TECHNICAL STAKEHOLDER MEETING

TUESDAY, MAY 12, 2020

RVA H2O

RVAH2O.org

City of Richmond
Department of Public Utilities

Questions? Updates?

Put your questions in the Chat Box or
Unmute yourself and speak up!

If you don't have access to the Chat Box, just speak up!

(If on the phone, press *6 to Unmute.)

Today's Agenda

- Welcome
- RVA Clean Water Plan Timeline
- What's happening now?
- Addressing the Combined Sewer System
- Updates on Partner Projects
- Community Outreach

Welcome


res


GROUNDWORK
CHANGING PLACES
CHANGING LIVES
GROUNDWORK
RVA


PlanRVA
THE REGIONAL
COMMISSION


capital trees


DEQ
VIRGINIA DEPARTMENT OF
ENVIRONMENTAL QUALITY


RICHMOND
VIRGINIA


LimnoTech


City of Richmond
RVAgreen
2050


James
River
ASSOCIATION


Science Museum of Virginia


Alliance for the
Chesapeake Bay


Brown AND
Caldwell


RVA
H2O


RICHMOND CITY
RICHMOND
VIRGINIA
HEALTH DISTRICT


VIRGINIA
AMERICAN WATER


ARCADIS
Design & Consultancy
for natural and
built assets


VCU


SAVE THE BAY
CHESAPEAKE BAY
FOUNDATION
Saving a National Treasure

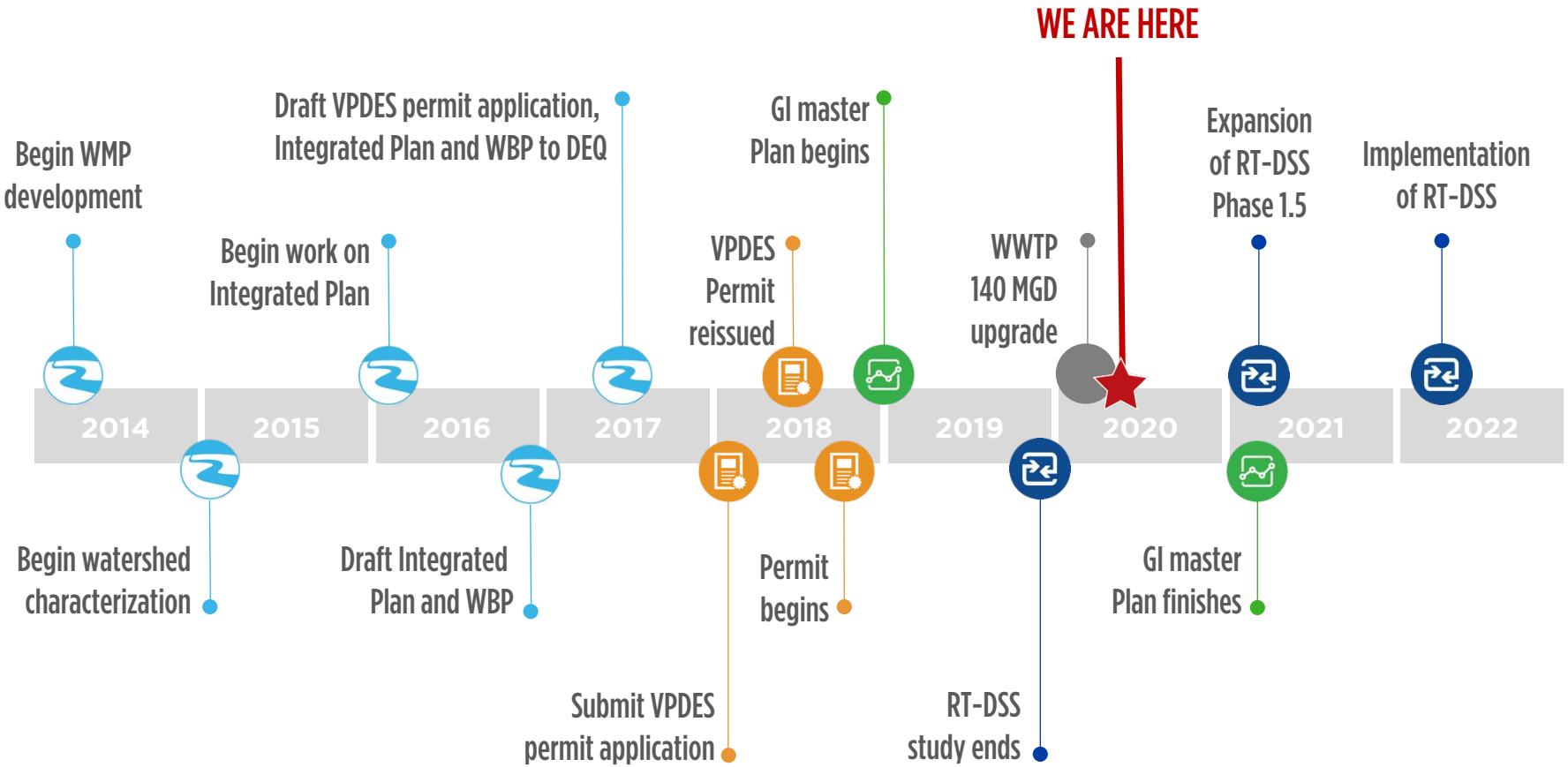

UNIVERSITY OF
RICHMOND


RICHMOND
GREEN
CITY
COMMISSION


PARKS • RECREATION
PRCF
& COMMUNITY FACILITIES

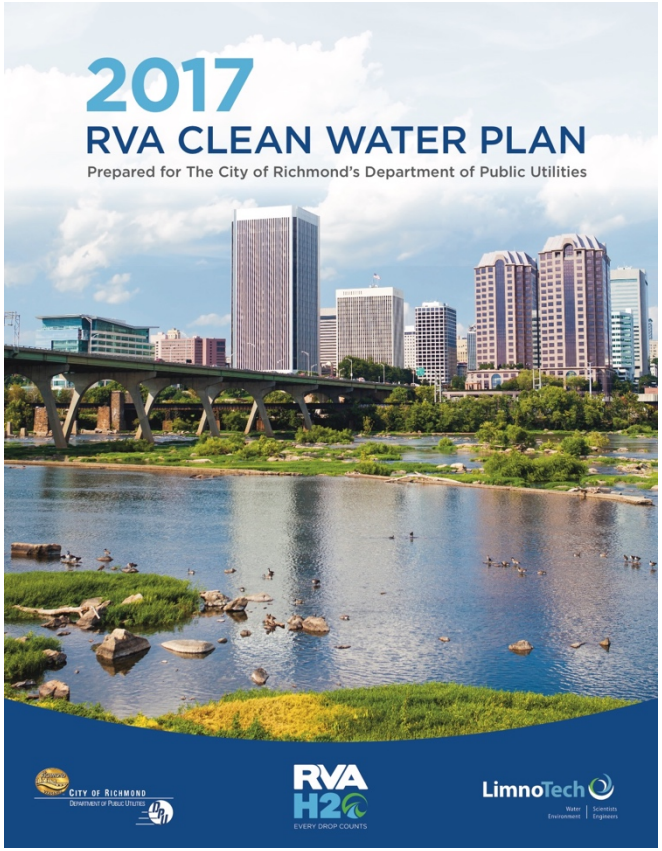

DEPARTMENT OF
PUBLIC WORKS

RVA Clean Water Plan Timeline



RVA Clean Water Plan – Overarching Goal

Manage, preserve, protect and restore watersheds in the City of Richmond to fully support designated uses of all waters.



RVA Clean Water Plan Strategies

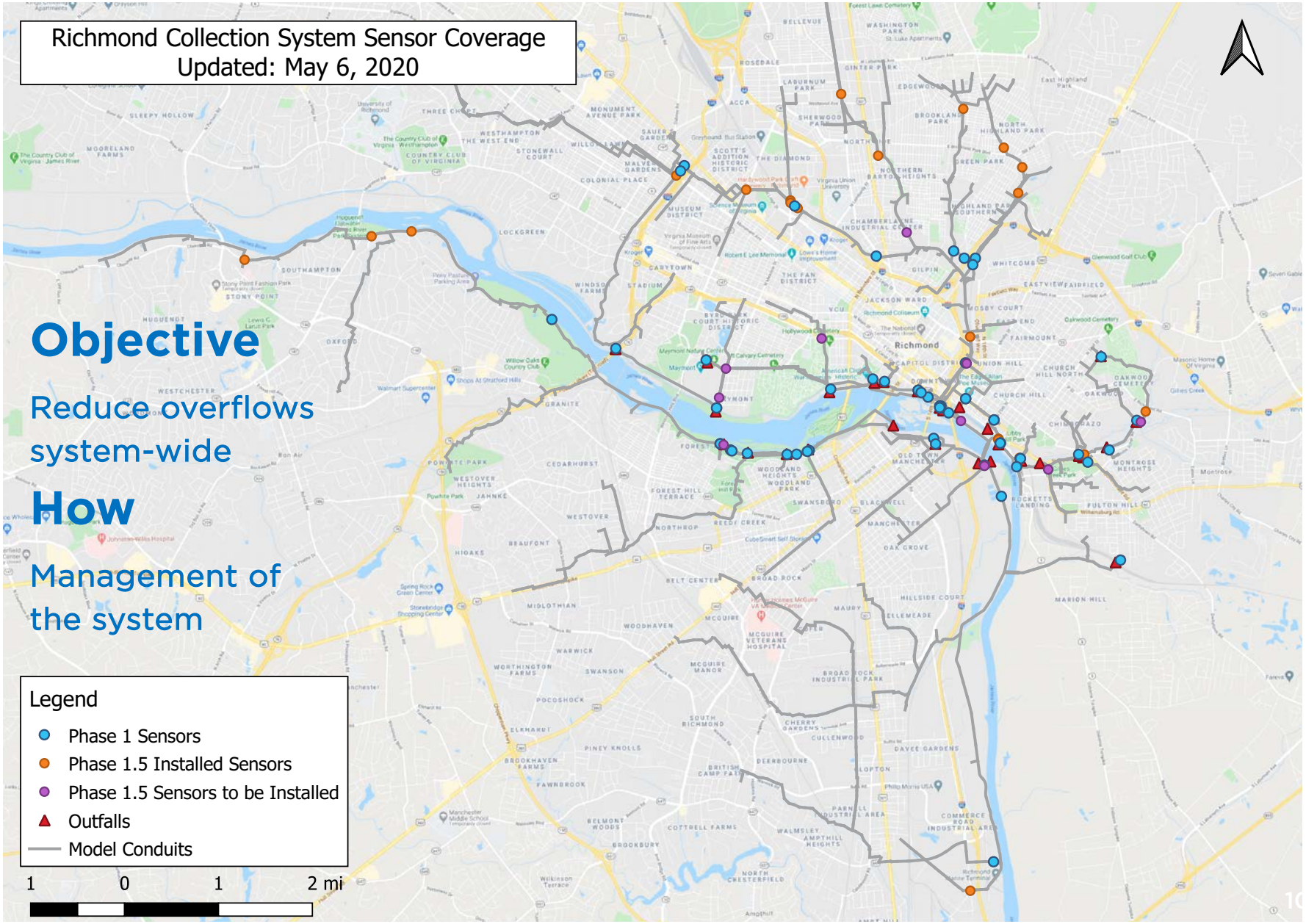
1. CSS/WWTP Infrastructure
2. GI in MS4
3. GI in CSS
4. Stream Restoration
5. Trees
6. Land Conservation
7. Native & Invasive Species
8. Riparian Areas
9. Water Conservation
10. Pollution Identification & Reduction

What’s happening now?

DPU's current initiatives

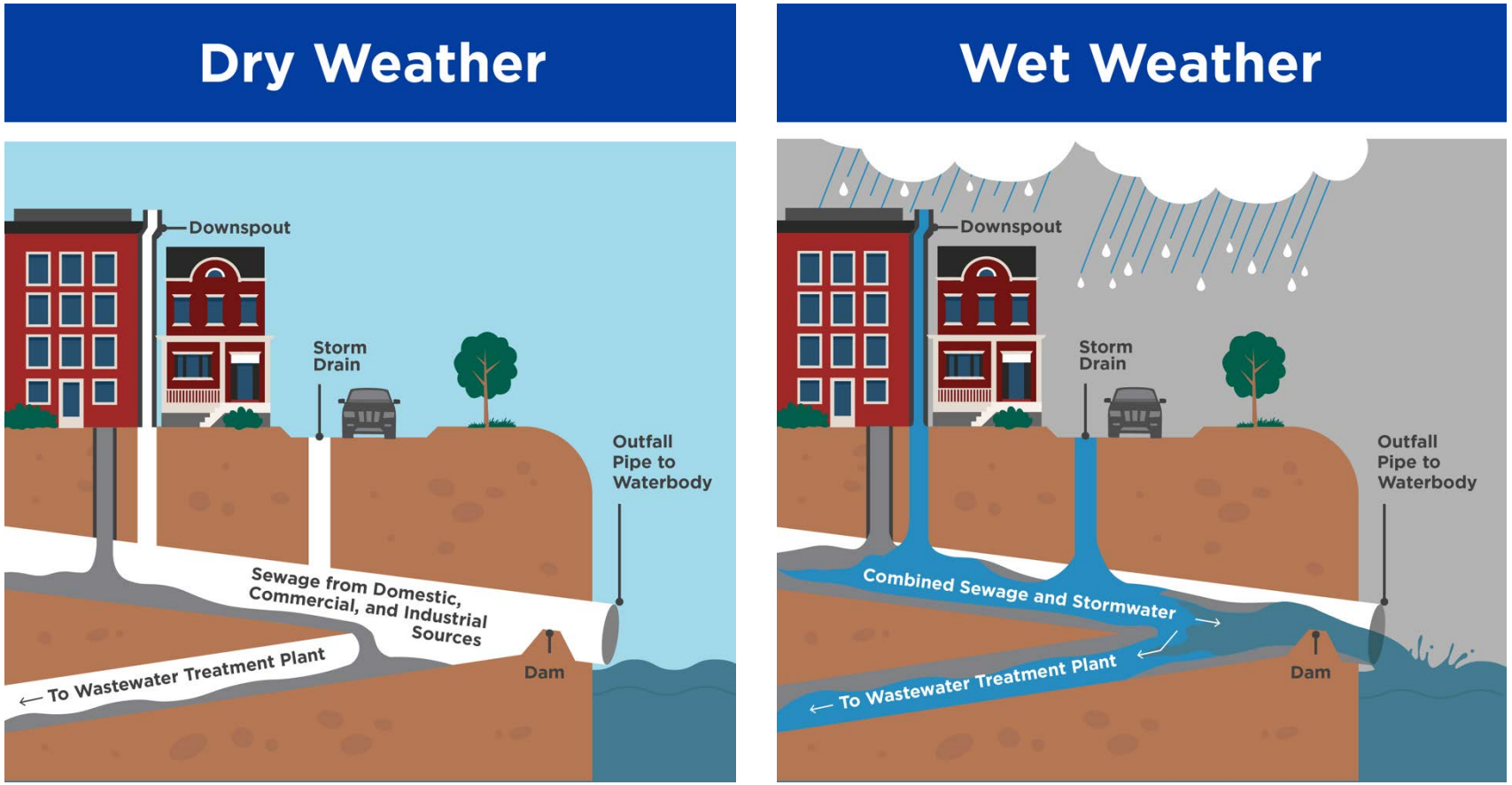
1. Plant expansion to 140 MGD
2. RT-DSS
3. Green infrastructure
4. Partnerships

RT-DSS Project



Addressing the Combined Sewer System

What is the issue with Richmond's CSS?



CSS Progress To Date

SEPARATION

21 of 46

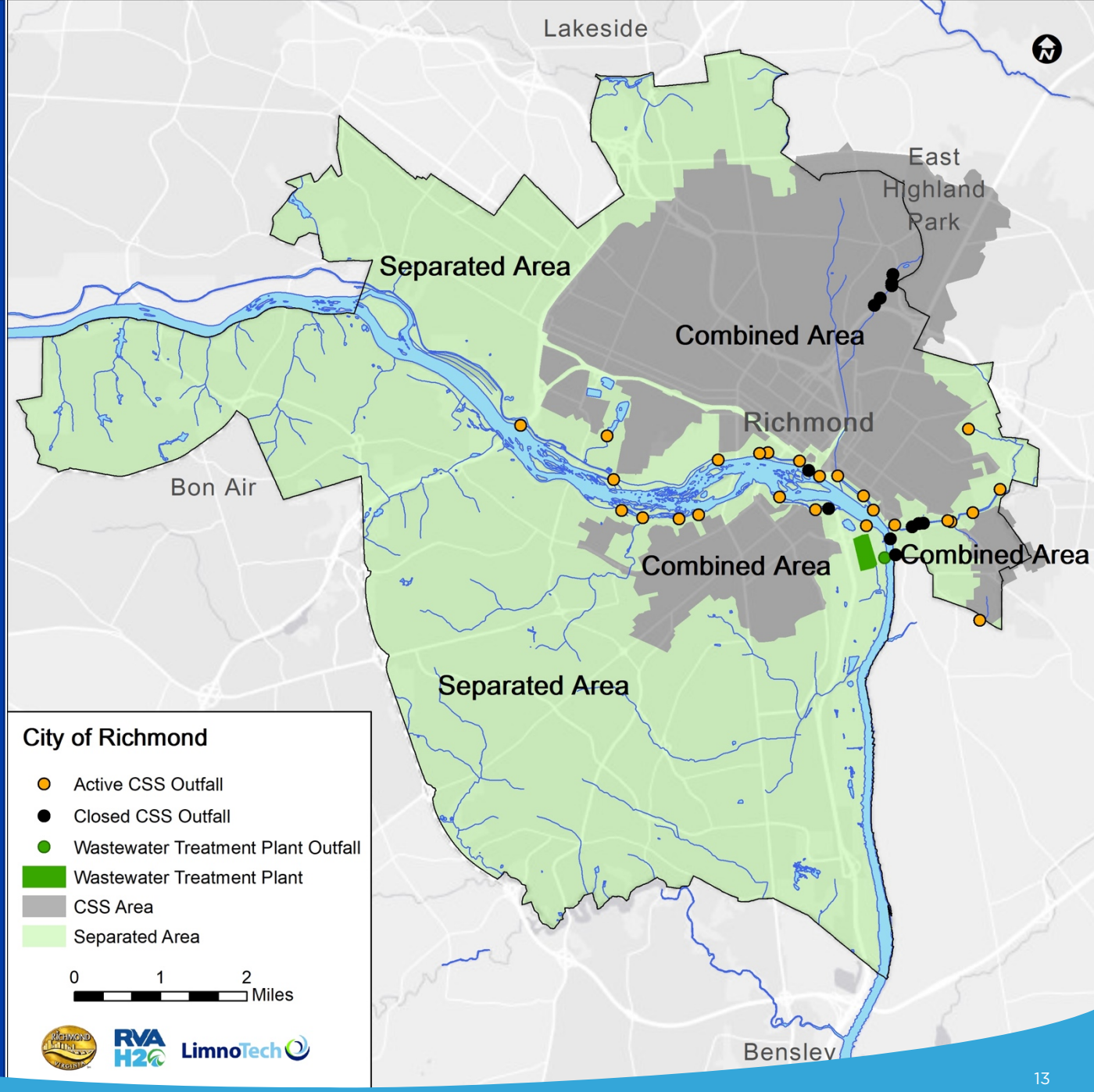
overflow points

STORAGE

Additional Capacity

TREATMENT

WWTP upgraded to treat more flow



CSS Progress To Date

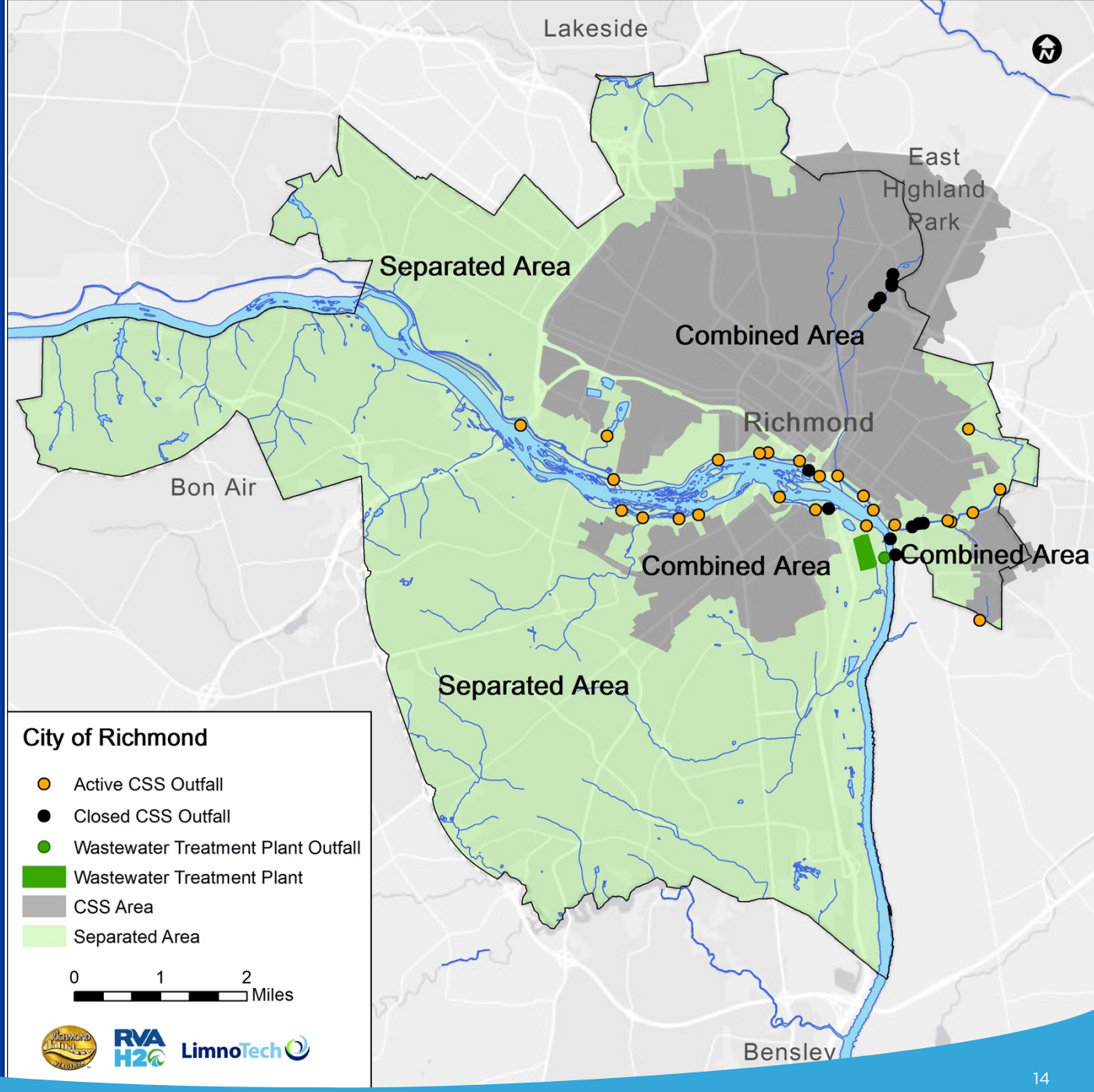
91%

overflow capture

93%

days per year water quality standards met*

*James River Watch: thejamesriver.org/james-river-watch-season-summary-2019-edition/

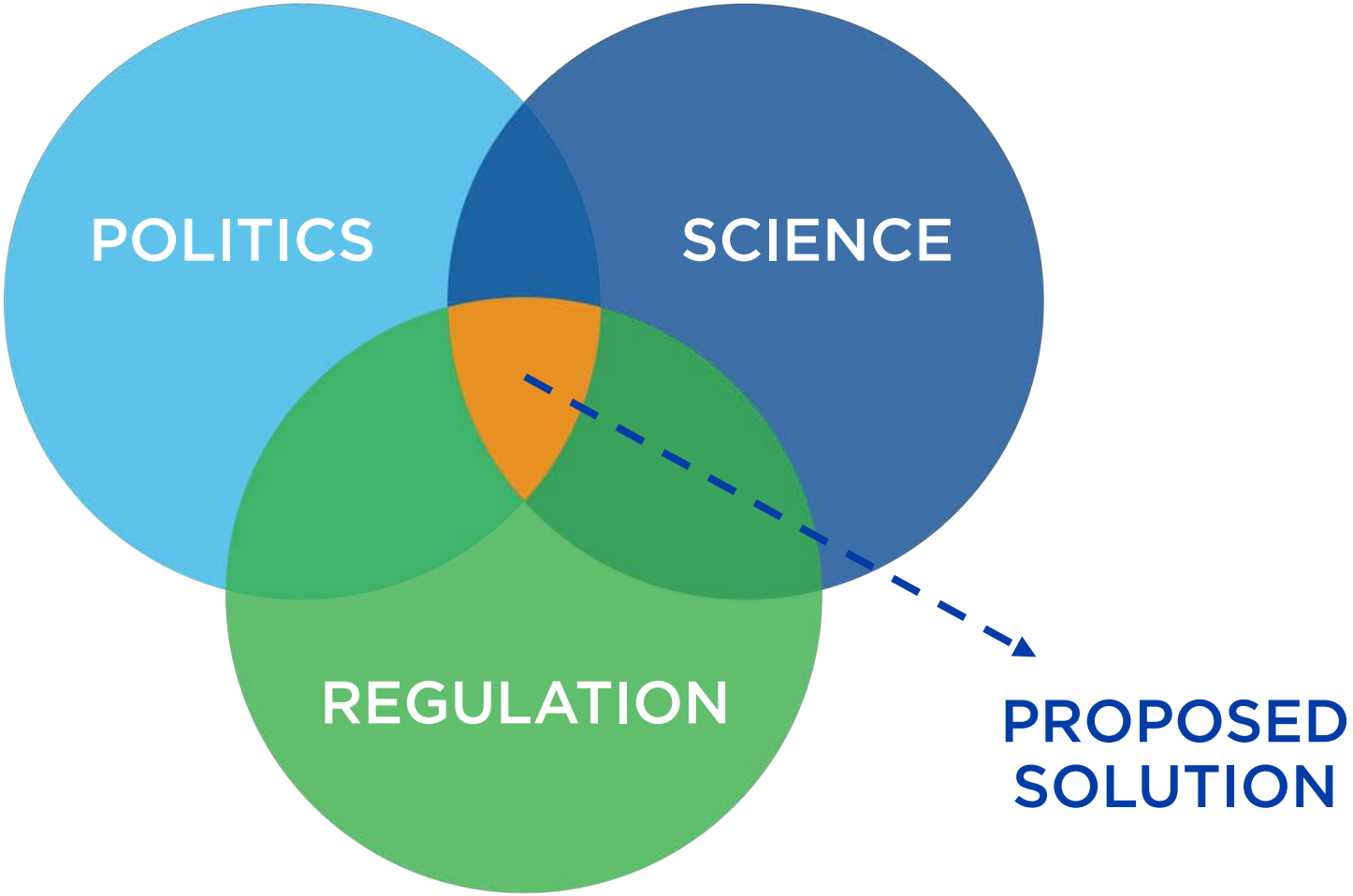


Senate Bill 1064 Requirements

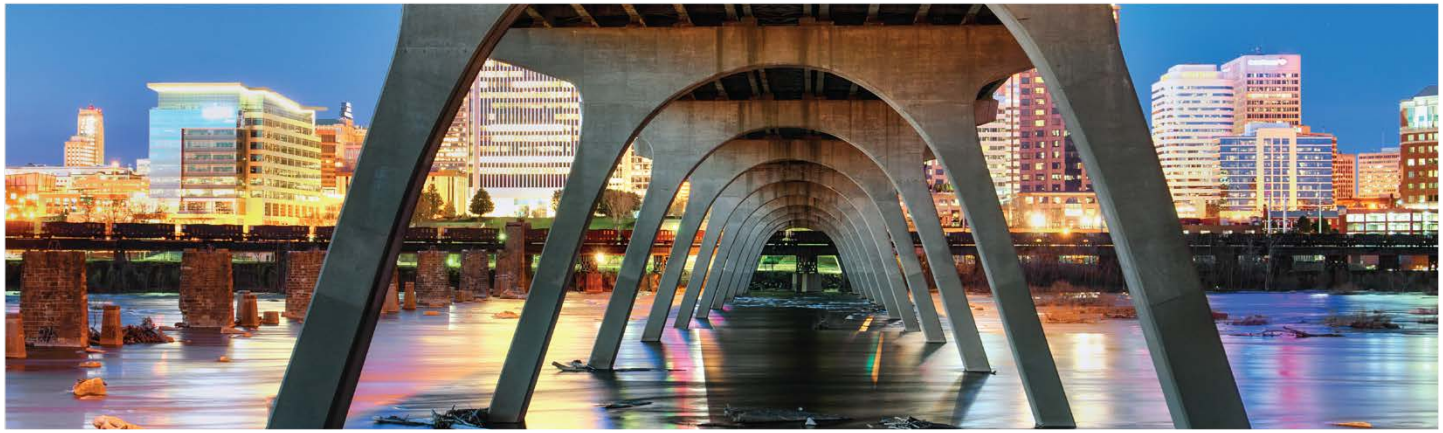
		Interim Plan	Long Term Plan
SB-1064 Requirements	**Objective**	Identify "short-term, easy win" projects to improve the CSS	Identify large infrastructure projects to bring the City's CSS in compliance with water quality standards
	Plan Due Date	July 1, 2021	July 1, 2024
	Construction Start Date	July 1, 2022	July 1, 2025
	Construction End Date	July 1, 2027[1]	July 1, 2035[1]

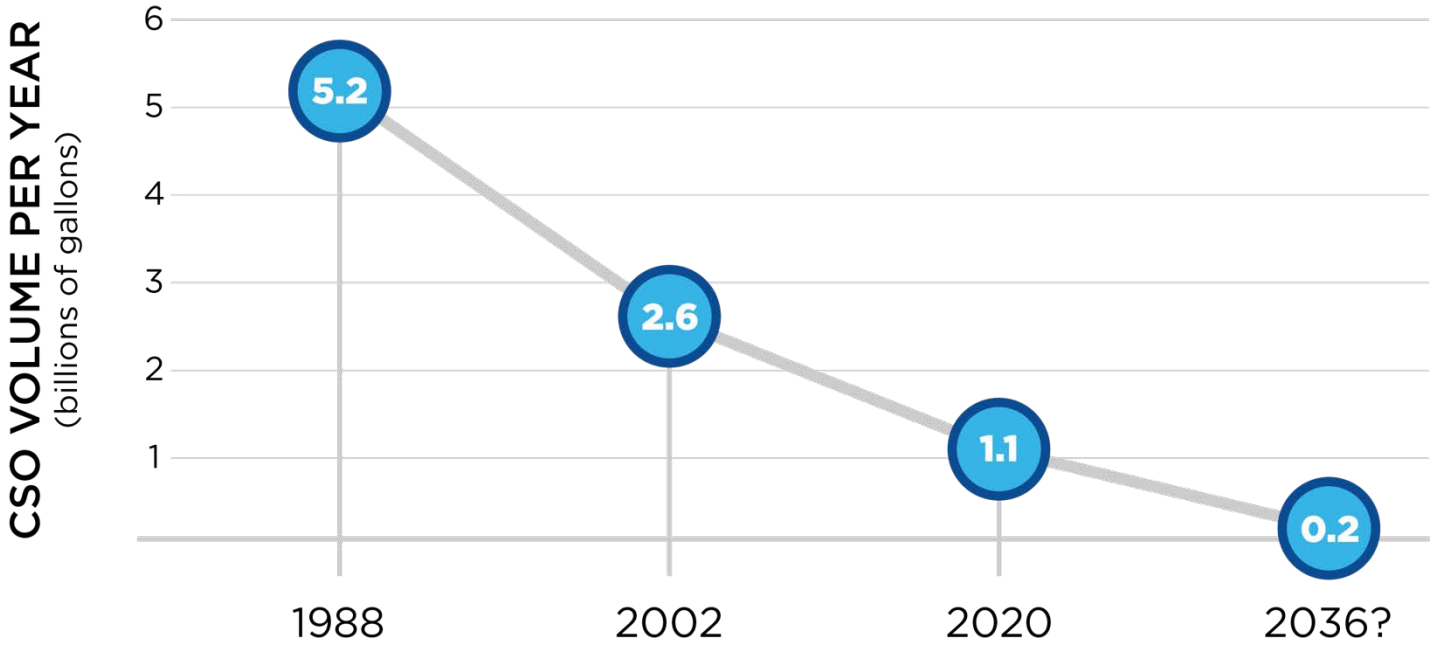
[1] Deadlines may be extended due to a lack of funding and financing

CSS Developments: SB 1064



Reduction in CSS overflows from 1988 to 2020





Updates on Partner Projects

ALLIANCE for the Chesapeake Bay

Nissa Dean
Virginia Director

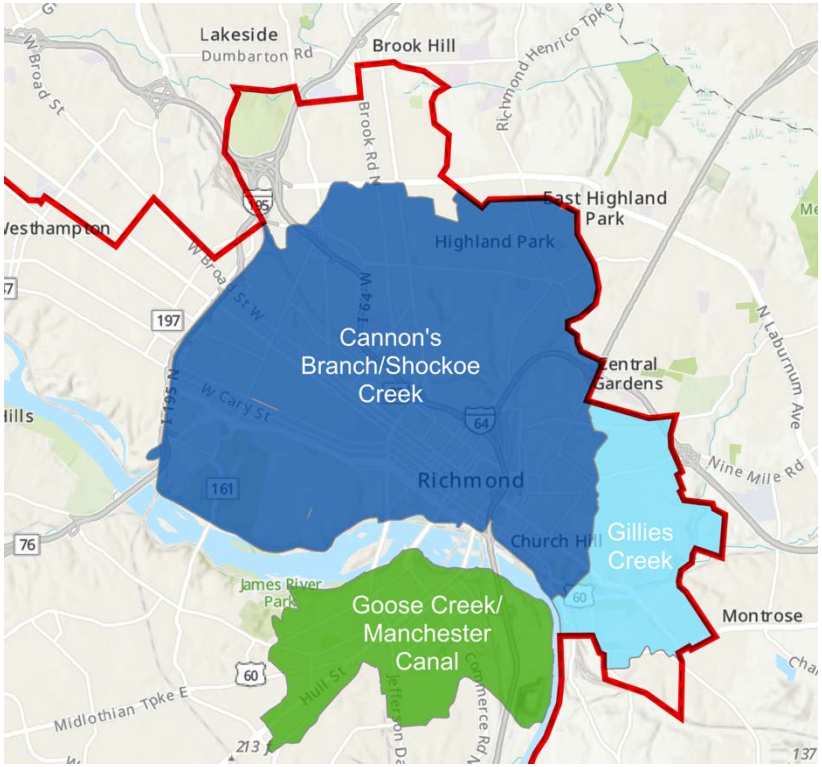
ARCADIS Design & Consultancy for natural and built assets

Mark Van Auken, P.E.
Stormwater Practice Leader

RVA H2O

RVAH2O – GREEN INFRASTRUCTURE MASTER PLAN OVERVIEW

Project Goal



Identify opportunities to implement green infrastructure to capture and treat polluted stormwater on public lands in the three most heavily polluted watersheds identified in RVAH2O's Clean Water Plan:

- Cannon's Branch/Shockoe Creek
- Gillies Creek
- Manchester Canal/Goose Creek

Project Schedule

Review of Existing Information

Jan – Apr 2020

- Coordination with private utilities remains
- Incorporate additional data from City as available

Identify & Rank GI Opportunities

May – Dec 2020

- Identification and evaluation criteria
- Site screening and prioritization
- GI project ranking

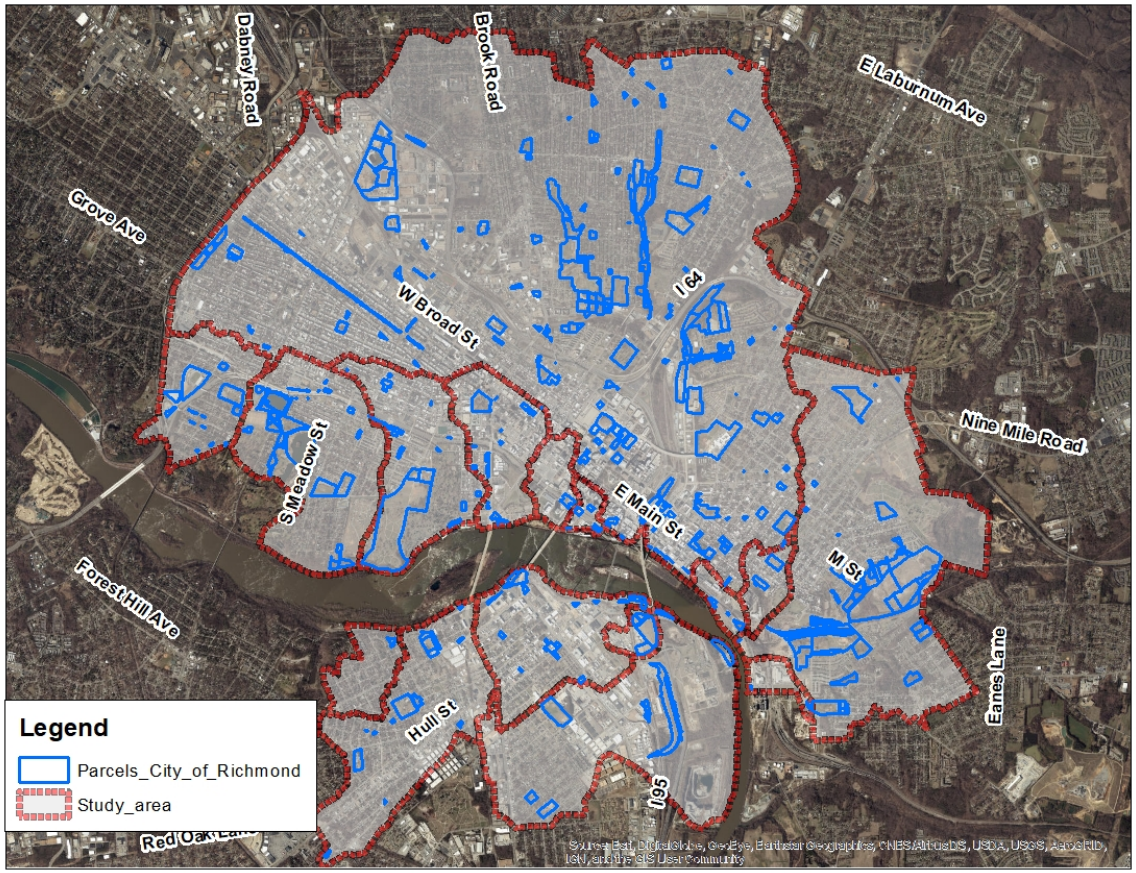
Develop GI Master Plan

Jan – Jun 2021

- Conceptual evaluations of selected parcels
- Master Plan preparation

Available Public Land

- 531 Parcels
  - 56 Commercial (mainly paved surface parking, theaters)
  - 25 Government (fire/police stations, libraries, museums)
  - 21 Industrial (industrial, miscellaneous, RR, storage warehouse)
  - 26 Institutional (educational)
  - 7 Office
  - 181 Public Open Space (parks and community centers)
  - 215 Vacant (SFR, MF, commercial, industrial)
- Right-of-Way



Public Parcel Initial Preferences

- Top Tier (450 parcels):
  - Public Utilities
  - Public Works
  - Recreation and Parks
- Second Tier (81 parcels):
  - School Board, Real Estate, Finance, City Attorney, etc.

Owner Name	No. of Parcels
City Of Richmond - Public Utilities	5
City Of Richmond - Public Works *	203
City Of Richmond - Recreation & Parks	216
City Of Richmond - ROW - Public Works	26
City Of Richmond	21
City Of Richmond - Chief Admin Officer	2
City Of Richmond - City Attorney	2
City Of Richmond - Decd Main Street Station	5
City Of Richmond - Community Facilities	1
City Of Richmond - Finance	6
City Of Richmond - Real Estate Services	12
City Of Richmond - Richmond Nursing Health	1
City Of Richmond - School Board	31
TOTAL	**531**

Top Tier

* - fire stations, police, libraries, etc. are included under Public Works

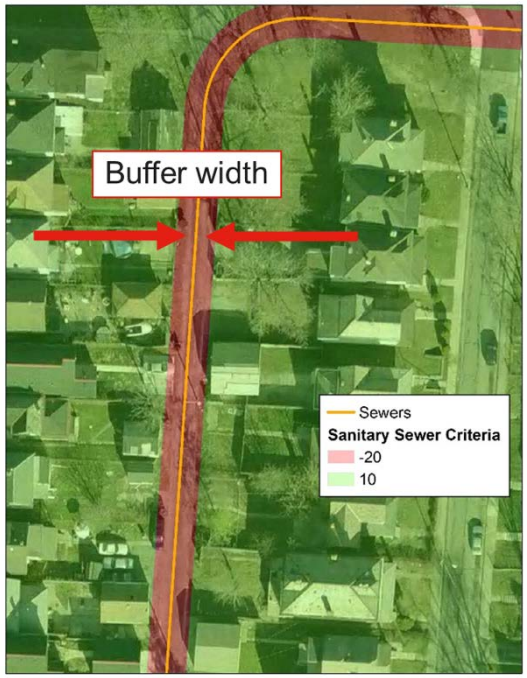
Identification and Evaluation Criteria

- Site Screening
- Site Prioritization

Site Screening

Use criteria scoring to screen out unsuitable sites:

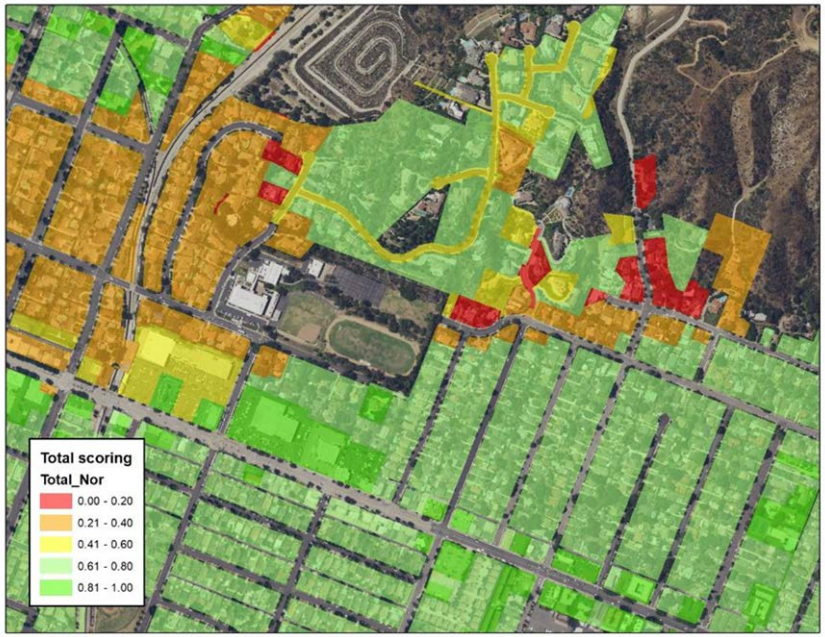
1. Buffer Zone – surface and subsurface utilities
2. Site Suitability – soils, environmental hazards, groundwater table
3. Public Activity Disruption – driveways, bus stops, trees, recent CIPs, etc.



Site Prioritization

Develop a scoring system to prioritize sites based on estimated benefit:

1. Flow capture
2. Size of the site
3. CSO activations
4. Flooding complaints
5. Future redevelopment and CIP projects
6. Social & sustainability benefits
7. Water quality
8. Reduction of impervious area



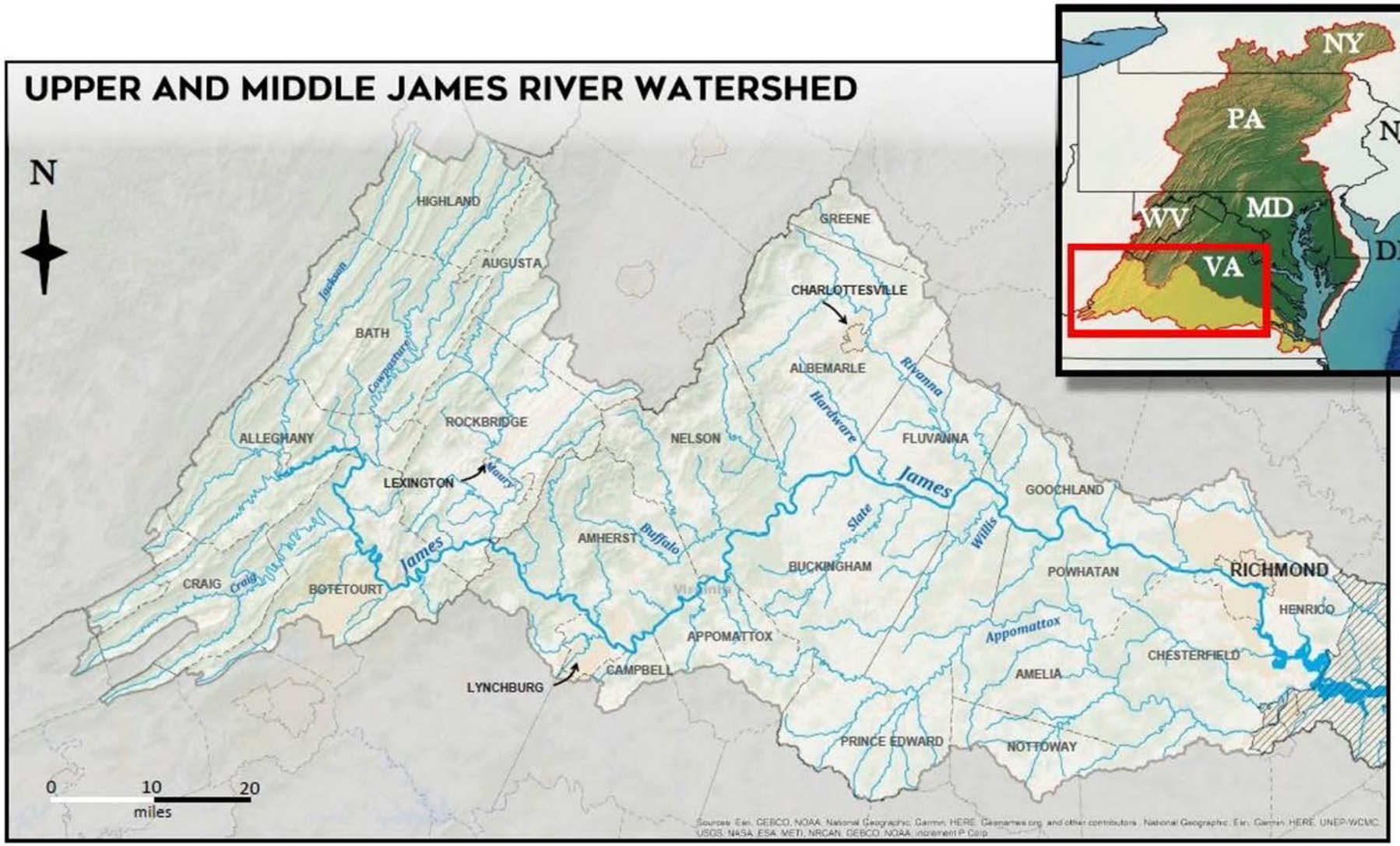
Bellemeade Walkable Watershed

Greening Richmond Public Libraries

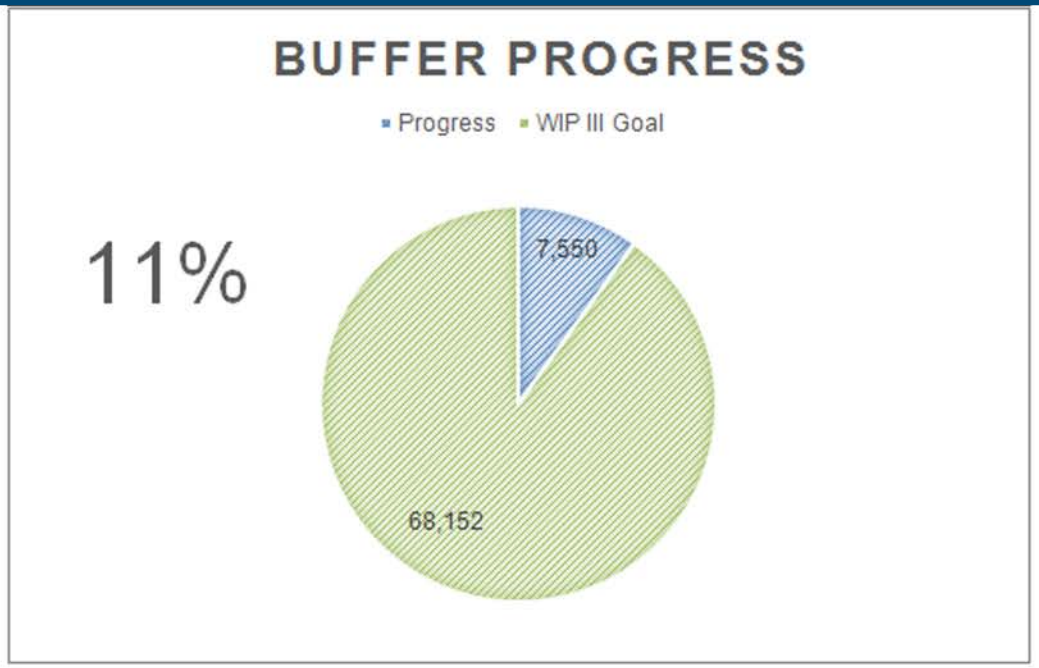
Justin Doyle
Community Conservation Manager
James River Association

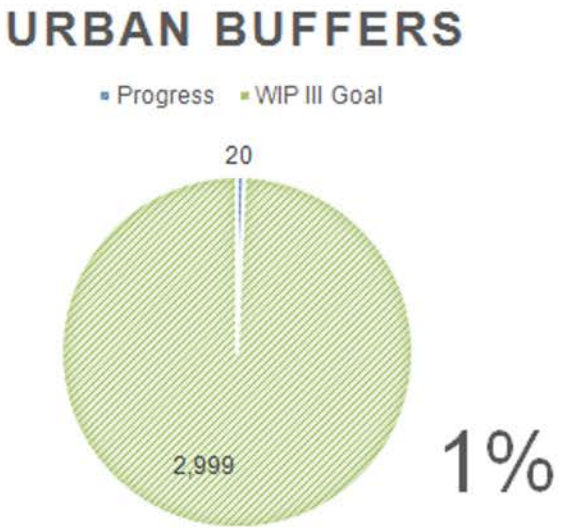
Upper and Middle James Riparian Consortium & The James River Buffer Program

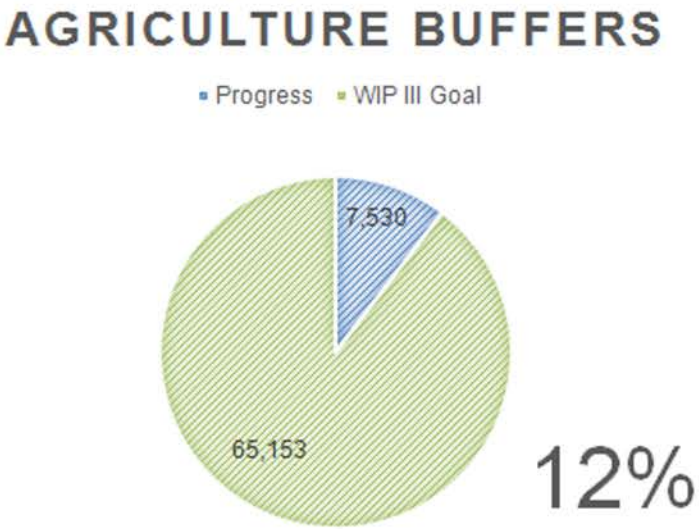
Amber Ellis, PLA
Senior Watershed Restoration Manager
James River Association


UPPER AND MIDDLE JAMES RIVER WATERSHED
N
HIGHLAND
AUGUSTA
BATH
ALLEGHANY
ROCKBRIDGE
LEXINGTON
CRAIG
BOTETOURT
AMHERST
LYNCHBURG
CAMPBELL
APPOMATTOX
BUCKINGHAM
GREENE
CHARLOTTESVILLE
ALBEMARLE
NELSON
FLUVANNA
GOOCHLAND
POWHATAN
RICHMOND
HENRICO
CHESTERFIELD
AMELIA
PRINCE EDWARD
NOTTOWAY
Jackson
Cowpasture
Maury
James
Craig
Buffalo
Hardware
Rivanna
Slate
Willis
Appomattox
0
10
20
miles
NY
PA
NJ
WV
MD
DE
VA

Overall Upper and Middle James (as of 2018)

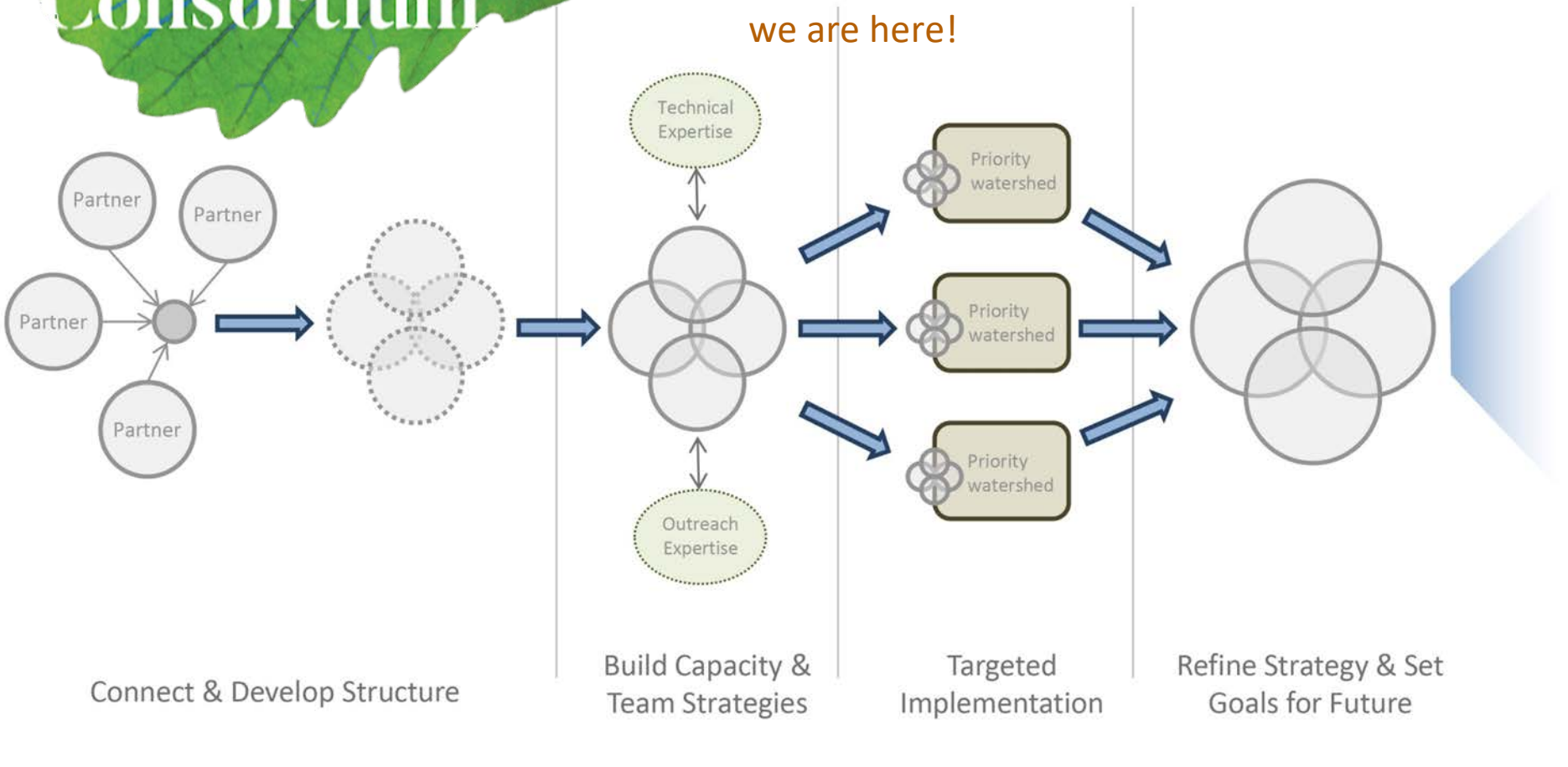






Riparian Consortium

Growing partnerships to create healthy streamside ecosystems for clean water in the James River today and tomorrow.



2019-2021 funded by NFWF Chesapeake Bay Stewardship Fund
Virginia Environmental Endowment

RIPARIAN RESTORATION

PROTECTION

FORESTED BUFFERS

STREAMBANK STABILIZATION

WILDLIFE HABITAT

AGRI INFRASTRUCTURE

Structure

Planning Team

- Dialogue+Design, James River Association

Steering Committee

Consortium Member Gatherings

Action Teams

Outreach & Targeting Team

GOAL:
Build awareness of the importance of riparian areas and deliver outreach based on identified partner priorities, landowner interests, and restoration opportunity areas to increase strategic riparian investments.

Team Lead: Conservation Partners, LLC

Research Team

GOAL:
Ensure the use of the best research method for the best site for riparian restoration.

Team Lead: JRA/Stroud

Knowledge Network Team

GOAL:
Build knowledge and capacity about best practices, innovation, and by growing partnerships.

Team Lead: Alliance for the Chesapeake Bay

Implementation Team

GOAL:
Coordinate implementation and outreach based on targeting, funding availability, and potential for impact.

Team Lead: JRA and Trout Unlimited

James River Buffer Program

One Program: Two Lead Partners

GOAL by 2021: 242 acres
PROGRESS: 100 acres (41%)

GOAL by 2021: 700 acres
PROGRESS: 155 acres (22%)

Program Partnerships

Monacan SWCD Soil & Water Conservation District — We work with the people who work the land.

Peter Francisco Soil & Water Conservation District

Thomas Jefferson Soil & Water Conservation District est. 1939

Virginia Outdoors Foundation

Eligibility and Requirements

Landowners within the Middle James Watershed

Land with waterways in need of streamside forest restoration

Landowners with a desire to improve water quality and riparian habitat on their property

Area along waterway to establish a 35’ buffer or greater

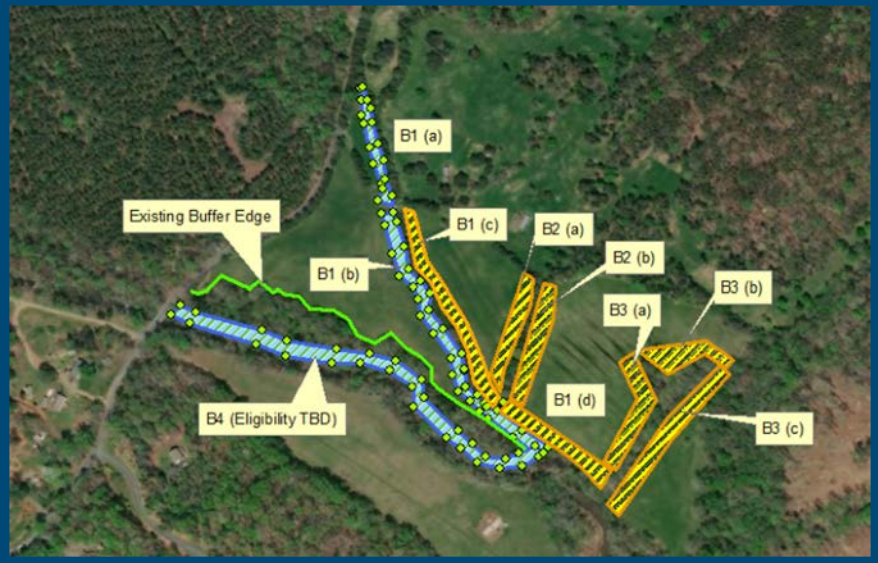
What's Covered?

Design

Site preparation

Labor and materials for riparian forested buffers through two different methods

Project establishment and maintenance for 3 years



JAMES RIVER BUFFER PROGRAM

HOME ABOUT APPLY VOLUNTEER NEWS CONTACT

The James River Association and the Virginia Department of Forestry are working with landowners across the middle James watershed to restore or create forest buffers that improve the quality of local waterways.

FIND OUT IF YOU QUALIFY FOR THIS CLEAN WATER OPPORTUNITY

DO YOU MEET THESE CRITERIA?

1. My property is within the eligible area in the James River watershed.
2. I want to improve water quality and habitat on my land and for downstream neighbors.
3. I have water on my property in need of a forested buffer.
4. I agree to keep the area forested for 15 years or more.

Please note that some counties are only partially within this boundary –

www.jamesriverbuffers.org

Visit our website:

www.jamesriverconsortium.org

Low Line Green

Frazier Armstrong
Executive Director
Capital Trees

capital trees

RVA H2O

Low Line Green

Low Line Green

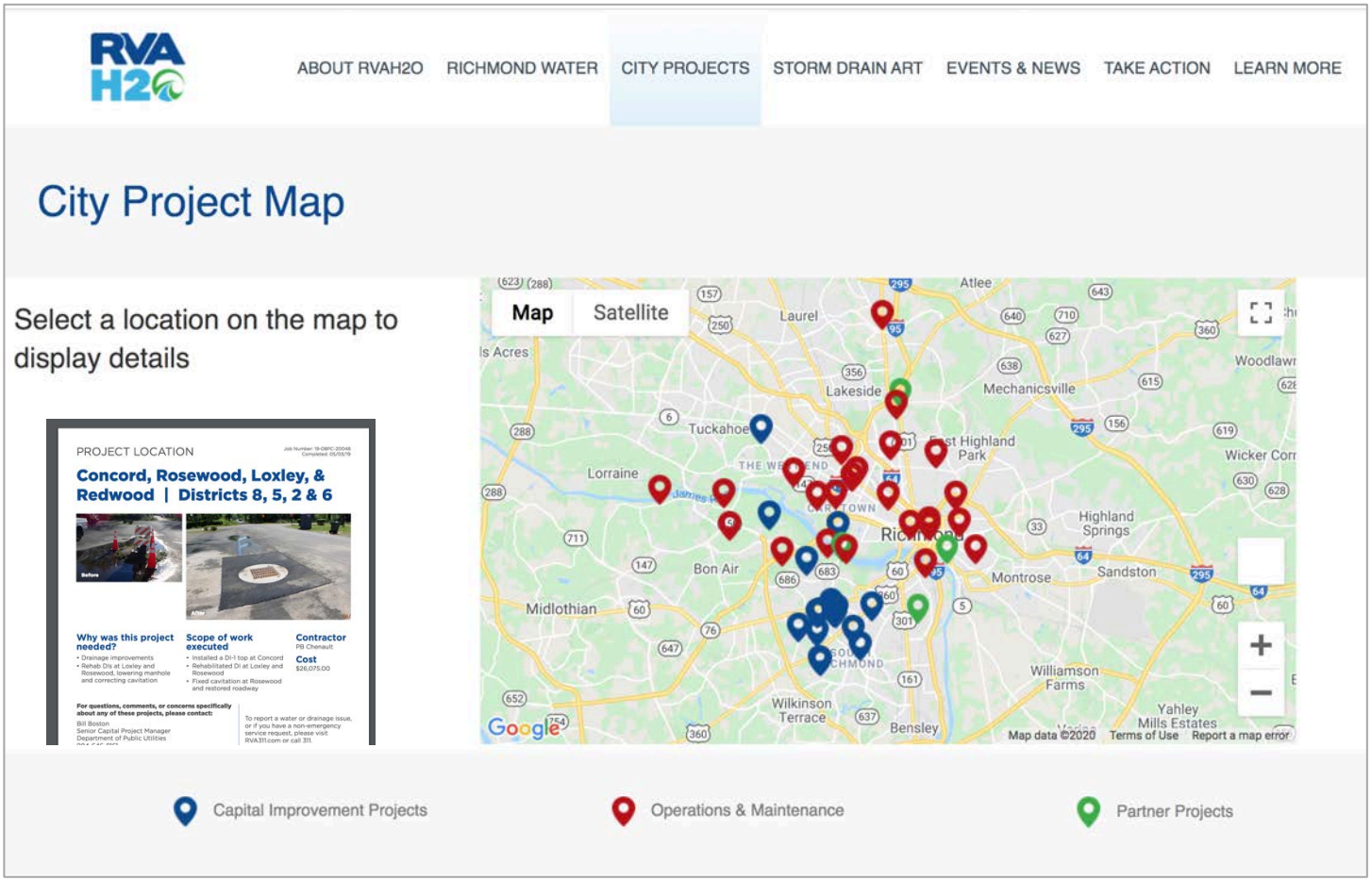
Community Outreach

5th Annual Storm Drain Art Finalists

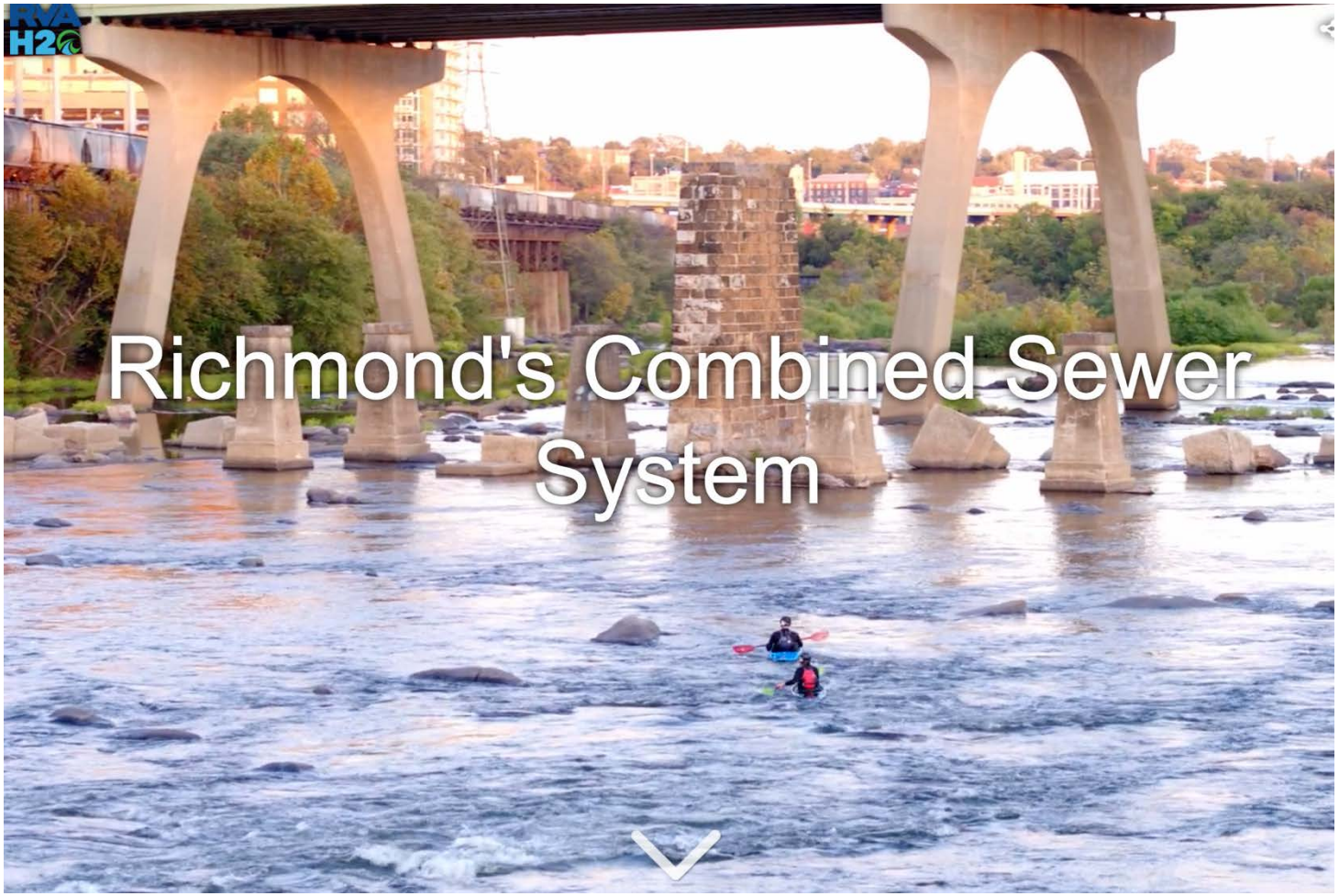
Resources

RVAH2O.org

To learn more about CIP, Ops and Maintenance, and Partner Projects, visit RVAH2O.org



For a Story Map of Richmond's combined sewer system, visit RVAH2O.org



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NEXT MEETING

FALL 2020

Grace.LeRose@richmondgov.com