Walkable Watersheds

A Guide to Community-based Watershed Planning

December 2017

Contents

Walkable Watershed is a community-based planning approach that integrates neighborhood and watershed investments to improve water quality and community health.

Acknowledgments

Introduction

Welcome!

In 2011, Skeo launched the Walkable Watershed Initiative, partnering with the James River Association (JRA) on the first pilot in Richmond, VA. Building on that success, JRA teamed with Skeo to secure funding through the National Fish and Wildlife Foundation to develop Walkable Watershed plans for three additional communities in the James River Watershed: Charlottesville, Lynchburg and Petersburg.
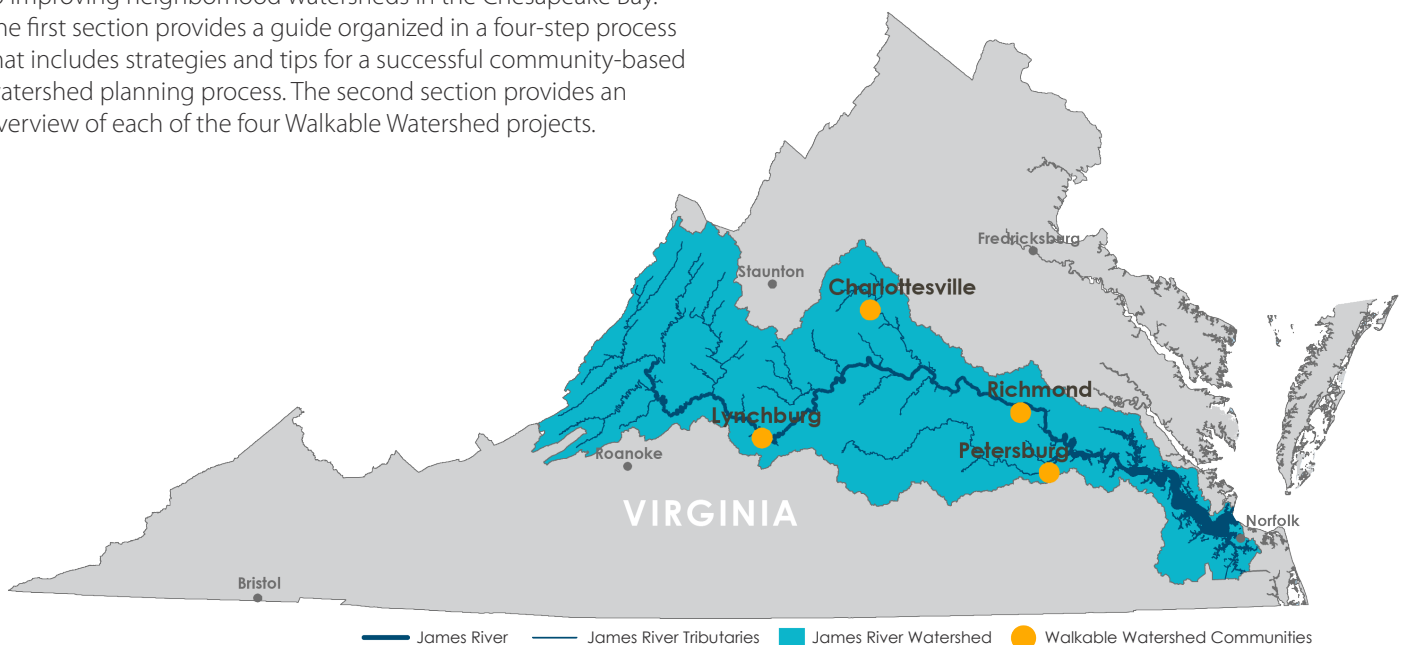
The Walkable Watershed initiative has assisted these three localities in meeting watershed management goals and regulatory requirements. The Chesapeake Bay Watershed Implementation Plans for these localities calls for specific reductions in nitrogen, phosphorus, and sediment. By identifying projects — such as permeable pavers, cisterns, and rain gardens — that reduce urban runoff (and thus also reduce pollution), this initiative helps achieve the Chesapeake Bay water quality targets. Participating in the Walkable Watershed planning process has also helped each locality meet its education and outreach requirements under their local Municipal Separate Storm Sewer System (MS4) permits. The Walkable Watershed planning projects have increased not only government staff and community awareness of stormwater issues through training and workshops, but also inspired meaningful community participation and long-term stewardship in stormwater improvements.

Reflecting on these Walkable Watershed projects, this document provides a guide and lessons learned for local government and watershed organizations to adopt a community-based approach to improving neighborhood watersheds in the Chesapeake Bay. The first section provides a guide organized in a four-step process that includes strategies and tips for a successful community-based watershed planning process. The second section provides an overview of each of the four Walkable Watershed projects.

Key Takeaways

Walkable Watershed is a community-based watershed planning approach that:

- **Integrates across programs to achieve multiple benefits at the neighborhood scale.**
- **Combines technical and stewardship goals to achieve better watershed outcomes.**
- **Brings everyone to the table by listening to community concerns.**
- **Develops a cohesive vision and concept plan to enlist partners.**
- **Leverages multiple funding sources.**
- **Generates fun and inspiration.**

VIRGINIA

Legend: — James River — James River Tributaries �in James River Watershed ● Walkable Watershed Communities

Walkable Watershed Guide

Overview to the Walkable Watershed Approach

While watershed planning is not new, Walkable Watershed provides a unique approach to watershed planning by linking environmental and social equity goals to develop a community-based vision and strategies to improve water quality, community health and neighborhood quality of life.

The Walkable Watershed planning process starts with collaboration to improve both neighborhoods and watersheds by integrating goals, stewardship and improvements from the ground up. The process brings members of a community together with watershed planners to develop a shared vision and set of priorities. The initial outcome is a watershed concept plan that helps to guide, coordinate and leverage investment to benefit both neighborhoods and waterways simultaneously. Benefits can range from increased health and safety to the well-being that comes from having access to outdoor space and clean, well-maintained waterways.

This section outlines a four-step process to develop a community-based Walkable Watershed plan. The steps are outlined below and described in more detail on the following pages. Each step includes action steps, tips learned through these projects, and explains how each step relates to watershed performance measures (see key to the right).

Process Key

✔ Action Steps

💡 Tips

🍃 Watershed Performance Measures

⌐ Project Highlights

1 **Build a Team**

Bring stakeholders together to guide and support the plan.

2 **Develop Shared Understanding**

Engage the community, planning experts and resource partners to develop a shared understanding of community needs and watershed issues.

3 **Develop Solutions**

Develop a shared vision and set of prioritized strategies across the neighborhood.

4 **Implement and Maintain Momentum**

The outcome is a watershed concept plan that helps to guide, coordinate and leverage investment in a community over time

1. BUILD A TEAM

The initial step in the planning process includes defining the project area and identifying a project team. The project area and team may be refined over the course of the project with new information and insights.

✔ DEFINE THE PROJECT AREA

Action Steps

☐ Focus on the neighborhood scale, which is typically a sub-watershed scale or a portion thereof.

☐ Include underserved neighborhoods in need of basic infrastructure improvements.

☐ Identify schools in the area and other important community destinations or centers.

☐ Find an area with an active civic association, neighborhood watch group, or other community initiative that has an active membership to engage in the process.

✔ FORM THE TEAM(S)

Invest time to assemble a project team that includes a combination of community, municipal and organizational partners who can assist with providing technical, on-the-ground and community insight throughout the project.

Action Steps

☐ A multi-stakeholder project team creates opportunities for community and organization leaders to develop working relationships with local government. Often, assembling the project team can lead to new collaborations, which did not exist before the project, but can extend beyond the project scope to other areas of community need.

☐ A cross-department city team can lead to new collaboration across city programs to deliver more integrated services at the neighborhood scale.

Be flexible and open to new opportunities over the course of the project. When setting up a backyard composting workshop in Charlottesville, we identified a new partner that became integral to the Walkable Watershed project.

Think outside the box to identify a diverse set of stakeholders to engage in the process. Consider people from the following types of organizations and what role they might play:

- City staff
- Other city agencies
- Community groups and civic leaders
- Community organizations
- Watershed organizations
- Schools
- Health department
- State and federal agencies
- Affordable housing groups
- Public safety representatives
- Potential funders

Focusing on building a team in this step of the process supports watershed improvement by expanding stewardship and funding options.

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2. DEVELOP SHARED UNDERSTANDING

Walkable Watershed projects are developed around community-based solutions to address stormwater and neighborhood issues. Success is measured by the degree of increased community stewardship which is built by deliberate and meaningful community engagement throughout the process.

GETTING STARTED

Conduct initial interviews and research to identify community leaders and organizations and gather initial ideas on effective strategies for engaging the public.

☐ Recognize that local government and watershed organization staff sometimes face challenges in engaging neighborhoods who may feel distrust due to a history of broken promises and lack of investment.

☐ Begin conversations by asking about community concerns and goals. Then, look for intersections with watershed health and water quality improvements.

☐ Introduce yourself and your organization to the neighborhood by sharing materials and highlighting what skills and services your organization can contribute.

Strategies to reach community leaders can include creating a brief survey to gauge interest, attending existing community meetings, hosting a community event or festival, and knocking on doors to get to know residents.

Engaging communities fosters stewardship and support for capital investments for water quality improvements. By utilizing green infrastructure projects that also address community needs, residents may have a greater appreciation for the value of green space and be inspired to become active in watershed stewardship.

GATHER INFORMATION

Early on, the project team gathers and compiles information about the project area to identify potential opportunities and constraints. Information may include spatial data (GIS), planning reports and studies and city staff interviews. The data can be integrated into a series of maps highlighting the following challenges:

• **Water flow:** map stormwater infrastructure and water features to show how water moves through the area along with issues related to local flooding and water quality.

• **People flow:** map walking routes with existing and missing sidewalks and bike infrastructure to show how people move through the area and gaps in community mobility conditions, including access to water features.

• **Connections:** map land uses and community destinations to identify connections within a larger context.

After compiling an initial map set, conduct a working session and tour of the project area with project partners to review and ground-truth the analysis, identify additional issue areas and convene a public meeting to meet community members, understand their needs and goals and enrich the map data with personal community knowledge and experience. The next section provides tips and strategies for engaging effectively with the community.
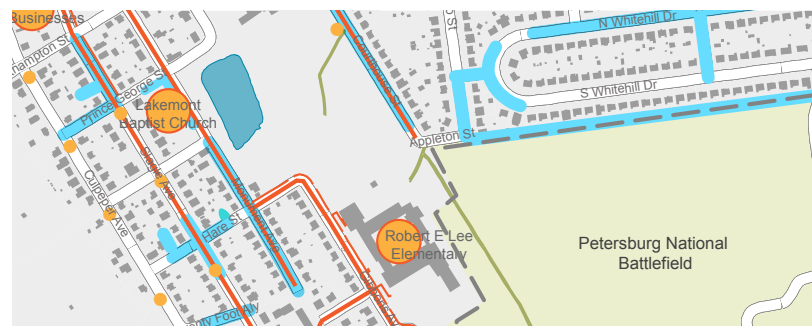
Map documenting community destinations, missing sidewalks and areas identified by residents that were prone to flooding.

✓ ENGAGE THE PUBLIC

Community meetings and events provide an opportunity for the project team, including municipal staff and resource partners, to hear first-hand the community's experiences, needs and priorities. It also provides an opportunity for the community to learn about the project and their watershed.

☐ Work with community leader(s) to identify the best meeting time and location for residents and gather their input on the outreach materials to ensure messaging resonates with the community. Ask if there are existing meetings planned that you could attend.

☐ Determine if interpretation will be needed and work with local interpreters when possible.

☐ Open conversations by asking about community needs and goals. Start with the community's broader goals and concerns. Ask questions: What community amenities are missing or need improvement? What makes walking challenging? How does the neighborhood view the creek?

☐ Connect water quality improvements with community quality of life and avoid technical jargon that may alienate residents from participating in the conversation.

☐ Communities lacking a visual or physical connection to a stream or river may need different communication strategies to help make the connection to water quality.

☐ Communities may also have negative associations with local waterways, such as concerns regarding safety and trash. If so, invite participants to also share a positive experience they have had with a waterway in a different time or location.

☐ Use inclusive language, such as residents rather than homeowners or citizens. Recognize that words may have different connotations, for example when one resident heard reference to "the project," they understood that to mean public housing rather than a capital infrastructure project.

☐ Be prepared to explain how community input will inform the project outcomes.

☐ Look for opportunities to convene a broad range of stakeholders on a community tour to identify strategies for improving the watershed and walkability in the neighborhood.

💡 Tap into the creativity and imagination of youth and teenagers to inspire a shared vision for the future.

☐ Engage young people in a way that meaningfully informs design decisions, such as drawing their ideas for neighborhood improvements or mapping their preferred walking routes and identifying impediments along the way.

☐ Integrating dedicated activities for kids at community meetings or events also provides an excellent education opportunity about water quality and grass-roots stewardship.

💡 Listen. Residents are local experts.

During the Lynchburg planning process, the City helped broadcast the initial public meeting with a large sign typical of road construction. This prominent and highly visible sign positioned on a major thoroughfare was very effective outreach in a community lacking local leaders and organizations.

In Petersburg, initial door to door surveys and visiting local churches helped the project team identify a community leader with the local neighborhood watch. Working with a trusted community leader and attending their pre-established meetings to map residents' personal experience of flooding helped build trust and increase public feedback and participation.

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3. DEVELOP SOLUTIONS

After identifying community goals and priorities, now the project team can seek solutions to those issues in the context of watershed restoration. During this step, the team develops a concept plan outlining strategies that integrate walkability and stormwater improvements throughout the neighborhood. Workshopping the recommendations ensures that the concept plan represents a shared vision among the community and diverse stakeholders that will be broadly supported and help meet watershed restoration goals.

✓ BUILD LOCAL GOVERNMENT CAPACITY

Most municipalities have extensive experience managing stormwater, but not all have used small-scale "green infrastructure" practices. Thus, local government staff may need assistance becoming more familiar with and accepting these newer methods of managing stormwater. Fortunately, for any community with stormwater regulatory requirements such as a MS4 permit, there is a direct incentive (because of multiple permit requirements) to involve members of the public in identifying and installing stormwater management retrofits. Consider the following strategies to build capacity among local government staff to evaluate, design, build and maintain green infrastructure.

☐ Go on field visits to practices already in the ground in other communities.

☐ Conduct work sessions with maintenance staff to talk through the long-term maintenance needs of these practices.

☐ Consult across departments to integrate staff perspectives and expertise from traffic engineering, stormwater design, bike/pedestrian mobility plans, watershed stewardship and planning.

☐ Quantify the pollution reduction credits available for using different green infrastructure practices.

☐ Include trusted experts with green infrastructure experience in the process of identifying strategies.

✓ IDENTIFY STRATEGIES

The table on page 7 provides a menu of green stormwater infrastructure strategies that can be considered when developing the Walkable Watershed concept plan. The project team can identify and evaluate a series of green stormwater infrastructure projects to respond to flooding and water quality issues, along with community needs. Exploring different options in a workshop setting with the community can help build community support and longterm stewardship for the final set of proposed projects.

☐ Focus on locations where community members have described existing problems that need to be addressed (e.g., flooding, erosion, speeding traffic).

☐ Identify where infrastructure improvements are already planned, where it may be more cost effective to integrate green stormwater infrastructure strategies.

☐ Focus on highly visible locations, where possible.

☐ Develop concept plans that are user-friendly with clear symbols and terminology.

☐ Incorporate photographs of similar projects or develop before and after images to illustrate proposed opportunities in key locations (see example below).

☐ Spell out the multiple benefits that each green infrastructure practice can provide at the specified location.

☐ Share a draft concept plan with the public to help prioritize strategies and develop design principles for the strategies.

In Charlottesville, before and after illustrations helped residents visualize the proposed improvements and provide input on the design options.

In Petersburg, examples from existing projects and diagrams showing helped residents understand how the strategies could reduce flooding.

before

after

GREEN STORMWATER INFRASTRUCTURE STRATEGIES

The table below outlines a menu of green stormwater infrastructure strategies and relative benefits for:

- Volume – reducing stormwater runoff quantity or volume
- Water quality – improving water quality
- Cost – cost versus stormwater management value of the strategy
- Maintenance – long-term annual maintenance needs
- Quality of life benefits – improving community quality of life

According to the U.S. EPA, "green infrastructure reduces and treats stormwater at its source while delivering environmental, social, and economic benefits." Source: www.epa.gov/green-infrastructure/what-green-infrastructure

Strategy	Volume	Water Quality	Cost	Maintenance	Quality of Life Benefits
GREEN COMPLETE STREETS[1]	Medium	Medium	$$$	Medium	Traffic calming, safety, aesthetics, crime prevention, curb appeal, shade
STORMWATER BUMP OUTS/ CURB EXTENSIONS	Medium	Medium	$$$	High	Traffic calming, planting feature, aesthetics, curb appeal, trash capture
PLANTED SWALE	Medium	Medium	$$	High	Planting feature, aesthetics, trash capture, curb appeal
GRASS SWALE	Low	Low	$$	Medium	Trash capture
RAIN GARDEN / BIORETENTION	High	High	$$	Medium	Planting feature, aesthetics, curb appeal
PERMEABLE PAVEMENT	High	Medium	$$$	Medium	Flood reduction, low profile, traffic calming
GREEN ROOF	Medium	Low	$$$	Low	Planting feature, aesthetics, cooler temperatures
DOWNSPOUT DISCONNECTION	Medium	Low	$$	Low	Flood reduction, reduce combined sewer overflows
RAIN WATER HARVESTING	High	Low	$$	Medium	Water supply
TREE PLANTING	Medium	Low	$	Low	Planting feature, aesthetics, shade, clean air, curb appeal

○ Low   ◐ Medium   ● High

[1] Green Complete Streets enable safe access for all users (including pedestrians, bicyclists, motorists and transit riders of all ages and abilities) AND enhance water quality by cleaning stormwater runoff.

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4. Implement and Maintain Momentum

The Walkable Watershed process results in a final report that includes the concept plan, provides a roadmap to guide implementation and engages a range of partners and funding sources to leverage investments, meet regulatory requirements and respond to community needs.

COORDINATE

The Walkable Watershed plan can be used by local government staff, watershed organizations and community groups to:

- ☐ Coordinate implementation and stewardship among local government, watershed organizations and community groups.

- ☐ Identify project leads and potential funding sources for each project to expedite implementation.

- ☐ Provide a roadmap that shows how each project adds up to a larger vision for neighborhood and watershed improvement.

- ☐ Identify relevant grant funding cycles, including funding outside traditional watershed sources.

- ☐ Continue to engage the community through project delays to maintain support and optimism.

- ☐ Identify a range of partner leads for different aspects of the plan so that projects can continue to move forward, especially when there may be limited funding or staff support.

- ☐ Conduct periodic check-ins with the project team and resource partners to maintain coordination and collaborate on implementation.

FOLLOW THROUGH

Incorporate time in the project to follow-up with the community to provide updates and build partnerships for implementation over time.

- ☐ Inevitably project details and timelines will change – sharing timely updates with the community will help build trust.

- ☐ Look for opportunities to connect community leaders with resource partners to address community goals that extend beyond the scope of the project.

CELEBRATE MILESTONES

Bring the community together to celebrate successful milestones, to build partnerships for long-term stewardship.

- ☐ Community celebrations provide an opportunity to share how community input was integrated into the concept plan and provide updates to residents about the project.

- ☐ Milestone events also help build broader awareness about the waterway and enlist watershed stewards.

- ☐ Invite resource partners to co-host and share information about related efforts, such as stewardship and health services.

- ☐ Partner with community organizations to sponsor a fun element related to art, food or music.

Community-based watershed plans that address water quality and quality of life goals can increase the likelihood of watershed restoration success by identifying community supported projects and providing a framework for a coalition of partners to act on multiple fronts simultaneously.

COMMUNITY FESTIVAL
SUPPORTED BY THE POLLOCKS BRANCH
Walkable Watershed Project

Join us to celebrate the opening of the Pollocks Branch Greenway!

Saturday, June 25
From 3:00-6:00pm
Rain date: June 26

Event will be held at the ballfield on South 1st Street, near the intersection of Hartmans Mill Road.

Youth activities, guided trail adventures, music, food and more!
- Guided trail adventures for all ages
- Field activities and games
- Mural painting and stream discovery project
- Critter Parade (materials provided to create nature inspired costumes)
- Interactive stations to learn about the living world around you - prizes for participants that complete all stations!
- Food (from 5-6pm)
- Live music
- Bounce house

Event flier featured local youth and listed festival activities.

In Charlottesville, a community festival provided an opportunity to bring residents together in a fun, family-friendly atmosphere to celebrate the opening of a new greenway, to share ideas and learn about their local waterways and stewardship opportunities. Working closely with a community leader helped to tailor the event program and activities and ensure successful outreach. Nearly 100 neighborhood residents joined the festival!

Activities included:
- Storm drain and sidewalk murals with temporary paint
- Arts and crafts activities, including creating masks and headbands inspired by local wildlife that were worn during a "critter parade".
- Educational stations hosted by partners on watershed stewardship, water conservation, urban community gardening, and bike safety.
- Guided nature walks on the newly established creek-side trail.
- Dinner provided by local restaurant encouraged attendance.

Participants received a "Passport" when they arrived to collect a stamp at each station and be eligible to enter the raffle. Raffle prizes included youth bikes, outdoor gear, city pool passes and a guided kayak trip!

WELCOME!

COMMUNITY FESTIVAL
SUPPORTED BY THE POLLOCKS BRANCH
Walkable Watershed Project

Festival Program - June 25th

Time	Activity
2:15-3:00pm and 3:15-4:00pm	**Guided Nature Walks** Urban Ecologist, Devin Floyd. Meet at the Welcome Station.
2:30pm and 3:00pm and 3:30pm	**Guided Trail Walks** Chris Gensic, Charlottesville Parks and Recreation. Meet at the Welcome Station.
3:45pm	**Critter Parade!** Meet at the playground with your handmade hats, masks and flags!
4:00pm-5:00pm	**Dinner is Served!** Free food from Mel's Café and Mobilee Delicious
4:30pm	**Raffle Drawing** Turn in your completed Festival Passport at the Welcome Table by 4:30 to enter!
5:00pm	**Thank you for coming!** End of the event.

Thank You!

Festival schedule of activities.

COMMUNITY FESTIVAL
SUPPORTED BY THE POLLOCKS BRANCH
Walkable Watershed Project

PARTICIPATE IN ACTIVITIES & VISIT STATIONS TO EARN STAMPS

Turn in your completed form to enter a raffle for a chance to **WIN**

Guided kayak trip down the Rivanna for 2 (Rivanna River Company)

Youth **BIKE** AND HELMET (Community Bikes)

Pack of 4 one day **CITY POOL PASSES** (3 chances to win)

Outdoor Gear PACKAGE

YOUTH BIKE HELMET

OUTDOOR WATER FUN PACKAGE

[MUST BE PRESENT TO WIN]

COMPLETE AT LEAST 6 ACTIVITIES TO ENTER FOR A CHANCE TO WIN!

Guided Nature Walk with Urban Ecologist, Devin Floyd

Community Bikes

Guided Trail Walk with Chris Gensic, Charlottesville Parks and Recreation

Urban Agriculture Collective of Charlottesville

Thomas Jefferson Soil and Water Conservation District

Rivanna Conservation Alliance

Art Creation and Stream Discovery Project

Pollocks Branch Walkable Watershed

City Water Conservation

James River Association

CONGRATULATIONS!

Above: "Passport" to encourage participation in educational activities and to be entered into raffle. Photos: top left - storm drain murals, top right - finding your home within the watershed, bottom row - residents visiting educational stations.

Project Profiles

This section provides a summary of each of the Walkable Watershed planning efforts conducted in the James River Watershed. The project profiles reflect how the Walkable Watershed process and outcomes can be adapted to the needs of a specific community.

The Bellemeade Walkable Watershed in Richmond, VA was the first pilot project conducted in 2012 and provides an excellent example of how a Walkable Watershed Concept Plan can provide a roadmap over time for continued investment in community and watershed improvements.

In 2012, the Bellemeade neighborhood was bisected by an impaired and neglected urban creek and lacked sidewalks, adequate drainage infrastructure, and programmed open space. Residents and stakeholders recognized that the creek could serve as a major revitalizing force if it was restored and embraced as a central asset to the community, along with the adjacent elementary school and community center.

The Bellemeade Walkable Watershed project brought together community members, non-profits, business leaders and students to develop a Watershed Concept Plan for the Bellemeade neighborhood. The Plan was developed on a unique framework that identifies strategies within the "schoolshed" and the watershed to improve the health of the creek and the community.

Combining innovative planning with community capacity-building and a focus on youth leadership, the Bellemeade Walkable Watershed project led to a cohesive strategy to improve the overall health of the community. Today, the Watershed Concept Plan continues to help guide efforts to clean up the watershed, strengthen local infrastructure and leverage investment in the Bellemeade neighborhood.

Initial investments and activities:

☑ All school sidewalks funded - student selected walking routes are helping prioritize sidewalk investments, supporting Safe Routes to School grant applications, and promoting walking to school.

☑ Green infrastructure strategies were included in City's Stormwater Master Plan.

☑ Initial phase funding secured for creek restoration and develop a coalition of stakeholders for implementation.

☑ Garnered support from a local non-profit and encouraged more volunteers to get involved in stewardship activities.

The plan is serving as a tool to enlist new partners and fund additional projects in the community:

☑ GroundworkRVA is training high school students in green jobs.

☑ Tricycle Gardens is working with residents to create a community garden.

☑ Chesapeake Bay Foundation received funding to install educational signage and an additional bioswale.

☑ James River Association received funding to begin green street design on a major walk-to-school route that was identified by students in the Concept Plan.
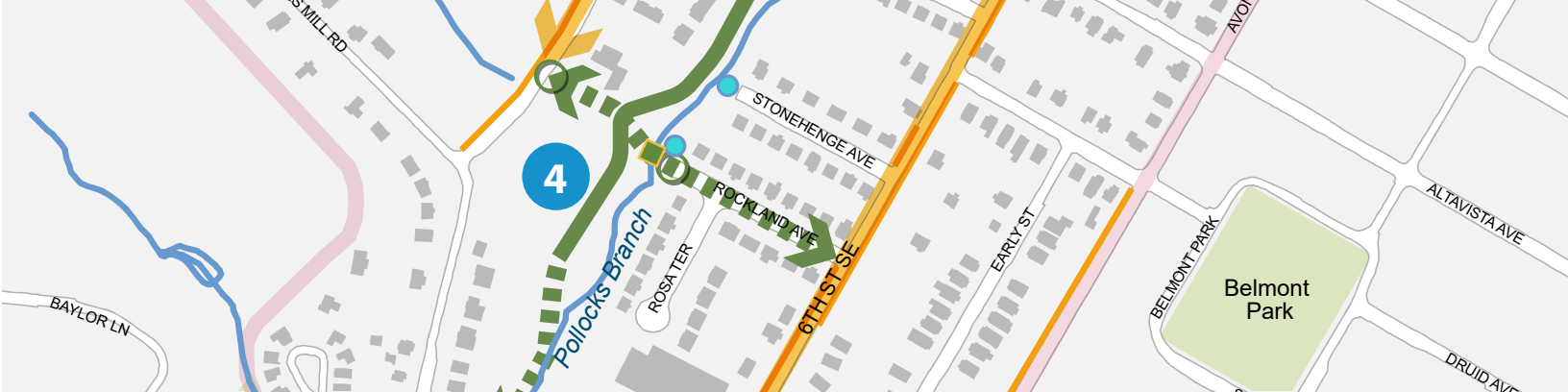

Four years later, the Bellemeade Concept Plan continues to provide an action plan for long term investment.

A broad range of stakeholders discuss opportunities to improve the watershed and walkability in the neighborhood.

Student-selected walking routes to the new elementary school help prioritize sidewalk and green street investments.

Pollocks Branch Walkable Watershed | Charlottesville, VA

THE CONTEXT

In Charlottesville, Virginia, the residents viewed Pollocks Branch Creek as a physical barrier separating areas within the neighborhood and as an illegal dumping ground. Residents and local organizations wanted to connect their neighborhood to local waterways and natural areas, provide safe walking and bicycling routes and clean stormwater before it enters creeks. The City was interested in an opportunity to engage residents, including many that are underserved, in identifying and designing green infrastructure projects that addressed multiple city and community goals. Together, they recognized the opportunity for the creek to form a green spine to connect residents to downtown.

THE PROCESS

Within the project area, there is an active neighborhood association and community-based organizations, including several supporting three public housing developments. Community engagement approaches included meeting with organizational leadership, holding public meetings, attending existing meetings, and hosting a community festival. Working with a local resident and community champion helped draw 100 neighborhood residents to a community festival that was designed to be fun and educational with activities to connect residents to a new creek-side trail and abundant, but underutilized natural areas. Throughout the process, the project team worked with key stakeholders, community leaders and residents to identify and prioritize projects and incorporated their feedback into a concept plan that had broad support.

THE OUTCOMES

The project resulted in:

- An improved and expanded Pollocks Branch Greenway, including a new trailhead, creek overlook and new access to Jordan Park.

- A series of watershed education events that helped the City meet their MS4 permit education and outreach requirements.

- A water harvesting system that reduces stormwater runoff from a building to support a large community garden for residents of a public housing complex.

- Approximately 50 rain barrels installed at homes in the watershed, some of which were decorated by local high school art students.

- A storm drain mural, whose design was inspired by local youth and their creek discoveries was installed in a highly visible location in the community.

- Multiple volunteer cleanups that improved access to the trail and creek and removed litter and debris. A summer camp that paired local youth with an urban ecologist and artist to explore Pollocks Branch and its watershed.

- Pedestrian safety improvements installed, including a new crosswalk and relocated bus stop, as well as intersection improvements as part of a Safe Routes to School project.

- Funding identified to design and install a pedestrian bridge crossing Pollocks Branch at a point identified by the community.

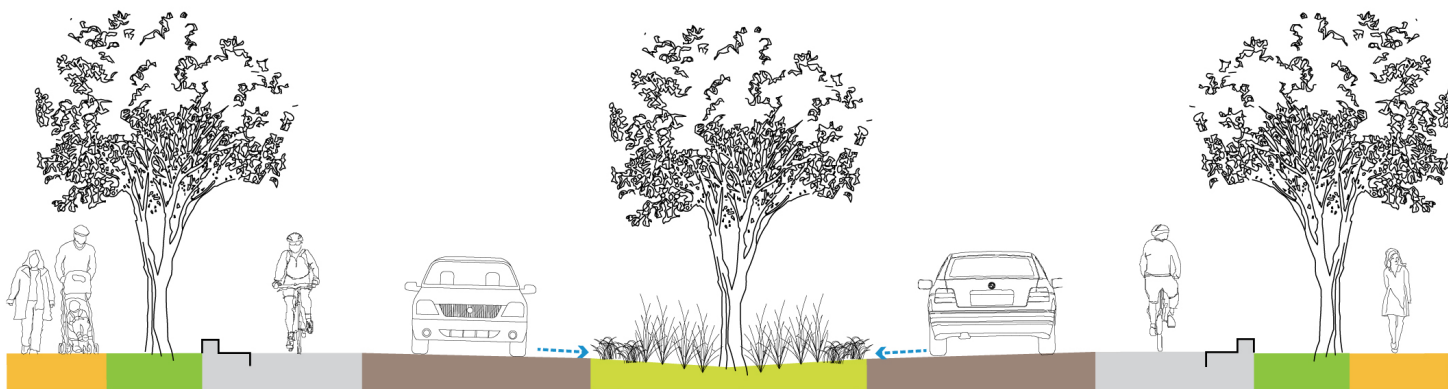The final plan is available here:
http://www.walkablewatershed.com/charlottesville/

Water harvesting system installed to support large community garden.

New creek overlook installed.

Stormdrain mural inspired by local youth creek explorations.

Fairview Heights Walkable Watershed | Lynchburg, VA

THE CONTEXT

The Fairview Heights Neighborhood is located in the Fishing Creek Watershed and includes a neighborhood center, a year-round elementary school, a park, and a mix of commercial, residential and industrial uses. A major thoroughfare divides the neighborhood and presents pedestrian safety challenges. Circulation is also compromised by two rail lines that travel through the area. In this community, the creeks are not highly visible, so the project also offered an opportunity to increase watershed awareness and creek access.

THE PROCESS

Previous transportation planning efforts identified improvements for the Fairview Heights neighborhood to provide a gateway entrance into Lynchburg and provide safe routes to the elementary school in the neighborhood. The project team identified opportunities for integrating stormwater and additional community goals into these previous planning efforts. The project team was not aware of an existing community organization to support outreach, so they hosted a well-publicized public meeting and community festival in a highly visible location to reach as many residents as possible. Anchored by two parks and an elementary school, the concept plan identified a series of educational stormwater projects that help link residents to their surrounding but often unseen waterways.

THE OUTCOMES

The project resulted in:

- Coordination across city programs to align stormwater improvements with the Safe Routes to School Program.

- A network of improvements and educational opportunities between the elementary school, park and community center to raise awareness in the watershed.

- A strom drain art mural contest that engaged local artists and community members in a new and creative way to learn about their connection to water quality. The mural was installed around a stormdrain adjacent to a highly used basketball court at the local park.

- Approximately 50 rain barrels installed at homes in the watershed.

- Several trash cleanups that engaged local residents.

- A highly visible rain garden was installed at the community center and park with educational signage.

- A permeable paving retrofit of an overflow parking area at the local elementary school, providing stormwater improvements as well as educational opportunities for the students.

- Residential yard makeover converted a front yard to a native landscape.

The final plan is available here:
http://www.walkablewatershed.com/lynchburg/

Youth activities at community event.

Stormdrain mural by local artist.

New rain garden installed at community center.

Petersburg Walkable Watershed | Petersburg, VA

THE CONTEXT

Residents of the Robert E. Lee Neighborhood have experienced regular flooding in their streets and yards, insufficient sidewalks, speeding traffic and disconnection from nearby open spaces. The neighborhood is bordered on the north by a major thoroughfare and the south by the Petersburg National Battlefield. Building partnerships and identifying strategies that help address community issues provided a path for improvements over time.

THE PROCESS

The project team worked closely with a community leader from the local Neighborhood Watch Group to survey residents about neighborhood assets and challenges. The project team provided residents with disposable cameras to help them document their neighborhood, including local flooding. By gathering information directly from the residents, the project team discovered that neighborhood flooding was in part due to the stormwater infrastructure design. The community and project team were then able to work through strategies to address flooding and other community goals, such as traffic calming and pedestrian safety. Raising awareness about community flooding issues and access to open space also helped project partners move forward with solutions.

Partnership building between representatives from the City, community, National Park Service and local organizations resulted in immediate improvements, including a new entrance sign to the Battlefield from the elementary school and momentum to address flooding in the neighborhood adjacent the Battlefield.

THE OUTCOMES

The project resulted in:

- A trail connection between the neighborhood and school using permeable pavers.

- Improved community access to the National Battlefield.

- A partnership with Virginia State University to install approximately 50 rain barrels at homes in the City of Petersburg.

- Increased capacity among residents to advocate for community needs.

- Additional grant funding to conduct a drainage study to identify best strategies to reduce flooding and improve stormwater.

The final plan is available here:
http://www.walkablewatershed.com/petersburg/

Improved access to National Battlefield and a little free library to share books.

New trail connecting neighborhood to school using permeable pavers.

Local flooding documented by a resident with the disposable cameras provided by the project team.

Walkable Watersheds

For more information about the four Walkable Watershed Projects in the James River Watershed, please contact:

Amber Ellis, Watershed Restoration Manager
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T: (804) 788.8811 ext.205 | E: aellis@jrava.org
www.jrava.org

For more information about walkable watersheds and a community-based approach to watershed planning, please contact:

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www.skeo.com | www.walkablewatershed.com