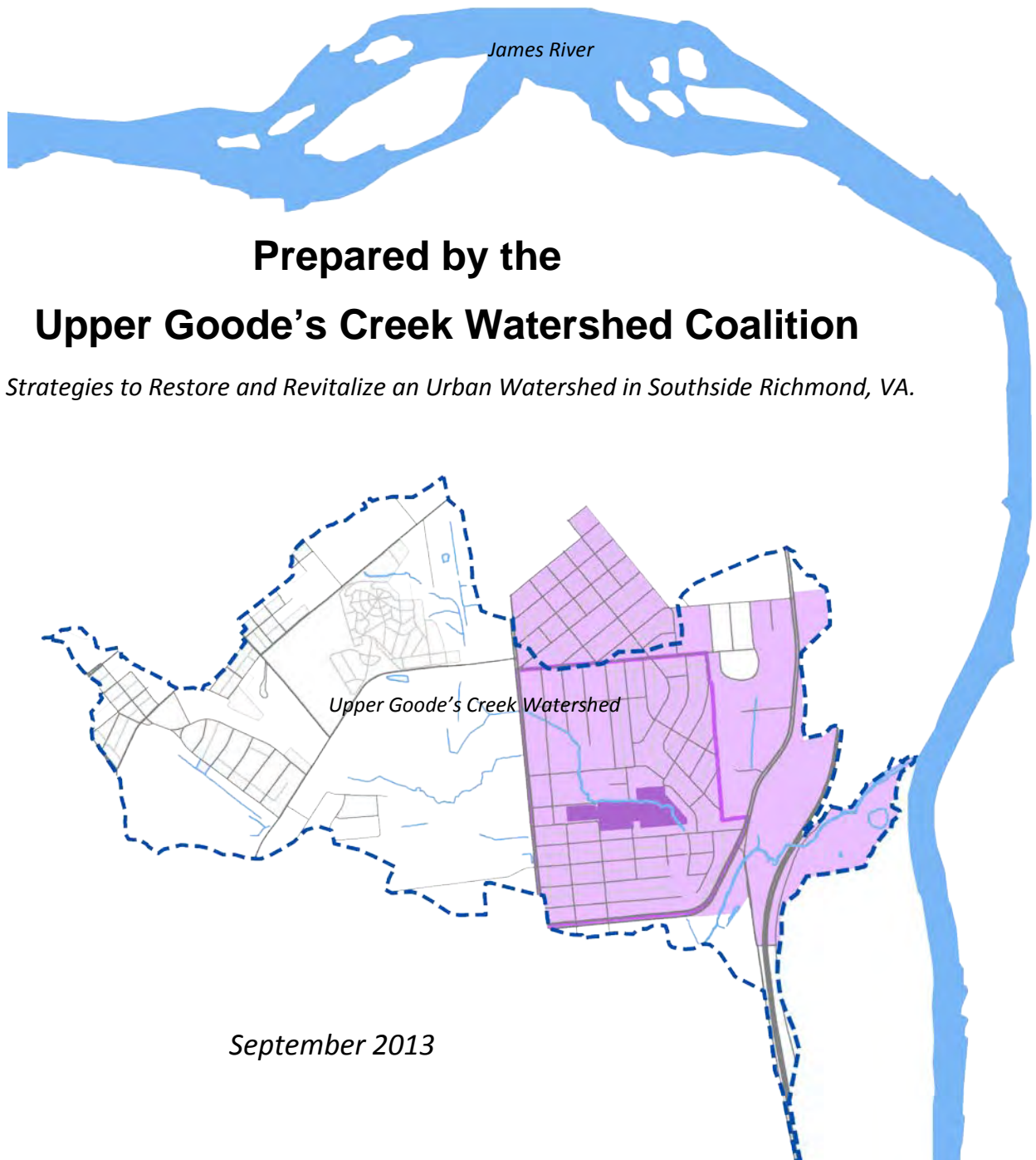


Strategies to Restore and Revitalize the Upper Goode's Creek Watershed



Prepared by the

Upper Goode's Creek Watershed Coalition

Strategies to Restore and Revitalize an Urban Watershed in Southside Richmond, VA.

September 2013

This report was prepared by the Green Infrastructure Center under a contract with the City of Richmond's Department of Public Utilities, Richmond Virginia.

Funding is provided by the Urban Waters Program, U.S. Environmental Protection Agency.

Visit the project on line at: <http://www.gicinc.org/projectbellemeade.htm>

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Introduction: The Upper Goode's Creek Watershed Coalition

The Upper Goode's Creek Watershed Coalition was formed by the City of Richmond in fall 2012 with funding from the Environmental Protection Agency's Urban Waters Program. It is coordinated by staff at the nonprofit Green Infrastructure Center (GIC).

Goode's Creek is a tributary of the James River located in southside Richmond, Virginia. It contains both residential, business and industrial areas. The purple area in the watershed pictured on the front of this report shows the school district. There are approximately 240 vacant or underutilized parcels of land in the watershed -- these parcels provide opportunities for redevelopment with green features such as more vegetation, better stormwater management and clean-up and remediation of past contamination from older industrial or business uses.

The coalition's focus is on restoring the watershed and creek, and improving environmental awareness and community health. From fall 2012-2013, the coalition developed key strategies to help infiltrate and clean stormwater, restore habitats, provide access to outdoor recreation and reconnect pathways through the watershed. A list of members is at right and partner agencies are listed in Appendix A.

The coalition members represent key constituencies in the watershed and include partners from government and the private sector. The coalition planned and sponsored a community open house in June 2013 to share ideas and get input on strategies and a festival on October 19, 2013 to enlist community residents as volunteers and partners in on-going stewardship.

The coalition's role is deliberative only. While the coalition makes suggestions or requests to the City of Richmond, they are not binding on any government agency. The coalition can also initiate and implement its own projects to restore and revitalize the watershed and its communities.

Watershed Coalition Membership
Mack Brown, Watershed Coalition Chair
Bob Argabright, Trinity United Methodist Church
Jocelyn Cruz, Youth Resident
Amber Ellis, James River Assoc.
Barbara Starkey Goode, Oak Grove Civic Assoc.
Lindsay Gulatte, Hillside Court Resident
Rosa Jones, Oak Grove Civic Association
Janie Laursen, Oak Grove Bellemeade Elementary School (Past Principal)
Jocelyn Lee, Youth Resident
Ben Leonard, Bellemeade Civic Assoc.
Anna Mathis, Alliance for the Chesapeake Bay
Lisa Smith, Gene's Supermarket
Charles Vaughn, MPACT



Coalition Members Prioritize Strategies

This document summarizes the coalition's strategies. It builds upon the city's master plan for the watershed by adding a citizen stewardship role. By taking a partnership approach

– residents, businesses and city agencies can be more effective in reaching their goals to restore the environment while also achieving social goals such as safety, beauty and community building. The coalition’s operating procedures, past meeting minutes, plans and events are posted on the website at: <http://www.gicinc.org/projectbellemead.htm>

Since not all people have internet access, the coalition’s community coordinator is available to talk to or meet with residents in person who wish to volunteer or learn more.

Want to Volunteer for a Project or Join?

Mack Brown, Community Watershed Coordinator: (804) 869-3374 or brown@gicinc.org.

Charles Kline, Green Infrastructure Center: (804) 614-5091 or GIC, P.O. Box 317, Charlottesville, VA 22902.

2013 Projects

The creeks within Upper Goode’s Creek Watershed are in need of stream bank and aquatic habitat restoration. They are not only an eyesore for the community, but are an underutilized resource that, once restored, can become a major asset to the neighborhoods. The creeks are in poor ecological health, providing little wildlife habitat. Goode’s Creek is also classified as impaired for bacterial contamination by the Virginia Department of Environmental Quality and the U.S. Environmental Protection Agency, making it unsuitable for human contact. Efforts to prevent runoff into the creek will help restore its aquatic health and make it accessible for enjoyment.



Upper Goode’s Creek Tributary in the Park

Current projects underway include restoring a section of a tributary of Goode’s Creek that runs through a public park and is in need of stream bank stabilization and habitat improvements, as well as a restored forest buffer. More than \$200,000 has already been raised to build low impact development best management practices, such as bioswales to reduce polluted runoff into the creek and restored stream banks as well as walking paths to help children access the new school. See the park plan in Appendix C. Funders for that plan include the National Fish and Wildlife Foundation, Altria Group, The Virginia Department of Forestry, the Chesapeake Bay Program, Wells Fargo, Federal Express and the Luck Companies.

The coalition is also building new walking trails to address community health needs. Research shows that residents within lower-income urban neighborhoods have higher rates of health problems. Doctors are beginning to prescribe walking to lower the risk of heart disease, obesity and diabetes caused by a low fitness and weight gain by ordering trail walks for patients (*Washington Post* 2009). Walking just 20-30 minutes a day significantly increases health and lowers the risk factors for developing heart disease, diabetes and stroke (*American Journal of Cardiology*, 2007).

Strategies proposed by the coalition address the needs for improved community health by providing more areas to walk and ensuring that those areas are clean, green and inviting. By re-greening the watershed strategically, the project can improve water quality and fish and wildlife habitat. This also achieves several key principles from the 2011 study “Walkable Watersheds for Creating Pathways to Clean Water and Healthy Communities” report including:

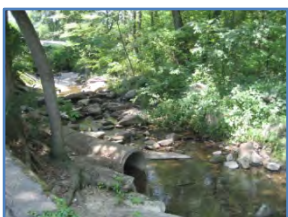


- **Connectivity** – connect the neighborhood to the creek and the James River.
- **Safe Passage** – improve walking routes to the community center and new school.
- **Water + environment** – slow, infiltrate and clean rain water.
- **Open space + Habitat** – develop a sense of community around the creek and neighborhoods.
- **Education + awareness** – create outdoor education opportunities.

The strategies in this document build on the ideas developed in the Walkable Watersheds Project by providing specific steps to implement aims for health and a clean environment. The coalition is seeking partners and funding to implement watershed strategies. Review the following strategies in this report and consider becoming a partner or volunteer.

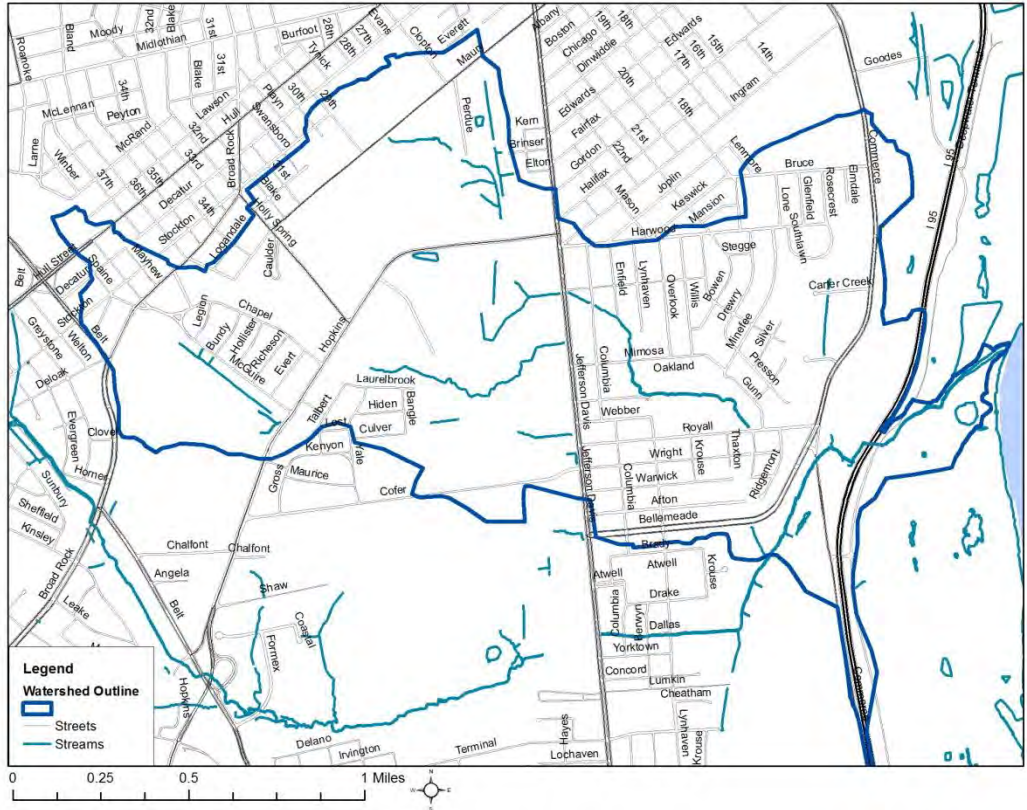


The coalition and its partners have held numerous stream cleanups, installed rain-barrels, planted trees and built new pathways. This on-going initiative is intended to be a model for replication by other watersheds in the City of Richmond and beyond.



A watershed is all the land area that drains to a river or stream. Elevation determines which way the water flows. Much of the Upper Goode's Creek Watershed is impervious so rainwater does not soak in. Instead, rain carries pollution from the land into creeks. Pollution reaches the creek from storm drains such as this one above. Goode's Creek drains into the James River, which flows into the Chesapeake Bay.

Upper Goode's Creek Watershed Streets



Watershed Facts

Upper Goode's Creek

Land Cover:

Drainage Area:
1,436 acres

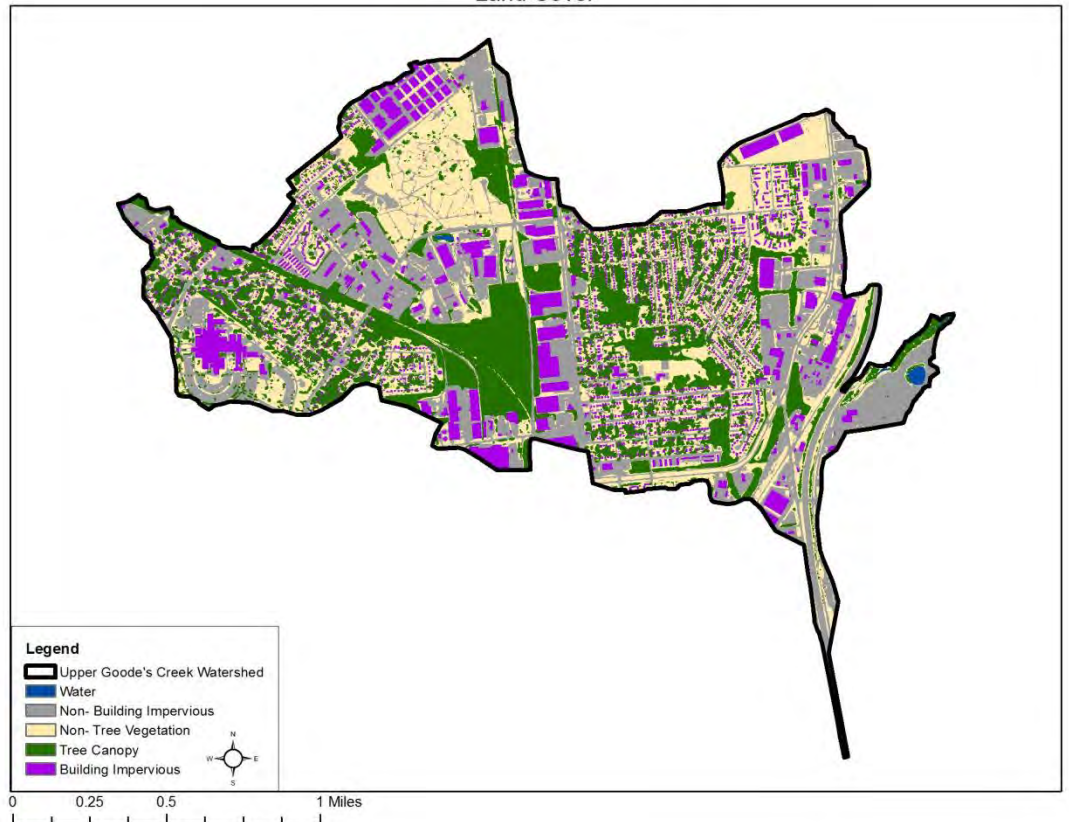
Stream Length
42,720.27 feet
(8.09 miles)

Impervious
Surface: 627 acres
or 43.6% of the
watershed

Canopy 391 acres

Non-Canopy
Pervious (grass,
shrubs) 418 acres.

Upper Goode's Creek Watershed
Land Cover



Coalition Strategies

The coalition developed six overarching themes, goals and specific objectives to make the watershed clean, green, safe and enjoyable. Each strategy was developed by a team of coalition members in consultation with city agencies and organizations. The themes and goals are listed below. Strategies are found on the following pages. Posters from the community open house are found in Appendix D.



Clean Environment and Healthy Waters

Goal: The neighborhood will be clean and trash free to be safe for children and wildlife.



Community Blight to Beautification

Goal: Make the neighborhood a welcoming, safe and livable place and instill a sense of pride in residents.



Safe Walkable Community

Goal: Make it safe for kids to walk or bike to school.



Green Streets

Goal: Create green streets with drainage, sidewalk and landscape improvements to treat stormwater and promote walkability with additional shade, natural beauty and interest.



Parks and Green Spaces

Goal: Restore current parks and create new parks for fitness, environmental health and natural beauty.



Urban Forests

Goal: Restore the urban forest to provide shelter, beauty, wildlife habitat, runoff filtration and stream protection.



Clean Environment and Healthy Waters

Goal: The neighborhood will be clean and trash free, to be safe for children and wildlife.

Strategy: Communicate the importance of keeping the community clean and encourage residents to take appropriate actions, such as cleanups and preventing dumping.

Objective 1 – Hold four environmental clean-up events a year.

- Partners from the James River Association (JRA) and the Alliance for the Chesapeake Bay (ACB) will coordinate these events. Eventually, a local community member will be chosen to lead clean-up events.
- Create fliers for upcoming clean-ups and trash prevention education and utilize community volunteers to distribute them.
- Engage the Oak Grove Bellemeade Elementary School in cleanups. Provide a cleanup kit (gloves, bags and grabbers). Utilize the student "Green Team" to clean up the school and park.

Objective 2 – Identify 'hot spots' where the most trash is dumped along or near streams.

- During environmental cleanup events, note areas with a recurring problem of dumping or where large items or dangerous items are deposited and require city enforcement to investigate or remove. Report hot spot dumping areas by calling 311. Consider enrolling these areas in the city's "Adopt-A-Spot" program.
- Place more trash receptacles along street corners, especially along walk-to-school green streets. Identify corners that need trash receptacles. Include the school/community center. Ask the city to install receptacles and signage.

Objective 3 – Continue stenciling storm drains with no dumping signage and expand markers to other neighborhoods/watersheds.

- If possible, identify "priority storm drains" where problems may need more enforcement (areas that seem to receive a great deal of debris or trash).
- The JRA will continue to provide materials and assistance for this effort. The City of Richmond's Department of Public Utilities (DPU) can supply additional markers for other communities.

Objective 4 – Install pet waste stations at the entrance to walking trails and near streams.

- Place several in the park next to the school.






Community Blight to Beautification



Goal: Make the neighborhood a welcoming, safe and livable place and instill a sense of pride in residents.

Strategy: Clean up the neighborhoods and motivate renters and owners to maintain their properties in good condition.




Objective 1 – Engage the neighbors in beautification through two community wide cleanups each year.

-  Ask each neighborhood association to participate by providing clean-up volunteers.
-  Ask Richmond's Clean City Commission to supply materials (bags), flyers and bulk waste pickup.
-  Identify 'hot spots' where the most trash is dumped; report them by phoning 311.

Objective 2 – Clean up abandoned or vacant properties.

-  Ask neighborhood associations to make a list of problem properties and report them by calling 311. Also utilize neighborhood watch efforts to note problems (see walkable community strategy).
-  If a resident is unable to maintain the property due to their age or illness, seek volunteers through local churches who may be able to assist the resident with cleanup or donated lawn care. Partner with the sheriff's office to provide labor for cleanups.

Objective 3 – Clean the alleys.

-  Ask neighborhood associations to list problem alleys; report them by phoning 311.
-  Hold cleanups to target problem alleys and walk them to discourage dumping in unseen areas.
-  Enlist the help of Richmond's Clean City Commission to supply materials (bags), flyers and bulk waste pickup.

Future Ideas -- Ideas that need further work to be implemented.

Yard of the month awards can provide incentives for residents to take pride in their community. This idea needs to have standards established, a review committee and a nomination process as well as signage for winners.

Create a brochure of landlord and tenant responsibilities to ensure both owners and renters understand the rules and needs for maintaining their properties. Translate the brochure into several languages and distribute with utility bills. Better maintained properties ensure areas stay clean. The "broken window" theory shows that when properties are rundown, areas around them tend to be dilapidated, but when areas (broken windows) are cleaned up and repaired, the surrounding areas also tend to remain in better condition.



Safe Walkable Community

Goal: Make it safe for kids to walk or bike to school.

Strategy: Educate parents and students about why and how to walk to school and ensure that pathways are safe and inviting.

Objective 1 – Hold regular walk through events with the community and city departments to address safety, code enforcement and other concerns.



Ask the local city police sergeant for Precinct 2, Sector 213 to coordinate bi-annual walk through events and invite key city agencies (City Bureau of Permits and Inspections) to participate. Note violations for city follow up.



Target the first walk through to those that will be utilized by children walking to school. The first walk through should be along Overlook, Minefee, Columbia and side streets.

Objective 2 – Create a School Safety Patrol at the Oak Grove Bellemeade Elementary School and nearby streets.



Work with the principal at Oak Grove Bellemeade Elementary School to develop the program (similar to those in other city schools).

Objective 3 – Hold an annual bike safety event.



Coordinate with the city police department to hold an annual bike rodeo to teach bicycle safety to children and raise funds to provide free bikes, helmets and locks.

Objective 4 – Prevent crime through a community crime watch.



Create the first crime watch to cover the safe routes to school areas (Bellemeade, Oak Grove). The police can help residents create and implement crime watch.



Expand the crime watch to cover all areas in the watershed and adjacent and surrounding communities.

Future Ideas -- Ideas that need further work to be implemented.

Address challenging intersections with new safety features. Traffic calming structures such as extended curbs, textured crosswalks, bike lanes and other features can be installed to lower the design speed of roads and protect pedestrians.



Green Streets

Goal: Create green streets with drainage, sidewalk and landscape improvements to treat stormwater and promote walkability with additional shade, natural beauty and interest.

Strategy: Add new plantings along streets to provide shade and increase opportunities to infiltrate stormwater. This will also make streets more inviting for walking to school.

Objective 1 – Plant more street and yard trees to uptake stormwater and provide shade.



Target Minefee's route to school, and other routes to school identified in the Walkable Watersheds report for the first plantings.

Objective 2 – Filter stormwater by adding raingardens along streets to filter street and sidewalk runoff.



Raise funds from foundations and corporations to redesign existing streets and utilize the city's stormwater utility fee to fund raingarden installations, or other measures.



Design and retrofit curbs to both absorb stormwater and increase pedestrian safety. Use permeable pavers or porous pavement/concrete when adding crosswalks or new sidewalks.

Objective 3 – Improve safety by adding new crossings with curb and mid-block extensions with plantings and stop signs where needed.



Plant street trees to shelter pedestrians from traffic and increase their actual and perceived safety. Utilize funds from the River Wise Program run by ACB and the GIC's community tree fund to add more street trees.

Objective 4 – Students walk to school along green streets.



Create a walking school bus for children by signing up parents to help escort children to school and enlist residents to keep watch in the morning and afternoon to ensure children are safe. (Note recommendation for safety patrols under Safe Walkable Community Strategy)



Build bridge in the middle of parkland adjacent to school to allow new route to school.



Replace bridge at Overlook Street with wider decking to allow more children to cross at once.

Future Ideas -- Ideas that need further work to be implemented.

Note that funds are still needed to install rain gardens within curb areas. Funds are also needed for new permeable sidewalks and other stormwater improvement features. Note that there is a permeable sidewalk at Overlook Street, installed based on recommendations from the Walkable Watershed project in 2011.







Parks and Green Spaces



Goal: Restore current parks and create new parks for fitness, environmental health and natural beauty.

Strategy: Plant native trees and vegetation in current parks and identify areas for future parks. Utilize signage and demonstration plantings in parks to educate residents.



Objective 1 – Restore the ecology of the park next to the new Oak Grove Bellemeade School with tree planting, stream restoration, rain gardens and community gardens.
(See Appendix C).

-  Enlist and train “rain gardeners” -- volunteers to care for a bioswale to be installed in November 2013. Teach volunteers how to remove weeds and prune plants.
-  Build trails through the park to increase access, use and a safe route to school (the first trail from Royall Ave. installed in October 2013, the others installed in 2014).
-  Create a community garden by spring 2014, with assistance from the city’s garden program and determine garden participants, rules, water supply and tool storage.
-  Create a forested stream buffer and maintain trees with community volunteers (buffer to be installed in fall 2013 and monitored and watered throughout 2014).



Objective 2 – Use local parks as outdoor learning centers by installing “learning stations” to teach people about stream ecology, stormwater, fitness and healthy food.

-  Create outdoor learning stations in several places throughout the park about stream ecology, raingardens, permeable pavement, native plants, healthy food) and partner with VMDO architects to design the first learning station template.
-  Add a section about the types of professions for each station to motivate youth to learn about professions such as architecture, landscaping, science or math.

Objective 3 – Create a regional park on the 60-acre CSX property for a rail trail, nature education, fitness and learning about the railroad’s history.

-  Seek city support for a regional park and form a fundraising team to acquire land.
-  Develop a master plan for the rail park. (Contains extensive wetlands making it more suitable for restoration and education than for development. Not currently in use by railroad. Could connect to the James River with a rail trail).

Objective 4 – Add smaller pocket parks throughout the community to allow areas for relaxation and beautification

-  Plant trees and shrubs at Hillside Court, along creeks and streets and in parks.
-  Restore the creek south of Royall where it was redirected and install a split pipe to handle flood events. Restore woodlands adjacent to the creek as a pocket park.



Urban Forests

Goal: Restore the urban forest to provide shelter, beauty, wildlife habitat, runoff filtration and stream protection.

Strategy: Enlist the community in becoming active stewards of their urban forests by providing materials, funds and training for residents to install and care for trees.

Objective 1 – Plant trees near open creeks and along streets to filter polluted runoff and shade streams to keep water cool and clean for fish and make it more attractive for walking and biking.



Plant more trees adjacent to the creek from Royall upstream to the school and use live stakes to stabilize stream banks.



Train volunteers in tree care and monitor the survival of trees along the new stream buffer (to be installed in the park next to the school in fall 2013) and replace dead or damaged trees.



Enlist local businesses in sponsoring and caring for trees.

Objective 2 – Plant more trees and shrubs at Hillside Court and in parks to add beauty and shelter.



Partner with the Richmond Regional Housing Authority to enlist residents as partners in tree and shrub care.



Plant fruit trees to provide food and beauty and large shade trees in areas lacking in shade.

Objective 3 – Choose native species and diversity of trees for better habitat and tree survival.



Evaluate the diversity of current street trees and suggest other street and yard tree species to increase the species diversity (partner with local university to conduct a street tree inventory).



Engage staff from the Alliance, James River Association and Green Infrastructure Center for assistance in planting trees using their grant programs (see appendix B).

Objective 4 – Create standards for street tree planting to ensure long term survival.



Review current street tree standards with city staff and the Urban Forestry Commission to ensure standards are adequate to ensure long term survival.

Appendix A :: Agency Partners for the Goode's Creek Watershed Coalition

City Agencies

City Council <http://www.richmondgov.com/CityCouncil/contacts.aspx>

Department of Public Utilities
Stormwater Utility, Education and Outreach
804-646-0177

Department of Public Works (sidewalks)
804-646-3421

Department of Public Works (urban forests)
call 311

Department of Parks, Recreation and Community Facilities
804-646-8314

Fire Department, Fire Marshall
804-646-4080

Police Department Second Precinct
Officer in Charge – Sector 213
804-646-8142

Fire Department, Plans Review
804-646-4080

Richmond Grows Gardens Initiative
804-646-7633

Richmond Regional Housing Authority, Hillside Court

State and Federal Agencies

U.S. Environmental Protection Agency, Urban Waters Program
<http://www2.epa.gov/urbanwaters>

Virginia Department of Forestry <http://www.dof.virginia.gov/>

Chesapeake Bay Program <http://www.chesapeakebay.net/>

Appendix B – Resources:: List of resources for strategies in this plan

CLEAN-UP

Richmond Clean City Commission:

<http://www.richmondgov.com/CommissionCleanCity/index.aspx>

Phone (804) 646-8325

Volunteer Clean-Up Support: neighborhood, business association or group of concerned neighbors may request a city refuse truck to assist with their volunteer clean-up efforts. The city will waive the \$50 appliance collection fee for any registered volunteer group clean-up.

<http://www.richmondgov.com/CommissionCleanCity/VolunteerCleanUps.aspx>

Adopt a Spot:

<http://www.richmondgov.com/CommissionCleanCity/AdoptSpot.aspx>

Also see JRA and ACB below for help in planning stream cleanups or to volunteer.

SCHOOL SAFETY

Safety Patrol Start Up Guide and local program contact: AAA Mid-Atlantic, Safety Services Manager

Richmond, VA, (800) 999-4952, ext. 66512

<https://midatlantic.aaa.com/Foundation/SchoolPrograms/SchoolSafetyPatrol>

National Center for Safe Routes to School, Funding:

<http://www.saferoutesinfo.org/funding-portal>

BIKE SAFETY

Bike Safety Tips and Fundraising: Richmond Area Bicycling Association, RABA, PO Box 6565, Ashland, VA 23005 or <http://www.raba.org/13board.html>

Pedestrian Safety Through Traffic Calming: Dept of Public Works, City of Richmond, 900 E. Broad St., Suite 704, Richmond, VA, 23219

In Richmond, dial: 311

HOME AND YARD STORMWATER RUNOFF PREVENTION

Richmond's Stormwater Utility: Get credits on utility taxes by installing stormwater runoff prevention measures. Phone: (804)646-7000
<http://www.richmondgov.com/dpu/stormwaterutility.aspx>

James River Association, River Hero Homes Project: Design your yard and home to minimize pollution. JRA, 9 South 12th Street, 4th Floor, Richmond, VA 23219. (804) 788-8811, Amber Ellis [aellis@jrava.org] www.jrava.org

Alliance for the Chesapeake Bay, River Wise Program: Get technical advice and cost share funds for infiltrating water and reducing runoff. ACB, 530 E. Main St, Suite 200, (804) 775-0951 P.O. Box 1981, Richmond, VA 23218, Anna Mathis [amathis@allianceforthebay.org] www.allianceforthebay.org

URBAN TREES

EnRichmond Foundation's Adopt-A-Tree Program: Dept. Public Works, Urban Forestry Division, 800 Forest Lawn Road, Richmond, VA 23227 or visit the website at <http://www.enrichmond.org/>.

Richmond Tree Stewards Program: <http://richmondtreestewards.org/>

Richmond Urban Forestry Commission:
<http://www.richmondgov.com/commissionurbanforestry/index.aspx>

Richmond's Urban Forestry Program:
<http://www.richmondgov.com/PublicWorks/UrbanForestry.aspx> or call 311.

Free or Low Cost Trees: Contact ACB or JRA (above) to get advice and assistance in planting yard trees. Contact the Green Infrastructure Center to request trees and planting assistance from their community tree program by contacting Mack Brown, Community Watershed Coordinator at (804) 869-3374.

Appendix C – Park Master Plan:: Parkland adjacent to Oak Grove Bellemeade School

Park Concept Plan
 Bellemeade Neighborhood - Richmond, VA



Appendix D – Posters:: Posters presented at the community open house

The coalition held an open house in June 2013 to allow residents to offer comments on project ideas. The posters are also used at public events to quickly depict the coalition's strategies. See following pages for a poster on each strategy. They were last updated in August 2013.



UPPER GOODE'S CREEK WATERSHED

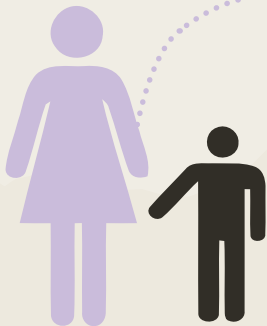
RICHMOND, VIRGINIA



Green Streets



Parks and
Green Spaces



Safe Walkable
Community



Urban Forests



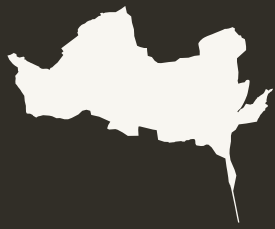
Clean Environment
and Healthy Waters



Community Blight
to Beautification

CONTACT // Mack Brown, Watershed Coalition Chair; Phone: (804) 869-3374;
Email: brown@gicinc.org; or visit our website at <http://gicinc.org/projectbellemeade.htm>





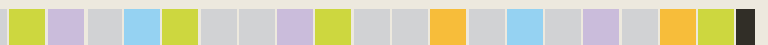
UPPER GOODE'S CREEK WATERSHED

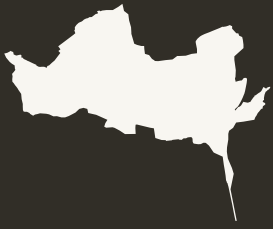
Community Blight to Beautification

GOAL // Make the neighborhood a welcoming, safe and livable place and instill a sense of pride in residents.



WHO // Neighborhood watch to patrol and note problem, community green team to help with restoration, city inspectors to note violations.





UPPER GOODE'S CREEK WATERSHED

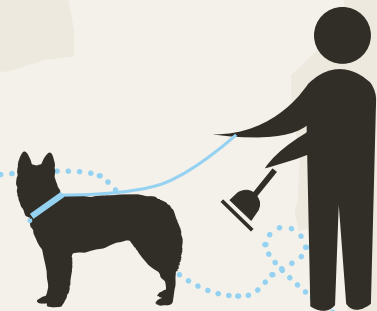
Clean Environment and Healthy Waters

GOAL // The neighborhood will be clean and trash free to be safe for children and wildlife.



1

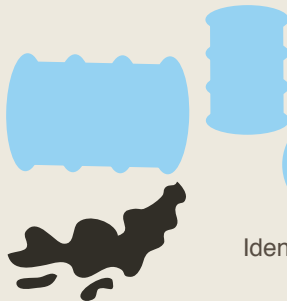
Hold four cleanups a year led by a community clean-up crew with help from the city. Engage the Oak Grove Bellemeade Elementary School student Green Team in clean-up efforts.



4

Keep pet waste out of creeks and parks with poop scoop receptacles and signs.

CLEAN ENVIROMENT & HEALTHY WATERS STRATEGY //



2

Identify 'hot spots' where the most trash is dumped. Focus trash clean-ups, more policing, trash cans, on hot spot problem areas.

NO DUMPING

3

Stencil storm drains with don't dump signs.

WHO // Clean community crew to be formed from neighborhoods to help with cleanups and to i.d. hot spots. Individual pet owners clean up pet waste.





UPPER GOODE'S CREEK WATERSHED

Green Streets

GOAL // Create green streets with drainage, sidewalk and landscape improvements to treat stormwater and to promote walkability with additional shade, natural beauty and interest.

GREEN STREETS STRATEGY //

1



Street trees

Plant more street and yard trees on Minifee's route to school first and other routes later.



4

Students walk to school

Have a walking school bus!



2

Filter stormwater

Add raingardens along streets to filter and clean street runoff.



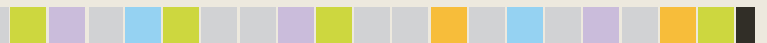
3

Improve safety

Make new safety crossings with curb and mid-block extensions and stop signs where needed.

WHO //

Volunteers from community and local and city businesses to donate and plant trees. Solicit grants to pay for stormwater raingardens. Ask city to install stop signs and permeable sidewalks. Trees donated by the Virginia Department of Forestry. Parents help with the walking school bus. Kids to help plant flowers and shrubs along with trees.





UPPER GOODE'S CREEK WATERSHED

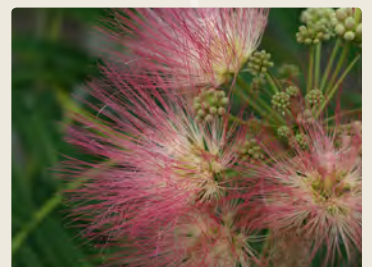
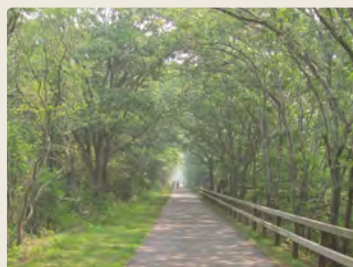
Parks and Green Spaces

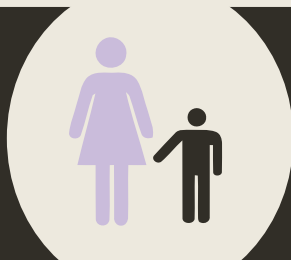
GOAL // Restore current parks and create new parks for fitness, environmental health and natural beauty.



WHO //

Volunteers from community and local and city businesses to donate and plant trees in the park. The National Fish and Wildlife Foundation already funded the creek restoration and bioswale and VA Dept of Forestry has funded park trees. Alliance for the Chesapeake Bay and James River Association helping to donate and plant trees. More funds and partners needed for the CSX park idea!





UPPER GOODE'S CREEK WATERSHED

Safe Walkable Community

GOAL // Make it safe for kids to walk or bike to school.

SAFE WALKABLE COMMUNITY STRATEGY //

1

SAFETY FIRST

Safety

Hold regular walk through events with the community with city departments to address safety, code enforcement and other concerns.

2

School Patrols

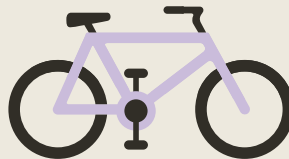
Create a school safety patrol at school and streets.

SP

3

Biking

Host an annual bicycle safety event.



4

Crime Prevention

Have community crime watch.



5

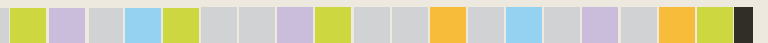
Safe Streets

Address challenging intersections with safety features.



WHO //

Student safety patrol, residents join crime watch teams, and various City of Richmond agencies.





UPPER GOODE'S CREEK WATERSHED

Urban Forests

GOAL // Restore the urban forest to provide shelter, beauty, wildlife habitat, runoff filtration and stream protection.

URBAN FORESTS STRATEGY //

1

Plant trees near open creeks and along streets to filter polluted runoff and shade streams to keep water cool and clean for fish (and kids!), and make it more attractive for walking and biking.



4

Create standards for street tree planting (type, plant box size, care) to ensure long term survival.



2

Plant more trees and shrubs at Hillside Court and in parks to add beauty and shelter.



3

Choose native species and diversity of trees for better habitat and tree survival.



WHO // Volunteers from community and local and city businesses to donate and plant trees. Utilize donations from VA Department of Forestry. Kids to help plant trees.

