INTEGRATED PLANNING… AND BEYOND

A FLEXIBLE FRAMEWORK FOR MEETING A COMMUNITY'S NEEDS

LimnoTech
Water Environment | Scientists Engineers

AGENDA

- Integrated Planning and beyond
    - Case studies
- Background on Richmond's Integrated Planning and permitting process
    - Approach to consensus building
    - Lessons learned
    - Progress to date

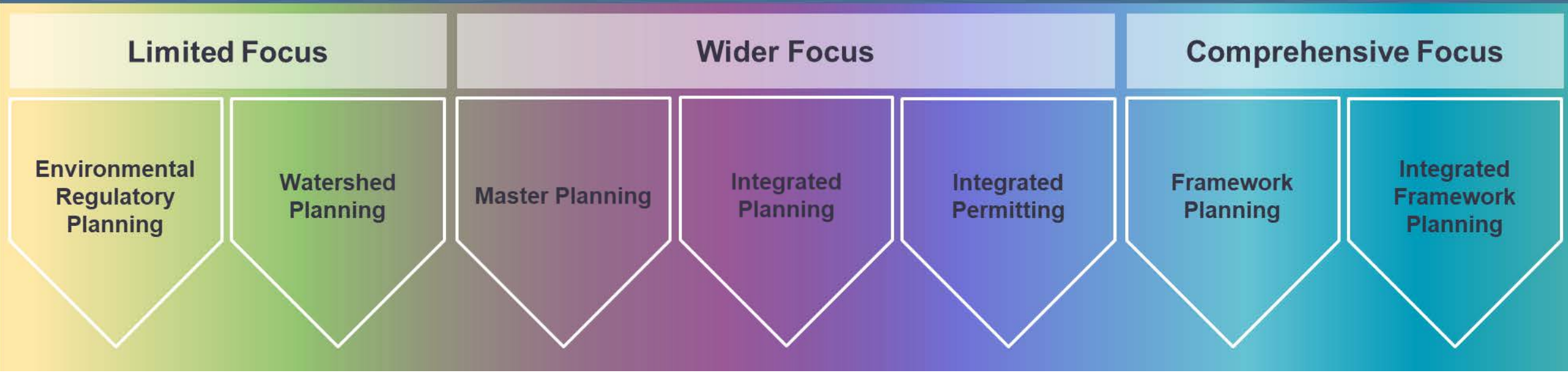
POTENTIAL CHALLENGES

- Return on investment
- Competing needs and siloed departments within jurisdictions
- Increasingly stringent regulatory requirements
- Health and safety of residents
- Ecosystem condition and function
- Community growth
- Old infrastructure
- Planning for resilient / sustainable communities

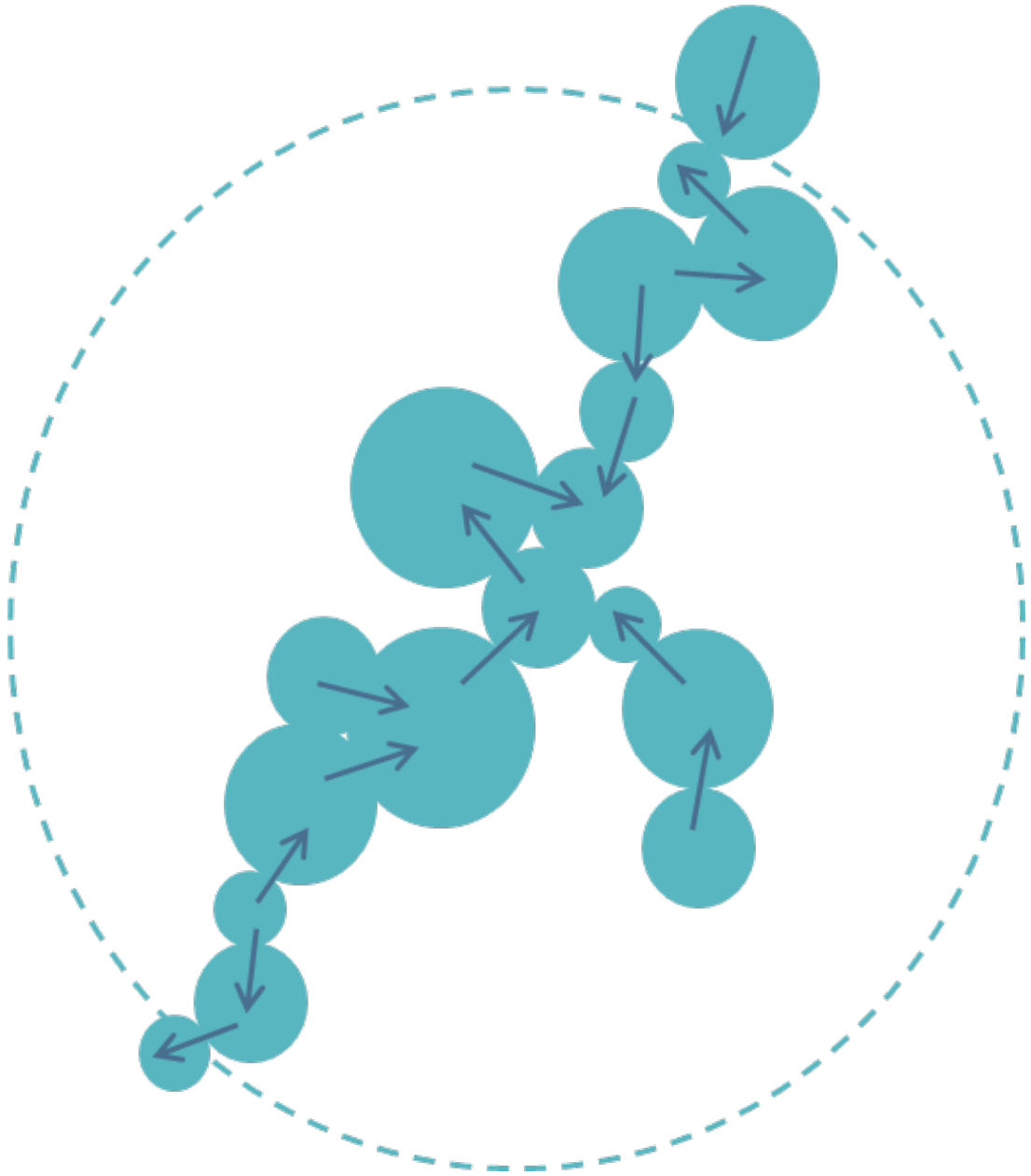





SPECTRUM of PLANNING PROCESSES



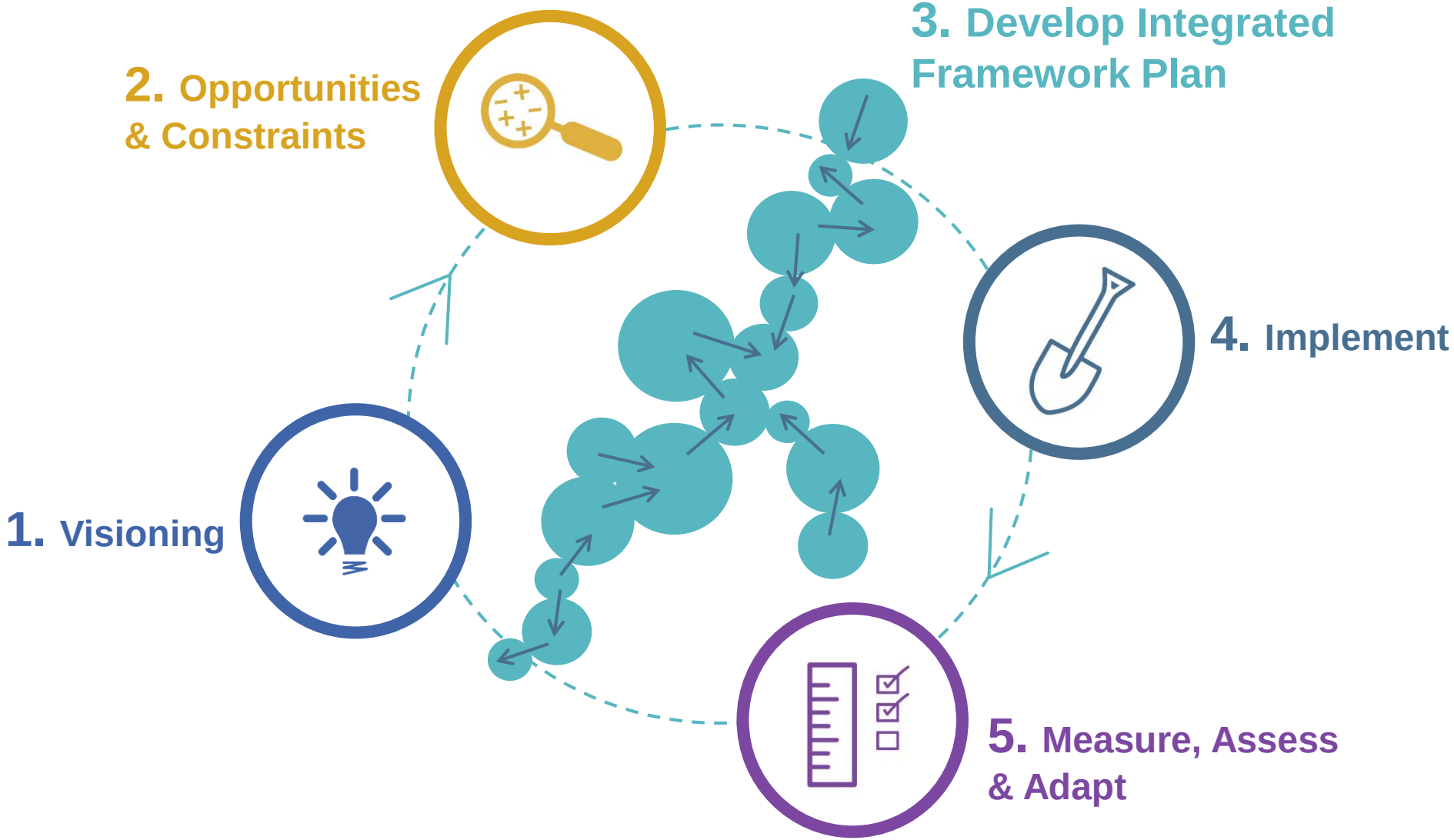
- Many options have been used over the years
- Each has strengths and limitations
- Many achieve a specific regulatory requirement, but do not connect other priorities
- Integrated Framework Planning takes planning further to also cater to a community's needs and resources



INTEGRATED FRAMEWORK PLANNING

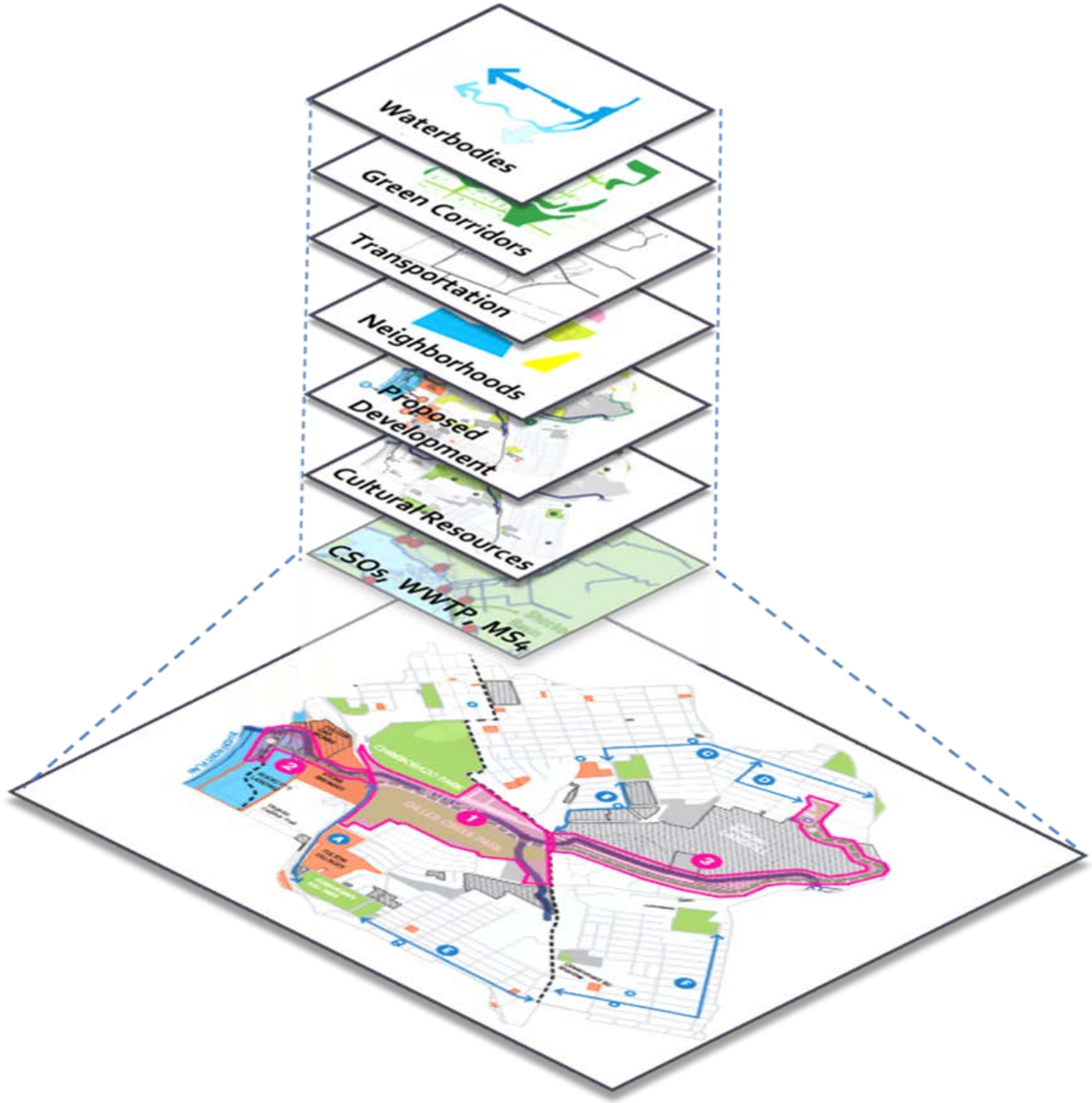
The marriage of EPA's Integrated Planning process and a Framework Planning approach that has traditionally been implemented in urban planning and landscape architecture.

INTEGRATED FRAMEWORK PLANNING PROCESS

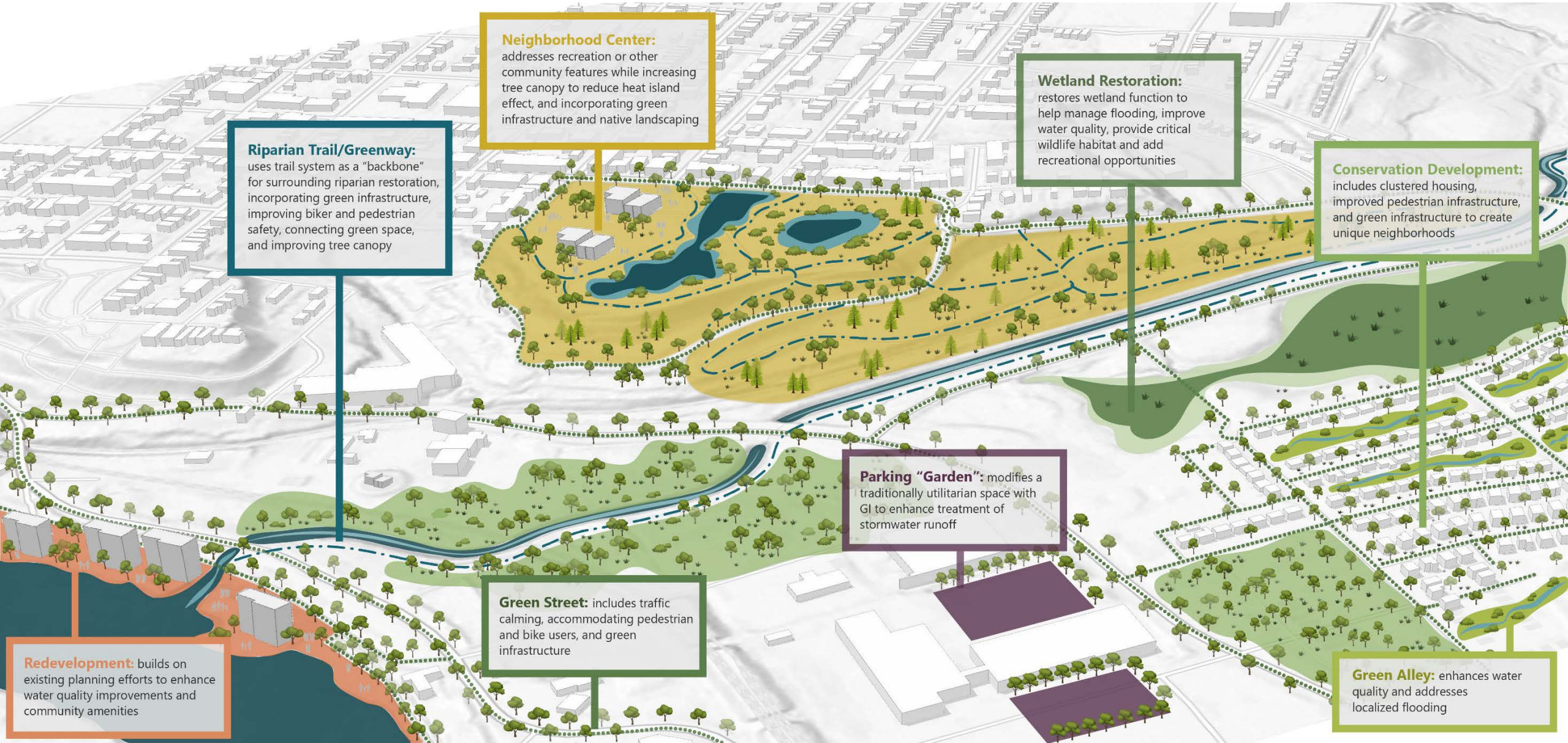


THE FRAMEWORK INCORPORATES KEY FEATURES

- Iterative feedback
- Programmatic integration
- Data convergences
- Flexibility to consider multiple drivers



INTEGRATED FRAMEWORK PLANNING: CLUSTERS AND CORRIDORS



EXAMPLES

WALLER CREEK, AUSTIN, TX

Iterative feedback…

- Stakeholder feedback
- Joint Development Agreement between the City and the Waller Creek Conservancy

Programmatic integration…

- Stream ecology, recreation, redevelopment

Multiple drivers…

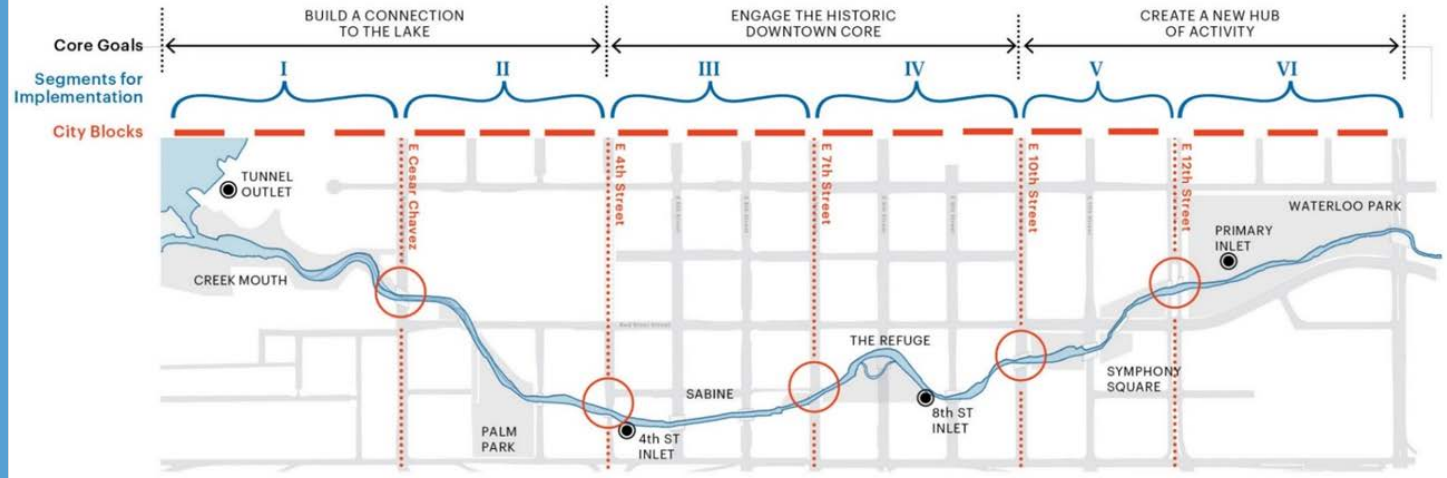
- Modeling, feasibility, cost (capital, operations and maintenance)

Data convergences…

- Trail network, utilities, trees, slopes, aquatic habitats, stormwater retrofits, hydraulics & hydrology

Combining projects...

- Tunnel
- Chain of parks and stream restoration



TORONTO, CANADA

Iterative feedback…

- Stakeholder involvement
- Multiple government agencies

Programmatic integration…

- New development, flooding, naturalization of river

Multiple drivers…

- Complex regulations

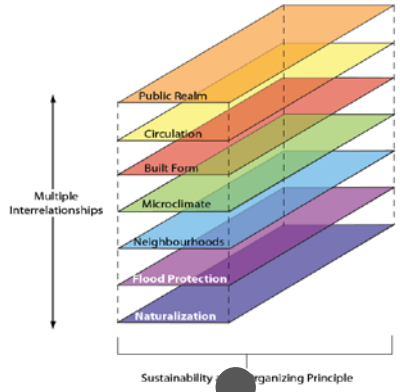
Data convergences…

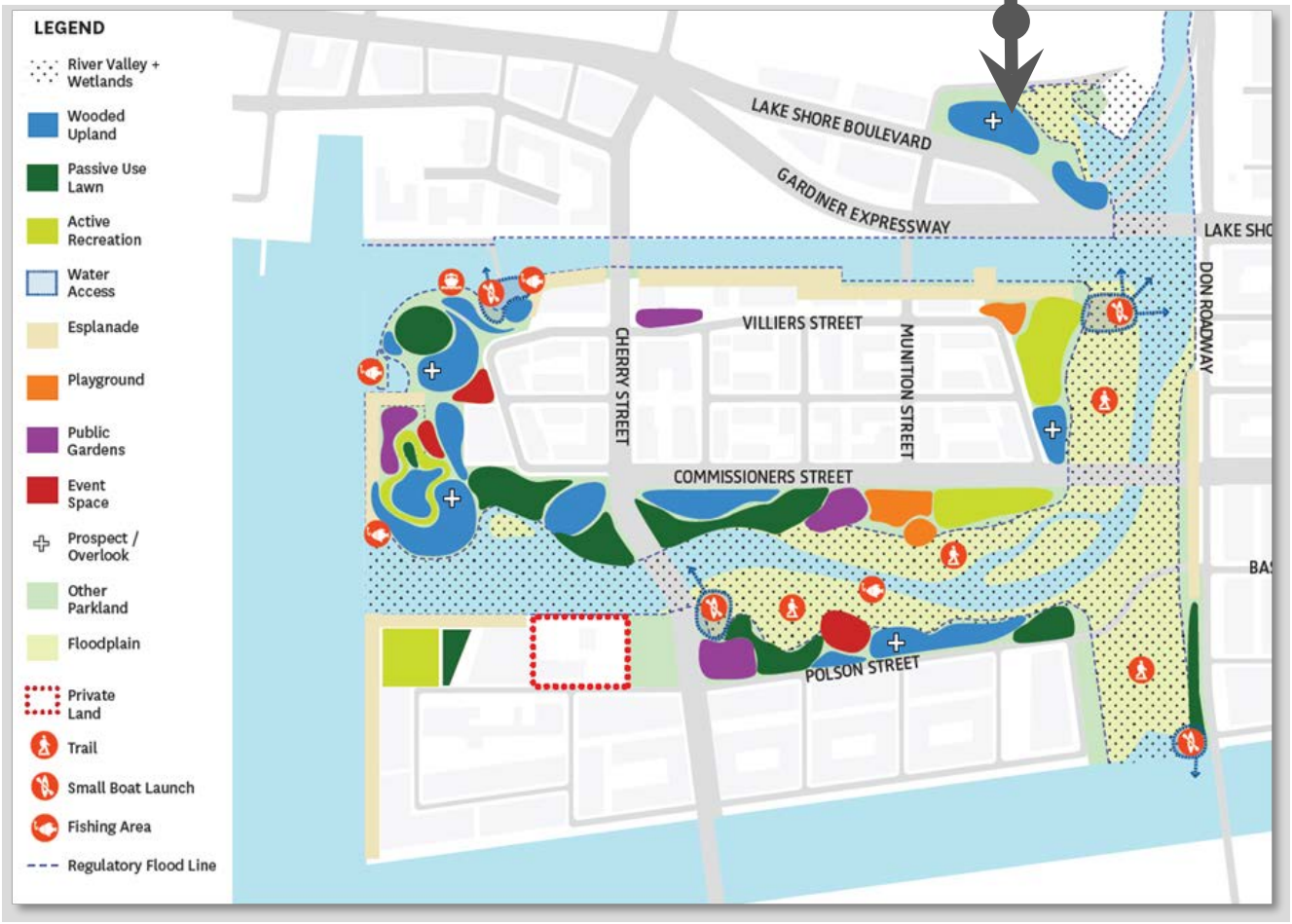
- Recreation, new development, areas of flooding

Combining projects…

- Lower Don Lands waterfront

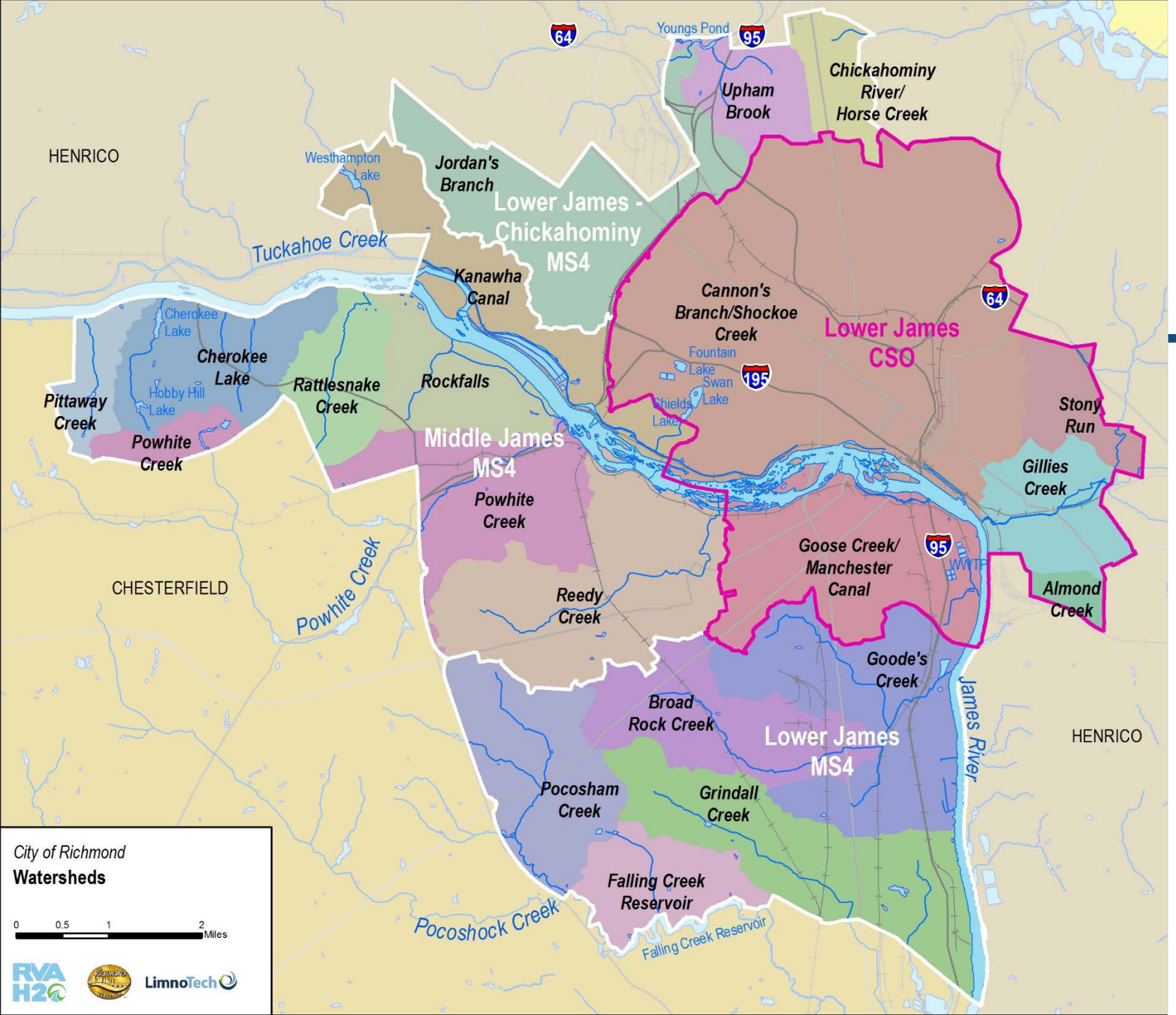
https://portlandsto.ca/wp-content/uploads/lower_don_lands_framework_plan___may_2010_15_mb_1.pdf





RICHMOND, VIRGINIA

CASE STUDY: SUCCESSFUL STAKEHOLDER ENGAGEMENT



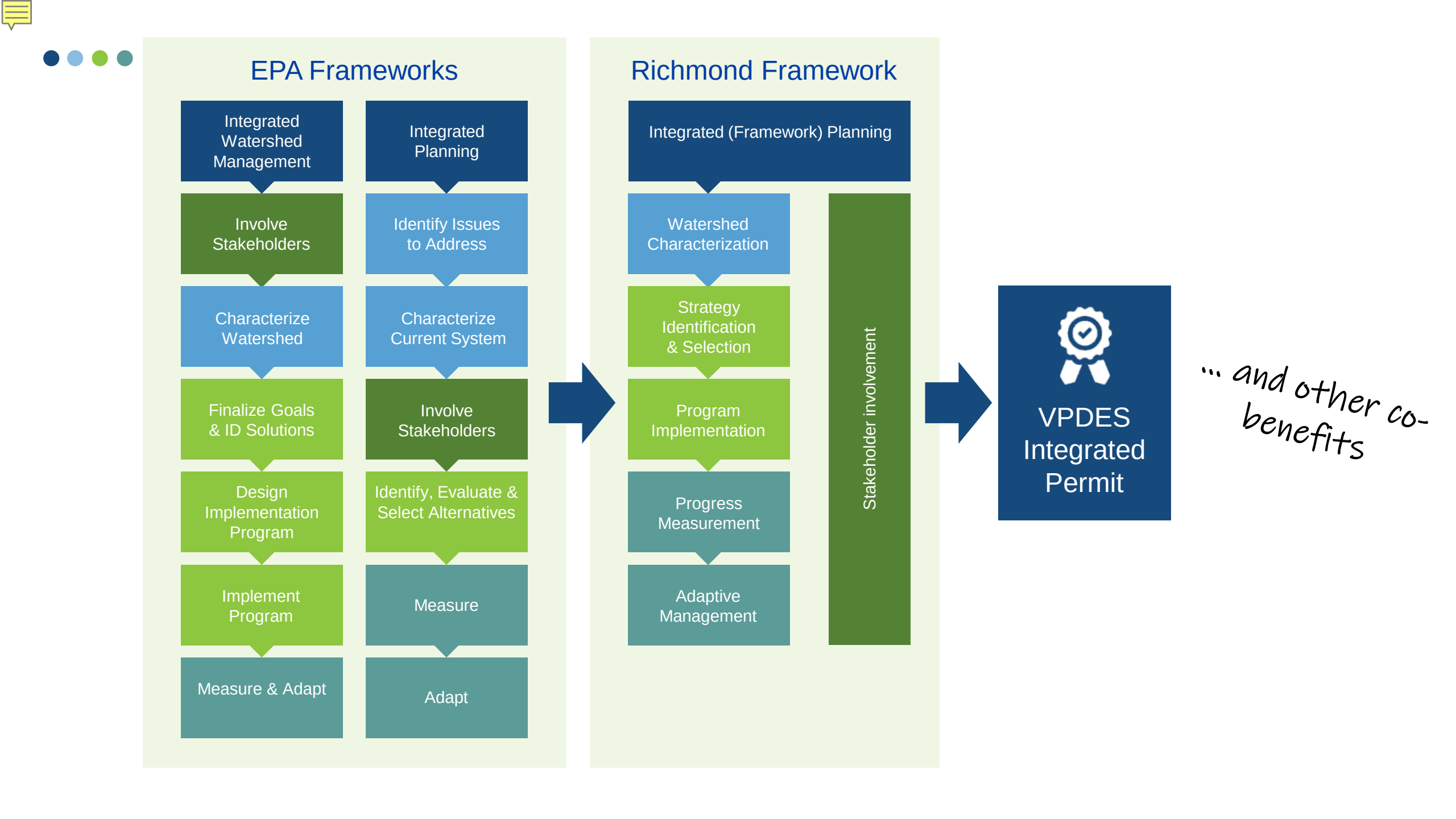
OVERVIEW OF RICHMOND

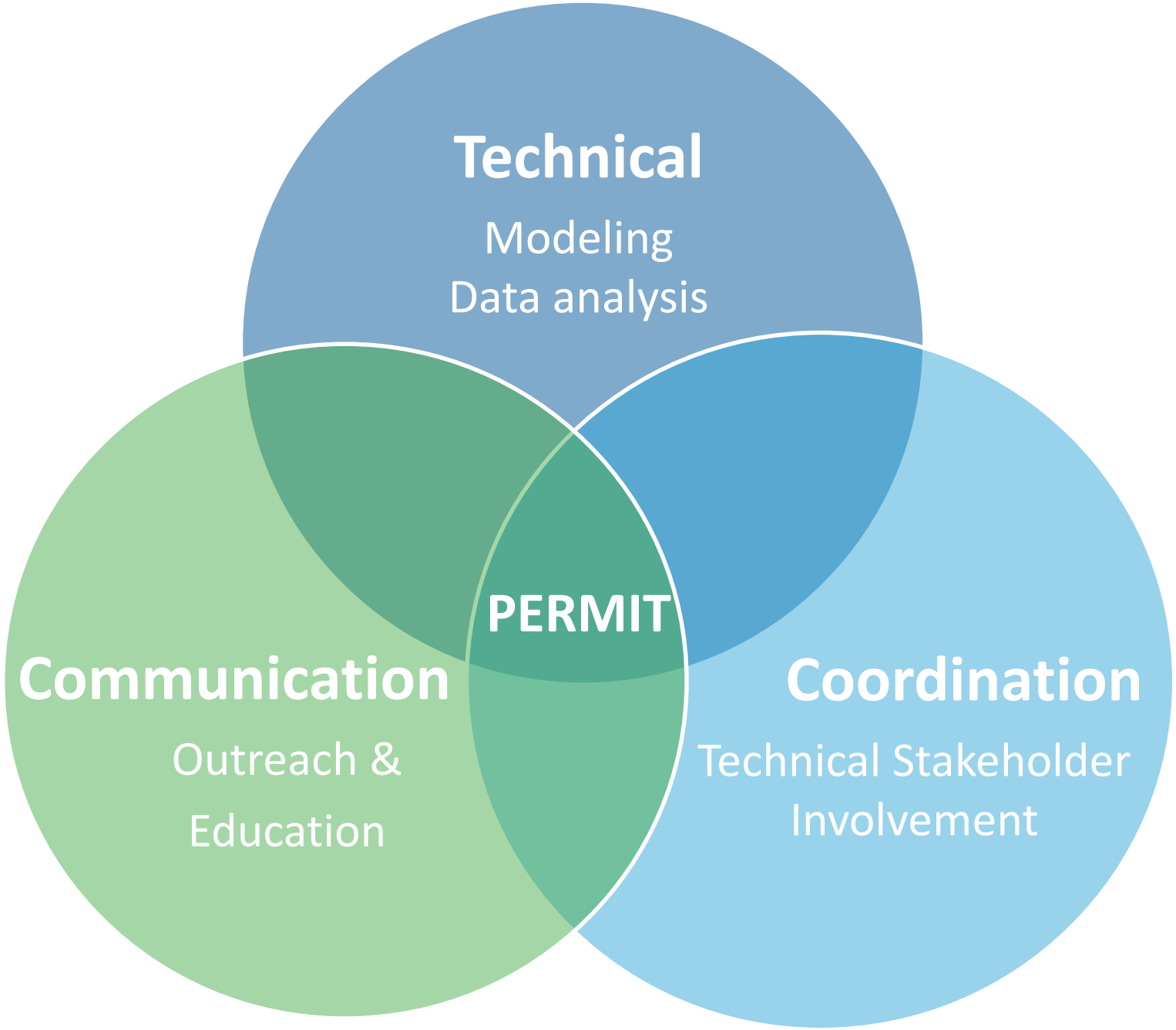
- 210,000 residents & growing!
  - 1/3 below the poverty line
- 64.2 square miles
  - 1/3 in CSS area
- State Consent Order
- Located at Falls of James River
  - Class IV urban whitewater

Why did the City Pursue Integrated Planning and Permitting?

- To streamline the permitting process & facilitate internal “trading” (wastewater, stormwater, CSOs)
- To address local watershed drivers
- To address co-benefits
- To meet goals and objectives in the most flexible manner possible, most efficiently (across departments), and do it most affordably

- DEQ just didn’t want any surprises!


EPA Frameworks
Integrated Watershed Management
Involve Stakeholders
Characterize Watershed
Finalize Goals & ID Solutions
Design Implementation Program
Implement Program
Measure & Adapt
Integrated Planning
Identify Issues to Address
Characterize Current System
Involve Stakeholders
Identify, Evaluate & Select Alternatives
Measure
Adapt
Richmond Framework
Integrated (Framework) Planning
Watershed Characterization
Strategy Identification & Selection
Program Implementation
Progress Measurement
Adaptive Management
Stakeholder involvement
VPDES Integrated Permit
... and other co-benefits

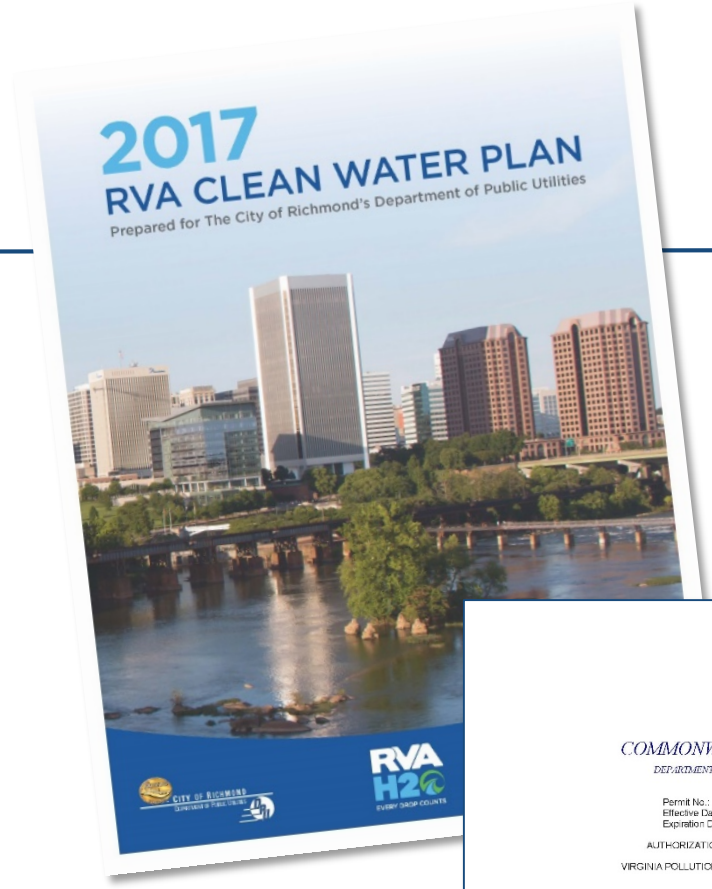

Technical
Modeling
Data analysis
PERMIT
Communication
Outreach &
Education
Coordination
Technical Stakeholder
Involvement

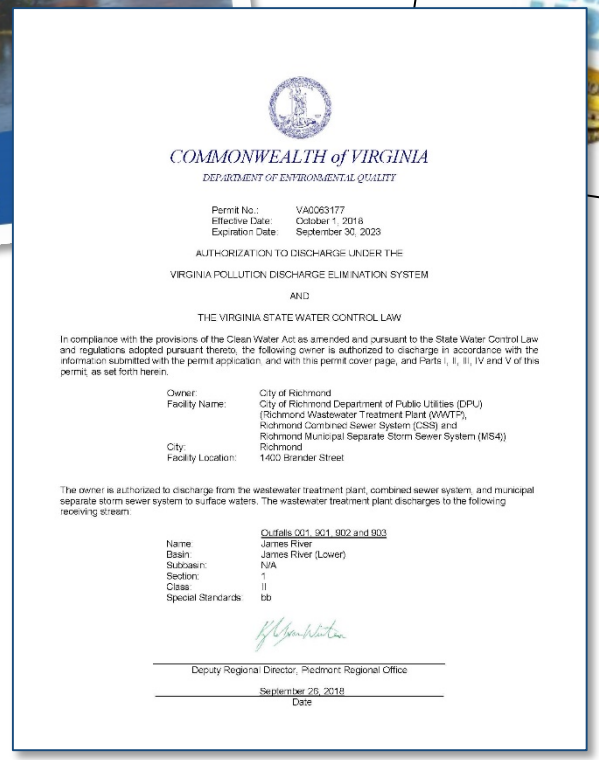
TECHNICAL PROCESS

WATERSHED CHARACTERIZATION REPORT

CLEAN WATER PLAN

INTEGRATED PERMIT





COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.: VA0063177
Effective Date: October 1, 2018
Expiration Date: September 30, 2023

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTION DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application and with this permit cover page, and Parts I, II, III, IV and V of this permit, as set forth herein.

Owner: City of Richmond
Facility Name: City of Richmond Department of Public Utilities (DPU) (Richmond Wastewater Treatment Plant (WWTP), Richmond Combined Sewer System (CSS) and Richmond Municipal Separate Storm Sewer System (MS4))
City: Richmond
Facility Location: 1400 Brander Street

The owner is authorized to discharge from the wastewater treatment plant, combined sewer system, and municipal separate storm sewer system to surface waters. The wastewater treatment plant discharges to the following receiving stream:

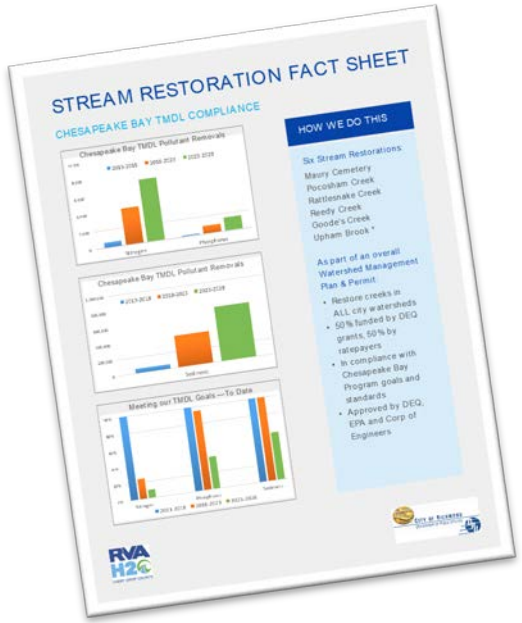
Outfalls 001, 901, 902 and 903
Name: James River
Basin: James River (Lower)
Subbasin: N/A
Section: 1
Class: II
Special Standards: bb

Deputy Regional Director, Piedmont Regional Office

September 26, 2018
Date

COMMUNICATION

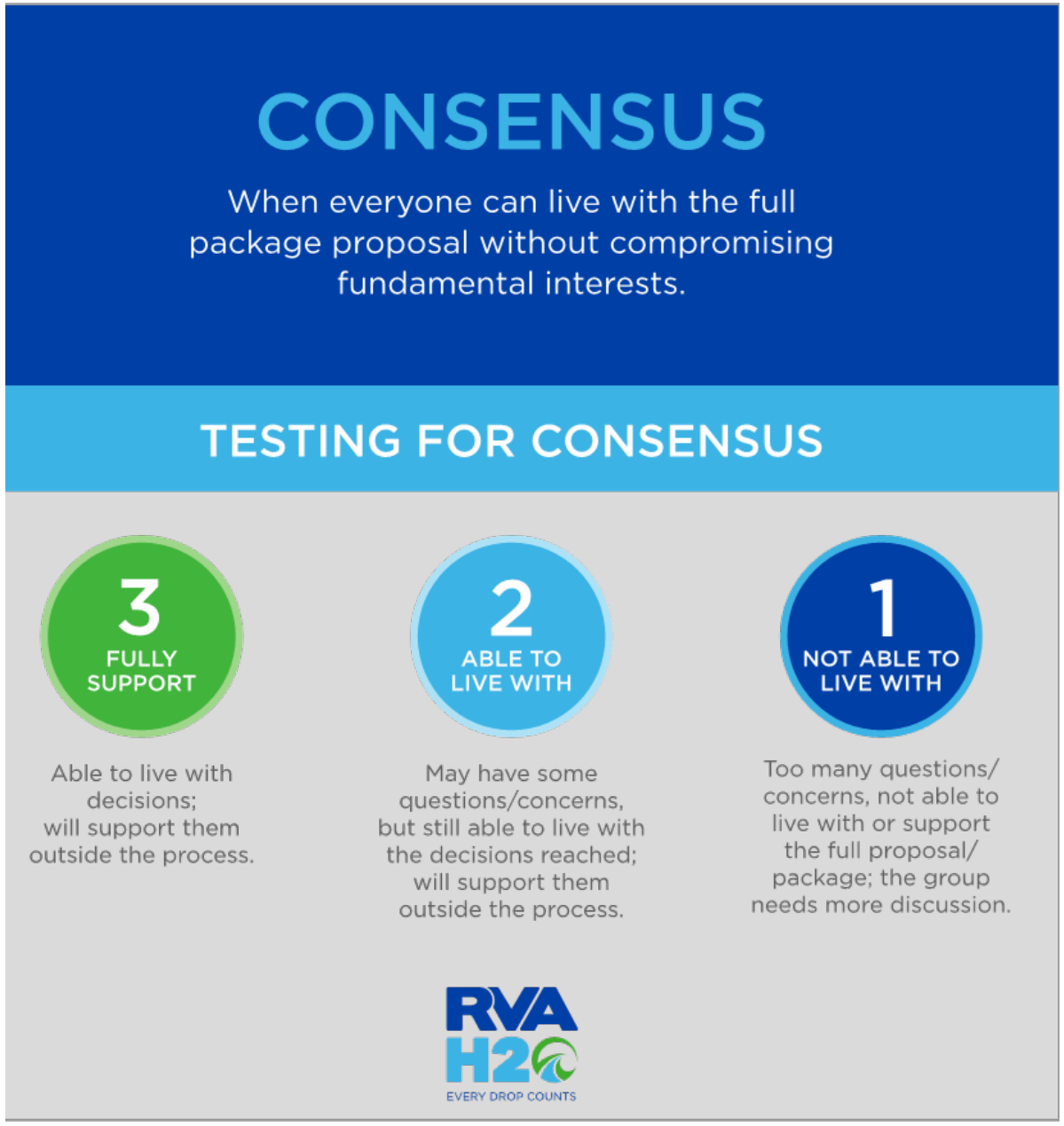
- Branding
- Getting the message out
  - Website
  - Social Media
  - Events



RVA H2O
EVERY DROP COUNTS

COORDINATION

- Visioning through implementation
- Consensus-based approach



BUILDING CONSENSUS

- The Goal: for everyone to be able to live with and support the plan
- At Least: for no one to oppose

GOALS RELATED TO:

- Pollution and Stormwater Peak Flows
- Habitat
- Public Engagement & Action
- Land Conservation & Management
- Partnerships
- Water Conservation
- Recreation
- Monitoring

STRATEGIES RELATED TO:

- Riparian areas
- Green Infrastructure in MS4
- Green Infrastructure in CSS
- Stream Restoration
- Native & Invasive Species
- Trees
- Land Conservation
- Potable Water Conservation
- Pollution I.D. & Reduction
- CSS Infrastructure

QUANTIFIABLE TARGETS

Metrics used to rank and prioritize strategies

- Examples:
  - Impervious surface reduced or treated (acres)
  - Habitat protected or restored (acres)
  - Streams restored (feet)
  - Stormwater volume discharge reduced (MG)
  - Average yearly TN load reduction (lbs)

Quantifiable targets for each strategy

GI in CSS

Target: 18 acres
Achieved: 4 acres

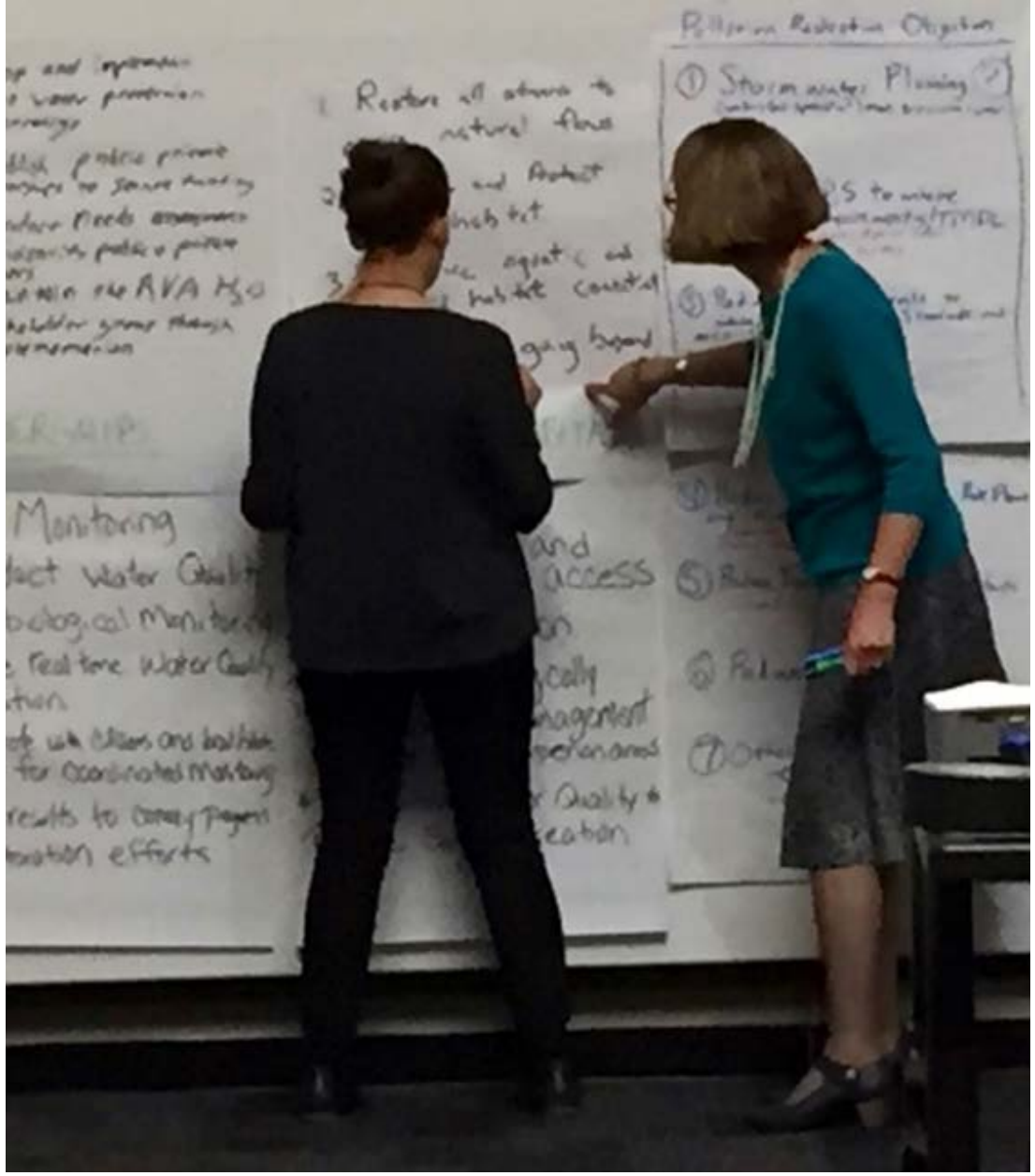
Trees

Target: 80 acres, 24,000 trees
Achieved: 24 acres, 7,124 trees

Stream Restoration

Target: 2,500 lf
Achieved: 15,580 lf

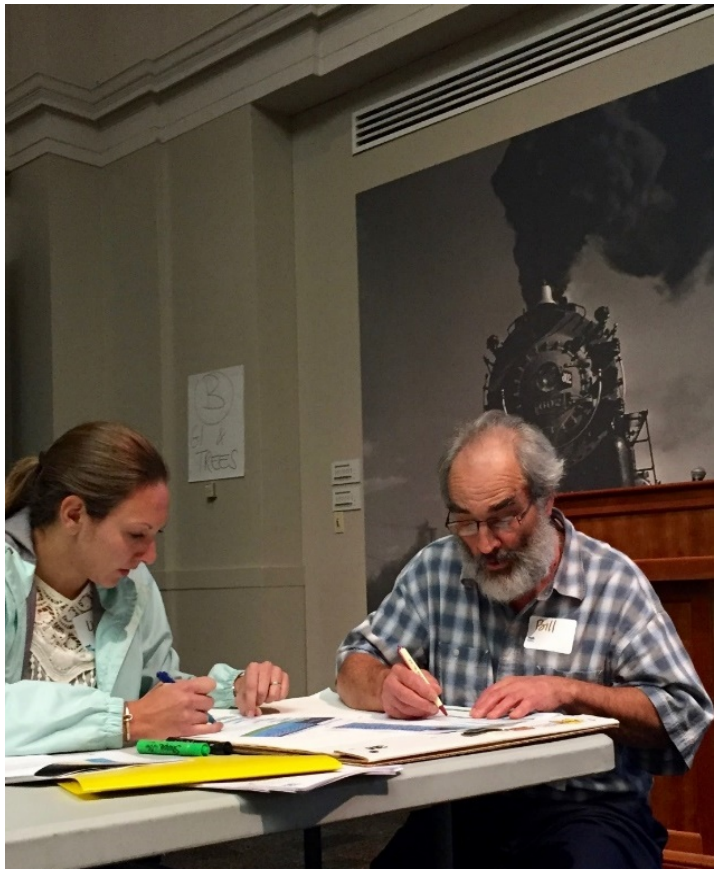

Strategy Costs
Strategy Scores
Partnerships
Unknowns
Permit
Feasibility
Modeling Results
Cost Effectiveness
Affordability



KEY ISSUES ADDRESSED IN PLANNING PROCESS

- Building Relationships
  - Establishing a Vision
  - Translating Technical Complexities
  - Learning to Plan Collaboratively
  - Keeping Stakeholders Engaged
- Preventing Derailment

KEY ISSUE:



Building Relationships

Challenges

- Communicating details
- Managing expectations
- Breaking down silos
- Building trust
- Are stakeholders understanding and learning?

Solutions

- Ensure information is detailed, accessible, and transparent
- Cast a wide net
- Involve a third-party mediator
- Structure of meetings and events can have a significant impact on the amount of feedback received – presentation vs. open house

Keep talking to people!

KEY ISSUE:

Preventing Derailment

Challenges

- Addressing single-issue participants
- Preventing melt-down when things get heated
- Preventing post-process push-back

Solutions

- Separate people from the problem
- Involve a third-party outreach firm and mediator
- Keep inviting participants to the table

Stay the course!

"We salute the process by which Richmond worked with stakeholders -- CBF, DEQ, water quality scientists, many NGOs, and others -- to help develop this integrated Permit (and the associated RVAH2O Clean Water Plan) as **a model of meaningful collaboration, rich public involvement and committed transparency**. We hope and believe it will prove to have **deepened the interested public's understanding of applicable requirements, the challenges associated with meeting those requirements, and the opportunities that are available to incorporate green infrastructure and other strategies with a variety of co-benefits**."

Peggy Sanner,
Virginia Assistant Director and Senior Attorney
Chesapeake Bay Foundation

- ls and Strategies
- ed VPDES Permit
- rity Watersheds
- l Coordination
- Water Plan Success
- tners
- Implementation Support

Mayor Levar Stoney – speaking at the RVA Clean Water Plan VPDES permit issuance celebration

Greening Gillies Creek Greenway

- ☑ Includes Key Partners
- ☑ Achieves CWP Strategies
- ☑ Includes Non-DPU Funding
- ☑ Addresses Co-Benefits
- ☑ Located in Priority Watershed

Partners:

JAMES RIVER ASSOCIATION
Our River. Our Water. Our Future.

CITY OF RICHMOND
DEPARTMENT OF PUBLIC UTILITIES

DEPARTMENT OF PUBLIC WORKS

Green Master Plan

- ☑ Includes Key Partners
- ☑ Achieves CWP Strategies
- ☑ Includes Non-DPU Funding
- ☑ Addresses Co-Benefits
- ☑ Located in Priority Watershed

Partners:

NFWF

CITY OF RICHMOND
DEPARTMENT OF PUBLIC UTILITIES

ALLIANCE for the Chesapeake Bay


Consider the river before you litter.
Without a clean river
Richmond wouldn't be the same.
So think before you litter
It all drains to the James.
RVA
H2O
EVERY DROP COUNTS
STORM DRAIN
ART PROJECT
CITY OF RICHMOND
DEPARTMENT OF PUBLIC UTILITIES
2018 Clean Water Is An Art
Painting a Picture of
Stormwater Awareness
West Cary Group, 2018

QUESTIONS?

THANK YOU

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RICHMOND, VA

Iterative feedback…

- Extensive stakeholder involvement
- Ownership and ease of permit approval

Programmatic integration…

- Wet weather programs as well as habitat, potable water, land conservation, pedestrian safety, recreation

Multiple drivers…

- NPDES permit, feasibility, affordability, strategy scoring, unknowns

Data convergences…

- Overlay water resources with community needs

Combining projects…

- Ex.: Greenway with stormwater management and pedestrian and bike safety