



Virginia Coastal Zone
MANAGEMENT PROGRAM

FINAL REPORT: RICHMOND REGIONAL TECHNICAL ASSISTANCE

Federal Fiscal Year 2020

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Contents

Executive Summary.....	2
Regional Coordination and Training	2
Natural Resource Protection Campaign Support.....	2
Don't Trash Central Virginia	2
Support for the Virginia Oyster Shell Recycling Program	2
Resilient Rivers – Below the Falls of the James	2
Benefits Accrued.....	2
Regional Resiliency Coordination	2
Regional Resiliency Priorities Identification.....	3
CZM Resiliency Database Support	3
Virginia Coastal Resilience Master Plan (VCRMP) Support.....	3
Coordination & Training Report.....	3
PlanRVA Environmental Technical Advisory Committee	3
Regional Coordination and Local Assistance	4
Natural Resource Protection Campaign Support.....	5
Don't Trash Central Virginia	5
Campaign Strategic Framework.....	5
Campaign Content	5
Campaign Coordination Meetings	6
Marine Debris Online Content.....	6
Support for the Virginia Oyster Shell Recycling Program	6
Resilient Rivers – Below the Falls of the James	6
Benefits Accrued – Regional Resilience Water Risk Layer Utilization.....	7
Regional Resiliency Coordination	9
Regional Coordination Meetings	9
Digital Tools and Coordination.....	10
Regional Resiliency Priorities Identification.....	10
CZM Resiliency Database Support	11
Virginia Coastal Resilience Master Plan (VCRMP) Support.....	11

Executive Summary

Regional Coordination and Training

November 16, 2020 – PlanRVA staff hosted an Environmental TAC meeting on November 16, 2020. PlanRVA staff provided a presentation about upcoming environmental projects including hazard mitigation, regional resiliency water risk mapping done for the RRTPO and a preview of the regional resiliency planning program starting this year.

April 29, 2021 - At a PlanRVA Environmental TAC Meeting on April 29, 2021, PlanRVA staff presented on the regional resilience planning process and facilitated discussion through interactive exercises.

July 26, 2021 – On July 26, 2021 PlanRVA staff hosted an Environmental TAC Meeting and presented on a regional resilience public survey, draft resilience vision and priorities, the Coastal Resilience Master Plan, and Community Flood Preparedness Fund.

September 22, 2021 - On September 22, 2021 PlanRVA staff hosted an Environmental TAC Meeting and presented on regional resilience vision and priorities and discussed next steps in the planning process, including use of a project submission form.

Natural Resource Protection Campaign Support

Don't Trash Central Virginia

PlanRVA staff finalized a Strategic Framework for the [Don't Trash Central Virginia](#) Campaign. Comments were received after a March 19 meeting of the Campaign Litter Managers included a presentation of the Framework. The Framework was finalized in April 2021. PlanRVA staff continue to create content for the Don't Trash campaign; it is posted to the [PlanRVA Facebook page](#) and shared with campaign members and partners via a SharePoint site. On July 20, 2021 PlanRVA staff hosted a coordination meeting for Don't Trash campaign members and partners. PlanRVA staff presented on legislative updates and how to use the group's SharePoint site. RVA Rapid Transit, a campaign partner, presented on their new [Better Bus Stop program](#). PlanRVA staff added content about [marine debris](#) to the Don't Trash web pages.

Support for the Virginia Oyster Shell Recycling Program

PlanRVA staff created [social media content](#) in support of the Virginia Oyster Shell Recycling Program.

Resilient Rivers – Below the Falls of the James

PlanRVA staff produced a flyer about illicit discharge and pollution in the region. PlanRVA staff also worked with James River Association staff to create a rack card about public access to the James River.

Benefits Accrued

Throughout the year PlanRVA staff made notes about items to include in the final report. A summary report is included in this document.

Regional Resiliency Coordination

In March 2021 PlanRVA staff finalized a framework for regional resiliency planning identifying an expanded Environmental TAC as the primary engagement group for resiliency planning. On June 24, 2021 PlanRVA staff hosted a resiliency data coordination meeting. PlanRVA staff presented on PlanRVA resilience data and shared information about other data and tools available. PlanRVA staff created an

Environmental TAC SharePoint site for coordination and collaboration on resiliency planning. PlanRVA staff created a [resilience page](#) on the PlanRVA website.

Regional Resiliency Priorities Identification

PlanRVA staff have developed regional resilience priorities with the Environmental TAC. PlanRVA staff created and released a resiliency planning public survey in May 2021. The survey allowed staff to better understand existing resilience knowledge, lived experiences, and community resilience priorities. Both staff and Environmental TAC members considered the input collected from the public survey results while developing the priorities. In coordination with Environmental TAC, PlanRVA staff decided to keep the [survey](#) open to the public for the foreseeable future to gather boarder input and inform year 2 of the planning process.

CZM Resiliency Database Support

PlanRVA staff reviewed the VCZM Project Database with locality staff during meetings and via email. An updated regional project list was shared with Wetlands Watch during grant close out.

Virginia Coastal Resilience Master Plan (VCRMP) Support

PlanRVA staff attended VCRMP TAC meetings during the grant year and supported regional meetings in the Richmond Region during the summer of 2021.

Coordination & Training Report

Throughout the grant year, PlanRVA staff provided coordination, training and technical assistance to locality staff in the region.

PlanRVA Environmental Technical Advisory Committee

PlanRVA staff hosted multiple coordination events for staff of member localities during Federal Fiscal Year 2020 (FFY20). A formal venue and forum for coordination with local staff are the PlanRVA Environmental Technical Advisory Committee (TAC) meetings. All meetings include at least one educational presentation or training session and time for roundtable organizational updates.

On November 16, 2020, PlanRVA staff hosted an Environmental TAC meeting. PlanRVA staff provided a presentation about upcoming environmental projects including the hazard mitigation plan update, regional resiliency or water risk mapping done for the RRTPO, and a preview of the regional resiliency planning program kicking off this year. Partners were also provided an opportunity to share program updates and coordinate with others.

On April 29, 2021, PlanRVA staff hosted an Environmental TAC meeting. PlanRVA staff presented on the regional resilience planning process. This presentation provided an overview of the PlanRVA regional resilience planning approach and training on various resilience planning processes across VA, including project databases and the Coastal Resilience Master Plan. PlanRVA staff facilitated discussion about a regional definition, vision, and priorities for resilience through interactive exercises during the virtual meeting. Mentimeter was used to collect responses to questions and create word clouds for each of the items discussed related to regional resilience: definition and vision. Word cloud images from the exercises can be found in Appendix F.

On July 26, 2021 PlanRVA staff hosted an Environmental TAC meeting. PlanRVA staff presented on a regional resilience public survey, draft resilience vision and priorities, the Coastal Resilience Master Plan, and Community Flood Preparedness Fund. PlanRVA staff provided training on the Virginia Coastal Resilience Master Plan, including project submission, and the Community Flood Preparedness Fund. Partners were also provided an opportunity to share program updates and coordinate.

On September 22, 2021, PlanRVA staff hosted an Environmental TAC meeting. PlanRVA staff presented on regional resilience vision and priorities and discussed next steps in the planning process, including use of a project submission form. Much input was provided regarding final edits to the regional resilience priorities. Following the meeting, PlanRVA staff incorporated feedback and shared final regional resilience definition, vision, and priorities documents. PlanRVA staff presented a draft document summarizing efforts and decisions reached during year 1 of regional resilience planning. A version was finalized after the meeting and is included as Appendix E. PlanRVA staff provided training on the regional project submission form for submission of resilience projects to PlanRVA for inclusion on the regional list.

Regional Coordination and Local Assistance

PlanRVA staff participate in and follow local, regional, state, and national planning efforts related to Coastal issues. Information about these efforts is shared with local staff at coordination meetings.

PlanRVA staff regularly attend Virginia Coastal Zone Management Program Coastal Policy Team Meetings and Coastal Planning District Commission meetings. The training and coordination opportunities provided to the Coastal PDC staff are greatly valued and shared with locality staff in the Richmond region.

PlanRVA staff participated on the Technical Advisory Committee (TAC) for RVA H2O, the City of Richmond's integrated permit planning process. The TAC exists to allow the City and DEQ staff the opportunity to vet program and permit elements with technical experts and stakeholders. Meetings were held quarterly. More information can be found on the [RVA H2O website](#).

PlanRVA staff are members of the James River Advisory Council (JRAC) attending regular quarterly meetings throughout the year. Information gathered at these meetings is always shared with local staffs. For more information see the [JRAC website](#).

PlanRVA staff sit on the Virginia Department of Mines, Minerals, and Energy's [Geologic Mapping](#) Committee. Meetings are held twice a year to prioritize geologic mapping projects across Virginia. PlanRVA staff provide a local and regional land and coastal resource planning perspective on the committee. Information gained from the meetings is shared with member localities of PlanRVA.

PlanRVA staff are working with VCZM Program staff and other regional partners to maintain the [Plant RVA Natives](#) campaign. The campaign encourages people to learn more about the importance and value of native plants and use them in their landscaping. In May of 2021, PlanRVA staff attended the Lewis Ginter Botanical Garden annual PlantFest to assist VCZM program staff at the Plant RVA Natives table. Staff helped hand out native plant guide books to visitors as well as shared information and branded items for the Don't Trash Central Virginia anti-litter campaign.

Natural Resource Protection Campaign Support

Don't Trash Central Virginia

Don't Trash Central Virginia is an anti-litter campaign for the central Virginia region that coincides with the [Central Virginia Waste Management Authority service area](#). The campaign was first brought to PlanRVA by Litter Managers of several localities in the region. While interested in cooperating on an anti-litter message campaign, they lacked the resources and organization to run a regional campaign. Since this initial outreach, PlanRVA has supported the Don't Trash campaign seeking funding and a broader community support for the message. The [campaign](#) has a series of pages on the PlanRVA website. PlanRVA staff produce content for campaign members and partners to utilize online, in print, and on social media. PlanRVA staff host campaign meetings, typically on a quarterly basis, for collaboration, information sharing, and networking among campaign [members](#) and [partners](#). Campaign members include representatives from governments in the region, including nine localities as well as the Chickahominy Indian Tribe. There are currently seven campaign partners, which include local businesses and organizations.



Campaign Strategic Framework

PlanRVA staff finalized a Strategic Framework for the [Don't Trash Central Virginia](#) Campaign. Comments were received after the March 19th meeting with the Campaign Litter Managers. This meeting included a presentation of the Framework. The finalized campaign Strategic Framework includes some administrative details about how the campaign is managed, states a vision and goals for the campaign, and translates the principles of community based social marketing into campaign tools and possible future actions. A copy of the Strategic Framework is included in Appendix A.

Campaign Content

PlanRVA staff continue to create content for the Don't Trash campaign on a weekly basis; it is posted to the [PlanRVA Facebook page](#) and shared with campaign members and partners via a SharePoint site. The posts include various litter facts, upcoming local clean up events, and information about the Don't Trash Campaign with the hope that members and partners will share to further our efforts. Content shared on

PlanRVA social media includes both images and videos. Examples of Don't Trash social media content is included in Appendix B. Additionally, PlanRVA staff create customized logos for each member and partner to use on their posts related to litter. Each logo includes Don't Trash for consistency. An example of Don't Trash member/partner logos is included in Appendix C.

PlanRVA staff utilize the Don't Trash Campaign logo through the creation stickers, magnets, and reusable trash bags to hand out to the public. To advertise for the Campaign, PlanRVA staff set up a sticker/magnet giveaway contest between localities. This contest asked for all localities to direct residents to the Don't Trash webpage where they would find a form to fill out and request a free sticker/magnet. Additionally, in coordination with [Keep Virginia Cozy](#) (Don't Trash partner) and the Chickahominy Indian Tribe (Don't Trash member), PlanRVA staff attended their local clean up events where they handed out Don't Trash content (i.e., flyers, stickers, and magnets) to volunteers. These efforts helped to spread the word about the Campaign as well as strengthened relationships with members/partners.

Campaign Coordination Meetings

On March 19, 2021 PlanRVA staff hosted a coordination meeting for the Don't Trash Campaign; local litter managers were in attendance. PlanRVA staff provided campaign updates and presented the draft Strategic Framework. Input on the framework was sought during the meeting and through submission of comments and questions after the meeting. Time was reserved at the end of the meeting for local program updates and general discussion.

On July 20, 2021 PlanRVA staff hosted a coordination meeting for Don't Trash campaign members and partners. PlanRVA staff presented on legislative updates and how to use the group's SharePoint site. [RVA Rapid Transit](#), a campaign partner, presented on their new [Better Bus Stop program](#). The focus of the meeting was discussing the newly instated balloon release ban. Attendees discussed how members and partners can work together to spread the word. Various actions were discussed, and one key takeaway being there is interest in finding ways to co-promote efforts and events.

Marine Debris Online Content

PlanRVA staff developed [webpage content](#) to educate the public about marine debris. Residents of the Richmond region may not understand how their actions may contribute to the issue of marine debris given their location relative to the Chesapeake Bay and the Atlantic Ocean. The web content developed made clear that litter on land is only one rainstorm away from becoming marine debris in waterways nearby and far away. The web content also explained the harms of marine debris for water quality and local ecosystems. PlanRVA staff linked to existing resources developed by the Virginia CZM Program and others in the state working on marine debris.

Support for the Virginia Oyster Shell Recycling Program

PlanRVA staff has created [social media content](#) in support of the Virginia Oyster Shell Recycling Program. Content includes both information about oyster shell recycling and a video.

Resilient Rivers – Below the Falls of the James

The purpose of the [Below the Falls project](#) is to create a forum for conversations among professional staff and the general public around concepts of use conflict and long-term resiliency along the James River from the falls in downtown Richmond eastward to Charles City County. The origins of the project

lie in a series of conversations PlanRVA staff had with various stakeholders throughout the study area. Stakeholders included the Richmond Marine Terminal, local parks and recreation staff, local planning staff, environmental non-profits and others. All discussions with stakeholders aligned with the following idea:

Use in and along the James River is increasing and becoming more complex, often resulting in conflict. This conflict is likely only to increase due to long term stressors such as population growth, sea level rise, and climate change. No one organization is taking a comprehensive look at the matter; someone should.

Previous Technical Assistance grants funded the creation of a project webpage, a [Below the Falls StoryMap](#), and a [Below the Falls mapping application](#). The FFY20 grant funds were used to create additional content for the Below the Falls project.

During FFY20, PlanRVA staff focused on the issue of pollution and the negative impact this problem has on the James River corridor. Since three of the four localities in the project study area are Municipal Separate Storm Sewer permittees, the issue of illicit discharge education and reduction was identified as an opportunity that would complement other work currently being done by PlanRVA related to outreach and education about the Chesapeake Bay TMDL. PlanRVA staff worked with locality staff to create an [Illicit Discharge educational brochure](#), included in Appendix H.

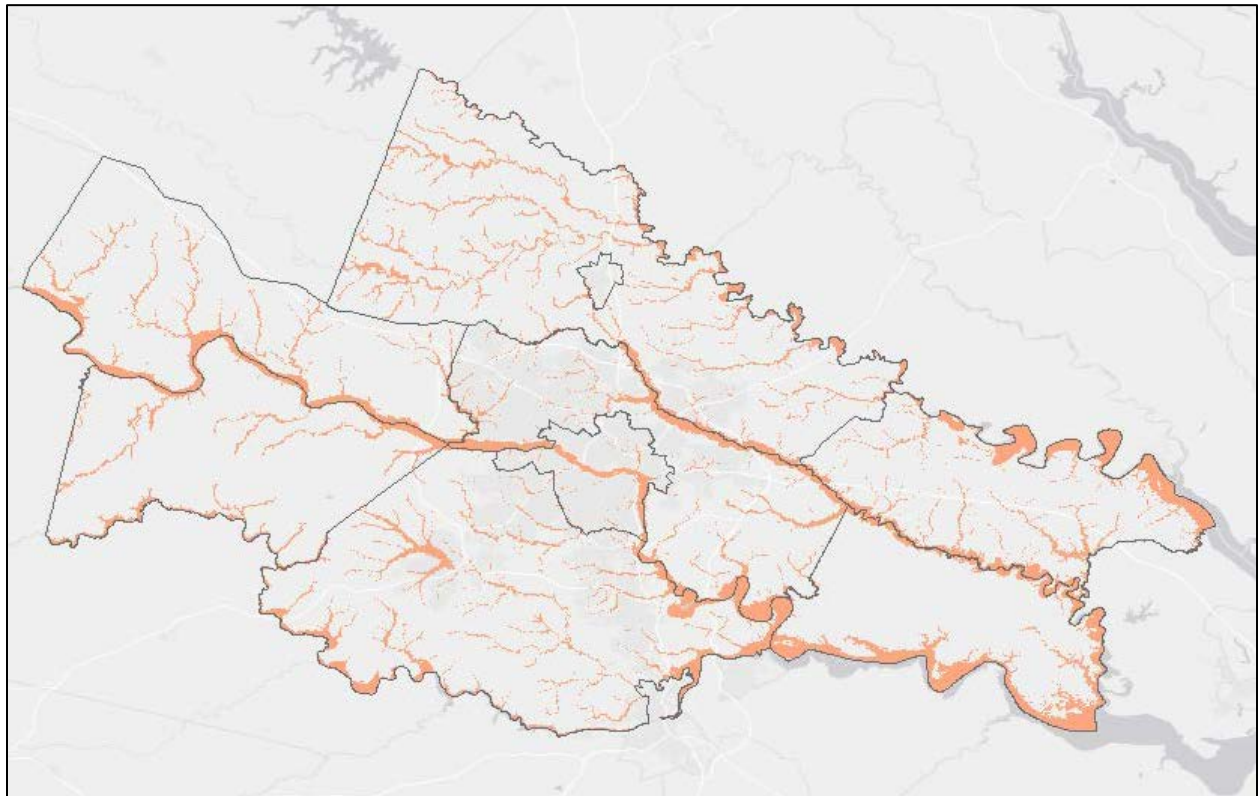
PlanRVA staff also identified education about recreational opportunities as an area for work related to the Below the Falls project. Over the past few years, the James River Association has produced useful resources about access to water in the James River watershed. To better educate the general public about the availability of these online resources, PlanRVA staff produced a rack card for use online and in tourism locations about the useful access mapping resources. The rack card is included in Appendix I.

During FFY20, PlanRVA re-evaluated support for the Below the Falls effort in light of shifting funding streams and new resiliency planning efforts. The FFY20 Richmond Regional Technical Assistance grant included several deliverables focused on resiliency planning. These deliverables are intended to continue throughout FFY21 and FFY22. Meanwhile, the state undertook the Virginia Coastal Resilience Master Plan process and initiated the Community Flood Preparedness Fund. Limited staff capacity meant priorities had to be identified and decisions made about how to approach resiliency planning in the region. PlanRVA staff have made the decision to pause the Below the Falls project to allow for a broader view and study of resiliency in the Richmond region first. If it is determined that a planning effort focused on the James River would benefit the region and the resources exist for PlanRVA to carry forward the work, the Below the Falls project can be revived.

Benefits Accrued – Regional Resilience Water Risk Layer Utilization

In FFY19, PlanRVA staff worked to create a Resilience Water Risk GIS layer for use in all agency projects including Richmond Region Transportation Planning Organization (RRTPO) transportation planning. The resilience water risk layer was informed by information and data sources provided through Coastal PDC and Policy Team meetings. The creation of this layer is an important step to integrating common resiliency planning assumptions across all disciplines and projects at PlanRVA.

The water risk layer was created based on PlanRVA staff research and expertise. The development process and final product were vetted through multiple channels at PlanRVA including outreach to individual locality staff and through the Rural Transportation Technical Advisory Committee and the Richmond Region Environmental Technical Advisory Committee. The final layer is a union of the following features: special flood hazard areas, storm surge areas, sea level rise inundation areas, and dam break inundation zones. An image of the resilience water risk layer in the region is below.



Resilience Water Risk Layer in the Richmond Region

In FFY20, PlanRVA staff supporting the RRTPO used the water resilience risk layer in the creation of [ConnectRVA 2045](#), the region's Long Range Transportation Plan. The layer was used in the project selection and scoring process. Indeed, proposed projects that intersected the layer had to account for the increased flood and resilience risk.

In FFY20, PlanRVA staff were awarded a DCR Floodplain Management grant for the creation of a regional flood risk awareness campaign and mapping application. The regional water resilience risk layer was used in the grant application to secure the funds by fully displaying the risk to the region and as an example of regional work PlanRVA had already undertaken in that could support the proposed project. Work on the grant-funded flood risk awareness campaign and mapping application will begin in late fall 2021 with an anticipated completion date of summer 2022.

Regional Resiliency Coordination

In March 2021 PlanRVA staff finalized a framework for regional resiliency planning at PlanRVA identifying an expanded Environmental TAC as the primary engagement group for resiliency planning. The framework document states goals of PlanRVA resilience planning, identifies staff who work on resiliency planning in various disciplines, and describes work currently underway and possible next steps for regional resiliency planning. The framework document is intended to be a living document, routinely reviewed and revised to best meet the needs of staff and member localities in the region. The framework document finalized during FFY20 is included in Appendix D.

The elements below constitute the first year of coordinated regional resiliency planning at PlanRVA. This work culminated in and is summarized by a Year 1 Resilience Planning Summary Report. It is included in Appendix E.

Regional Coordination Meetings

As noted above in the Coordination and Training Report section, PlanRVA Environmental TAC meetings included resiliency planning coordination agenda items during FFY20. Since no region-wide resiliency planning process had been started in this region, PlanRVA staff started conversations about resiliency planning focusing on finding common ground around terminology. PlanRVA staff led an exercise during an Environmental TAC meeting to solicit feedback on the definition of resiliency and a regional vision statement. Word and phrases were submitted by participants into Mentimeter and a word cloud was created. The word clouds produced through the exercise are included in Appendix F. PlanRVA used the feedback to draft a regional resilience definition, vision statement, and key takeaways of resilience planning included below.

PlanRVA Resilience Definition:

Resilience is the ability of individuals, institutions, and communities to anticipate, respond, adapt, and thrive amidst both short-term events and long-term stressors.

PlanRVA Resilience Vision:

The Richmond region supports regional planning and project implementation for a resilient community that...

...engages diverse communities in urban, suburban, and rural settings.

...works with the community to promote education, awareness, and participation.

...maintains, protects, and improves the built and natural infrastructure to cultivate vibrant communities.

...prioritizes social equity by evaluating the impact of policies, programs, and projects on historically marginalized and vulnerable populations.

Key Takeaways:

The PlanRVA resilience planning process...

- *Must be collaborative and inclusive*
- *Recognizes the mistakes of the past to make informed and equitable decisions*
- *Uses the best available data and scientific information*
- *Succeeds through a balance of regional cooperation and unique local solutions*
- *Welcomes new connections and expands on existing networks*
- *Is ongoing and woven into the fabric of all planning processes*

On June 24, 2021 PlanRVA staff hosted a resiliency data coordination meeting. PlanRVA staff presented on PlanRVA resilience data and shared information about other data and tools available. This meeting allowed local representatives to collaborate on data sources to ensure all resources are utilized. PlanRVA staff aims to house resiliency data in one consolidated location for consistency's sake and making it easily accessible.

Digital Tools and Coordination

PlanRVA staff created an Environmental TAC SharePoint site for coordination and collaboration on resiliency planning. PlanRVA staff created a [resilience page](#) on the PlanRVA website. PlanRVA staff created and posted social media content pertaining to resiliency planning to advertise for the public survey (more information below).

Regional Resiliency Priorities Identification

PlanRVA staff developed the regional resilience priorities with the Environmental TAC. As discussed in the Environmental Technical Advisory Committee section above, PlanRVA staff drafted regional resilience priorities and revised them based on input from Environmental TAC members. The current finalized list of priorities is included below. A regional priorities document with additional explanation can be found in Appendix G.

Resilience priorities are natural, social, and economic conditions that challenge or support regional resilience. Each priority has localized and/or regional resilience implications. The resilience priorities will shape the PlanRVA resilience planning process. PlanRVA staff will ...

...review and analyze scientific, geographic, and other information related to each priority to provide context, best practices, and direction for the planning process.

...use the priorities for project evaluation and prioritization. Projects will be prioritized in part based on their ability to improve resilience in the region.

...analyze the impacts on historically marginalized and socially vulnerable populations as part of the planning and project evaluation process as these populations feel the impacts of resilience challenges most acutely.

PlanRVA Resilience Priorities

- Track and Respond to Climate Change and Stressors
- Accessible Public Engagement
- Equity and Environmental Justice
- Mitigate Increased Flooding
- Sustainable Water Practices
- Sustainable Land Use and Infrastructure
- Land Conservation
- Promote Regional Relationships

PlanRVA staff created and released a resiliency planning public survey in May 2021. The survey allows PlanRVA staff to better understand existing resilience knowledge, lived experiences, and community resilience priorities. In coordination with Environmental TAC, PlanRVA staff decided to keep the [survey](#) open to the public for the foreseeable future to gather boarder input and inform year 2 of the planning process.

CZM Resiliency Database Support

PlanRVA staff reviewed the VCZM Project Database with locality staff during meetings and via email. PlanRVA staff solicited updates to the from locality staff during meetings of the Env TAC and via email. An updated regional project list was shared with Wetlands Watch during grant close out. A copy of the project list is included in the Year 1 Summary report in Appendix E.

Virginia Coastal Resilience Master Plan (VCRMP) Support

PlanRVA staff attended VCRMP Technical Advisory Committee (TAC) meetings during the grant year and supported regional meetings in the Richmond Region during the summer of 2021.

PlanRVA staff were members of two VCRMP TAC subcommittees: Project Identification and Public Outreach. The subcommittees generally met monthly throughout the VCRMP planning process.

PlanRVA staff kept locality staff informed about the VCRMP planning process through emails and discussions at regional meetings, such as Environmental TAC meetings and those of other regional committees.

PlanRVA staff shared updates about the VCRMP process and public meetings via email with locality staff and other stakeholders. Outreach to the general public also occurred through posts on the PlanRVA Facebook page. An public survey flyer posted on Facebook is included below.



Take our Coastal Resilience Stakeholder Survey

Flooding is the most common and costly natural disaster in the United States as well as in the Commonwealth of Virginia. Virginia's coastal region is home to more than 70 percent of the Commonwealth's population and the State has the highest rate of sea level rise of any east coast state, putting billions of dollars in private property and infrastructure in danger.

Unless we take action now to reduce flooding where we can, and increase the resilience of our neighborhoods and infrastructure, living with the water in Virginia's coastal communities will become more challenging in the coming years. The Commonwealth is developing a Coastal Resilience Master Plan (CRMP) to improve flood resilience for residents in the coastal regions, however we cannot achieve this vision of coastal resilience without the participation of coastal plain residents and stakeholders like you.

We need your help!

This Stakeholder Survey will provide insight and gather information on: local perceptions and interest in the planning process; inform the technical study effort; and provide insight into how communities would prefer to be involved and contacted in future outreach efforts. The Survey can be completed online through the link below.

Virginia Coastal Resilience Master Plan Stakeholder Survey

www.surveymonkey.com/r/VACRMP-Public

Please complete this survey by July 23rd, 2021. If you would like us to email you a copy of the survey, please contact us at resilientcoastVA@governor.virginia.gov.

To learn more about the Coastal Resilience Master Plan and its development, as well as how to get involved and provide further input, please visit our website at: <https://www.naturalresources.virginia.gov/initiatives/coastal-resilience-master-plan-progress/>.

PlanRVA staff participated and contributed to the VCRMP document creation in cooperation with the Department of Conservation and Recreation and Dewberry. Virtual meetings, emails, Word document edits, and other forms of communication and collaboration we utilized.

Appendix A

Don't Trash Central Virginia Strategic Framework

Don't Trash Central Virginia Campaign Strategic Framework

April 2021

About the Campaign

The Don't Trash Central Virginia Campaign is a regional litter prevention campaign that encompasses the Richmond-TriCities Region. The campaign is staffed by a committee of staff representatives from PlanRVA, Crater PDC, and Keep Henrico Beautiful. The campaign aims to provide a unified message to effectively convey the harms of litter and the importance of litter prevention and removal.

Campaign Members and Partners

Campaign Members

Campaign Members – Governments in the project area of the Don't Trash Central Virginia campaign who have indicated their support for the campaign and intention to utilize campaign materials.

10 localities have signed on as members of the campaign. The staff committee consults members about the direction of the campaign.

One Tribe in the project area of the campaign, **the Chickahominy Tribe**, has joined as a member.

CraterPDC is an organizer and member of the campaign.

Campaign Partners

Campaign Partners – Businesses and organizations in the community who have indicated support for the campaign, intend to utilize campaign materials, and intend to co-promote the message of a litter-free central Virginia.

Six community organizations and businesses have signed on as campaign partners.

Meetings

There will be four meetings a year of the Campaign. There will be 2 meetings of the campaign members, each alternated by a meeting of campaign members and partners.

Campaign Website and Materials

Website

The website for the campaign is housed on the PlanRVA website and can be reached at www.DontTrashCentralVA.org . The primary audience for the website is the general public.

SharePoint

A SharePoint site has been created as a coordination resource for Campaign members and partners. The SharePoint site for campaign is located at <https://richmondregional.sharepoint.com/sites/PlanRVAPartnershipSites/CentralVirginiaAnti-LitterProject> .

- Documents, graphics, and other materials associated with the campaign can be found on the SharePoint Site.
- Once a member joins the campaign, representatives from the government/business/organization are included on email lists and provided access to the Media Toolkit on SharePoint.
- Contacts file or Directory of Campaign Members and Partners

Don't Trash Central Virginia Campaign Vision & Goals

Vision: The Don't Trash Central Virginia Campaign envisions a litter free central Virginia.

The following **goals** strive to accomplish that vision.

- Increase awareness of litter and its negative impacts in the community,
- Build knowledge about litter prevention strategies,
- Encourage group and individual action through participation in clean up opportunities.
- Encourage actions and behaviors that reduce or eliminate litter.
- Promote a personal and community ethic of litter responsibility through a unified message.

Utilizing a Community Based Social Marketing Approach

Community based social marketing (CBSM) is an approach to achieving broad, sustainable behavior in communities. CBSM is based on social science research that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activity's benefits.

The Four Steps of Community Based Social Marketing

1- Identify the barriers and benefits of an activity. Barriers to an activity can be internal or external. Methods for identifying barriers: literature review, focus groups, observation, and/or surveys.

2- Develop a strategy that uses effective behavior change “tools”.

- Commitment
- Prompt
- Norms
- Communication
- Incentives

3- Pilot the strategy.

4- Evaluate the strategy once it has been implemented across the community.

Don't Trash Central Virginia CBSM Approach

Desired Behavior: only dispose of waste in trash cans or other acceptable receptacles.

Barriers:

- Education/Knowledge
 - Poor understanding or appreciation of impacts of litter (environmental, financial, aesthetic, etc.)
 - Lack of knowledge about proper disposal behaviors (is it ok to leave biodegradable materials behind? What is biodegradable?)
- Norms
 - Belief in no consequence(s) for littering
 - Witness existing litter (broken windows theory)
 - Lack of responsibility for common areas (like the Tragedy of the Commons)
 - Lack of culture that keeps everyone accountable for picking up litter
- Infrastructure
 - Lack access to trash cans or travel trash bag
 - Cost of proper dumping/trash disposal (at dump)

Benefits:

- Aesthetically pleasing surroundings
- Altruistic feeling about promoting environmental cleanliness or fiscal responsibility.
- Clean environment
- Culture that promotes environmental cleanliness

Tools:

- **Commitment**
 - *Don't Litter Pledge*
 - Sign the Don't Litter pledge and get a sticker or enter into a drawing
 - Sign the Don't Litter pledge and share on social media
- **Prompt** (to engage in positive behavior)
 - Public Signage
 - Social Media campaign (Don't Trash Central Virginia, DO (this instead))
 - Sticker campaign on things others will see?
 - E.g. Don't Trash Sticker on utility and/or police vehicles
 - Advert in through GRTC, get sticker on busses or bus stops
 - Promotion or posting of the campaign by members and partners
 - Digital boards/ announcements
 - VDOT cute message digital traffic boards – catchy message about Don't Trash
 - Get in touch with Digital Billboard company about possibly posting a message on down time on available boards
- **Norms**
 - Include pictures of people throwing things away in campaign materials
 - Include pictures of people picking up litter in campaign materials
 - Promote contest of people showing themselves throwing things away properly or picking up litter
 - Education workshops or videos on the benefits of not littering and instilling a culture of environmental responsibility
- **Communication**
 - Consistently use the Don't Trash logo
 - Consistently use #DontTrashCentralVA
 - Create mini campaigns or promotions with memorable language
 - Post consistent updates on campaign happenings to keep people in the loop, encourage or reinforce involvement
- **Incentives** – closely pair the incentive and the behavior; use incentives to reward positive behavior
 - Prizes for litter-responsible behavior promoted through social media, such as who can pick up the most bags of litter
 - Giveaway or prizes for repost competitions or drawings – repost and tag friends to enter

Near-Term Steps

- Resend partner letter to solicit additional partner organizations.
- Plan member/partner meetings – 4 per year (2 members + 2 members and partners)
- Clean up and update SharePoint files, include a listing of member and partner representatives.

Future Project Opportunities

- Partner with GRTC to do a clean up of bus stops
- Create unique partnerships for pilot programs - a franchise owner with locations in several localities would agree to a deeper partnership where they agree to: Promote they are a part of the program in a big way (advertising campaign tag, etc.)
- Additional litter prevention support (from KVB) like cigarette butt receptacles, pocket ashtrays, stickers and other goodies. Perfect for a Midas, car dealership, car wash, gas station, c-store.

References

<https://potomac.org/blog/2019/11/15/why-people-litter> (includes links to other resources)

<https://www.theatlantic.com/health/archive/2014/08/littering-and-following-the-crowd/374913/>

Appendix B

Don't Trash Central Virginia Social Media Examples

Don't Trash Central Virginia Social Media Content Examples



VIRGINIA BALLOON RELEASE BAN

**DID YOU
KNOW?**

The state of Virginia recently passed a balloon release ban making it illegal to purposely release balloons outdoors. There is a \$25 fine per balloon released.



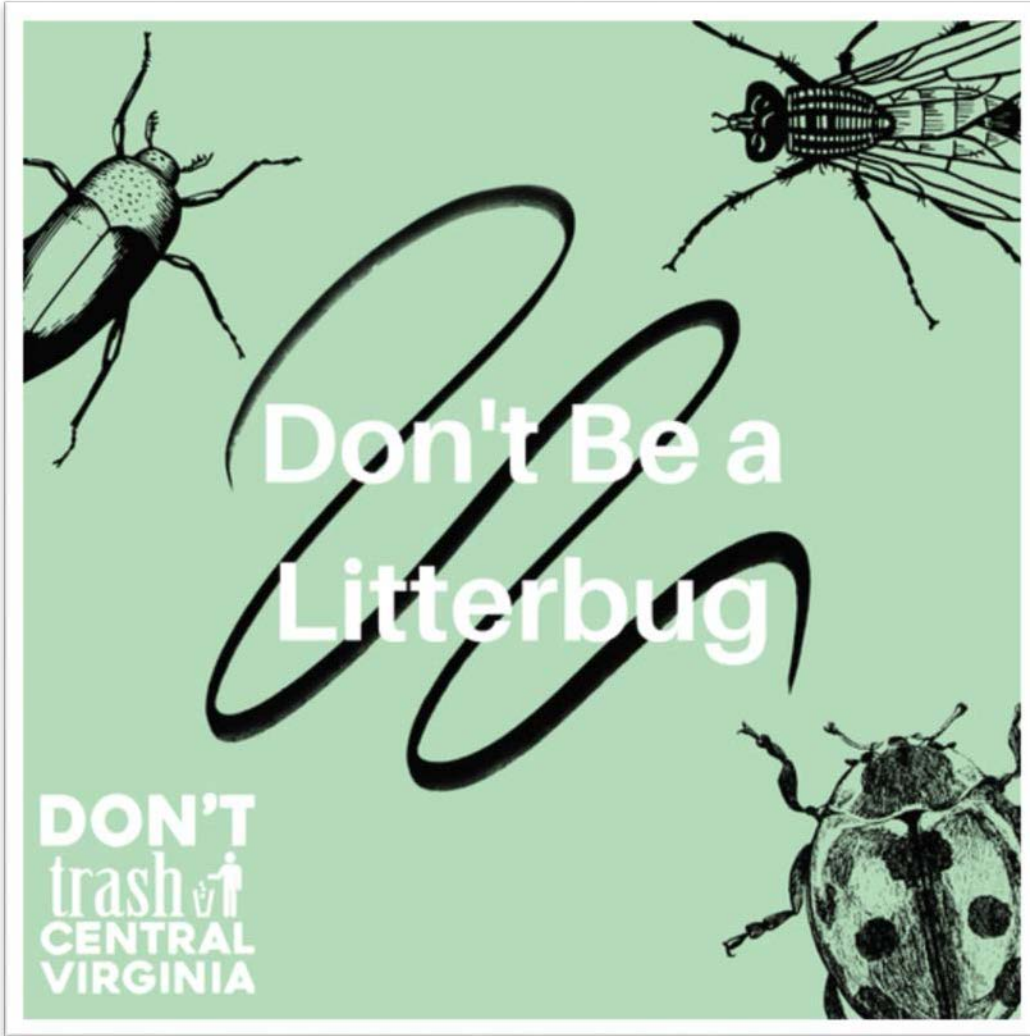
Learn more about eco-friendly alternatives
to balloon releases at our website:
www.DontTrashCentralVA.org

CLEAN UP KIT LIST

PREPARE FOR YOUR CLEAN UP EVENT

- | | |
|---|---|
| <input type="checkbox"/> TRASH GRABBERS | <input type="checkbox"/> WATER BOTTLE |
| <input type="checkbox"/> GLOVES | <input type="checkbox"/> SNACKS |
| <input type="checkbox"/> TRASH BAGS | <input type="checkbox"/> HAND SANATIZER |

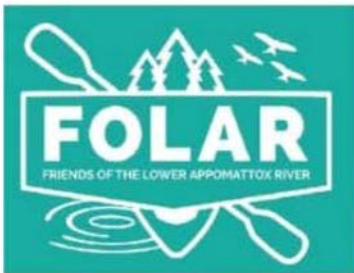
#DontTrashCentralVA



Don't Be a
Litterbug

DON'T
trash 
CENTRAL
VIRGINIA

Check Out Our Awesome New Partners!



DON'T
trash 
CENTRAL
VIRGINIA

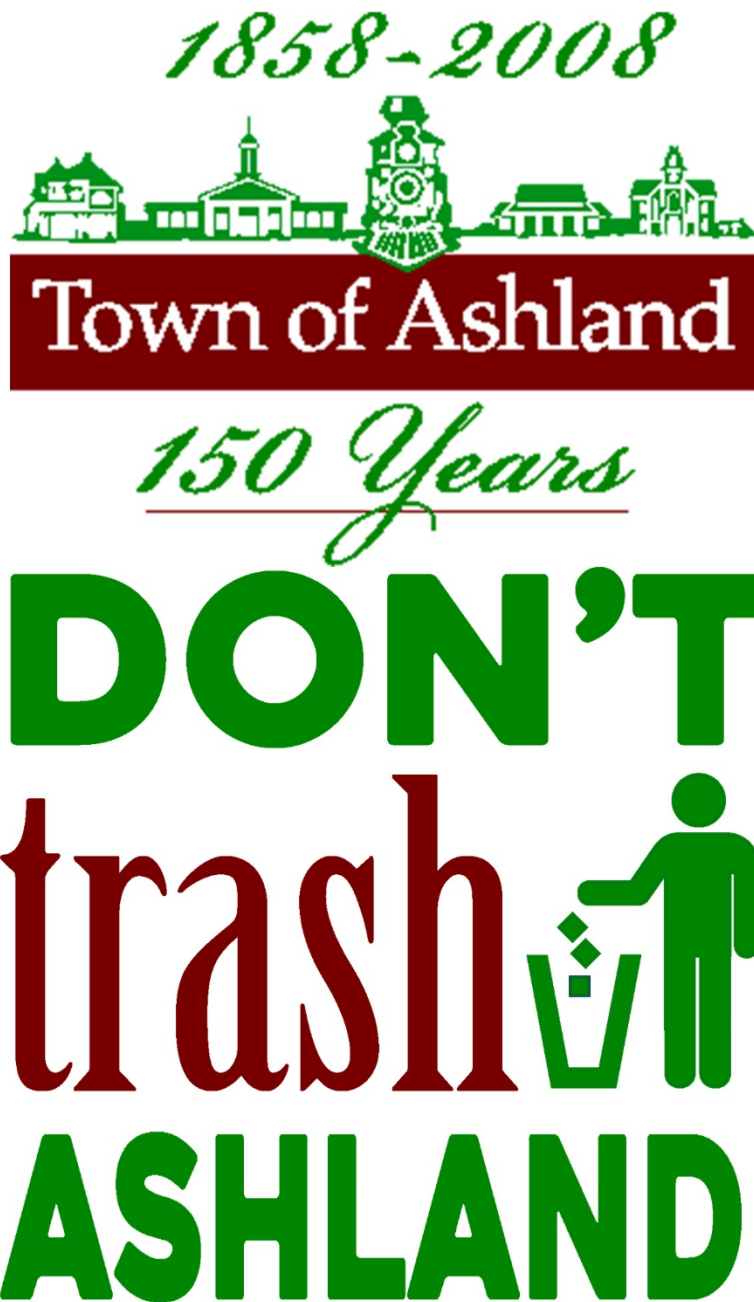
If you're interested in becoming
a partner, visit
www.DontTrashCentralVA.org

#DontTrashCentralVA

Appendix C

Don't Trash Central Virginia Member and Partner Logos Examples

Don't Trash Central Virginia
Member & Partner Logo Examples





DON'T
trash 
CHESTERFIELD



DON'T
trash 
HENRICO

DON'T
trash 

CAPITAL REGION
LAND CONSERVANCY 



DON'T
trash 
**CENTRAL
VIRGINIA**



Rapid Transit

DON'T
trash 
CENTRAL VIRGINIA



DON'T
trash 
CENTRAL VIRGINIA

Appendix D

PlanRVA Agency Resilience Planning Framework

PlanRVA Resiliency Planning Strategy

Overview

PlanRVA is initiating a resiliency planning program that will take a comprehensive view of resiliency and coordinate efforts of existing projects and programs within the agency. The resiliency planning program will consider **the entirety of all PlanRVA member jurisdictions**. A grant from the Virginia Coastal Zone Management Program will fund this effort, in part, for the next three years. Resiliency is a consideration in the RRTPO and rural transportation planning processes. The Richmond-Crater Hazard Mitigation Plan also considers resiliency in hazard identification and analysis, strategy development, and project identification.

To best benefit member localities and other regional stakeholders, PlanRVA staff intend to dovetail this resiliency planning program with other state and federal planning processes and programs as much as possible, including: the Virginia Coastal Resilience Master Plan, FEMA Building Resilient Infrastructure and Communities, the NFIP Community Rating System, VDOT Rural Transportation Planning Program, Connect 2045 Long Range Transportation Program, and the Chesapeake Bay TMDL.

Goals of the PlanRVA Resiliency Planning Program:

- Characterize the nature of resiliency concerns in the Richmond region so that the breadth and depth of them can be better understood by the general public and local, state, and federal leaders;
- Elevate the needs and projects in the Richmond region for funding and other resources;
- identify priorities and projects that reflect the diversity of member jurisdictions, e.g. coastal/piedmont and urban/suburban/rural.

PlanRVA Staff Coordination

Staff at PlanRVA will coordinate as part of the Resiliency Planning Program. The following staff members will form a committee.

- Sarah Stewart
- Myles Busching
- Barbara Jacocks
- Katie Moody
- Heather Barrar
- Rebekah Cazares
- Mark Blttner

Consultation among staff members will ensure vetting of ideas, discipline integration, and program coordination.

Chet Parsons and Martha Heeter will also be included in planning discussions as appropriate.

Engagement Strategy with Stakeholders

The Environmental TAC will be considered the lead resiliency committee of PlanRVA and will be the final arbiter of program decisions. Environmental TAC includes staff from the following local departments depending on locality: planning/community development, parks and recreation, stormwater/environmental engineering. The roster for engagement can be expanded at the request of local staff.

Env TAC Roster - <P:\Environment\Regional Coordination\Env TAC\FY21\Env TAC.xlsx>

PlanRVA staff propose that voting will be consensus based among the committee.

Other Committees will be engaged and members can be copied on all correspondence by request. (Some members of the following committees are also on Environmental TAC.)

- Emergency Management Alliance of Central Virginia
- RRTPO TAC
- Rural TAC
- Richmond Region Water Quality Planning Partners
- LRTP Advisory Committee

Decisions During Year 1

A decision will need to be reached on the following items during 2021:

- Definition of resiliency
- A regional resiliency vision
- Regional resiliency concerns or priorities
- A list of projects, that will ultimately be prioritized but need not be prioritized during 2021
 - Prioritization can be individually, in tiers, or by category
 - the list will be for the entire PlanRVA area, not restricted to Coastal Zone

Agenda for Year 1 (Jan 2021 – Sept 2021)

During the first year, a series of meeting will present speakers to provide background on the following items:

- Updates to the PlanRVA Resiliency Water Risk GIS layer
- Virginia's Coastal Resilience Master Plan
- Virginia's Coastal Resilience Database
- Various resiliency concepts and risks, possibly including:
 - Heat island (Jeremy Hoffman)
 - Geological hazards risk (Anne Witt, DMME)
 - Sea level rise and threats to infrastructure (VIMS?)
 - Parks and resiliency (Janit Llewellyn)

Possible PlanRVA Resiliency Concerns or Priorities (To be updated in fall 2021 with finalized list)

- Heat
- Changing precipitation patterns
- Flooding (coastal, fluvial, and pluvial)
- Sea level rise
- Groundwater (sustainable use and water quality)
- Aging and use-limited infrastructure
 - Transportation, e.g bridges with weight limit that prevent use by Fire and EMS
 - Stormwater BMPs
- Public health
- Economic resiliency
- Land conservation (forest, agriculture, scenic)

*Mike Flagg noted we suffer greatly from excessive stream erosion as a result of land use and land cover change over time.

Project Prioritization

*The project prioritization process should recognize co-benefits associated with projects. Project co-benefits exist if a project address multiple resiliency concerns or priorities.

- The universe of projects will be solicited by PlanRVA staff via outreach to locality staff.
- Project prioritization will likely be done via quantitative (GIS/data analysis) and qualitative processes. Lessons can be learned from the TPO project scoring processes, present and past.
- Final prioritized project list will be approved by Env TAC.

Possible Speakers, Next Steps & Future Projects for Consideration

- build a [Fight the Flood](#) or [Get Flood Fluent](#) Site , discussed with Kristin Owen (Henrico) – **FUNDED**, work to be done Fall 2021 – Summer 2022
- Compare, and add if necessary, the ConserveVA Coastal Flood Mitigation Layer to our water resiliency layer, and any other layers that are relevant. (VCRMP Framework indicates we should include Conserve VA in planning activities.) Added July 2021 – Create a second longer term layer to 2080. Add Henrico local floodplains. As FEMA floodplains are updated, incorporate.
- Jeremy Hoffman, Science Museum – heat Island
- Anne Witt, DMME, coastal plain landslides and other geologic hazards; geologic diversity and resiliency – see TNC report re: geology and climate change

Opportunities – (submitted to CRMP)

Regional outreach & education dashboard about resilience priorities – An online dashboard or suit of tools that will educate the public and share data with professional about resilience planning, priorities and concerns in the region.

Regional resilience outreach and education - PlanRVA will conduct education and outreach with the general public about resiliency concerns in the region. A portion of the outreach will be geared for feedback that can be incorporated in to scenario planning for the region.

Full regional plan that ties all the pieces and departments together - This project would take the pieces currently funded through a current and future series of grants from the Coastal Zone Management Program, fill planning process gaps, and unite all elements under a single regional resilience plan that compliments other regional and local plans.

Resilience policy toolkits - PlanRVA will develop policy toolkits for local planners in the region that includes policies, resources, best practices, and considerations they should keep incorporate given resilience priorities and concerns in the region. These toolkits would be developed for various policy areas, such as housing.

Resilience education and training for businesses - PlanRVA staff will work with the Emergency Management Alliance of Central Virginia and other organizations in the region to conduct resilience planning and education workshops for businesses. Educational materials about resilience priorities in the region will be developed and shared along with preparedness information.

Resilience Program and Project Cobenefit Connector - PlanRVA staff expands current staff capacity to better understand and educate localities in the region about how to fully harness existing and future grant programs given the cobenefits of resilience related projects; staff can advise on how to fund existing projects and how to design future projects to fully harness all opportunities. Staff will also work with local staff to identify or collect local projects into regional or multi-jurisdictional projects. A guidance document or web resource is also created in addition to the staff capacity that serves as a resource. This project would serve not only as a resource, but also a means of education for local staff in various departments who could benefit from seeing how projects can be viewed or harnessed to accomplish multiple objectives when considered through different lenses.

Regional Resilience Plan Matrix - This matrix tool would display all the relevant regional and local plans that intersect with resilience. It would provide viewers a comprehensive overview of how plans direct action on various resilience priorities.

Links and Resources

Virginia Coastal Resilience Master Plan Framework -

<https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/Virginia-Coastal-Resilience-Master-Planning-Framework-October-2020.pdf>

Virginia Coastal Master Plan TAC - <https://www.naturalresources.virginia.gov/initiatives/technical-advisory-committee-for-coastal-resilience/>

Commonwealth Center for Recurrent Flooding Resiliency - <https://www.floodingresiliency.org/>

DRAFT 7-30-21

ConserveVirginia - <https://www.dcr.virginia.gov/conservevirginia/>

NOAA Digital Coast - <https://coast.noaa.gov/digitalcoast/>

AdaptVA - <http://adaptva.com/>

Appendix E

Year One Resilience Summary Report

RESILIENT RICHMOND REGION

YEAR ONE SUMMARY REPORT



This project, Task # 48 was funded by the Virginia Coastal Zone Management Program led by the Virginia Department of Environmental Quality through Grant FY20 # NA20NOS4190207 of the US Department of Commerce, National Oceanic, and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended. The views expressed herein are those of the authors and do not necessarily reflect the views of the US Department of Commerce, NOAA, or any of its subagencies.



Table of Contents

1	Introduction	7	Resiliency Priorities
2	Engagement Strategy with Stakeholders	12	Public Survey
3	What is Resiliency?	13	Regional Data
4	Key Takeaways	14	Regional Resiliency Projects
5	Vision	17	Next Steps
6	Resiliency Priorities	18	Conclusion

Introduction

Planning for resilience ensures that the region and its residents can adapt and thrive amidst natural, social, and economic challenges. Challenges are often grouped into two categories: acute shock and long-term societal stressors. As communities are experiencing increased negative impacts of disasters due to climate change, resilience planning efforts are more important than ever.

In 2021, PlanRVA initiated a resiliency planning program to promote a region that can survive and adapt now and into the future. The following document highlights the strides made in the first year of PlanRVA's efforts. Efforts in year one include:

- The development of a regional resilience definition, vision, and priorities.
- Creation of a regional resilience public survey.
- Collection of existing and future regional resilience-related projects which will be prioritized in year two.
- Inventory of existing regional resilience data to be used as a resource for local government officials.
- Creation of a year two scope to identify next steps and goals.

The Resilient Richmond Region Year One Summary Report will first, introduce and describe year one efforts, as well as conclude with an outline of the next steps while entering year two of the project.



Engagement Strategy with Stakeholders

The Environmental Technical Advisory Committee (TAC) will be considered the lead resiliency committee of PlanRVA. Environmental TAC includes staff from the following local departments depending on locality: planning/community development, parks and recreation, stormwater/environmental engineering. The roster for engagement can be expanded at the request of local staff.

Other Committees will be engaged and members can be copied on all correspondence by request. Some members of the following committees are also on Environmental TAC:

- Emergency Management Alliance of Central Virginia
- RRTPO TAC
- Richmond Region Water Quality Planning Partners
- LRTP Advisory Committee

PlanRVA staff will balance the needs of locality staff, the requirements of various funding streams, and the context of large planning processes. Decisions will be consensus-based among the committee.



What is resilience?

Resilience is the ability of individuals, institutions, and communities to anticipate, respond, adapt, and thrive amidst both short-term events and long-term stressors.

When you think of a resilient community, what do you picture?

"A community able to adjust when faced with any sort of adverse condition. Whether it is societal or environmental, a resilient community will adapt and even grow following any sort of disaster/large-scale change/etc."

- Richmond Region Resident



Key Takeaways

The PlanRVA resilience planning process...

**Must be collaborative
and inclusive**

**Succeeds through a balance
of regional cooperation and
unique local solutions**

**Recognizes the mistakes of
the past to make informed
and equitable decisions**

**Welcomes new connections
and expands on existing
networks**

**Uses the best available
data and scientific
information**

**Is ongoing and woven into
the fabric of all planning
processes**

Vision

The PlanRVA region supports regional planning and project implementation for a resilient community that...

...engages diverse communities in urban, suburban, and rural settings.

...works with the community to promote education, awareness, and participation.

...maintains, protects, and improves the built and natural infrastructure to cultivate vibrant communities.

...prioritizes social equity by evaluating the impact of policies, programs, and projects on historically marginalized and vulnerable populations.

PlanRVA Resilience Priorities

Resilience priorities are natural, social, and economic conditions that challenge or support regional resilience. Each priority has localized and/or regional resilience impacts.

Resilience priorities will shape the planning process. Utilizing the following priorities, PlanRVA staff will...

...review and analyze scientific, geographic, and other information related to each priority to provide context, best practices, and direction for the planning process.

...use the priorities for project evaluation and prioritization. Projects will be prioritized in part based on their ability to improve resilience in the region.

...analyze the impacts on historically marginalized and socially vulnerable populations as part of the planning and project evaluation process as these populations feel the impacts of resilience challenges most acutely.

PlanRVA Resilience Priorities



TRACK AND RESPOND TO
CLIMATE CHANGE &
STRESSORS

SUSTAINABLE WATER
PRACTICES



ACCESSIBLE PUBLIC
ENGAGEMENT

SUSTAINABLE LAND USE
& INFRASTRUCTURE



EQUITY &
ENVIRONMENTAL
JUSTICE

LAND CONSERVATION



MITIGATE INCREASED
FLOODING

PROMOTE REGIONAL
RELATIONSHIPS



PlanRVA Resilience Priorities



An increase in human activities (i.e., burning fossil fuels) leads to increased greenhouse gas (GHG) emissions. GHG contributes to climate change and causes a variety of climate stressors that impact regional resilience.

Climate concerns in the Richmond region include changing precipitation patterns, extreme temperatures, sea-level rise, and habitat migrations.



Prioritizing sustainable water practices will cultivate a resilient region. For example, it is important to manage groundwater use as the resource has many important uses like supplying drinking water to the public, crop irrigation, and industrial uses that provide jobs across the region. When sustainable practices such as protecting water quality through pollution prevention are utilized it ensures groundwater and surface water is clean and available now and into the future.

PlanRVA Resilience Priorities



ACCESSIBLE PUBLIC ENGAGEMENT

Equitable public engagement strategies to build awareness and improve access to information play an important role in resilience planning.

One way to do this is through organizational and business preparedness education.

SUSTAINABLE LAND USE & INFRASTRUCTURE



Land use and infrastructure are resiliency priorities to ensure the built environment reflects the needs of communities. For example, public infrastructure concerns such as existing limitations due to design or condition impede resilience.

Building a resilient community relies on multiple approaches. The utilization of green infrastructure practices is a priority. Other land use and infrastructure solutions include improving access to parks and recreation spaces, supporting economic growth and healthy lifestyles with an effective multi-modal transportation network, and supporting efficient infrastructure systems that reflect the diversity of places in the region.

PlanRVA Resilience Priorities



Natural, social, and economic challenges are felt more acutely by historically marginalized and socially vulnerable communities. The equity and environmental justice priority recognizes that not all Richmond region residents are impacted the same.

When a short-term event or long-term stressor occurs those with limited resources have a more difficult time recovering. Resilience planning must prioritize these concerns to ensure that the needs of all people regardless of race, ethnicity, income level, age, or ability are being met.



Conserving natural spaces to support ecosystem functions and public health builds resilient communities. It is important to plan for climate change adaptation and recreation spaces while also protecting cultural and heritage spaces across the landscape.

PlanRVA Resilience Priorities



To promote a resilient region prioritizing flooding concerns is key. The three main flooding types in the region are stormwater, tidal, and riverine. Chronic or increased flooding causes include increased precipitation, high tide events, sea-level rise, and increased development and impervious surfaces.



Strong regional relationships support resiliency planning. It is important that regional projects expand on or improve existing networks. Building new connections across a diverse set of organizations that are representative of the region promotes resilience.

Public Survey

In May of 2021, PlanRVA released a public survey to gauge existing knowledge of resilience through the collection of thoughts, experiences, and concerns of community members.

The PlanRVA Resiliency Planning Survey is made up of 3 main sections:



Public Survey

1 Demographics

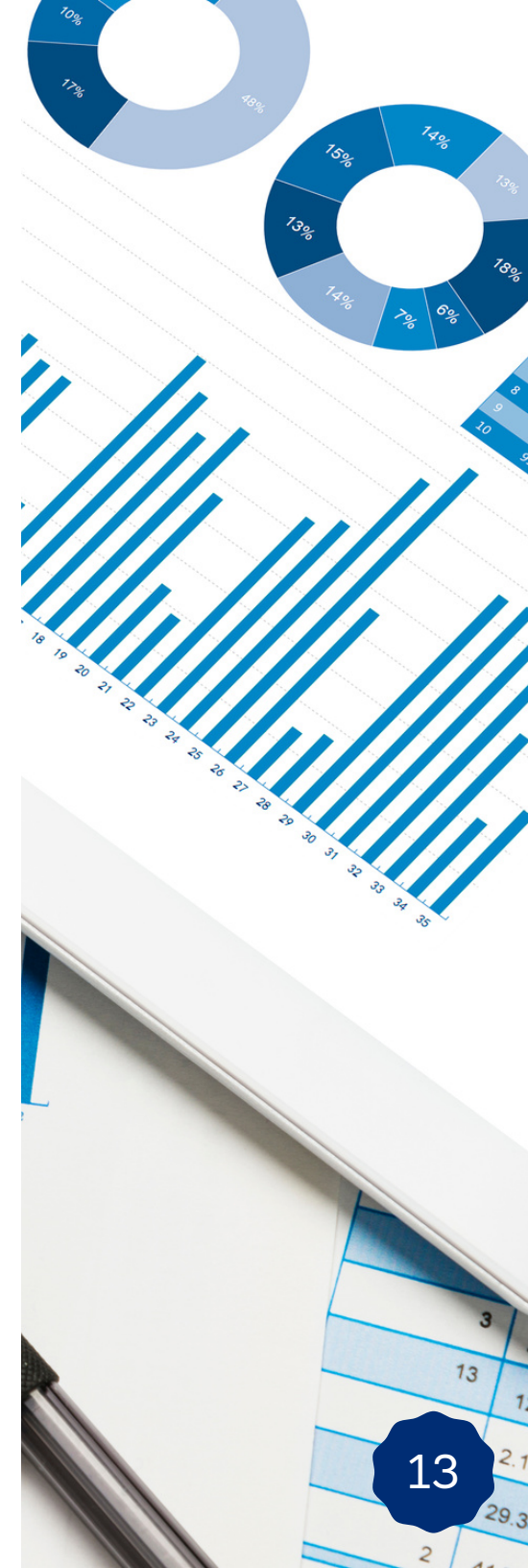
Collecting demographical information (i.e., age, race, gender, locality, etc.) allows PlanRVA staff to better understand who participated to ensure a diverse set of responses that accurately reflect the region.

2 Planning for Resilient Communities

This section asks important resiliency related questions to gauge respondents understanding of resiliency, their vision of a resilient community, and their climate and resilience priorities.

3 Further Details

If interested, this sections allows respondents to provide additional detail to take part in potential focus groups organized by PlanRVA staff. It asks for their name, occupation, experience related to resilience, email, and schedule.



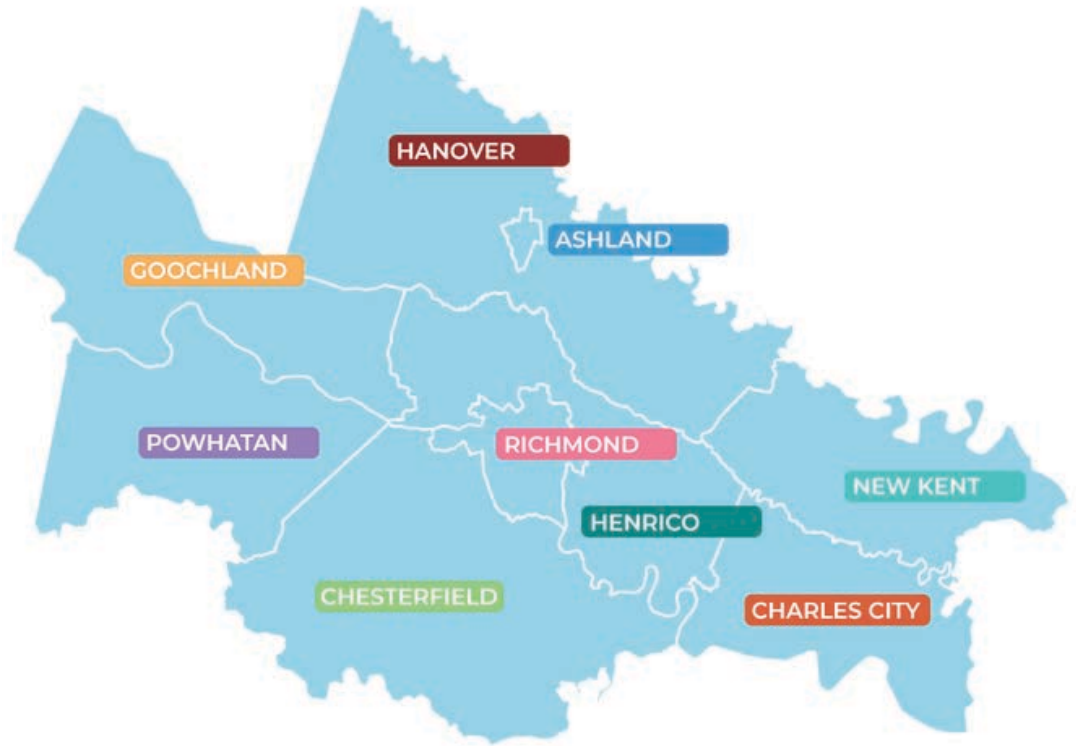
Regional Data

In June of 2021, PlanRVA staff hosted a resiliency data coordination meeting where they presented regional resilience data and shared information about other data and tools available.

Following the meeting, staff created an Environmental TAC SharePoint site for coordination and collaboration on resiliency planning.

Data discussed includes:

- Bridge/Culvert Data
- Environmental Justice
 - Minority population
 - Living in poverty
 - Senior population (Age 65+)
 - People with disabilities
 - Limited English proficiency
 - Zero car ownership
- DCR Dam Inundation Zones
- Risk Factor Data
- Storm surge



Regional Resilience Projects

Regional resilience projects include both infrastructure projects as well as capacity-building projects within the PlanRVA region. Projects were collected via the existing project databases, regional resilience plans, and through communication with the Environmental TAC representatives. The following list of projects will be prioritized in year two.

Capacity Building Projects

Locality	Project Name	Project Type	Owner
Charles City	Sea-Level Rise Planning	Resilience Public Outreach	Petersburg, Colonial Heights, Prince George, Surry, Charles City, possibly Crater PDC
Henrico	Floodplain Acquisition Program	Planning Program	Henrico
	Resiliency Planning	Planning Efforts	
	Flood Studies Updates	Data Updates	
	Staff Training	Training	
	Flood Related Public Outreach	Outreach	
PlanRVA	Richmond Regional Resiliency Dashboard	Online Database	PlanRVA
	Resiliency Policy Toolkit	Toolkit	
	Resiliency Education and Outreach	Outreach	
	Resilience Plan	Plan Document	
	Resiliency Matrix Tool	Matrix Tool	
	PlanRVA Capacity Building	Capacity Building	
	Resiliency Outreach Collaboration with EMACV	Outreach	
Tri-Cities Region	Capacity Building for River Trail	Capacity Building	Friends of the Lower Appomattox

Project List

Locality	Project Name	Project Type	Owner
Charles City	Berkeley Plantation Sill	Shoreline Protection	Charles City
	Sturgeon Point Breakwaters	Shoreline Protection	
	Sandy Point Headland Control	Shoreline Protection	
Chesterfield	Brown & Williamson	River Trail	Chesterfield
Henrico	Floodplain Acquisitions	Acquisition	Henrico
	Old Nine Mile Landfill Stream Restoration	Stream Restoration	
	Graham Meadows Buffer Restoration	Buffer Restoration	
	Wilder Middle Stream Restoration	Stream Restoration	
	Three Lakes Park Stream Restoration	Stream Restoration	
	Hidden Creek Park Stream Restoration	Stream Restoration	
	Adams Elementary Stream Restoration	Stream Restoration	
	Meadowview Park and Stream Restoration	Stream Restoration	
	JSRCC Stream Restoration	Stream Restoration	
	Gambles Mill Pump Station Generator	Utility Upgrades	
	Woodman Rd Drainage Improvement	Floodplain Restoration	
	Water Reclamation Facility Stream Restoration	Stream Restoration	
	Deitrick Rd Outfall Restoration	Outfall Restoration	
	Firehouse #20 Staples Mill Firehouse Stormwater Basin	Drainage	
	Minor Drainage Improvements	Drainage	
	Countywide Creeks and Streams	Stream Restoration	
	Designated Drainage Projects	Drainage	
	Chesapeake Bay TMDL/MS4 Compliance	TMDL/MS4 Compliance	
	Lake Overton Retrofits	Retrofits	
	Pump Rd Dam Improvements	Dam Improvements	
Echo Lake Dam Improvements	Dam Improvements		
Wyndham Dam Improvements	Dam Improvements		
Cox Rd Improvements	Road Improvements		
Wellesley Dam Improvements	Dam Improvements		
New Kent	Ware Creek WMA Shoreline Restoration	Environmental Restoration & Creation	New Kent
	I-Flow Gauge Feasibility Study	Environmental Restoration & Creation	
Richmond City	Pilot: Application of Living Shorelines in Urban Areas	Shoreline Protection	Richmond City
Town of Ashland	Mill Dam Removal	Environmental Restoration & Creation	Town of Ashland
Tri-Cities Region	Appomattox River Trail (Blueway and Greenway)	River Trail	Friends of the Lower Appomattox

Next Steps

PlanRVA's regional resiliency program was initiated in 2021. Since the creation of the program, there have been several achievements, which were highlighted in this report.

Building on these achievements, PlanRVA staff will focus on the three main next steps listed to the right into year two of the initiative.

Project Prioritization

Using the PlanRVA region resiliency related project list collected during year one, staff will develop a prioritization process. This process will allow staff to develop a list of high priority projects based on the determined scoring system.

Regional Resilience Engagement Meetings

PlanRVA staff will host regional resilience engagement meetings. Meetings will include general administration discussions as well as guest speakers relevant to resilience work.

Regional Resiliency Dashboard

A dashboard will be developed for outreach and educational purposes by sharing regional resiliency data. Data provided will 1) reflect the PlanRVA resilience priorities and 2) tell a story of the region to spread awareness about potential risks.

Conclusion

The achievements highlighted in this summary report are just the beginning of a long-term, multi-disciplinary regional process. Regional resilience is woven into every aspect of planning processes and PlanRVA staff across the various program areas will work together to complete proposed capacity-building resilience projects.

In year two PlanRVA staff will continue to support locality staff and other stakeholders as they embark on resilience-related projects. Education and outreach will also continue with the development of the resiliency dashboard. A scoring system will be created to prioritize regional projects listed in this report. Lastly, staff will continue to consider potential regional resilience projects.



Appendix F

Resilience Word Cloud Exercise Results

The PlanRVA definition of resiliency includes...?



The PlanRVA resilience vision Statement includes...?



Appendix G

Regional Resilience Priorities

PLANRVA RESILIENCE PRIORITIES



TRACK AND RESPOND TO
CLIMATE CHANGE &
STRESSORS

SUSTAINABLE WATER
PRACTICES



ACCESSIBLE PUBLIC
ENGAGEMENT

SUSTAINABLE LAND USE &
INFRASTRUCTURE



EQUITY &
ENVIRONMENTAL JUSTICE

LAND CONSERVATION



MITIGATE INCREASED
FLOODING

PROMOTE REGIONAL
RELATIONSHIPS



PlanRVA Resilience Priorities



TRACK AND RESPOND TO CLIMATE CHANGE & STRESSORS

An increase in human activities (i.e., burning fossil fuels) leads to increased greenhouse gas (GHG) emissions. GHG contributes to climate change and causes a variety of climate stressors that impact regional resilience.

Climate concerns in the Richmond region include changing precipitation patterns, extreme temperatures, sea-level rise, and habitat migrations.

SUSTAINABLE WATER PRACTICES



Prioritizing sustainable water practices will cultivate a resilient region. For example, it is important to manage groundwater use as the resource has many important uses like supplying drinking water to the public, crop irrigation, and industrial uses that provide jobs across the region.

When sustainable practices such as protecting water quality through pollution prevention are utilized it ensures groundwater and surface water is clean and available now and into the future.

PLANRVA RESILIENCE PRIORITIES



Equitable public engagement strategies to build awareness and improve access to information play an important role in resilience planning.

One way to do this is through organizational and business preparedness education.



Land use and infrastructure are resiliency priorities to ensure the built environment reflects the needs of communities. For example, public infrastructure concerns such as existing limitations due to design or condition impede resilience.

Building a resilient community relies on multiple approaches. The utilization of green infrastructure practices is a priority. Other land use and infrastructure solutions include improving access to parks and recreation spaces, supporting economic growth and healthy lifestyles with an effective multi-modal transportation network, and supporting efficient infrastructure systems that reflect the diversity of places in the region.

PLANRVA RESILIENCE PRIORITIES



Natural, social, and economic challenges are felt more acutely by historically marginalized and socially vulnerable communities. The equity and environmental justice priority recognizes that not all Richmond region residents are impacted the same.

When a short-term event or long-term stressor occurs those with limited resources have a more difficult time recovering. Resilience planning must prioritize these concerns to ensure that the needs of all people regardless of race, ethnicity, income level, age, or ability are being met.



Conserving natural spaces to support ecosystem functions and public health builds resilient communities. It is important to plan for climate change adaptation and recreation spaces while also protecting cultural and heritage spaces across the landscape.

PLANRVA RESILIENCE PRIORITIES



MITIGATE INCREASED FLOODING

To promote a resilient region prioritizing flooding concerns is key. The three main flooding types in the region are stormwater, tidal, and riverine. Chronic or increased flooding causes include increased precipitation, high tide events, sea-level rise, and increased development and impervious surfaces.

PROMOTE REGIONAL RELATIONSHIPS



Strong regional relationships support resiliency planning. It is important that regional projects expand on or improve existing networks. Building new connections across a diverse set of organizations that are representative of the region promotes resilience.

USING THE RESILIENCE PRIORITIES, PLANRVA STAFF WILL...

...review and analyze scientific, geographic, and other information related to each priority to provide context, best practices, and direction for the planning process.

...use the priorities for project evaluation and prioritization. Projects will be prioritized in part based on their ability to improve resilience in the region.

...analyze the impacts on historically marginalized and socially vulnerable populations as part of the planning and project evaluation process as these populations feel the impacts of resilience challenges most acutely.



Appendix H
Illicit Discharge Brochure

Illicit Discharge

Keep it Clean: Detecting and Reporting Illicit Discharges

What is an illicit discharge?

An illicit discharge is anything other than stormwater (rain water or snow) that enters a storm drain. This includes unwanted liquids (i.e. cooking grease, paints, pesticides, etc.) and other pollutants carried by rainwater.

How is an illicit discharge harmful?

Illicit discharges contaminate water sources and impact residents' overall quality of life. Illicit discharges can be associated with trash accumulation in waterways, algal blooms, fish kills by toxic substances, and the spread of disease. To keep viruses, waste, and unhealthy bacteria out of water sources, it is important to limit illicit discharges in communities. Vegetation can help absorb pollutants in the soil and in water. Plant more plants to protect our waterways.

How do I prevent an illicit discharge?



Only rain goes down the drain. Never pour unwanted liquids down storm drains.



Always remember to pick up your pet's waste.



Store soaps and auto fluids in containers with lids to prevent spills.



Put trash in its place. Litter, even from overfilled trash bins, can be washed or blown into water ways.



Wash your car on or near areas that drain into vegetation and not into storm drains.



Keep leaves and yard debris away from storm drains or areas where they may be washed away.



Illicit Discharge

Keep it Clean: Detecting and Reporting Illicit Discharge

How do I report an illicit discharge?

To report an illicit discharge contact your regional Municipal Separate Stormwater System (MS4) permit holder, as listed below. Include your name and a contact number, the date, the nearest address, a description of the dumped waste, and photos.

This helps your locality to eliminate and prevent future illicit discharges. It is best to report illicit discharges immediately after noticing them.

Who do I contact to report an illicit discharge?

Hanover County

Call 804-365-6181 or

Email

publicworks@hanover.gov



Town of Ashland

Email

publicworks@ashlandva.gov



Henrico County

Call 804-501-7319 or

Visit

www.build.henrico.us



City of Richmond

Call 311 or

Visit www.rva311.com



Virginia Department of Transportation

Call 1-800-FOR-ROAD

Email MS4@VDOT.Virginia.gov



Chesterfield County

Call 804-717-6161



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Appendix I

James River Public Access Rack Card



PUBLIC ACCESS ALONG THE JAMES RIVER



**SCAN THIS QR CODE FOR INFORMATION
ABOUT PLACES TO ENJOY THE JAMES RIVER.**

RIDDLE:
HOW'D THE MUSSEL
GET ACROSS THE
RIVER?
(ANSWER ON THE BACK)

FAST FACTS ABOUT THE JAMES RIVER

1. The James River is the longest river in Virginia at 348 miles in length.
2. American Indians have lived along the James River for thousands of years. The river was known as the Powhatan Flu when Europeans arrived in 1607.
3. The James River drops 105' over the course of seven miles at the Falls of the James in Richmond.

THE MISSION OF THE JAMES RIVER ASSOCIATION is to be a guardian of the James River. We provide a voice for the river and take action to promote conservation and responsible stewardship of its natural resources.

Created by:



Virginia Coastal Zone
MANAGEMENT PROGRAM

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Answer to riddle: He took a taxi crab