

Community Plan 2020



Lake Roland, Baltimore, MD Photo credit: Andy Murray

Ruxton Riderwood Lake Roland Area

Developed by:

The Ruxton-Riderwood-Lake Roland Area Improvement Association, Inc.

Adopted by the Baltimore County Council on April 3, 2023



TABLE OF CONTENTS

RESOLUTIONS AND AGENDA – BALTIMORE COUNTY COUNCIL	PAGE 3
INTRODUCTION	PAGE 10
THE PLANNING PROCESS	PAGE 12
KEY FOCUS AREAS:	
SECTION 1 – CRIME & PUBLIC SAFETY	PAGE 14
SECTION 2 – CODE ENFORCEMENT, DEVELOPMENT, AND ZONING	PAGE 16
SECTION 3 – FALLS ROAD CORRIDOR AND DEVELOPMENT	PAGE 20
SECTION 4 – FLOODING	PAGE 24
SECTION 5 – SEWER LINES	PAGE 30
APPENDICES:	
APPENDIX A – COMMUNITY SURVEY	PAGE 33
APPENDIX B – FLOODING RESOURCES	PAGE 54
APPENDIX C – GREATER RUXTON AREA FOUNDATION	PAGE 63
APPENDIX D – COMMUNITY ORGANIZATIONS	PAGE 64

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2023, Legislative Day No. 6

Resolution No. 4-23

Councilmembers Patoka & Ertel

By the County Council, March 20, 2023

A RESOLUTION of the Baltimore County Council to adopt the Ruxton-Riderwood-Lake Roland Area Plan, as amended, as part of the Baltimore County Master Plan 2020.

WHEREAS, the County Council first adopted the Ruxton-Riderwood-Lake Roland Area Plan on August 5, 2002 (Resolution 76-02) as part of the Baltimore County Master Plan 2010; and

WHEREAS, the Baltimore County Council adopted the Baltimore County Master Plan 2020 on November 15, 2010; and

WHEREAS, on November 2, 2020, the County Council requested the Planning Department review and update the Ruxton-Riderwood-Lake Roland Area Plan (Resolution 122-20); and

WHEREAS, the Ruxton-Riderwood-Lake Roland Area Plan was prepared in close cooperation with the Ruxton-Riderwood-Lake Roland Area Improvement Association; and

WHEREAS, the Plan was the subject of a public hearing by the Planning Board and was adopted by the Board on January 5, 2023; now therefore

BE IT RESOLVED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND, that the Ruxton-Riderwood-Lake Roland Area Plan, as amended, a copy of which is attached hereto and made a part hereof, be and is hereby adopted and incorporated into the Baltimore County Master Plan 2020 to be a guide for the development of the Ruxton-

Riderwood-Lake Roland Area, subject to such further modifications as deemed advisable by the County Council.

BE IT FURTHER RESOLVED, that this Resolution shall take effect from the date of its passage by the County Council.



INTRODUCTION

The Goal of The Ruxton-Riderwood-Lake Roland Area Community Plan

The Ruxton-Riderwood-Lake Roland Area Improvement Association (RRLRAIA) is a membership-based 501(c)(4) organization that serves residential members.

Consistent with the RRLRAIA's mission, the Community Plan's goal is to assist in protecting, preserving, and enhancing the Ruxton, Riderwood and Lake Roland communities through stewardship, education, and advocacy.

Objectives of the Plan

1. As an adopted part of the Baltimore County Master Plan 2030, the RRLRAIA Plan will serve as a guide to expectations, as well as policy and services from Baltimore County, and
2. As a "living" blueprint to guide the Association in meeting the expectations of the community.

The Area Represented by the Plan

An area roughly bounded by:

- The Baltimore Beltway to the North
- Charles Street to the East
- The Baltimore City/County line to the South
- The Jones Falls/Falls Road corridor to the West

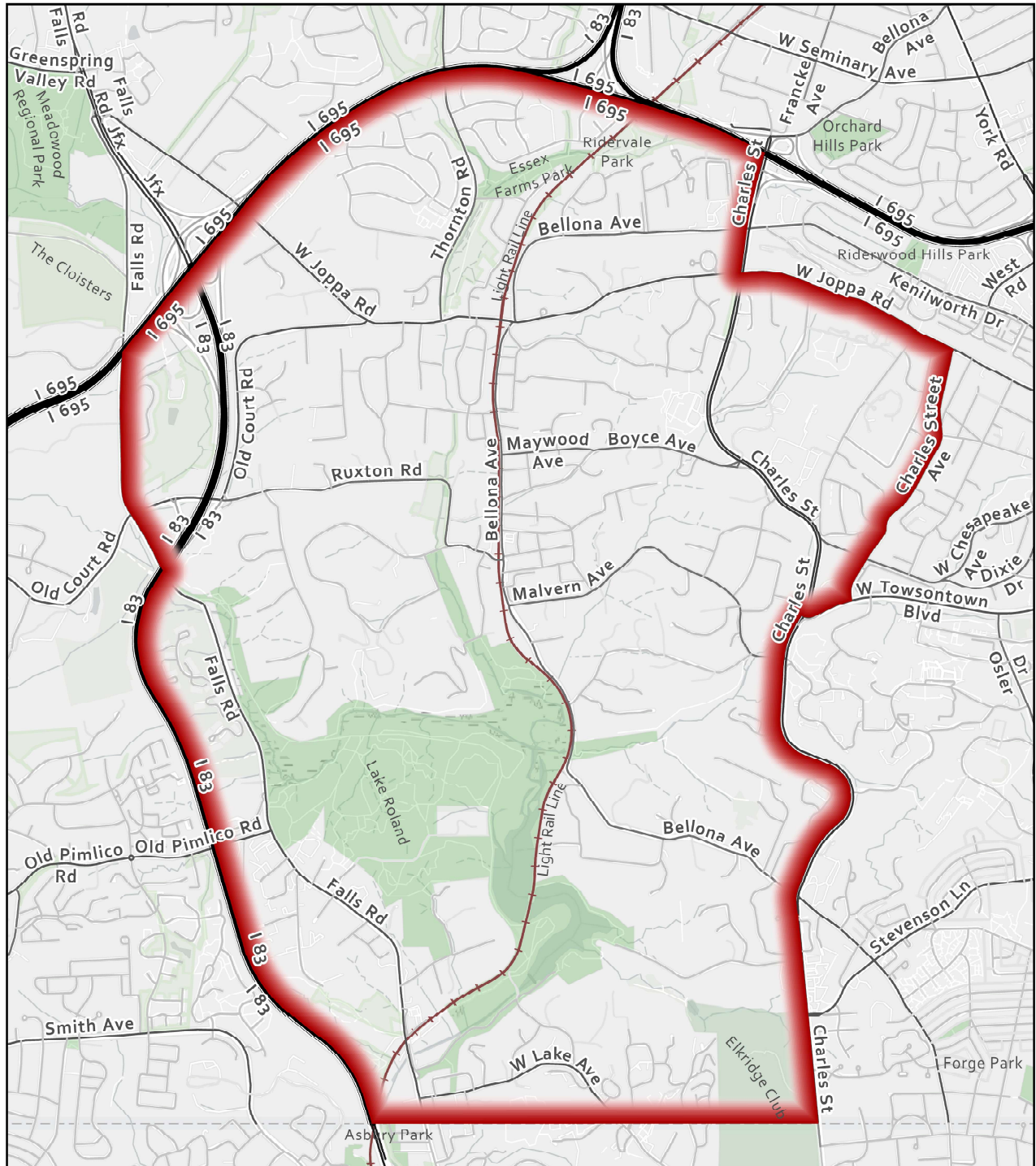
The Character and Makeup of the Community of Ruxton, Riderwood, and Lake Roland

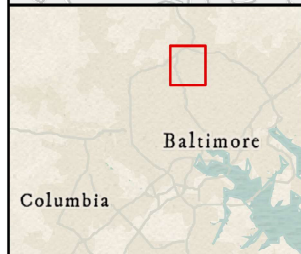
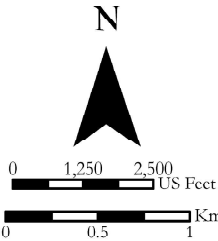
To enter the Ruxton-Riderwood-Lake Roland Area Community from any direction is to be struck by its quality of respite. Grand old estates and more modest households are situated on narrow winding roads. Here are tree-shaded suburbs, delightful for their rural roots and preserved history. A broad array of distinct neighborhoods, some old, some new, are the woven fabric of the community, which is served by several contained business "villages." These mature neighborhoods work hard to safeguard the environmental and architectural treasures in their midst, and to resist the negative effects of over-development. Designated a Community Conservation Area, they are an asset to Baltimore County.

Defining the Issues Outlined in the Plan

With an emphasis on "community input," several key steps were involved in the process which produced the Plan, including:

- Email survey among a very large percentage of the residential household population. All current members of RRLRAIA were sent the survey, as well as non-members whom the Association had email addresses for
- Observation discovery by committee members
- Recommendations by appointed committees
- Discussion with Baltimore County officials



 <p>Baltimore</p> <p>Columbia</p>	<div data-bbox="662 1640 961 1734" data-label="Image"> </div> <div data-bbox="516 1738 1107 1780" data-label="Section-Header"> <h2>RRLRAIA Community Overview</h2> </div> <div data-bbox="479 1793 961 1850" data-label="Text"> <p>Map data © OpenStreetMap contributors, Map layer by Esri, Esri, CGIAR, USGS, Baltimore County Government, VTTA, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS</p> </div> <div data-bbox="479 1854 714 1879" data-label="Text"> <p><small>Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Author: Elliott P. Ditch</small></p> </div> <div data-bbox="1019 1793 1107 1850" data-label="Text"> <p>2021</p> </div>	<div data-bbox="1193 1640 1409 1879" data-label="Figure">  <p>N</p> <p>0 1,250 2,500 US Feet</p> <p>0 0.5 1 Km</p> </div>
--	--	--



THE PLANNING PROCESS

The Planning Process

Every ten years, the Association develops a community plan that provides input to Baltimore County's ten-year planning process. To make sure the plan is relevant to its members and desires, the Ruxton-Riderwood-Lake Roland Area Improvement Association undertook the following:

- A Community Plan committee of the Board of RRLRAIA was chosen to develop the plan
- The Committee then engaged the entire community for opinions and reactions through an email survey disseminated in early May 2020. The survey identified twelve possible key issues and asked for a rating of the importance of each issue on a scale of 1-5. The issues surveyed were:
 1. Code enforcement and zoning
 2. Biking and walking
 3. Community and commercial enhancement
 4. Crime and public safety
 5. Forest preservation and deer management
 6. Falls Road Corridor and other development
 7. Flooding
 8. Historic preservation
 9. Sewer lines
 10. Traffic and light rail
 11. Utility pole appearance
 12. Invasive plant management
- In addition, an open-ended question allowed for input on key issues not identified above
- The five key issues that were rated of highest importance (3.99 or higher) were chosen as key issues for the plan
- Included the Baltimore County Office of Planning throughout the process
- Upon final review of the Plan by the RRLRAIA Board and greater community input, the Plan will be submitted to the County for approval

Methodology of Survey

During April 2020, the RRLRAIA devised an online survey (please see Appendix A) of area residents, both RRLRAIA paid members and others (in the case of the latter, only when the Association had email addresses). All told, the survey was disseminated to approximately 1,000 people.

- There were 481 respondents, of whom 280 (58.21%) were women, 196 (40.7%) were men, and 5 (1%) declined to answer.

- A plurality of survey takers were in their 60s (148 people; 30.7%), closely followed by folks in their 50s (125 people; 25.99%) and their 70s (118 people; 24.53%). One (0.2%) respondent was a teen.
- A large plurality lived in central Ruxton (218 people; 45.7%). The eastern and northern areas had about the same number of respondents (107 people; 22.43%) and (103 people; 21.59%), respectively. There were respondents from the southern and western sections, respectively (26 people; 5.45%) and (23 people; 4.85%).
- Contra to expectation, a small plurality of respondents were comparatively new residents of their homes, 0-9 years, (123 people; 26.06%). However, this may well have been because people like the areas and tend to move to houses within it.
- In their current and previous houses, a plurality of people reported having lived in the area overall for 20-25 years (115 people; 24.42%).
- A large majority of people were RRLRAIA members (422 people; 89.79%).

A menu of preselected issues was presented to survey takers, as shown above, along with the option to write in other issues at the respondent's discretion by means of an open-ended question at the end of the survey. The preselected issues were picked by the RRLRAIA survey workgroup through a review of what was important in the previous two community plans (published in 2001 and 2011, respectively), along with a general ear-to-the-ground knowledge of current events in the Association's constituent neighborhoods and discussions with County officials.

Respondents were asked to rank the issues by importance to them between 1 and 5 stars to each on a Likert Scale - the higher number of stars, the higher importance of the issue to the respondent.

Survey Results (detail in Appendix A)

The Greatest Importance

Two issues were rated a score of over 4.4 stars on average, thus to be of the greatest importance.

- Crime & Public Safety
- Code Enforcement, Development, and Zoning

Of High Importance

Those getting 3.99 to 4.3 stars, of high importance.

- Falls Road Corridor and Other Development
- Flooding
- Sewer Lines

The Remaining Issues

The remaining issues received a score of under 3.99 stars.

- Biking and Walking
- Community & Commercial Enhancement
- Forest Preservation & Deer Management
- Historic Preservation
- Traffic & Light Rail
- Utility Pole Appearance
- Invasive Plant Management

That said, *traffic* and *light rail* did dominate the open-ended responses. They accounted for 66 of the 416 open responses. Given this concentrated concern, we have created a goal and action plan in the *Crime and Public Safety* issue section.

KEY FOCUS AREAS

Section 1 - Crime & Public Safety

Introduction

Actual crime is not a major issue in our neighborhood, although recent crime events in Towson and other nearby neighborhoods in Baltimore County and City have elevated this as a major concern of our community. A review of Baltimore County Police crime statistics shows the crime that has occurred has not changed significantly in cases over the past five years and is certainly less than incidents in Baltimore City and other areas of Baltimore County.

This issue shared the higher importance rating with Code Enforcement and Zoning, with 61% of survey respondents giving this issue a *most important* rating and an overall 4.43 average rating on a 1-5 scale. Fortunately, the Ruxton, Riderwood and Lake Roland neighborhoods have not been subjected to significant crime events and unsafe conditions. Nonetheless, there have been episodic occasions where burglaries and thefts have occurred in residential neighborhoods (homes and vehicles) and an occasional armed hold-up in our commercial establishments, especially in the Lake Falls area. Some neighborhoods have added surveillance cameras, and some residents have begun to add doorbell surveillance.

Goals and Actions

GOAL 1

Recognize that safety is of the highest importance to RRLRAIA residents and thus give it constant monitoring and diligence.

Action 1.1: RRLRAIA Executive Director and Board members should diligently monitor any incidents of crime in the neighborhoods and take appropriate actions where necessary, such as informing residents and encouraging increased police presence and action.

Action 1.2: Advocate for surveillance cameras at Falls Road Light Rail stop.

Action 1.3: Provide a platform for the voluntary sharing of information from residents who have surveillance equipment in order to create a database to be accessed when a crime occurs in a specific area.

Action 1.4: If a specific neighborhood experiences a material increase in crime, assist that neighborhood in forming a Citizens on Patrol Program as requested, or assist in engaging private security.

GOAL 2

Continue to work with Baltimore County Police Precinct 6 to be aware of current crime occurrences and trends. Currently, our Executive Director and several Board members meet periodically with precinct officers and receive updates on crime occurrences in the area.

Action 2.1: RRLRAIA Executive Director to stay in contact with Baltimore County police and inform residents via email when crime events happen and suggest actions to be taken to reduce crime going forward.

Action 2.2: Make residents aware of the Baltimore County Citizens Police Academy.

Action 2.3: Provide residents with information about proactive preventative actions they can take and about additional services Baltimore County Police Department provides residents.

GOAL 3

Maintain the safety of our roads and neighborhoods by identifying traffic safety issues and possible actions.

Action 3.1: Request Baltimore County Highways or the State Highway Administration, depending on what agency controls a specific section of road, to consider installing rumble strips at locations to be identified with high incidents of distracted drivers. For example, sections of road like the curve on Bellona Avenue by Malvern Avenue.

Action 3.2: Provide neighborhoods with information about the Baltimore County Traffic Calming Program and procedures.

Action 3.3: Continue to educate members about Baltimore County resources to report safety concerns, e.g., damaged street signs, clogged streams, and potholes. The mobile app [*BaltCoGo*](#) is a good resource to report safety concerns such as ice buildup, major potholes, trees down, etc.

Action 3.4: Work with Baltimore County and the State Highway Administration to make improvements by providing crosswalks and additional sidewalks to enable safe pedestrian crossing of Charles Street to access Lake Roland Park.

Section 2 - Code Enforcement, Development, and Zoning

Introduction

Over-development or development of property in a manner outside the general character of our community is perceived by area residents to be among the foremost threats to the community. More specifically, some of the threats include, but are not limited to:

- Variances to Baltimore County zoning and environmental regulations
- Neglected/abandoned properties
- Zoning violations by residents and businesses, such as allowed height of fences, setbacks, appropriate signage
- Neglect of environmental restrictions by owners or government agencies
- Ignoring or circumventing adequate public facilities ordinances, open space, and forest buffer requirements

Two key tools are used to manage these threats:

1. The zoning designation of land is the legal tool governing how that property may be developed. When a community seeks to protect itself, having the proper parcel zoning in place consistent with the surrounding parcels is vital.
2. Baltimore County Zoning Regulations (BCZR) addresses building types and uses, easements, occupancy, neatness, and many more aspects of a property.

In fact, enforcement of our zoning regulations and codes contributes to the strong values of our properties and community. County codes, rather than being draconian, ensure that property owners adhere to the zoning restrictions; where they do not, a process is in place to mediate, at first, and work with the County, secondly, to enforce the codes. Neighbors can be impacted by physical encroachment, visual appeal encroachment, devaluation of home value, etc.

In order to be effective, a Code Enforcement, Development, and Zoning Committee (CEZDC) must be familiar with the County's complex development processes, understand its zoning regulations, and act promptly. Of particular importance, the CEZDC should be familiar with adequate public facilities ordinances, open space, and forest buffer requirements. The RRLRAIA board does not initiate localized zoning actions. Instead, it informs its member neighborhoods of new issues and supports those neighborhoods in an advisory capacity which need to take action.

Goals and Actions

GOAL 1

Maintain high-quality residential and business community standards. Requests for variances often accompany renovation and development projects in residential areas. Variances from regulations understandably cause strife in neighborhoods. These variances can be granted by a Baltimore County administrative law judge or by the Department of Environmental Protection and Sustainability (DEPS) if they are not opposed. The granting of variances often sets precedents for further variances, which in some cases may destabilize a community's standards and defenses. Every variance requested should be evaluated on its own merits in the context of the proposed development or redevelopment to determine if the variance should be opposed by RRLRAIA.

Action 1.1: Ensure that the Executive Director monitors planning, zoning, and development issues in order to inform the neighborhoods of requests for variances and proposed developments in their areas. Development management events and hearings are regularly posted on the Baltimore County website.

Action 1.2: Assist the neighborhood, when deemed necessary, in organizing effective testimony before the administrative law judge - every effort must be made to be successful at this level.

Action 1.3: Seek out DEPS inspectors before environmental variances are granted since there is no official avenue for community input (whereas developers' engineers directly communicate with DEPS).

Action 1.4: Use every opportunity to oppose the installation of electronic and/or changeable copy signage or other inappropriate signage. For example, ask the administrative law judge to include in his/her order the prohibition of such signage and make this request of any developer proposing a project within Association boundaries.

Action 1.5: Request that Baltimore County sign regulations be clarified to limit the size of temporary signs in residential areas.

Action 1.6: Advocate for legislation that would place commercial properties within the RRLRAIA boundaries to be added as a Baltimore County Design Review Panel (DRP) area, identical to the existing residential DRP overlay.

Action 1.7: Maintain continued vigilance by the RRLRAIA Executive Director and Board Members regarding communications with Baltimore County officials when zoning variances, waivers, special exceptions, and limited exemptions are filed and scheduled.

GOAL 2

Assist neighborhoods with code enforcement and zoning variance issues.

Action 2.1: When potential violations come to the attention of the Association, after investigation, contact property owners and request appropriate corrective actions if appropriate. If a neighbor made a complaint to the Association, advise the complainant how to access County resources via the Baltimore County Code Enforcement website for enforcement resources.

Action 2.2: Facilitate neighborhood meetings to address potential code violations when warranted.

Action 2.3: Monitor code enforcement issues and, when appropriate, work with County officials to strengthen enforcement efforts.

Action 2.4: Monitor zoning relief cases which include variances, special exceptions, and special hearings, and disseminate information to impacted neighbors and neighborhoods.

Action 2.5: Work with property owners/contract purchasers planning to file for zoning variances. This will assist the Association in addressing any possible objectionable aspects of plans for the property prior to filing.

Action 2.6: When requested zoning variances may have a broad impact, distribute information to the community at large, include nearby neighborhood associations, and work to determine if there is a consensus about what, if any, action should be taken in response to the variance filings.

Action 2.7: Oppose efforts to use accessory structures as living quarters except as permitted under existing rules and regulations.

Action 2.8: Make sure there is compliance with Open Space Requirements. Several residents have commented on the draft Plan's importance in enforcing the County's open space requirements. RRLRAIA agrees with Open Space Requirements, as they are consistent with our mission statement, and thus will assist with enforcing them when deemed appropriate.

Action 2.9: Any contemplated future walkability connections should seek impacted resident input before action is taken.

Action 2.10: Require further or enhanced county agencies review for infill lots. As background, if a permit comes in for an infill lot with less than 5,000 square feet of disturbance, a grading permit is not required and thus stormwater management does not have to be addressed. Further or enhanced review would hopefully address major drainage or runoff problems for these smaller infill lots.

GOAL 3

When not consistent with current zoning, discourage high-density residential development.

Action 3.1: Work with the Greater Ruxton Area Foundation (GRAF) to address any remaining parcels of land in the community whose development would be detrimental to the neighborhoods.

Action 3.2: Advise property owners of the availability of conservation easements through the Greater Ruxton Area Foundation via mailings and our website.

GOAL 4

Participate in the Comprehensive Zoning Map Process & Design Review Panel process; suggest modification if necessary.

There are three official opportunities for zoning change. The quadrennial Comprehensive Zoning Map Process engages developers, property owners, the public, Baltimore County Planning staff, the Planning Board, and the County Council in a tiered series of hearings over 14 & 14.5 months. In the years between, the zoning process is managed by various County agencies responsible for monitoring development, with more constrained public input, and with Administrative Law Judges (ALJ), and, if need be, the Baltimore County Board of Appeals rather than the County Council making the final decisions.

Action 4.1: Monitor the Comprehensive Zoning Map Process and provide input consistent with RRLR community character when needed.

Action 4.2: Educate the RRLRAIA board and its neighborhoods about the importance of talking to developers and County staff and testifying at all CZMP public hearings. County decision-making about zoning designations is responsive to community input.

Action 4.3: Encourage developers to attend RRLRAIA board and neighborhood meetings to present their plans.

Action 4.4: Facilitate pre-Design Review Panel (DRP) meetings among neighbors and property owners seeking changes requiring DRP review. The RRLRAIA Executive Director will be the facilitator.

GOAL 5

When code enforcement events arise, work to deal with unkempt or abandoned properties, some of which become overgrown due to a lack of maintenance.

Action 5.1: Meet with the Director of Permits, Approvals and Inspection (PAI) to discuss ways code enforcement could be strengthened to deal with vacant properties, in particular, properties that become occupied by squatters. Suggest legislation, if needed.

GOAL 6

Develop an invasive plant and vine eradication strategy for the community.

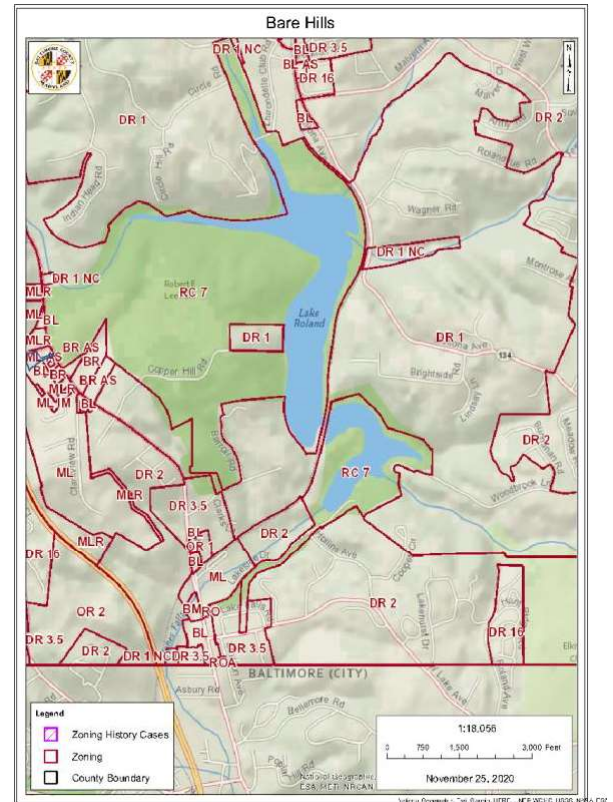
Action 6.1: Work with the Baltimore County Department of Environmental Protection and Sustainability (DEPS) to develop a letter/brochure with information to be sent to the RRLRAIA membership about the damage caused by invasive plants and vines, along with management and removal information. If specific properties are identified as being problematic regarding invasive plants and vines, contact the property owner directly to ensure they have this information.

Section 3 - Falls Road Corridor and Development

Introduction

There was significant interest in the community survey on the Falls Road Corridor, including the Bare Hills developments and its connections to Lake Roland Park. The survey question was not designed to gain input on all development in the larger RRLR footprint.

Once a historic turnpike toll road, Falls Road runs north to south near the western extremity of the RRLRAIA area. (The Jones Falls Expressway forms most of the actual western boundary of the Association's jurisdiction, except at its northwestern corner, where Falls Road is the border). Southward toward the city line, the road is lined with residential houses (some old, some quite new), but few are part of any concerted development. About a mile north of the city, one comes to Bare Hills, whose serpentine barrens were once the site of quite extensive chromite mining, which ceased in 1833. This area is also notable as the site of the Scott Settlement, an early free African-American community, some of whose houses are still extant, but some are not habitable today. Bare Hills was described in the RRLRAIA 2001 Community Plan as a "hodgepodge commercial center" (p. 31), a description that remains largely apt. North of Bare Hills, development thins considerably, with the last structures of note being those of Brightwood Living, a gated senior living community immediately south of the I-695 beltway, the RRLRAIA northern boundary.



The former Bluestem project, now Hollins Organic, has been at the center of much debate and legal and legislative action over the past four years. This contentious project, whose details have changed over time, would entail the development of the current Hollins Organic Products, Inc. lot at 6421-6427 Falls Road. The built upon six-acre tract would have been a mixed-use residential and retail development. The project, as proposed, was put on hold as a result of an administrative law judge's January 2020 ruling that the residential/commercial mix of the project would have overburdened the sewer system. The RRLRAIA's primary involvement in the Bluestem development was negotiating a restrictive covenant agreement with the developer in 2016, which was further amended in 2017 to restrict what could be built on the site, an agreement invalidated by the aforementioned proceedings. In addition, during the County's Comprehensive Zoning Map Process (CZMP) of 2020, completed in August of 2020, the Bluestem property was rezoned again; the new zoning classification eliminated the ability for residential development all together on the site while allowing more permissive commercial development on the site than the previous zoning would have permitted.

The RRLRAIA Board wishes to note as it relates to the Falls Road corridor and for all development in the broader community neighborhoods, the RRLRAIA is often viewed by residents as strictly an opponent of development or re-development. As the Association does not own the properties in question, its ability to improve on specific development proposals, or for that matter, stop development, is limited to advocating, where it feels appropriate, to the property owner and County officials, its views, thoughts, and suggestions on a proposed development. We also note that some development or redevelopment produces a positive impact on the community, for example, the upgrade of Royal Farms at the intersection of Joppa Road and Thornton

Road. The development of the Earth, Wood & Fire site and the Simply Beautiful Flowers site are viewed by many in the community as a positive upgrade to the Bare Hills area based on those sites' prior use.

Where proposed development or redevelopment does not meet current code and zoning regulations, RRLRAIA may attempt to positively influence the outcome of development or redevelopment to produce a more desirable outcome for the community.

Goals and Actions

GOAL 1

Continue to drive relevant actions contained in the 2010 plan related to the Falls Road corridor.

Action 1.1: Continue to pursue additional access points to Lake Roland Park. Much has been accomplished in the past ten years. Additional points of access that may be pursued are:

- Red Trail: Park patron parking at the Brooklandville Fire Station instead of the awkward roadside parking at the western end of the Red Trail. Safety concerns about the current location should be addressed by installing an architecturally appropriate - i.e., not concrete "jersey wall" - between Falls Road and a new roadside path connecting the red trailhead to new public parking at the fire station.
- Orange Trail: Advocate for Baltimore County to purchase a portion of the Bluestem property 6421-6427 Falls Road, specifically the location of Hollins Organic on the site for parking for the Orange Trail and additional maintenance access for that portion of the park.
- Davey Tree Site: Advocate for Baltimore County to purchase the Davey Tree property at 6101 Falls Road for Lake Roland parking for the high utilization area of the park and additional park maintenance support.
- Trail between Lake Roland and Meadowood Park: Advocate for a trail connection between Meadowood Park and Lake Roland tied into the proposed parking at the Brooklandville Fire Station.
- Additional Lake Roland Parking: Advocate for Baltimore County to purchase land adjacent to Lake Roland to improve access to the park via community trails.

Action 1.2: In support of Action 1.1, lobby Baltimore County to support these important access and connection efforts.

Action 1.3: Consistent with other efforts related to development, the newly proposed storage facility near the junction of Falls and Pimlico Road was an example where the Association actively sought to engage the developers of a newly planned development in seeking to produce a positive outcome regarding aesthetics. Rear and side yard setback variances were supported by the Association to visually compress the structure into the surrounding topography, existing structures, and reduce the overall massing next to the existing roadways. RRLRAIA will continue to proactively utilize tools such as thoughtful variances combined with developer concessions that are then memorialized in Restrictive Covenant Agreements (RCA) to produce the best long-term outcome for the community.

Action 1.4: Consistent with Section 2 - Code Enforcement, Development, and Zoning, maintain routine communication with Department of Planning personnel so the Association is apprised of new planned developments in the early stages.

Action 1.5: Encourage attractive signage (no internal illumination, no changeable copy signs, no pylon signs). The Association will work with stakeholders and the Baltimore County Office of Planning to create signage guidelines that will facilitate a consistent and attractive look to the area and maintain the Falls Road and Scenic Byway feel.

Action 1.6: Advocate with Landlords of commercial retail properties to solicit businesses as Tenants that would support and complement Lake Roland's recreational activities, such as bike rentals, fishing, and hiking accessories stores. Note per DEPS: there is a fish consumption advisory for Lake Roland for Sunfish, Black Crappie, Common Carp, and Large and Small Mouth Bass. This advisory is based on PCB contamination and sets limits on the quantity and type of fish safe for consumption. This advisory should be considered when promoting recreational fishing in Lake Roland.

Action 1.7: Request that Baltimore County designates Bare Hills Village as a Commercial Revitalization District (CRD) to allow for greater access to public funding to support development and redevelopment consistent with the principles outlined in this plan.

Action 1.8: Continue to advocate for development on the eastern side of Bare Hills consistent with the 2010 Plan, particularly with respect to the density and height of commercial and residential structures and the provision of public parking for increased walkability.

GOAL 2

For any new development in the area, monitor compliance with state and local regulatory laws, especially environmental laws, adequate public facilities ordinances, open space, and forest buffer requirements, and if the Association believes noncompliance, inform the necessary State and County officials of the lack of compliance.

Action 2.1: Any re-development should meet current environmental laws and standards, specifically installing ESD stormwater management systems to minimize stormwater runoff and flooding. The replacement of legacy, or the total lack of any form of stormwater management on a site for that matter, with an ESD stormwater management system, is a significant positive environmental byproduct of re-development.

Action 2.2: Actively engage Baltimore County Department of Environmental Protection and Sustainability (DEPS) staff when new development is being proposed and reviewed to ensure all environmental laws are adhered to through the design and construction of the project. Advocate for an open line of communication with DEPS's staff to aid residents potentially impacted by the project to ensure these residents have a seat at the table along with the developer to facilitate equitable decision-making. Note per DEPS: Baltimore County EPS reviews each new and re development plan for compliance with environmental laws. During this review, DEPS does not facilitate conversations between residents and developers.

Action 2.3: Require the County to demonstrate sewer system deficiencies in the area have been corrected before approving any new development in the area that may require a sewer service connection and will result in increased sewer load.

GOAL 3

For the 6421-6427 Falls Road project specifically, closely monitor development proposals for the site and attempt to maintain the spirit of the prior principles of the now invalidated, amended restrictive covenant agreement, where relevant, given the revised site zoning.

Action 3.1: When any new development proposals are made for the 6421-6427 Falls Road project, review the development proposal and, where possible, advocate with developer(s) and County officials that the proposal is consistent with the goals and objectives of the Bare Hills Section of the RRLRAIA 2010 Community Plan. Also, review any such proposals for compliance with open space requirements, availability of current and future sewer capacity to service the project, and traffic impacts on Falls Road, both at Lake Avenue and Old Court intersections.

Section 4 - Flooding

Introduction

Floods are naturally occurring events that can be amplified by human actions. The RRLRAIA community has experienced significant flooding for many years now. A flood is the result of some combination of weather, geology, soils, impervious surfaces (surfaces that water cannot penetrate), poor subdivision design and maintenance, failing levees, and vegetation. Communities can control those last four factors that impact flood damage.



Ruxton Road Stormwater; Photo Credit: Tammy Wiggs

Primary Factors Contributing to Flooding in the Community

- Change in weather patterns due to climate change and associated increases in the intensity and frequency of storm events. Former DPW Director Walsh published and posted on the County website, “Various climate sources now document an increase in rainfall over the past 60 years across the country. In our area, the northeast, the amount of precipitation falling during intense, multi-day events increased an astounding 71 percent, say the experts”.
- New development, either commercial or residential, almost always increases the amount of impervious surface and the generation of increased sewer system flows. This includes development in our community and the communities that have water flowing from into ours. The transition of properties from wooded lots to home sites with expansive lawns reduces onsite water storage during rain events. During a major rain event, rain and flood water infiltration of the sewer system may contribute to sewer overflows, contributing to the contamination of local streams, rivers, and Lake Roland. Lake Roland has recorded high levels of E. coli contamination per the Baltimore County Department of Health and Blue Water Baltimore, among others. Other sources of E. coli contamination originate from failed septic systems which in turn are then affected by flooding. In the event land parcels or home sites have steep slope topography, the lack of on-site water storage via trees and other vegetation or vegetated water deceleration can produce significant flash flood events.
- Poor legacy standards of stormwater management are one of the dilemmas of grandfathered properties that lack engineered stormwater management systems or, for that matter, the lack of any form of site-based stormwater management on sites developed decades ago. This is in stark contrast to new development that requires proper stormwater management, among other requirements. This impacts the RRLRAIA community:
 - Within our community - Legacy impervious surfaces from development projects constructed with standards that predated current stormwater management standards.
 - Outside the community – Uncontrolled water flows into and through the community. The community has three primary tributaries running into and through the community; the Jones Falls, Roland Run, and Towson Run combining to form Lake Roland. In addition, there are numerous secondary tributaries within the community that ultimately flow into these primary tributaries and then into Lake Roland. These flows leave Lake Roland as one combined flow referred to as the Jones Falls.

Due to the above, the average 100-year floodplain is projected by some to increase 45% by the year 2100. Among the types of flooding that will likely become more frequent are:

- **Localized Floods:** Localized flooding happens when rainfall overwhelms the capacity of urban drainage systems.
- **Riverine Floods:** Riverine flooding happens when river flows exceed the capacity of the river channel.

Impacts from Flooding

Major flooding events can have lasting effects on the local environment and economy, as well as the health, safety, and general welfare of the public.

- **Environmental:**
 - Waterway sedimentation and pollution caused by runoff.
 - Sewer system water infiltration and resulting capacity overflow pollution.
 - Polluted ground surface runoff from residential septic systems.
- **Economic from a perspective of the impact on impacted properties, in concept, commercial revenue-generating properties upstream with legacy or no stormwater management systems are adversely affecting and economically impacting residential properties downstream within the community:**
 - Reduction of actual landmass of the actual property.
 - Reduction of land value and property value.
 - Ongoing cost of flood insurance.
 - Impact issues/costs with property-casualty insurance.
 - Potential impacts regarding residential property mortgage lenders.
 - Loss of residential and commercial properties, to date, a total of approximately eight residential properties and two commercial properties that have been rendered inhabitable due to the progression of flooding in the community. Projected losses over time are approximately 75 impacted properties within the community.
- **Public safety:**
 - Flooded streets rendered impassable by residents:
 - Circle Road, L'Hirondelle Road, and Ruxton Road ingress/egress during peak Roland Run events, in particular emergency management vehicles. The Circle Road residents appear to be the most significantly impacted of the three impacted access points.
 - Falls Road at Rockland Ridge during peak Jones Falls events by emergency management vehicles. The Rockland Ridge residents appear to be the most significantly impacted regarding this access point.
 - Flooded streets rendered impassable by automobiles. Drivers misjudge the depth or movement velocity of standing water resulting in stranded motorists floating away in their automobiles, requiring the Baltimore County Fire department to perform a fast-water rescue of the occupants. In addition, three children on Falls Road were killed when the automobile they were traveling in was swept into a ditch and the children drowned.
 - Flooded homes pose a significant risk of injury or death if occupants fail to evacuate to safety in a timely manner.

Solutions

By improving stormwater system capacities, reducing stormwater runoff, and protecting floodplains, green infrastructure can help manage both localized and riverine floods. In areas impacted by localized flooding, green infrastructure practices absorb rainfall, preventing water from overwhelming stormwater management infrastructure. Green infrastructure practices that enhance infiltration include rain gardens, bioswales, and permeable pavements. In areas impacted by riverine flooding, green infrastructure, open space preservation, and floodplain management can all complement gray water infrastructure approaches. These practices reduce

the volume of stormwater that flows into streams and rivers, protecting the natural function of floodplains, and reducing the damage to both infrastructure and property.

Long-range solutions also require thinking at the municipal level as that water flows downhill and does not stop at political or community boundaries.

It is important to note there is also a secondary impact downstream below our community. In essence, what flows in flows out, in addition to what our community contributes, and then impacts communities downriver and ultimately water quality in the Chesapeake Bay. With the reduction of on-site water storage and vegetated water deceleration within the community, erosion and water sedimentation are increased, which in turn further impacts water quality within the streams, rivers, and bodies of water within the community and ultimately the Chesapeake Bay.

Goals and Actions

The necessary goals and actions to make any meaningful impact in our community regarding flooding will require a sustained long-range effort not only from Association board members but also other community organizations that support the long-term remediation efforts this issue requires. In addition, support from Baltimore County officials and other impactful governmental agencies is critical. The goals listed below are “stretch” goals and assume the Association can form a committee consisting of private, non-profit, and governmental team members to drive impactful remedial actions over an extended period of time. We do not believe there are easy short-term fixes to the problem, but progress can be made if there is a concerted effort long-term by a team of interested parties.

There is significant data already accumulated on flooding. Please see Appendix B - Flooding Resources for additional information.

GOAL 1

Take actions to form a committee of not only RRLRAIA board members but of other interested parties. Begin to formulate and drive remedial actions that will make a meaningful difference over the long term.

Action 1.1: Form a Flood Committee of the RRLRAIA Board to take the lead in the larger effort needed.

Action 1.2: Once the above Flood Committee is formed, begin the recruitment process of formulating a larger team, e.g., Blue Water Baltimore, and Baltimore County officials, among others.

Action 1.3: Regularly update the community and solicit input and suggestions.

GOAL 2

Once the larger Flood Committee is formed, the committee will need to gain a better knowledge of the problem, specifically, review, understand and monitor the flood mapping data and water flow data correlated to local weather data for the broader community.

Action 2.1: Review available Flood Mapping.

Action 2.2: Review available Flood Monitoring and Flood Data.

Action 2.3: Request additional flow level gauges to be installed on the tributaries leading into the community to antidotally determine sources of flooding within the community and sources of flooding

outside the community. Solutions to flooding are going to be data-driven; therefore, accurate data is critical.

GOAL 3

Review, understand, and monitor the water quality impact data for the broader community.

Action 3.1: Review the section titled Environmental Impact Water Quality Monitoring in the Flood link reference above. It is critical to educate the community on the direct correlation of flooding to poor water quality.

Action 3.2: Evaluate whether periodic Baltimore County Department of Health water testing of Lake Roland should be increased in testing methodology beyond E. Coli contamination testing regarding additional water quality information including turbidity, suspended solids, oxygenation, etc.

GOAL 4

Advocate for additional flood impact accommodations and solutions with Baltimore County and the State of Maryland.

Action 4.1: Evaluate the raising of the height of bridges and roadways in low-lying areas as well as road paving practices that raise roads without stormwater management considerations and create dams that exacerbate erosion of roadsides.

Action 4.2: Evaluate flood insurance accommodations by the municipality, granted a federal program, due to upstream development permitted by the municipality that has contributed to community flooding and localized community impact.

Action 4.3: Evaluate property impact compensation through municipal acquisition of properties that would otherwise not be able to be sold based on flood plain impact.

GOAL 5

Advocate for flood mitigation solutions **within** the community.

Action 5.1: On-site residential stormwater storage through programs such as the University of Maryland Extension program called “Woods in your Backyard” through the thoughtful replacement of lawns with trees producing greater on-site water storage within the landowner’s property.

Action 5.2: Determine abatement and stormwater storage methodologies to be implemented within the existing stream and river systems to add storage and act as a water decelerator.

Action 5.3: Evaluate Baltimore County forest buffer retention management practices for parcels proposed for construction.

GOAL 6

Advocate for flood mitigation solutions **outside** the community, as much of the flooding experienced in our neighborhoods originates outside our community. This may be one of the most impactful goals and related actions.

Action 6.1: Advocate the same methodologies as identified within the community.

Action 6.2: Address commercial landholders that have significant impervious surfaces with grandfathered legacy stormwater management. In particular, the Lutherville Timonium area that impacts Roland Run, the Towson area, in particular Towson University and the Towson business core that impacts Towson Run and Greenspring Station that impacts the Jones Falls.

Action 6.3: Advocate for legislative corrective actions to address the grandfathered nature of legacy sites without stormwater management that significantly contribute to the problem. For example, a more thoughtful and equitably applied Storm Water Management Fee, a fee that would be applied to all properties, both commercial and residential. The prior attempt at implementing the fee was inequitable and only applied to commercial properties at a higher cost than if applied to all properties at a lower cost.

Action 6.4: Advocate for sources of funds to mitigate the impact of Action 6.3 regarding the loss or reduction of grandfathered status for legacy stormwater management systems, or lack of, regarding the commercial property owner regarding an unfair legislated/regulated burden and imposed cost to allow for the site to be brought up to current code standard. Environmental bonds may be an additional source of funding to mitigate this impact. Refer to Appendices - Public/Private Financing to Solve Flooding.

GOAL 7

The committee needs to focus on political and governmental advocacy regarding key decision-makers and change agents on the impact of flooding and ineffective stormwater management.

Action 7.1: On a Baltimore County level regarding:

- Legislative changes that help reduce the sources and causes of flooding via mitigation and flood control projects.
- Sources of funds for mitigating the financial impact on businesses and households from implementing flood mitigation projects that are a result of legislative changes.
- Mitigation project advocacy with the appropriate Baltimore County agencies/departments.
- Mitigation project advocacy with the appropriate Baltimore County elected officials.

Action 7.2: On a Maryland State Level regarding:

- Legislative changes that help reduce the sources and causes of flooding via mitigation and flood control projects.
- Sources of funds for mitigating the financial impact on businesses and households from implementing flood mitigation projects that are a result of legislative changes.
- Mitigation project advocacy with the appropriate Maryland State agencies/departments.

GOAL 8

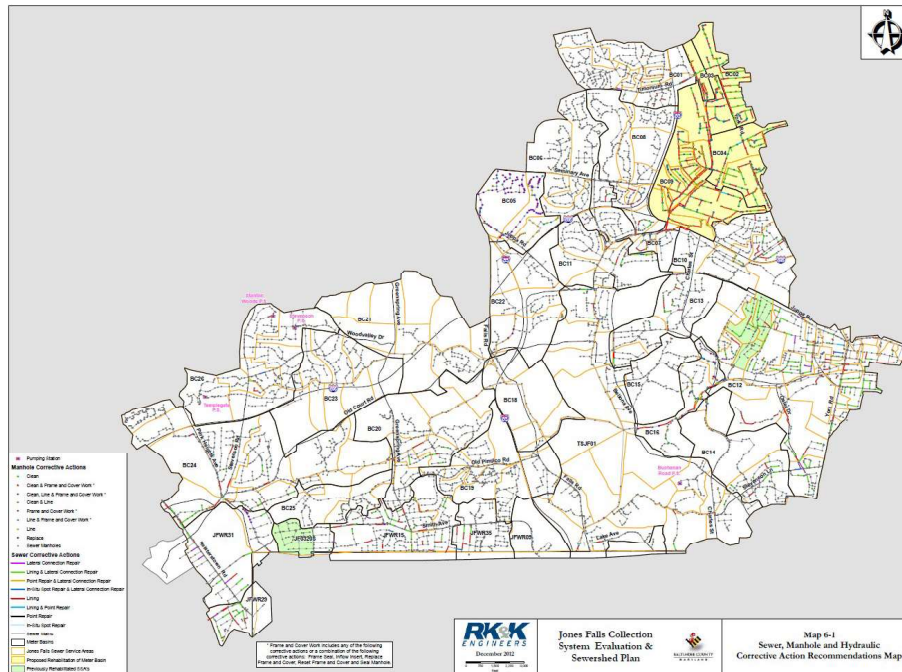
Educate the community and elected officials in support of Goal 7 on practical flood prevention steps. This will primarily be accomplished through meetings with relevant officials, decision-makers, and working groups in the community, supplemented with educational materials on the subject.

Action 8.1: Review the section titled Practical Flood Prevention Steps in Appendices, *Technical Resources, How To* and “*Let’s not throw the forest out with the stormwater project*” by Barbara Southworth and search for best practices for flooding and stormwater mitigation and management.

Action 8.2: Create a dedicated flood education resource section on the RRLRAIA website.

- Links to historical RRLRAIA newsletters outlining the extent and history of flooding within the community.
- Links to supplemental documents to both help educate the community regarding flooding, flood mitigation, and the general efforts of the committee.

Section 5 - Sewer Lines



Introduction

In many of Baltimore County's highly populated areas (Pikesville, parts of Owings Mills, Lutherville, Timonium, and Towson), sewage is conveyed through a 42-inch (at its widest) sewage pipe built in the early 1950s. There are various interceptors that merge above Lake Roland and then travel in one pipe under Lake Roland, eventually traveling through a similar pipe in Baltimore City and ending at the Back River wastewater plant where the sewage is treated. Where the system is inadequate (primarily during major rain events), sewer outflows may exit the sewer system and contaminate the Jones Falls flowing eventually into Baltimore's Inner Harbor and the Bay.

Given the pipes are in excess of 70 years old, rainwater will often infiltrate during heavy storms stressing the capacity and the pipe's ability to transmit sewage without leakage.

In 2005, a consent decree was entered into by the Federal Government, the State of Maryland, and Baltimore County requiring all necessary measures be taken to eliminate sanitary sewer overflows and comply with the Clean Water Act (section 301).

One specific action required in the consent decree was to prepare the Sewershed Repair, Replacement and Rehabilitation (SRRR) plan for the Jones Falls Sewershed. This was produced in 2012. The SRRR provides corrective actions based upon deficiencies identified after required inspection and long-term capacity/peak flow management evaluation reports of the Jones Falls system.

In August 2019, during a major rainstorm, a manhole overflowed just downstream from the Lake Roland dam and resulted in a significant sanitary sewer overflow (SSO). The exact amount of sewage spilled is not clear. Baltimore County did file a sanitary sewer overflow (SSO) report, thus confirming the spill did occur.

Several independent organizations, apart from RRLRAIA, have recently lobbied Baltimore County to stop further development in the sewershed until necessary remedial actions have occurred with the sewer system. Development continues in such areas as Greenspring Station, Lutherville, Timonium, and Towson.

The County has commissioned two relevant consultant studies related to the sewage system and associated interceptors:

1. RJN Group has been hired to conduct a Performance Assessment Study consistent with the prior consent decree. This report was to be completed by mid-2021.
2. Hazen & Sawyer, engineer consultants, were hired in early 2020 to gather data and address the major issues in the sewer system. Their consultant study is due in December of 2022. The key deliverables of the study are:
 - Future capacity needs from projected development
 - Strategies to protect the environment
 - Best strategies for management and maintenance
 - Strategies for vulnerabilities
 - A roadmap forward to provide reliable sewer service in accordance with long-term objectives

As this is a community plan, and this plan was reviewed by community members before submission to the County, we wish to note several concerns expressed by community members and leaders of community organizations regarding prior issues related to the sewershed. These community members assert:

- 1) County officials in the past withheld or were nonresponsive to requests for Consent Decree information, particularly long-term capacity/peak flow management evaluation, among others
- 2) The County has flawed methodologies related to analysis driving remediation of the sewershed
- 3) The County concealed key findings of its own studies and adequate public sewer evaluations regarding Sewershed capacity to thereby support the construction of new real estate developments
- 4) Other assertions such as the County used outdated population and employment data projections for year 2025 that excluded substantial growth in the Towson area, etc.
- 5) Some question the need for the completion of the final section of the Towson Run relief sewer between Charles Street and Bellona Avenue.

RRLRAIA has not validated these assertions but desires to note that there is a very strong and vocal group of community members that strongly believe the above.

As this is a forward-looking document, the Association wishes to make sure there are open and honest communications between members of the community and County officials going forward and that any disagreements are transparent and hopefully resolved. The proper functioning of the sewer system was one of the five highest issues of concern by the community in the community survey. To begin addressing the issues, RRLRAIA plans to create a committee that will play a positive and collaborative role in improving the sewer system.

Goals and Actions

GOAL 1

RRLRAIA Board to meet and decide its position on supporting future development prior to completion of the ongoing studies and rehabilitation mentioned above. More specifically, does the Board oppose all new development until sewer capacity and function are confirmed and detected system defects rehabilitated/repaired, or take no position at all deferring the matter to the Baltimore County Department of Public Works? RRLRAIA's involvement and focus will be to work on improving communications with County officials regarding the sewer shed remediation and rehabilitation.

Action 1.1: RRLRAIA Board to meet and decide its position on development as mentioned above.

Action 1.2: RRLRAIA Board to decide how it aligns with the independent individuals and organizations and specifically their desire for a moratorium on future development that would place additional sewage in the sewer system.

GOAL 2

Actively monitor both consultant studies to make sure they are completed in the contracted timeframe and within scope.

Action 2.1: Form a committee of the RRLRAIA Board once both studies are completed to review the findings and recommendations.

Action 2.2: If felt necessary by the committee, procure consultants, on a pro bona basis, to assist in this review to ensure these studies are relevant and ensure validity.

Action 2.3: The committee to decide if the findings and recommendations are consistent with the intent of the consent decree of 2005 and the County agrees to undertake necessary actions to meet the intent.

Action 2.4: If the studies produce findings and recommendations not considered consistent with the consent decree requirements, advocate with the County to correct this inconstancy.

GOAL 3

Review pipe data from RK&K studies and county pipe design capacity maximums and identify potential problematic pipe segments. Monitor our area where the interceptors and pipes are for sanitary sewer overflows (SSOs).

Action 3.1: Work with the Baltimore County Department of Health, Blue Water Baltimore, and Lake Roland Nature Council to coordinate monitoring efforts and visual inspections of specific manholes that sanitary sewer overflows (SSOs) have the potential of occurring. If any sanitary sewer overflows (SSOs) are suspected, inform County environmental officials, and seek timely resolution.

Action 3.2: Request Baltimore County Department of Public Works to provide storm data that could cause sewer infiltration exceeding system capacity that would cause sewage to back up into basements (e.g., L'Hirondelle Club Road, homes along Roland Run intercept, etc.) in low-lying areas.

Action 3.3: Increase the quantity of locations for water quality testing throughout the community in associated tributaries beyond the boundaries of Lake Roland by the Baltimore County Department of Health to supplement data from Blue Water Baltimore.

GOAL 4

RRLRAIA to be an information resource and conduit of sewer rehabilitation update information to the community.

Action 4.1: Maintain open lines of communication with the Baltimore County Department of Public Works so that pertinent information can be passed on to the community regarding localized community impact caused by sewer rehabilitation, secondary relief sewer installation, and the myriad of access issues associated with blow lining existing sewer infrastructure to prevent stormwater infiltration and leakage.

APPENDIX A - COMMUNITY SURVEY

RRLRAIA Community Survey

Every ten years, RRLRAIA prepares a community plan laying out its actions to achieve the identified priorities for the next ten years. The goal of the 2020 RRLRAIA Community Plan is to help preserve and/or enhance the quality of life in the Ruxton, Riderwood and Lake Roland area communities. The plan is being developed as part of Baltimore County's 2030 Master Plan and will serve as a guide to expectations, policies, and services from Baltimore County as well as the RRLRAIA. It is a living document.

Prior plans have had a significant positive impact on our neighborhoods, such as the creation of the Greater Ruxton Area Foundation and its ongoing easement and neighborhood enhancement program, the agreement to transfer operational control of Lake Roland Park from Baltimore City to Baltimore County, among many other accomplishments.

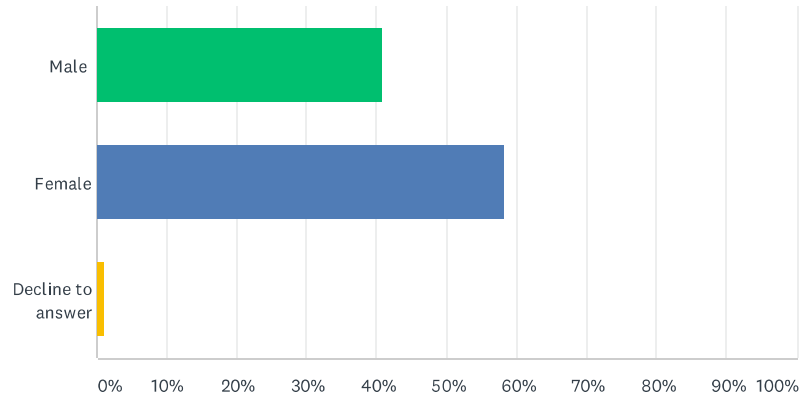
The first key step in developing the plan was an email survey sent in May to nearly 1,000 residents in the RRLRAIA area, which yielded nearly 50% responses.

A committee of the RRLRAIA Board has developed goals and detailed action steps for the five key issues. The RRLRAIA Board and Baltimore County officials will review the plan and modify or approve these goals and action plans. We hope to have this completed by mid-year 2022.

The RRLRAIA 2020 Community Survey

Q1 Gender — I am:

Answered: 481 Skipped: 0

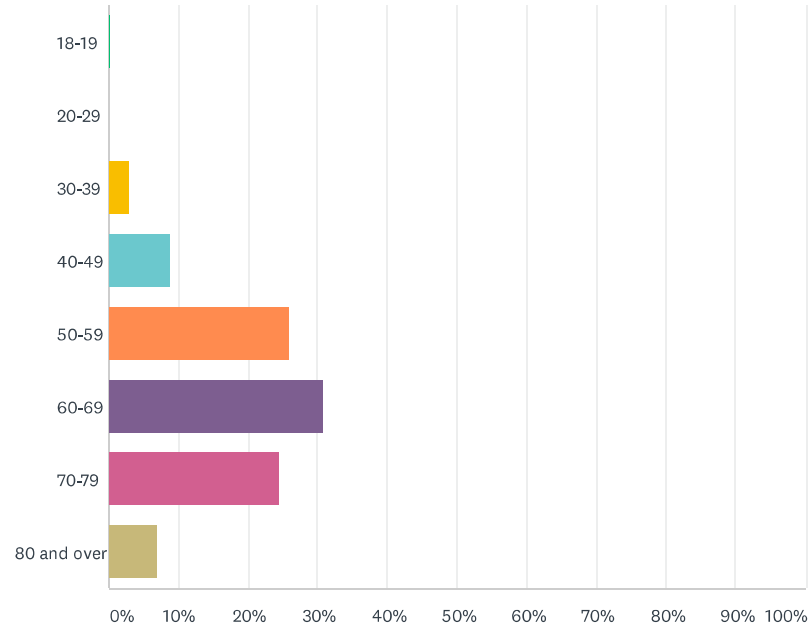


ANSWER CHOICES	RESPONSES	
Male	40.75%	196
Female	58.21%	280
Decline to answer	1.04%	5
TOTAL		481

The RRLRAIA 2020 Community Survey

Q2 Age — I am:

Answered: 481 Skipped: 0

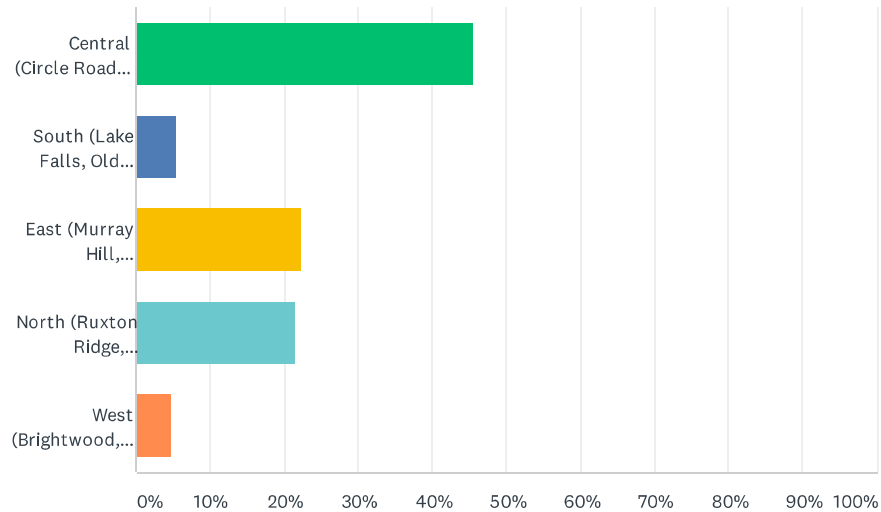


ANSWER CHOICES	RESPONSES	
18-19	0.21%	1
20-29	0.00%	0
30-39	2.91%	14
40-49	8.73%	42
50-59	25.99%	125
60-69	30.77%	148
70-79	24.53%	118
80 and over	6.86%	33
TOTAL		481

The RRLRAIA 2020 Community Survey

Q3 Residence — I live in the following approximate area:

Answered: 477 Skipped: 4

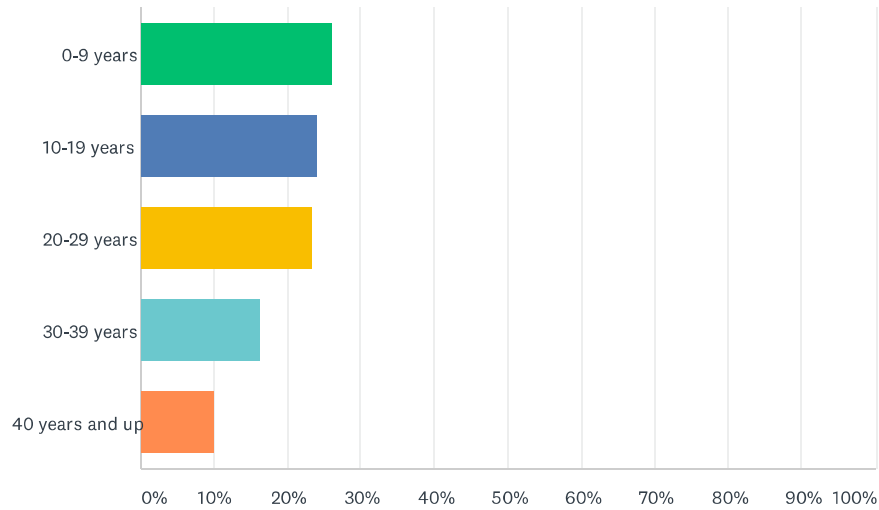


ANSWER CHOICES	RESPONSES	
Central (Circle Road, Ellenham Road, Ruxton Hill, etc.)	45.70%	218
South (Lake Falls, Old Washingtonville, Buckingham Manor, Devon Hill, Dembeigh Hill, Lakehurst, etc.)	5.45%	26
East (Murray Hill, Woodbrook, Brightside, Four Winds, Chestnut Hill, Greenwood, etc.)	22.43%	107
North (Ruxton Ridge, Riderwood, Thornton Road, Village Green, Sunset Knoll, etc.)	21.59%	103
West (Brightwood, Rockland, Bare Hills, etc.)	4.82%	23
TOTAL		477

The RRLRAIA 2020 Community Survey

Q4 Residence — Time in current home:

Answered: 472 Skipped: 9

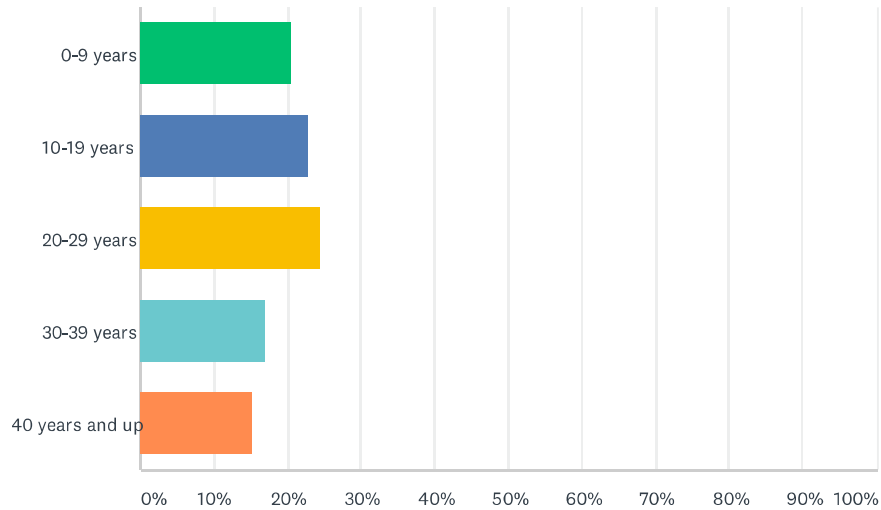


ANSWER CHOICES	RESPONSES	
0-9 years	26.06%	123
10-19 years	24.15%	114
20-29 years	23.52%	111
30-39 years	16.31%	77
40 years and up	9.96%	47
TOTAL		472

The RRLRAIA 2020 Community Survey

Q5 Residence — Time in RRLRAIA overall, current home plus previous home(s):

Answered: 471 Skipped: 10

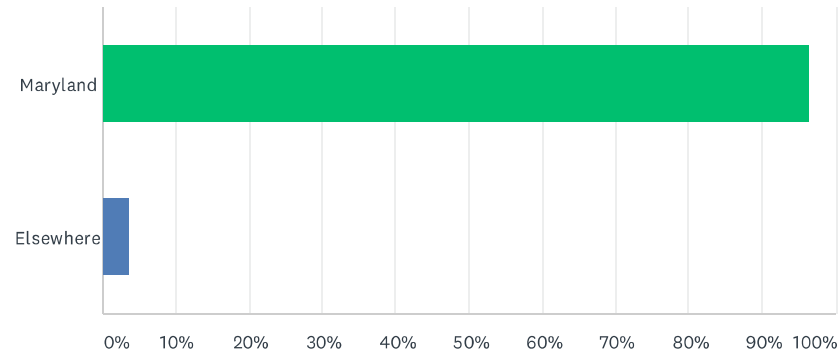


ANSWER CHOICES	RESPONSES	
0-9 years	20.59%	97
10-19 years	22.72%	107
20-29 years	24.42%	115
30-39 years	16.99%	80
40 years and up	15.29%	72
TOTAL		471

The RRLRAIA 2020 Community Survey

Q6 Residence — My state of primary residence is:

Answered: 471 Skipped: 10

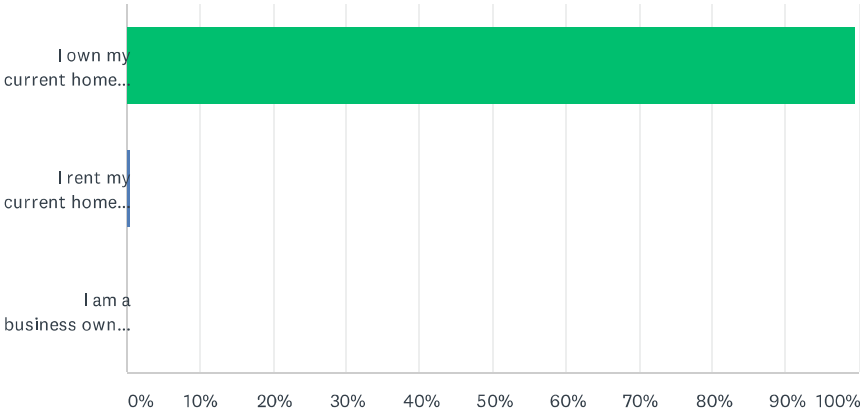


ANSWER CHOICES		RESPONSES	
Maryland		96.39%	454
Elsewhere		3.61%	17
TOTAL			471

The RRLRAIA 2020 Community Survey

Q7 Residence — Homeownership:

Answered: 470 Skipped: 11

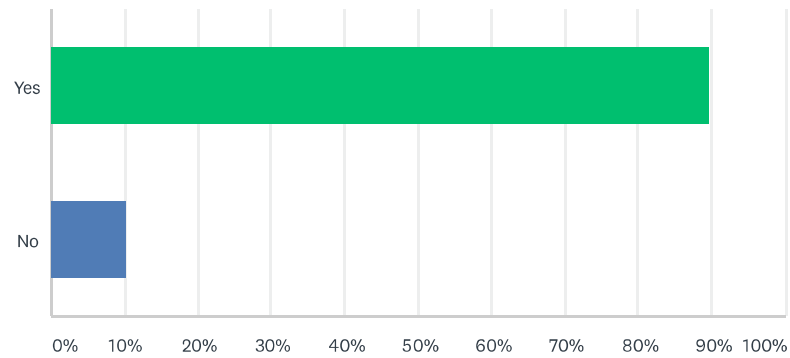


ANSWER CHOICES	RESPONSES	
I own my current home in the RRLRAIA area	99.57%	468
I rent my current home in the RRLRAIA area	0.43%	2
I am a business owner in the RRLRAIA area (if business and homeowner, check homeowner button)	0.00%	0
TOTAL		470

The RRLRAIA 2020 Community Survey

Q8 My household has paid membership or my business is a patron of RRLRAIA (all surveys will be treated equally, regardless of membership status):

Answered: 470 Skipped: 11

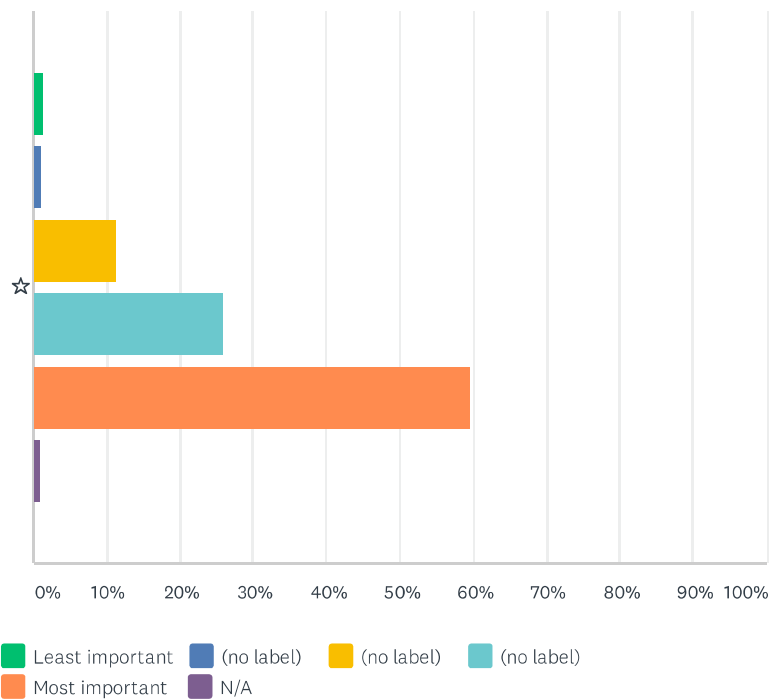


ANSWER CHOICES	RESPONSES	
Yes	89.79%	422
No	10.21%	48
TOTAL		470

The RRLRAIA 2020 Community Survey

Q9 Code enforcement and zoning*† This issue appeared in the 2000 and the 2010 surveys as, respectively, “zoning & development” and “subdivision & infill.” The purpose of RRLRAIA’s attention to this issue would be working to ensure residents’ and businesses’ adherence to Baltimore County zoning code regulations, such as adhering to building setback requirements, and to advocate for appropriate zoning and development within our boundaries, consistent with our mission statement. The inclusion of new residential properties in the Baltimore County Design Review Panel (DRP) process is an example of a positive result of our previous plans. RRLRAIA has a community representative on the DRP. The association routinely facilitates meetings with homeowners/builders/developers and neighbors to bring to light and resolve issues. The association also performs this function when a zoning variance is requested. Should this sort of thing continue to be a focus of RRLRAIA?

Answered: 460 Skipped: 21

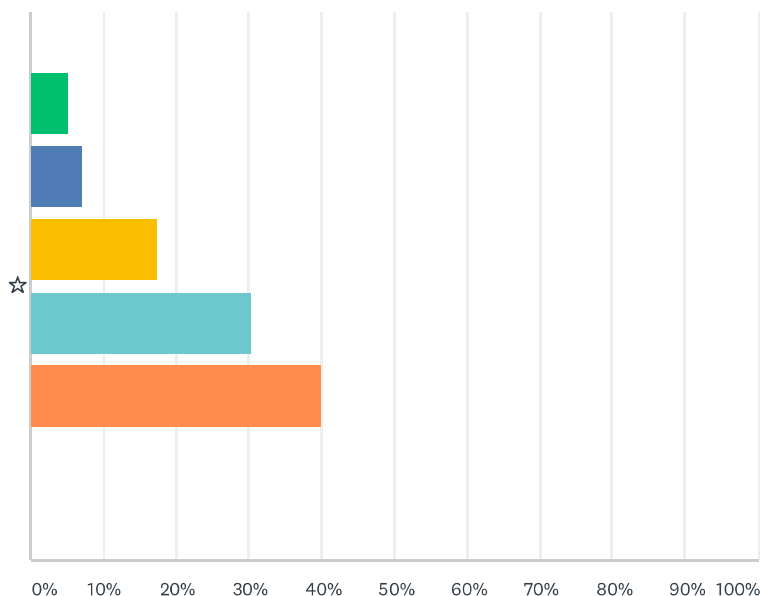


	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	1.30% 6	1.09% 5	11.30% 52	25.87% 119	59.57% 274	0.87% 4	460	4.43

The RRLRAIA 2020 Community Survey

Q10 Biking and walking*†This issue appeared in the 2000 and the 2010 surveys as, respectively, “walkways & bikeways” and “pedestrian & bike enhancement.” The goal is for RRLRAIA to advocate for applicable improvements. An example of action taken as the result of the earlier surveys is the association’s push for the sidewalks that are now on Bellona Avenue north of Graul’s Market.Should this sort of thing continue to be a focus of RRLRAIA?

Answered: 459 Skipped: 22

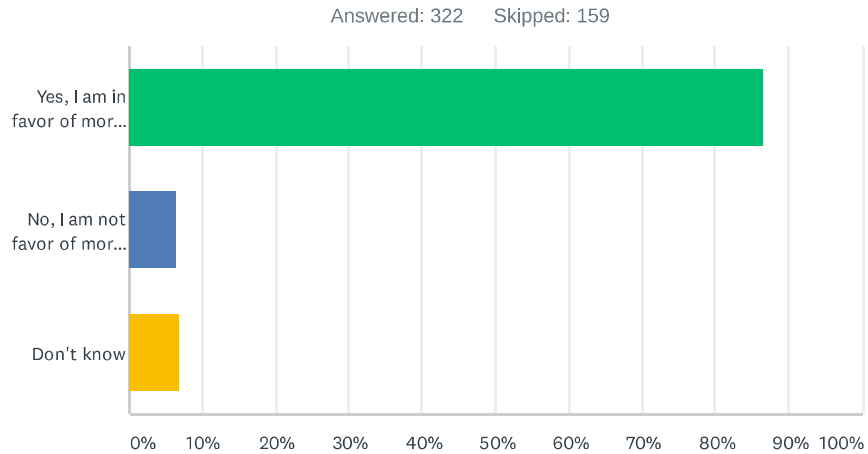


Least important (no label) (no label) (no label) Most important N/A

	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	5.23% 24	7.19% 33	17.43% 80	30.28% 139	39.87% 183	0.00% 0	459	3.92

The RRLRAIA 2020 Community Survey

Q11 If assigning a score of 4 or 5 stars, please indicate below if you favor more or fewer walking/biking paths (including road bike lanes):

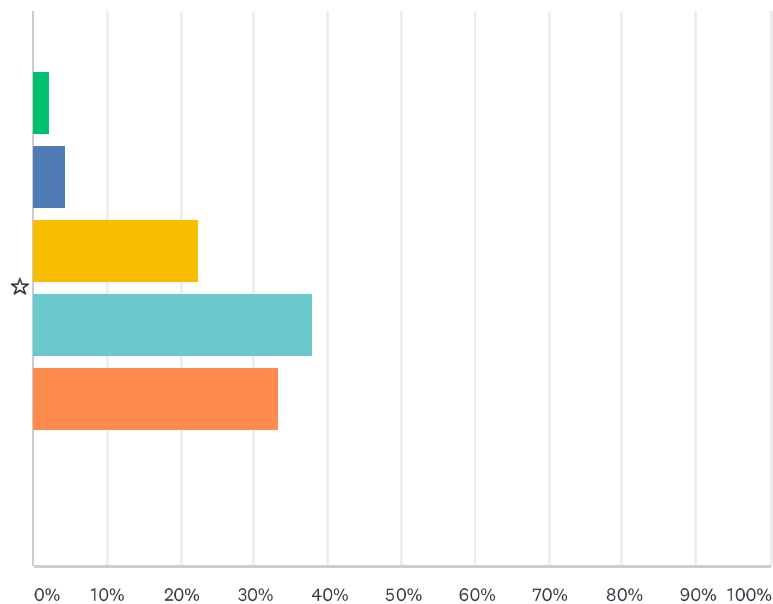


ANSWER CHOICES	RESPONSES	
Yes, I am in favor of more biking/walking paths, including road bike lanes	86.65%	279
No, I am not favor of more biking/walking paths, including road bike lanes	6.52%	21
Don't know	6.83%	22
TOTAL		322

The RRLRAIA 2020 Community Survey

Q12 Community and commercial enhancements*†This issue appeared in the 2000 and the 2010 surveys as, respectively, “community enhancement” and “commercial centers,” calling upon RRLRAIA to advocate for improving the aesthetics at our six commercial centers and other areas. The association continues to work with property owners to bring positive change. We have done this with virtually all of these centers over the years. Specific examples include a collaborative process with property owners in Bare Hills, resulting in the creation of the Earth, Wood & Fire restaurant and Simply Beautiful Flowers & Gifts. Another example is our work with Royal Farms management to improve traffic flow, landscaping, lighting and signage at their store at Joppa and Thornton roads.Should this sort of thing continue to be a focus of RRLRAIA?

Answered: 455 Skipped: 26



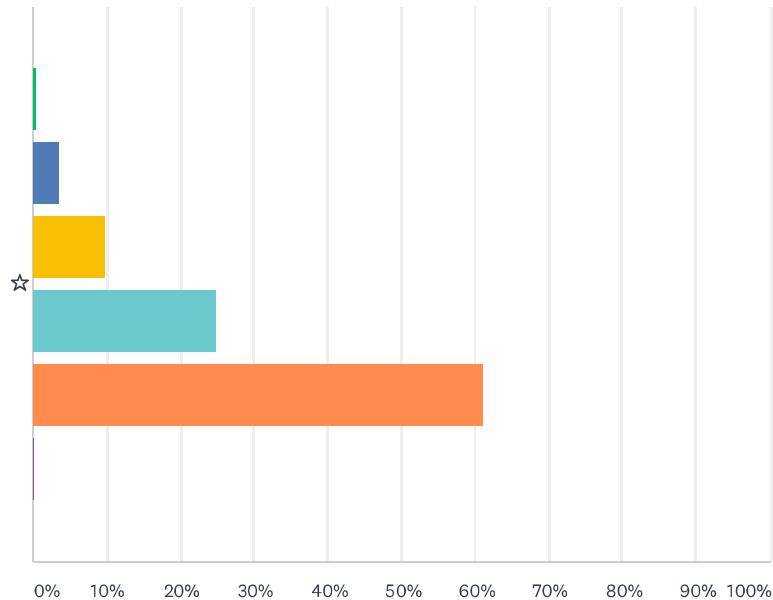
■ Least important
 ■ (no label)
 ■ (no label)
 ■ (no label)
 ■ Most important
 ■ N/A

	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	2.20% 10	4.40% 20	22.42% 102	37.80% 172	33.19% 151	0.00% 0	455	3.95

The RRLRAIA 2020 Community Survey

Q13 Crime and public safety†This issue appeared in the 2010 survey, as "public safety," but not the 2000 survey. Examples of actions taken as the result of the earlier survey are the association's member notifications through e-mail of current crime issues, as well as the development of strong relationships with Towson police precinct commanders.Should this sort of thing continue to be a focus of RRLRAIA?

Answered: 454 Skipped: 27



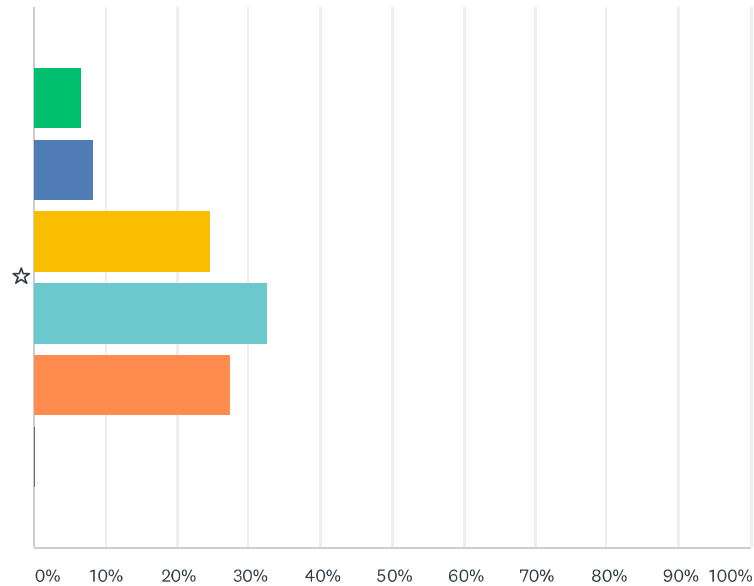
Least important (no label) (no label) (no label) Most Important N/A

	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	0.44%	3.52%	9.91%	24.89%	61.01%	0.22%		
	2	16	45	113	277	1	454	4.43

The RRLRAIA 2020 Community Survey

Q14 Forest preservation and deer managementOur local area forests are primarily old-growth forests. However, many new-growth trees and shrubs have been eaten by the large herds of deer in our neighborhoods. Should RRLRAIA protect and promote new-growth plant life and help in the regeneration of forests in our neighborhoods by better managing the deer herds (for example, by means of deer fencing, among other methods)?

Answered: 453 Skipped: 28

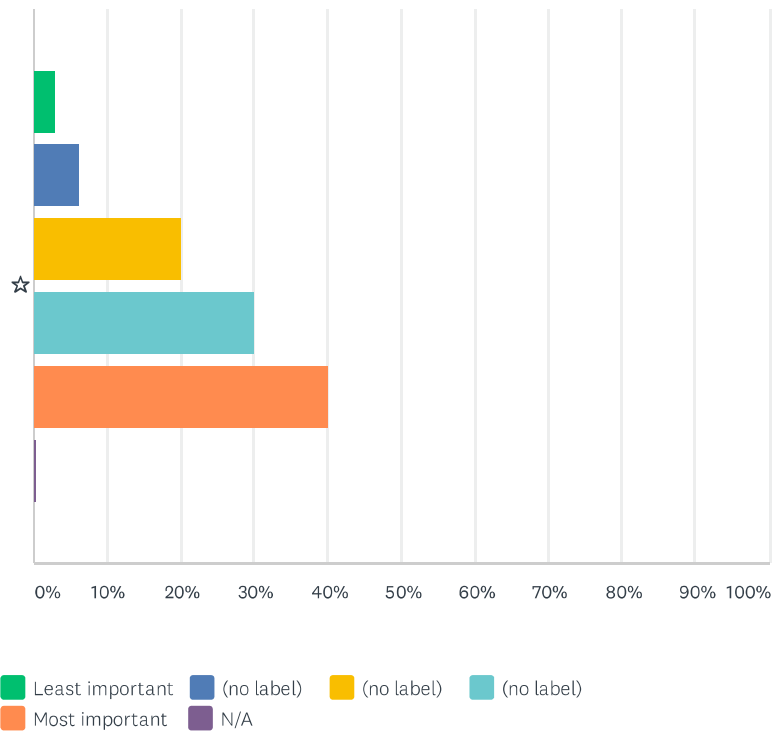


	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	6.62% 30	8.39% 38	24.72% 112	32.67% 148	27.37% 124	0.22% 1	453	3.66

The RRLRAIA 2020 Community Survey

Q15 Falls Road corridor and other development*†This issue appeared in the 2000 and 2010 surveys as, respectively, “Land Preservation” and “Lake Roland & Bare Hills.” The goals resulting from the 2000 survey pertained to, and resulted in, the county’s leasing and management of the Baltimore City-owned Lake Roland Park (formerly known as Robert E. Lee Park). This happened when the county took over management of the park on a lease basis in 2009. As for the 2010 survey, RRLRAIA took on the goals of advocating for or supporting (a) park-expanding land acquisition, (b) improved and increased park-access points, and (c) appropriate development in the vicinity of Falls and Clarkview roads. Much has been accomplished with regard to all three of goals.Should this sort of thing continue to be a focus of RRLRAIA?

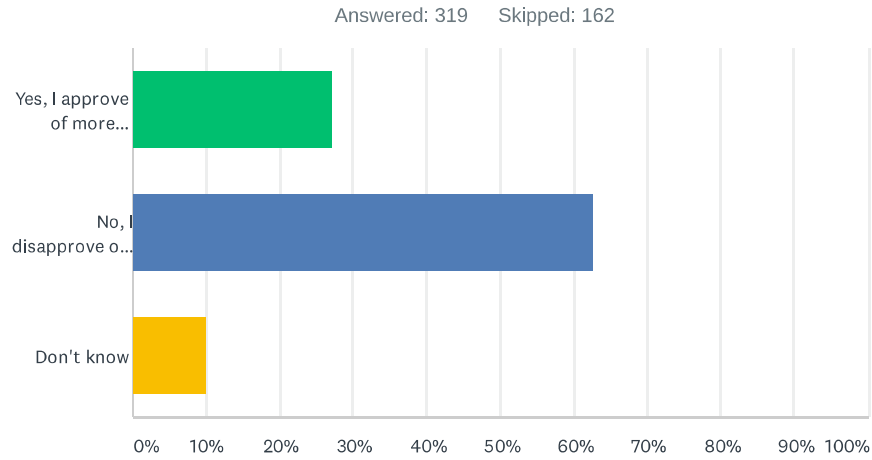
Answered: 452 Skipped: 29



	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	2.88% 13	6.19% 28	20.13% 91	30.09% 136	40.27% 182	0.44% 2	452	3.99

The RRLRAIA 2020 Community Survey

Q16 If assigning a score of 4 or 5 stars, please indicate below if you favor more or less commercial and residential development in the area of Falls and Clarkview roads:

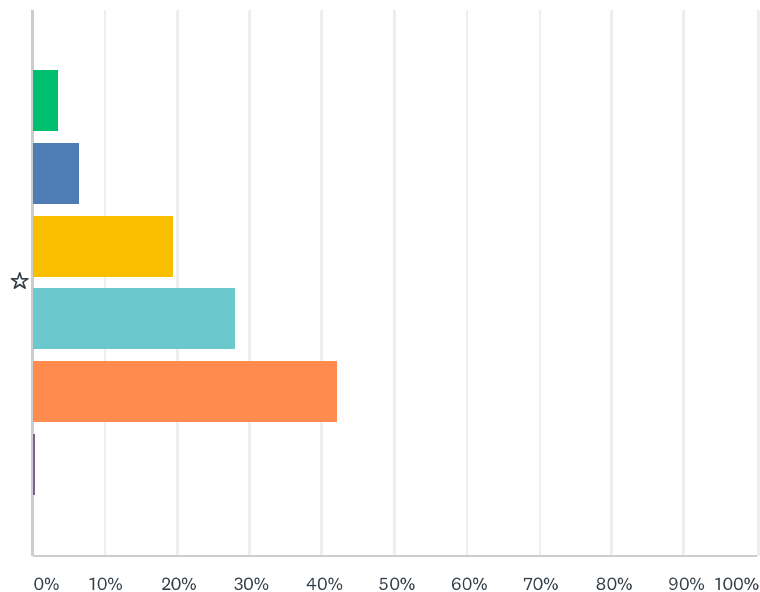


ANSWER CHOICES	RESPONSES	
Yes, I approve of more commercial and residential development/redevelopment in the area of Falls and Clarkview roads, such as the conversion of blighted industrial sites in Bare Hills to better usage, with more community amenities	27.27%	87
No, I disapprove of more commercial and residential development/redevelopment in the area of Falls and Clarkview roads	62.70%	200
Don't know	10.03%	32
TOTAL		319

The RRLRAIA 2020 Community Survey

Q17 FloodingShould RRLRAIA advocate for better flood control, especially near roads? Possible actions include further plantings of trees and vegetation both in low-lying areas as well as higher elevations to absorb excessive rainwater and to reduce runoff.

Answered: 451 Skipped: 30



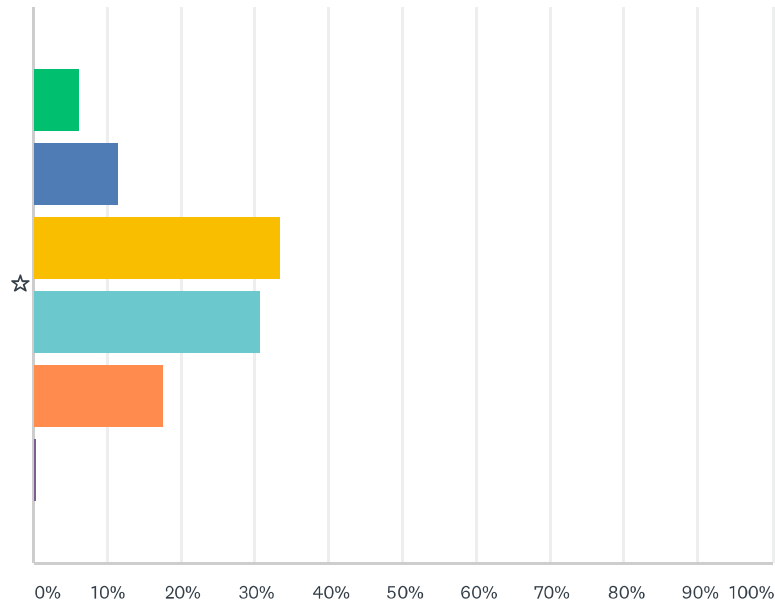
Least important (no label) (no label) (no label)
Most important N/A

	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	3.55%	6.43%	19.51%	27.94%	42.13%	0.44%	451	3.99
	16	29	88	126	190	2		

The RRLRAIA 2020 Community Survey

Q18 Historic preservation*†This issue appeared in the 2000 and the 2010 surveys. Among other things, the answers to this question committed RRLRAIA to form a historic preservation committee. This was done. The Community Enhancements/Historic Preservation Committee still exists. Should historic preservation continue to be a focus of RRLRAIA?

Answered: 450 Skipped: 31

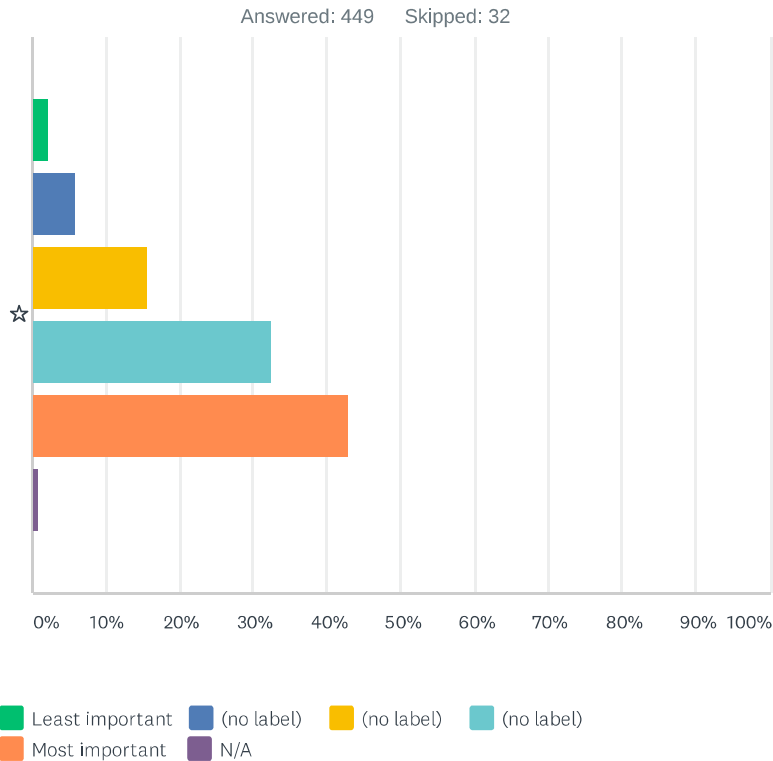


■ Least important
 ■ (no label)
 ■ (no label)
 ■ (no label)
 ■ Most important
 ■ N/A

	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	6.22% 28	11.56% 52	33.56% 151	30.67% 138	17.56% 79	0.44% 2	450	3.42

The RRLRAIA 2020 Community Survey

Q19 Sewer linesThe sewers and interceptors in our area are overburdened from storm water infiltration during large rainstorms. (Interceptors are the elements of a sewer system that divert waste to wastewater-treatment plants.) Relining of existing sewers would facilitate development within the affected areas as well as lower environmental risks from an overflow during major rainstorms.Should advocating for improved sewer capacity be a focus of RRLRAIA?

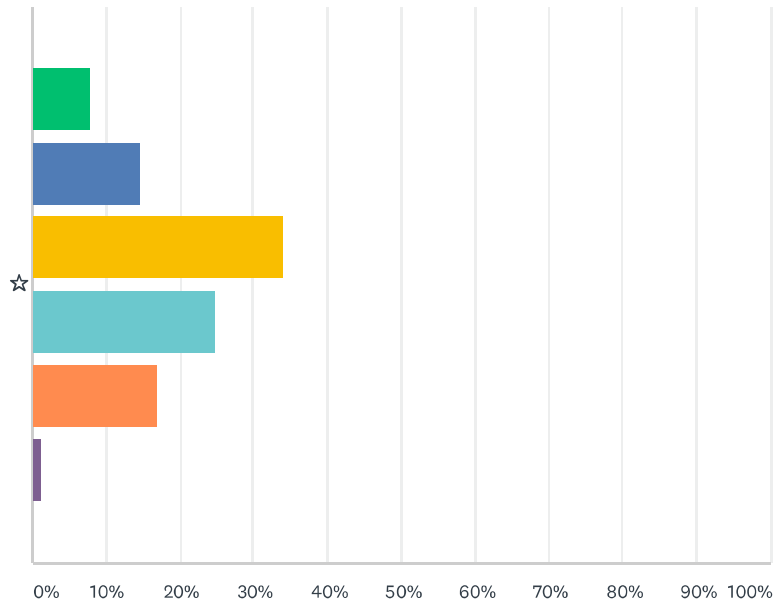


	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	2.23% 10	5.79% 26	15.59% 70	32.52% 146	42.98% 193	0.89% 4	449	4.09

The RRLRAIA 2020 Community Survey

Q20 Traffic and light rail*This issue appeared in the 2000 survey but not the 2010 survey. The issue predominantly pertained to landscaping improvements and managing the impact of the double tracking of the light rail, which resulted in the erection of sound barriers and fence barriers by the light rail. Should this sort of thing continue to be a focus of RRLRAIA?

Answered: 449 Skipped: 32



Least important (no label) (no label) (no label) Most important N/A

	LEAST IMPORTANT	(NO LABEL)	(NO LABEL)	(NO LABEL)	MOST IMPORTANT	N/A	TOTAL	WEIGHTED AVERAGE
☆	8.02% 36	14.70% 66	34.08% 153	24.94% 112	16.93% 76	1.34% 6	449	3.28



APPENDIX B – FLOODING RESOURCES

Flooding - Appendices 1:

1) Flood Mapping:

- a. Baltimore County uses the one-percent annual chance flood as their definition for flood plain regulation; however, Baltimore County uses a more conservative definition for riverine flood plains than does FEMA. FEMA bases its riverine flood plain limits on runoff calculated on existing land use, presumably to avoid overcharging insurance premiums. Baltimore County bases its riverine flood plains on runoff calculated as if the drainage area were developed to the maximum allowed by zoning. Baltimore County's reason for using this methodology is to prevent upstream development from putting properties into a flood plain area where one was not mapped previously.

2) Flood Monitoring and Flood Data:

- a. Online [interactive mapping application](#) to the Digital Flood Insurance Rate Map (DFIRM), which contains the flood plain data as published by FEMA. This application enables users to select, view and print predefined maps and reports about flood plains in Baltimore County. View [instructions](#) (PDF) for using the application.
- b. Baltimore County [Nuisance Flooding Plan](#)
- c. Visual inspection and documentation of streams and rivers within the community before and after severe weather events.
- d. Flood Plain Data
 - i. [Jones Falls](#)
 - ii. [Jones Falls Combined Tributaries](#)
 - iii. [Slaughterhouse Branch Tributary](#)
 - iv. [Moores Branch Tributary](#)
 - v. [Towson Run](#)
 - vi. [Roland Run](#)
 - vii. [Roland Run Comparative Flood Studies](#)
 - viii. [Flood Insurance Rate Map](#)
- e. Water level and Flow Gauges:
 - i. [Jones Falls at Sorrento-USGS](#)
 - ii. [Jones Falls at Sorrento-NOAA](#)
 - iii. [Jones Falls above Lake Roland Dam-NOAA](#)
 - iv. [Jones Falls at Mount Washington-NOAA](#)
- f. Localized weather station data.
 - i. [Lake Roland](#)
- g. Localized flooding visual data.
 - i. Flooding Photos [HERE](#)
 - ii. Flooding Videos [HERE](#)

3) Environmental Impact Water Quality Monitoring:

- i. [Lake Roland Water Sampling Results](#)
- ii. [Jones Falls-Towson Run-Roland Run](#)
- iii. [MDE Fish Consumption Advisories](#)

4) Flood Mitigation and Impact Reduction:

- a. Flood impact studies:
 - i. [Lower Jones Falls SWAP](#)

- ii. [Northeastern Jones Falls Volume 1 SWAP](#)
 - iii. [Northeastern Jones Falls Volume 2 SWAP](#)
 - iv. [Upper Jones Falls Volume 1 Swap](#)
 - v. [Upper Jones Falls Volume 2 Swap](#)
 - vi. [Pre-SWAP Watershed Management Plan](#)
- b. Flood impact restoration actions:
 - i. [Roland Run Restoration](#)
 - ii. [Lake Roland Dredging & Access Road](#)
 - iii. [Degradation and Dredging of Lake Roland](#)
 - iv. [Dredge Spoil](#)
 - v. [Lake Roland Urban Clean Lakes Initiative 1984](#)
 - vi. [Jones Falls Flooding 1905](#)
 - vii. [Agnes Flooding 1972](#)
 - viii. [Jones Falls Trout Restoration](#)
 - ix. [How Beavers Prevent Flooding](#)
 - x. [Deep Soil Water Storage](#)
 - xi. [Evaluation of Restoration and Flow Interactions](#)
 - xii. [The Science and Practice of River Restoration](#)
 - xiii. [The Woods in Your Backyard](#)
 - xiv. [Trees and Storm Water Prevention](#)
 - xv. [USDA-Guidance for Stream Restoration](#)
 - xvi. [How Beavers Prevent Flooding](#)
 - xvii. [Flooding Induced Home Loss](#)
 - xviii. [Baltimore Co. to Buy Flood-Prone Homes](#)
 - xix. [The Cost of Climate-Growing Flood Risk](#)
 - xx. [When Waters Rise Again and Again](#)
 - xxi. [Seeking Climate Justice-Desperate to Turn Back Rising Floods](#)
 - xxii. [Residents Impacted by Weak Stormwater Permit](#)
- c. Political and governmental advocacy:
 - i. On a State of Maryland level regarding funding resources for feasible and implementable solutions.
 - ii. On a Baltimore County level regarding funding resources for feasible and implementable solutions.

5) Practical Flood Prevention Steps:

- a. Reducing the amount of impervious surface such as concrete and asphalt paving, as well as buildings. Impervious surface causes water to run off toward a man-made or natural drainage system before the stormwater has an opportunity to percolate into the soil. The runoff also moves faster when there are no plant textures present to slow its progress with this increased velocity causing as much damage as the increase in volume.
- b. Reduce the amount of paved parking that is required for new development; consider a maximum parking requirement rather than a minimum one. Shared parking arrangements should be encouraged when adjacent land uses have opposite peak usage times.
- c. Require removal of pavement anywhere that old buildings are demolished. If the owners or perpetrators have vanished, the community may be able to receive some assistance with cleaning up a polluted site, or perceived polluted site, which is called a brownfield.
- d. Cancel the requirement that residential driveways be paved. If the soil conditions do not lend itself to this solution, driveways with only two paved strips or permeable pavers could be recommended.
- e. Investigate permeable pavements for parking lots and other low-usage areas. Permeable versions of both concrete and asphalt are available. Permeable pavement requires some

- periodic maintenance that amounts to vacuuming out the silt and debris, but it allows stormwater to percolate slowly into the ground.
- f. Require riparian buffers (strips of vegetation) alongside rivers and creeks, with the width of the buffer strip proportional to the size of the water body. At least 25 feet is a minimum flood prevention practice, and an ideal buffer is more in the range of 150 feet for a larger urban stream. No paving or building should be allowed within this buffer.
 - g. Educate the community on the value of plants that are native to the area. Typically, such plants have far longer root systems than plants imported from other geographies. This deeper root system holds soil in place much better and prevents the erosion that can contribute to flash flooding. Not all vegetation is equal in slowing down and absorbing stormwater. Turf grass, mowed to a typical lawn height, has shallow roots compared with the plants that are to your area. Turf grass does not store as much water, and due to its short height, it also does not slow the velocity as much as a taller native planting plan. The value of plant materials in processing stormwater runoff is three-fold:
 - i. The plant materials slow the rate (speed) of runoff, which allows streams to "catch up" with the amount of rain or snow melt coming their way.
 - ii. The plant materials slowing of the flow allows some moisture to percolate into the soil, where plants uptake some water for themselves and let the leftover water seep deeper so that the groundwater recharges.
 - iii. The plant materials capture some sediment and clean up some pollutants as water passes through. The first two points are major flood prevention steps for smaller streams.
 - h. Vegetate stream banks to hold them in place and to slow down water as it finds its way through the stream. Again, use native plants rather than plants imported from other ecosystems (exotics).
 - i. Encourage residents to discharge their downspouts away from their foundations but into rain gardens, which is simply a term for a planting bed that includes only plants that will tolerate being partially submerged for some period of time. Encourage or require commercial buildings and condo complexes to install retention ponds or rain gardens, taking care to require maintenance as well.
 - j. Permit and encourage the use of grassy swales (or rain gardens) along the sides of streets rather than a curb and gutter system. In conjunction with this flash flood prevention measure, individual homeowners should be encouraged to slow runoff from their roofs, so that stormwater runoff doesn't immediately course down a driveway, for instance, and pool in the swale.
 - k. Regularly clean trash and debris from streams to increase their capacity to hold water.
 - l. Preserve the role that wetlands play in flood water storage. Wetlands are defined by characteristic soils and plants. They may be man-made or natural. While your state may exempt tiny wetland areas from regulation, preserving smaller wetlands assists with flood prevention all the same.

Flooding - Appendices 2-Technical Resources:

[Regional Resilience Tool Kit Presentation](https://www.epa.gov/smartgrowth/regional-resilience-toolkit#2020) — EPA recently released its Regional Resilience Toolkit, for addressing regional resilience planning needs to address hazards from natural disasters and is working with a handful of pilot communities: <https://www.epa.gov/smartgrowth/regional-resilience-toolkit#2020>.

[Flood Loss Avoidance Benefits of Green Infrastructure for Stormwater Management](#) — This modeling study estimates the flood loss avoidance benefits from application of small storm retention practices for new development and redevelopment nationwide. Over time, the use of green stormwater infrastructure can save hundreds of millions of dollars in flood losses, while just applying the practices to new development and redevelopment only. If retrofitting were to occur, the avoided losses would be even more significant.

Two Webcasts: [Lessons Learned Integrating Water Quality and Nature Based Approaches for Hazard Mitigation Webinar](#) and [Building Resilient Communities with Green Infrastructure and Hazard Mitigation Planning Webcast](#) — EPA and FEMA worked with three regions - Ashland OR, Albany NY, and the Commonwealth of MA - to pilot projects that have successfully integrated watershed planning, green infrastructure practices and source water protection into FEMA hazard mitigation plans.

[Including Watershed Planning and Green Infrastructure into State Hazard Mitigations Plans](#) — EPA fact sheet on the four main benefits of integrating planning and resources for getting started.

[Why Connect with your State Hazard Mitigation Office?](#) — EPA fact sheet on the benefits of, and opportunities for, integrating Watershed Plans with FEMA Hazard Mitigation Plans.

[Reducing Damage from Localized Flooding: A Guide for Communities \(PDF\)](#) — This guide was produced by the Federal Emergency Management Agency to help U.S. cities, towns, villages, and counties reduce damage, disruption, and public and private costs caused by localized flooding within their jurisdictions.

[A Flood of Benefits – Using Green Infrastructure to Reduce Flood Risk](#) — This report describes how restoration or conservation of forests, wetlands, rivers, and floodplains can reduce flood risk while supporting an array of other benefits.

[Strategically Placing Green Infrastructure: Cost-Effective Land Conservation in the Floodplain](#) — This paper estimates the flood damage and costs that can be avoided by preventing development of floodplain parcels in the East River watershed of Wisconsin's Lower Fox River Basin. The analysis demonstrates how to use a geographic-information-based model to estimate the benefits of green infrastructure in reducing flood damage, compare the benefits to the costs, and target investments to develop cost-effective nonstructural flood damage mitigation policies.

[Rain Garden Reserve \(PDF\)](#) — This case study from the city of Cuyahoga Falls, Ohio, demonstrates how using a series of rain gardens can mitigate localized flooding. The 24,000-square foot park drains an approximately 3-acre residential area and enhances outdoor recreational opportunities for the community.

[Rio Reimagined - Rio Salado Urban Waters Partnership](#) — EPA-supported project to protect, restore and revitalize the Salt and Middle Gila River Watershed by restoring ecosystem functions and balancing revitalization with issues of urban resilience and public safety including flood mitigation.

[Design for Resilience in Brattleboro's Lower Whetstone Brook Corridor](#) — The Town of Brattleboro, Vermont applied for EPA technical assistance to address flooding in the neighborhoods along the stretch of Whetstone Brook that flows through the downtown. The design solutions developed through a public process in 2016 identify options for creating resilient redevelopment and recreational opportunities within flood prone areas of the town while protecting water quality and connecting people with the Whetstone Brook.

[Green Street Charrette and Concept Design Report for Huntington, West Virginia](#) — EPA-supported technical assistance for a green street charrette for the Huntington Stormwater Utility in West Virginia. This effort

helped the community identify concerns related to stormwater and opportunities for implementing green infrastructure concepts.

[Regional Design Assistance in the Mid-Atlantic Webinar](#) — In 2019, EPA worked directly with stakeholder communities including Huntington WV to identify and facilitate policy and planning measures that promote green infrastructure and help address flood management and water quality needs using the Resilient Design Assistance Tool developed by EPA's Office of Research and Development.

[Smart Growth Implementation Assistance for Caño Martín Peña, San Juan, Puerto Rico](#) — This EPA technical assistance project supported the community in developing design options to address stormwater management and flooding problems in tandem with the proposed improvements to the area's traditional drainage infrastructure system and ecosystem restoration project while also providing parks and plazas, and making the neighborhoods more walkable and bikeable.

[Flood Loss Avoidance Benefits of Green Infrastructure for Stormwater Management](#) — This modeling study estimates the flood loss avoidance benefits from application of small storm retention practices for new development and redevelopment nationwide. Twenty HUC8 watersheds were modeled in areas where significant growth is expected between 2020 and 2040, using the FEMA Hazus model and national-scale datasets.

Flooding - Appendices 3-How To:

Localized Flooding: Communities susceptible to localized flooding can use models to learn more about the impact green infrastructure can have on managing the flood risk. Hydrologic and hydraulic (H&H) modeling can help identify green and gray infrastructure practices that will meet flood reduction and water quality goals.

For example, the [Capitol Region Watershed District in Ramsey County, Minnesota](#), developed an H&H model to select a set of green infrastructure practices to address localized flooding and phosphorus loading. Selected practices included:

- rain gardens,
- underground infiltration trenches,
- an underground storage and infiltration system, and
- a regional stormwater pond.

All of the practices—except the stormwater pond, which was not completed at the time—reduced runoff volumes by 99–100 percent (PDF). Installing green infrastructure—at an estimated cost of \$2 million—was more cost-effective than installing an all-gray infrastructure alternative—at an estimated cost \$2.5 million for a new 60-inch diameter storm sewer pipe. See: [Arlington Pascal Stormwater Improvement Project Presentation from Saint Paul, Minnesota \(PDF\)](#) and [Arlington Pascal Best Management Practices Performance and Cost-Benefit Analysis Project 2007-2010 \(PDF\)](#)

Riverine Flooding: Communities susceptible to riverine flooding can more effectively manage their flood risk by combining green infrastructure practices with conserving land in or around the floodplain. Geographic-information-based models can help with the following:

- estimate the flood damage benefits of green infrastructure
- compare the benefits to the cost of conservation
- target investments in conservation towards the most cost-effective areas

When preserving open space throughout a watershed, communities may want to target areas with water-absorbing soils in regions experiencing high growth. For example, the Milwaukee Metropolitan Sewerage District (MMSD) partnered with The Conservation Fund to protect land with those characteristics. As of 2013, [the Greenseams program](#) had protected over 2,700 acres of land capable of storing an estimated 1.3 billion gallons of water. Protecting that land reduced future flows and contaminants into receiving rivers, mitigating future flooding.

Flooding - Appendices 4 - “Let’s not throw the forest with the stormwater project” By Barbara Southworth:

Tim Wheeler’s article, Stream restoration tactics challenged, (Bay Journal, October) spotlights some of the growing body of published research and citizen resistance faulting the specious application of stormwater management schemes that gut suburban stream habitats in mature forest, reducing them to engineered landscapes with diminished ecological function. Purported to lessen sedimentation and the nitrogen and phosphorus pollution that contribute to water quality decline, MS4 (short for Municipal Separate Storm Sewer System) programs require urbanized localities to gain pollution control credits for managing storm-water discharge. However, as the Bay Journal reported, as “states and localities scramble to meet their obligation for restoring the Bay’s water quality” by achieving regulatory requirements to reduce stormwater pollution, localities often rely on the most ruinous options offered by Dave Rosgen’s so-called Natural Channel Design system.

Engineering small stream courses, such as the Virginia sites featured in the recent article, that never had flood plains to begin with (according to former Hollin Hills resident and internationally recognized fluvial geomorphologist John Field) indicates that localities and the stream restoration industry fail to properly assess, weigh or protect the full range of ecosystem services provided by the old-age forests they destroy in a contrary application of Clean Water regulations.

Such ecosystem services include cooling stream and air temperatures, storing carbon, filtering pollution, recharging groundwater, enhancing property values, managing stormwater and, importantly, supporting natural systems and food webs — not to mention the connections with natural forests that people value and seek out.

Diverse relationships among soil, water, native plants, insects and animals create complexity and stability that is impossible to fully engineer, and they take generational time scales to develop. Alarmed about “stream restoration” projects contrived with scant regard for the biological wealth they squander, citizen groups are fighting to alert the public and save cherished forests. We urge regulators, local officials and the stormwater industry to respect existing forest integrity, rethink stormwater management, and access robust systems biology based on actual site measurements and monitoring, not models using inappropriate and inflated reference values from distant and unlike watersheds.

Actual test results from the Hollin Hills stream sites slated for destruction reveal low to very low phosphorus and nitrogen, according to independent testing, as opposed to surprisingly high figures used by Fairfax County, VA. Will sediment transport (or non-existent pollution) decrease once the small headwater stream valley is laid bare, save for seedlings and saplings of a greatly reduced number of species than currently exists there?

Both parks in Hollin Hills are significantly more diverse and higher quality than what has been represented by Fairfax County. Currently, 87 native plant species are found in Goodman Park and 74 in Brickelmaier Park, documented by ecologist Rod Simmons working independently, that weren’t discovered by Fairfax County.

The number of species proposed for planting is far less, only 15% and 25% respectively of the number found in the parks, some do not exist in the parks. Invasive species have been shown to proliferate after such plantings.

The discrepancy between the plant communities found in the Hollin Hills parks and the proposed plant list for re-vegetating the parks cannot be addressed by quantity alone, despite, as reported, the project manager's claim that "plans call for replanting more trees and shrubs than are being removed." As Mr. Wheeler's article indicates, the woodlands' massive oaks and their plant and animal community live in relationships developed over many decades.

Moreover, trees designated as "saved" trees on county plans will surely suffer root zone damage and later death, despite inadequate mitigation efforts, such as root-pruning up to 50% of the arc around the tree up to the trunk, because their proximity to paving and heavy equipment puts them smack in the danger zone.

Contrary to Fairfax County's assessment, the parks do, in fact, shelter forest interior dwelling bird species, including migrating warblers and wood thrushes. Further fragmenting remaining forest habitat does these catastrophically declining birds no favors.

Among other significant critiques of drastically altering existing streams is the apparent violation of Clean Water regulations prohibiting changing one type of waterway to a different type, as obviously seems the case when forested stream habitat is converted to stormwater sewer conveyance; its form and function are distinct from the original. To date, the U.S. Army Corps of Engineers has ignored a request to supply information about permitting this variance.

Rosgen's Natural Channel Design methods are not the only way to think about streams. But for all the controversy they have generated, they do include less invasive options, typically not considered when bulldozers and engineers are the tools of the trade dominating stream management plans. Option 4, Stabilize Channel in Place, includes softer, habitat-sparing bio-engineering methods. Think wood to reinforce the existing channel and much smaller equipment, not requiring engineering a new channel from scratch, nor constructing 12-foot-wide roads to clear and grade land and handle imported soils and 1- to 2-ton boulders. Landscape management practices should not degrade local ecosystems and the co-evolved associations that are their glue, especially in the name of enhancing Chesapeake Bay water quality. More sustainable development, regulatory and lifestyle approaches are needed to solve the problem of stormwater runoff from impervious surfaces in developed areas, not degrading headwater stream habitat for little Bay benefit.

Flooding - Appendices 5 - Public/Private Financing to Solve Flooding:

The City of Hampton closed on Virginia's first [Environmental Impact Bond](#), a creative outcomes-based tool to finance \$12 million in nature-based solutions to localized flooding as part of its Resilient Hampton initiative. These bonds allow investors to support innovative projects with measurable and reportable benefits for communities and the environment and ensure the outcomes of the projects are reported back to the investors. The Chesapeake Bay Foundation and Quantified Ventures, an outcomes-based capital firm based in Washington, DC, provided technical services with respect to developing the three projects, designing the outcome metric, impact measurement, and disclosure aspects of the Environmental Impact Bond.

Hampton's three critical projects are expected to add more than 8.6 million gallons of storage capacity for stormwater that would otherwise contribute to flooding and [polluted runoff](#) in the Newmarket Creek watershed, a key environmental, economic, and transportation corridor.

Hampton has experienced [increased flooding](#) frequency and severity in recent years. The Newmarket Creek watershed is central to the City’s water management plans. Through this Environmental Impact Bond, the City of Hampton will predict, measure, and report on the stormwater volume storage capacity added by these projects. The gathered data will inform future public investments in resilience projects that seek to improve quality of life, economic viability, and environmental health for Hampton residents, while also disclosing the measured outcomes to the bond’s investors.

“We are thrilled to further our commitment to innovation, transparency, and storm resilience through the issuance of the first Environmental Impact Bond in the Commonwealth of Virginia,” said Hampton Mayor Donnie Tuck. “We appreciate the many members of the community who have provided input on our Newmarket Creek Water Plan and Resilient Hampton initiatives. The residents of Hampton can look forward to improved storm resilience, cleaner water, and better transportation and recreation infrastructure as a result of these important projects.”

Hampton joins a small but growing number of cities using Environmental Impact Bonds to benefit communities, including Washington, DC, and Atlanta. These are a type of municipal bond that require issuers to predict, measure, and report on the environmental or social outcomes generated by the funded projects. Some Environmental Impact Bonds also connect bond buyers’ financial returns directly to the performance of the funded projects, which allows risk-sharing between the issuer and investors. The requirement for impact measurement and disclosure differentiates Environmental Impact Bonds from traditional Green Bonds, which support specific environmental and climate-related projects, but do not require the same level of rigor in outcome prediction, measurement, and disclosure.

As part of this Environmental Impact Bond, the City of Hampton has committed to having a third-party validator provide a post-construction comparison of the actual stormwater storage capacity created against the predicted 8.6 million gallon capacity increase. This bond qualifies as both an Environmental Impact Bond and a Green Bond, under the International Capital Market Association Green Bond Principles.

The City of Hampton was advised by Davenport & Co. on the transaction. Morgan Stanley served as underwriter, with Wells Fargo as co-manager. Kutak Rock served as bond counsel. CBF and Quantified Ventures work with Hampton on the EIB was funded by a generous one-to-one challenge grant to CBF from an anonymous donor that was matched in part by The Kresge Foundation.

“Cities like Hampton are leading the innovation charge by advancing nature-based solutions that make neighborhoods more resilient. We applaud Hampton’s leadership, creativity, and dedication to building a more resilient city in issuing this Environmental Impact Bond,” said Eric Letsinger, CEO of Quantified Ventures. “Their commitment to community equity and involvement is second to none.”

“With the Resilient Hampton initiative, the city is undertaking an incredible effort to both fight localized flooding and do its part to restore the Chesapeake Bay. By using creative EIB financing to meet these goals, it’s blazing a path that cities around the Bay can follow even when budgets are tight,” said Chesapeake Bay Foundation Lands Program Director and Special Counsel Lee Epstein. “These bonds allow the city to pilot cutting-edge solutions based on natural processes that both prevent flooding and keep runoff from polluting waterways.”

The three prototype resiliency projects that will be constructed with the proceeds from this bond are:

- **Big Bethel Blueway:** A green infrastructure project that will store and slow water through the redesign of existing waterways in order to reduce flooding upstream and downstream in Newmarket Creek. The project creates stormwater storage through the expansion of the main drainage channel, the addition of bioretention cells to backyard drainage swales, and the installation of several weirs in the channel.

Newly planted vegetation on the channel banks will filter and slow stormwater runoff before it reaches the waterways. Future funding will transform the existing maintenance path into a recreation trail with additional stormwater storage capacity.

- **North Armistead Avenue Road Raising and Green Infrastructure:** This road raising project will eliminate chronic flooding on a major thoroughfare and evacuation route, improving transportation reliability to Joint Base Langley-Eustis and key economic centers. In connection with the road raising, green infrastructure will be installed in the median and on the road shoulders to help slow, store, and redirect stormwater within the space adjacent to the elevated roadway.
- **Lake Hampton:** This project involves the transformation of a detention pond into a purposefully-designed stormwater park with enhanced stormwater storage capacity. The project will raise the height of the dam and weir to greatly increase potential storage volume, as well as install a series of smaller detention basins with wetland plantings to slow, store, and clean runoff from North Armistead Avenue before it enters the lake.

These efforts are among the first projects associated with the Newmarket Creek Water Plan, which the City developed through its Resilient Hampton initiative after nearly two years of public engagement. The projects benefitted from expert consultation by urban designers from the Netherlands (BoschSlabbers), an architecture and environmental design firm based in New Orleans (Waggonner & Ball), engineering design work by national engineering firm (Moffat & Nichol Engineers), partners (including NGOs, universities, regional planning district commission, state and federal agencies), and by the City's interdepartmental Resilient Hampton team. Rather than look at flooding alone, Hampton's approach to Newmarket Creek integrates flood risk mitigation, engineering, urban design, environmental restoration, community assets, and economic development.

"We are pleased to have advised the City of Hampton on this forward-thinking public finance transaction," said David Rose, Senior Vice President and Manager of Public Finance at Davenport & Company LLC, the City's Municipal Advisor of record. "This first-of-a-kind issue in the Hampton Roads region and Commonwealth shows the City's commitment to sustainability and resilience, which is becoming more important to the credit markets and the National Credit Rating Agencies."

"The City's willingness to undertake innovative resiliency projects and measure and report on the outcomes positions Hampton as a leader in the Green and Sustainability Bond marketplace," said Cabray Haines, Executive Director at Morgan Stanley. "Its unique EIB offering enabled the City to tap into a rapidly growing buyer base focused on sustainable investing and attracted participation by leading institutions in the space, who applauded the City's efforts as setting a new standard for Green municipal issues. The strong investor interest in the EIBs helped reduce financing costs to historically favorable levels."

"The work this team has done to evangelize the use of impact bonds was not an easy process. We applaud all partners involved in helping the city to fight climate-driven urban flooding through solutions that provide reliable, equitable and innovative water services," said Jalonnie L. White-Newsome, Environment senior program officer with The Kresge Foundation who oversees the Climate Resilient and Equitable Water Systems (CREWS) initiative. "The inequities in our nation's water systems have a disparate impact on low-income communities and communities of color. The importance of this work is intensified due to the prevailing socioeconomic conditions in the affected neighborhoods. Addressing these challenges will help to safeguard the economic future of Hampton and the general wellbeing of all residents."



APPENDIX C – GREATER RUXTON AREA FOUNDATION

Greater Ruxton Area Foundation

The Greater Ruxton Area Foundation (GRAF) is focused on the beautification and preservation of open spaces in Ruxton – an area defined by entrances at Charles Street and Bellona Avenue, Charles Street and Malvern Avenue, Charles Street and North Wind Road, Charles Street and Boyce Avenue, Joppa Road and Greenwood Road, Joppa Road and Thornton Avenue, Joppa Road and Ellenham Avenue, and Ruxton Road and Falls Road. GRAF and the Ruxton Riderwood-Lake Roland Area Improvement Association have an informal alliance and long history of mutual support for issues facing the neighborhood.

GRAF currently curates 14 landscape installations, mostly focused on unattended public spaces in the area. GRAF receives tax exempt donations from homeowners and businesses to support on-going maintenance of these installations and the development of new landscape projects. In addition to beautification, GRAF works with homeowners in the area to facilitate the donation of select properties for land easements to preserve the history, open-space and unique nature of the greater Ruxton area. Easement donations are tax-deductible based on the development value of a property. This instrument, if used, has the potential to positively affect some of the major concerns addressed by several sections of this plan.

For more information on the Greater Ruxton Area Foundation visit www.ruxtonfoundation.org or email ContactUs@ruxtonfoundation.org.

Post Office Beautification Project



Before; Photo Credit GRAF



After; Photo Credit GRAF



APPENDIX D – COMMUNITY ORGANIZATIONS

Community Organization

How the community is organized both formally and informally has a critical bearing on how well the community can deal with issues as they arise. It will also determine whether the community will be able to follow through on any of the recommendations made in this Community Plan. The purpose of this section of the Community Plan is to describe the systems and the process as they exist today and to propose improvements.

County and state governments are both concerned with issues related to safety and welfare of the community. Even with their considerable resources, it is not feasible or desirable for government to understand and deal with all issues at the community, neighborhood or street level. The void has led to the establishment of both formal incorporated associations (such as RRLRAIA), neighborhood and homeowner associations, conservancies, “friends-of” groups and task forces — usually with similar and overlapping interests.

In the Ruxton, Riderwood and Lake Roland area, there are approximately 20 such associations of varying degrees of formal organization and size. Most often, they work in cooperation with each other and overlaps are not a significant problem. On occasion however, adjacent organizations can be in conflict over issues. On a community level, this occurs frequently with regard to Lake Roland, the largest community open space and natural resource.

In dealing with complex issues, government bureaucracy and developers, community associations need to use their limited resources effectively. This means joining forces with other communities to address common concerns such as traffic calming and development review and approval processes. It means clarifying the responsibilities for community issues and avoiding groups with similar objectives working against each other.

Strategies for Continued Association Effectiveness

AFFECT COUNTY POLICY CHANGES

Join efforts to revise county policies related to development and traffic control by other community associations and collective associations

SUPPORT NEIGHBORHOOD ASSOCIATIONS

Provide support for neighborhood and other community associations, formal and informal, if approved by the RRLRAIA Board of directors. The Association must present “project objectives” and a specific request to the Board. The Board will determine what level of support (if any) will be provided.

EMPHASIZE COMMUNICATION

Continue the Association E-News efforts and expand distribution to associations and businesses in the community. Distribute to other community associations around Baltimore County. Invite input to Association E-News from all associations and businesses.



Historic Rider House, 8013 Bellona Avenue, Riderwood, MD
Photo Credit: Greater Ruxton Area Foundation (GRAF)



Winter at Lake Roland, Baltimore, MD
Photo credit: Andy Murray

RRLRAIA Community Plan 2020

The Ruxton-Riderwood-Lake Roland Area Improvement Association, Inc.

P.O. Box 204, Riderwood, Maryland 21139

410-494-7757