Flood Mitigation Action Plan

Consideration and Adoption of Stormwater Utility Fee Ordinance

City Council Legislative Meeting
January 26, 2021

Proposed Council Action

Staff recommends that City Council:

- Indicate its commitment to an aggressive approach to addressing flood mitigation on an accelerated basis;
- Establish an Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group;
- Adopt the proposed ordinance on first reading which phases in a two-step increase in the current stormwater utility fee of $140 per billing unit by $70 to $210 in May of 2021 and by another $70 to $280 in October of 2021, and schedule it for second reading, public hearing and final adoption on February 20, 2021; and
- Provide guidance to the City Manager to reflect this aggressive approach in the forthcoming FY 2022 Proposed Operating Budget and the FY 2022 to FY 2031 Capital Improvement Program.

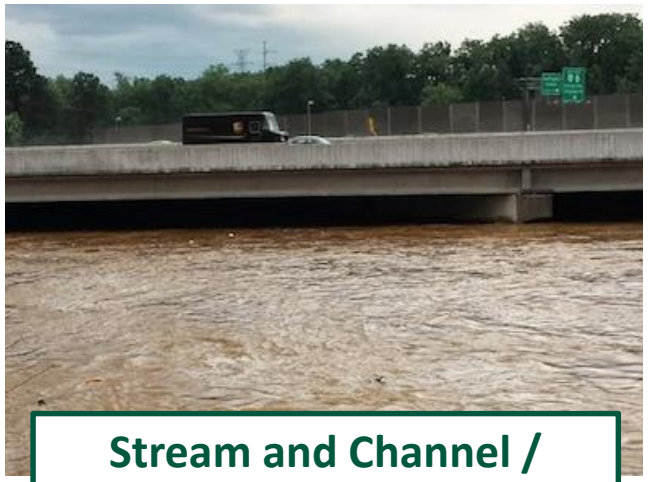
Jan. 26 Meeting Follow Up

- Illustration of comprehensive nature of stormwater program
- Additional background on project management costs
- Typical schedule of delivery for major capital capacity projects & spot/localized neighborhood improvement projects

Stormwater Management: 5 Main Responsibilities

Storm Sewer **Capacity** Projects

Spot Improvements Projects

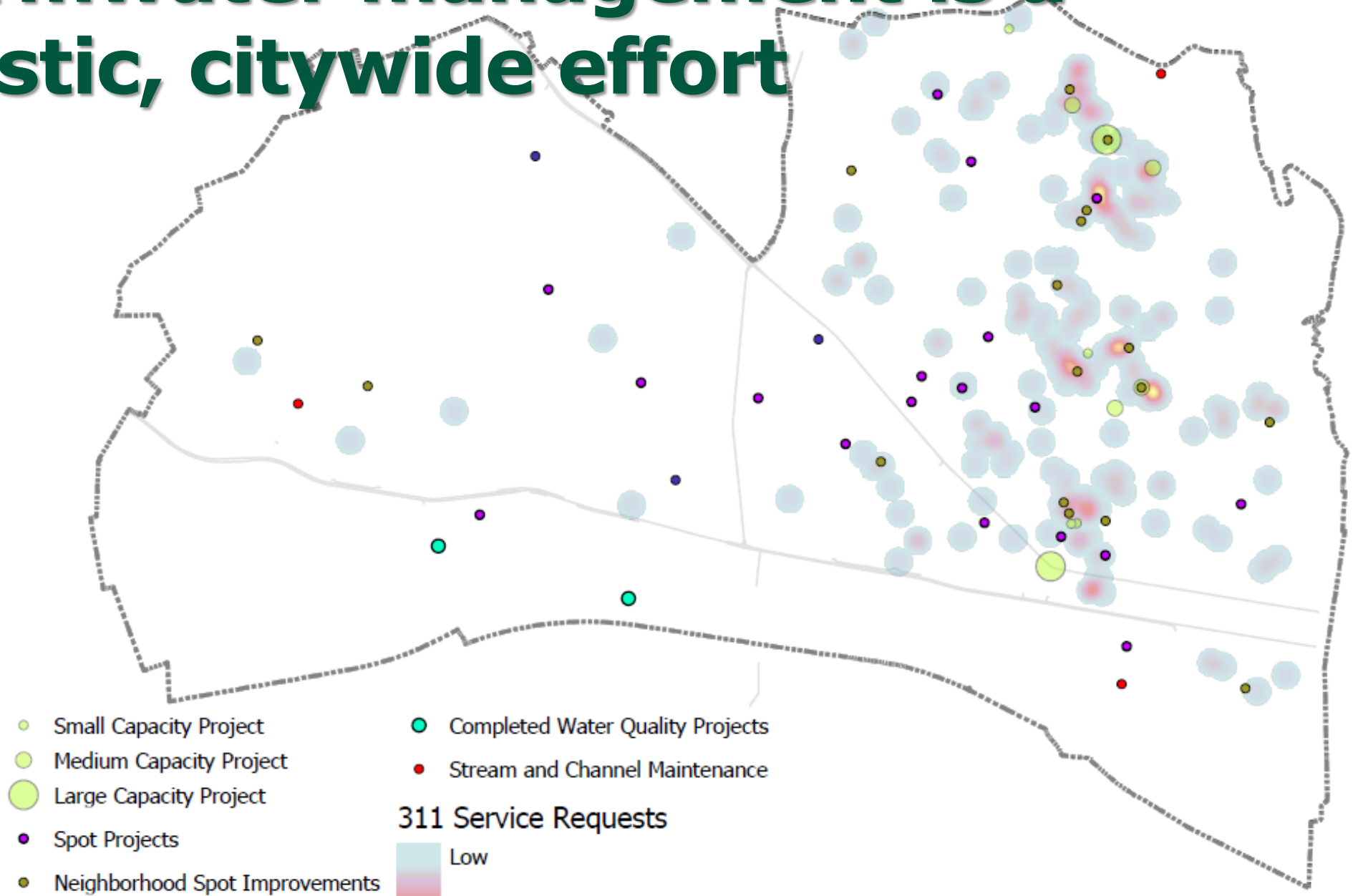


Stream and Channel / Infrastructure Maintenance

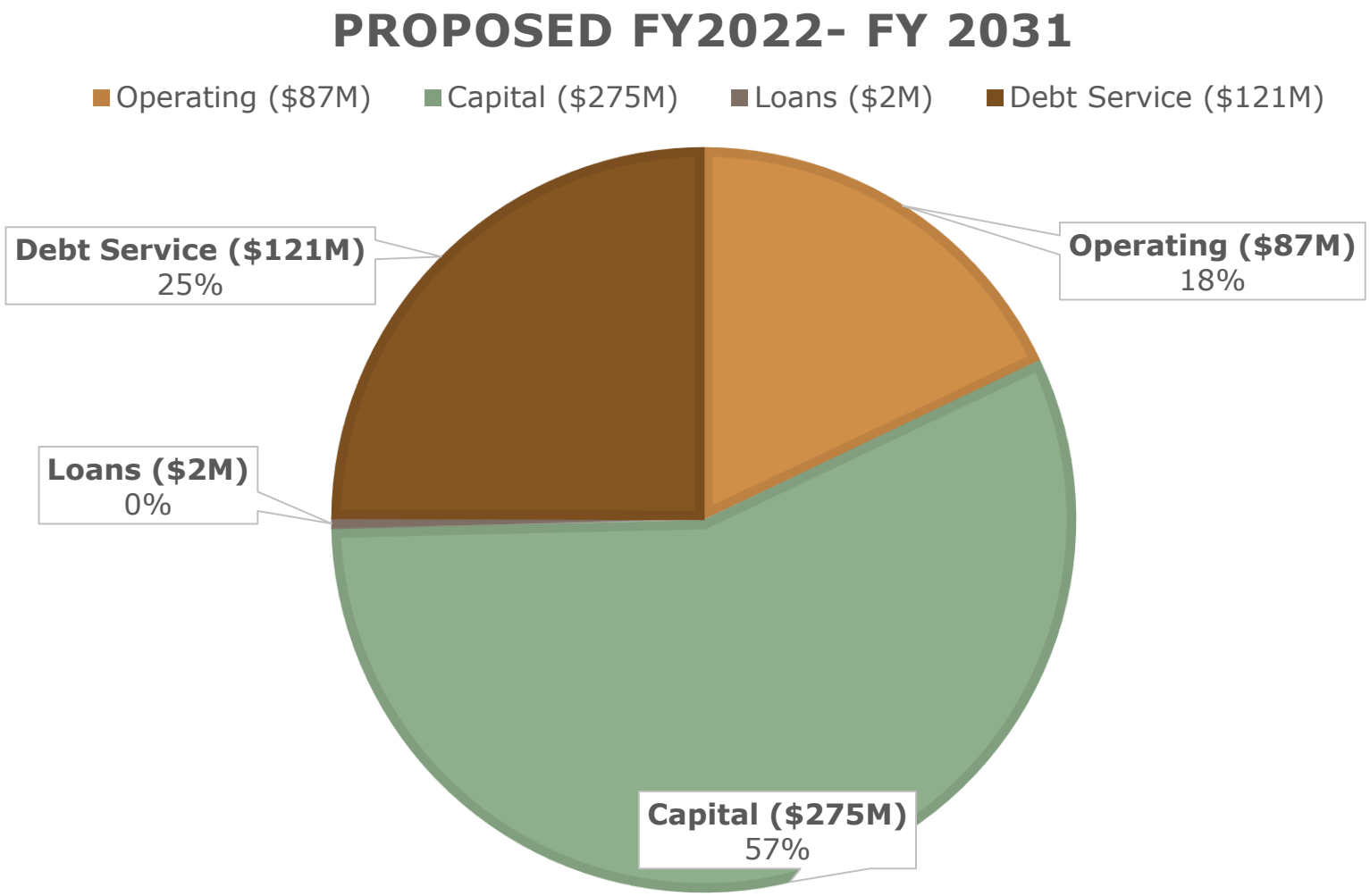
Infrastructure Maintenance

Water Quality Projects
(Bay Mandates)

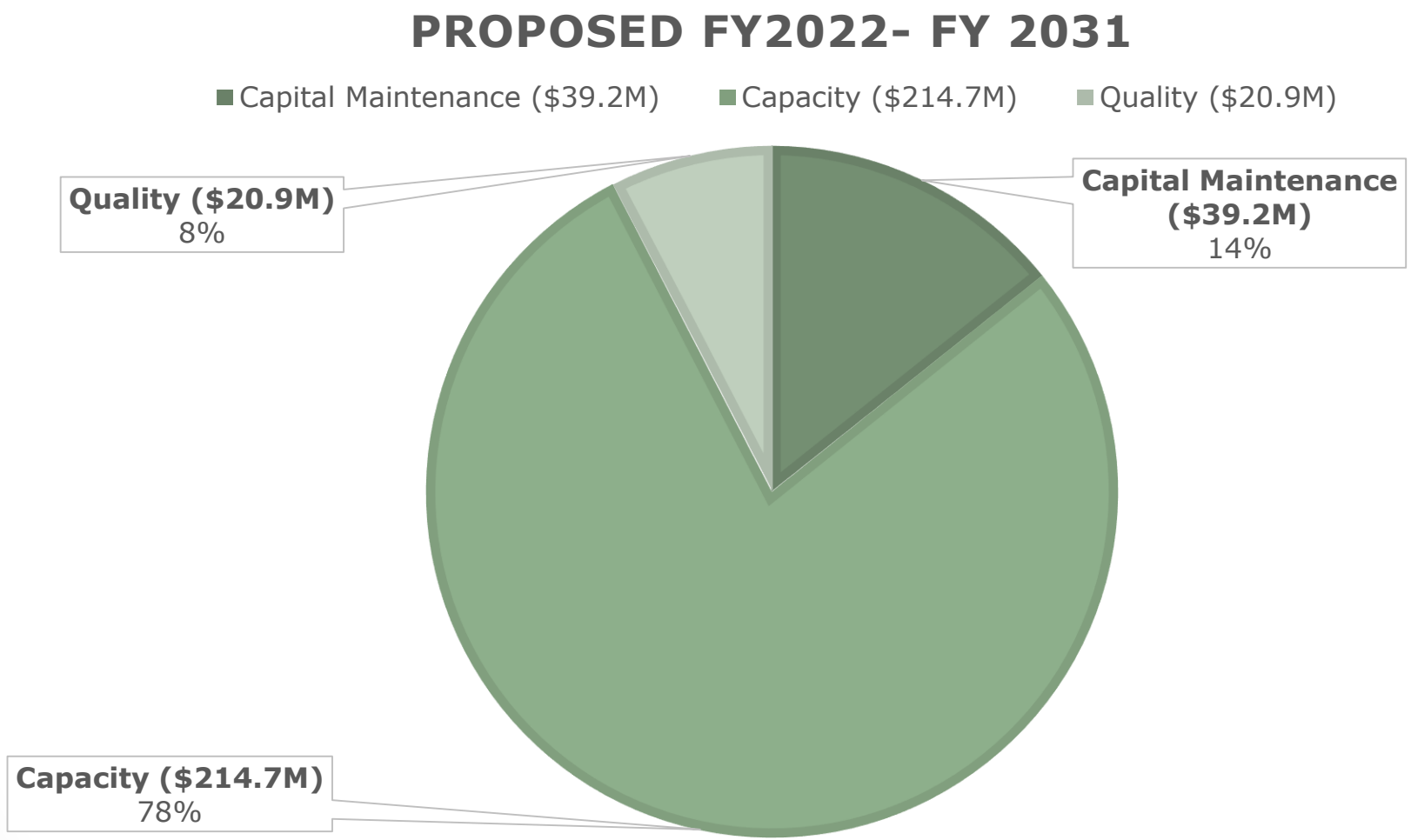
Stormwater management is a holistic, citywide effort



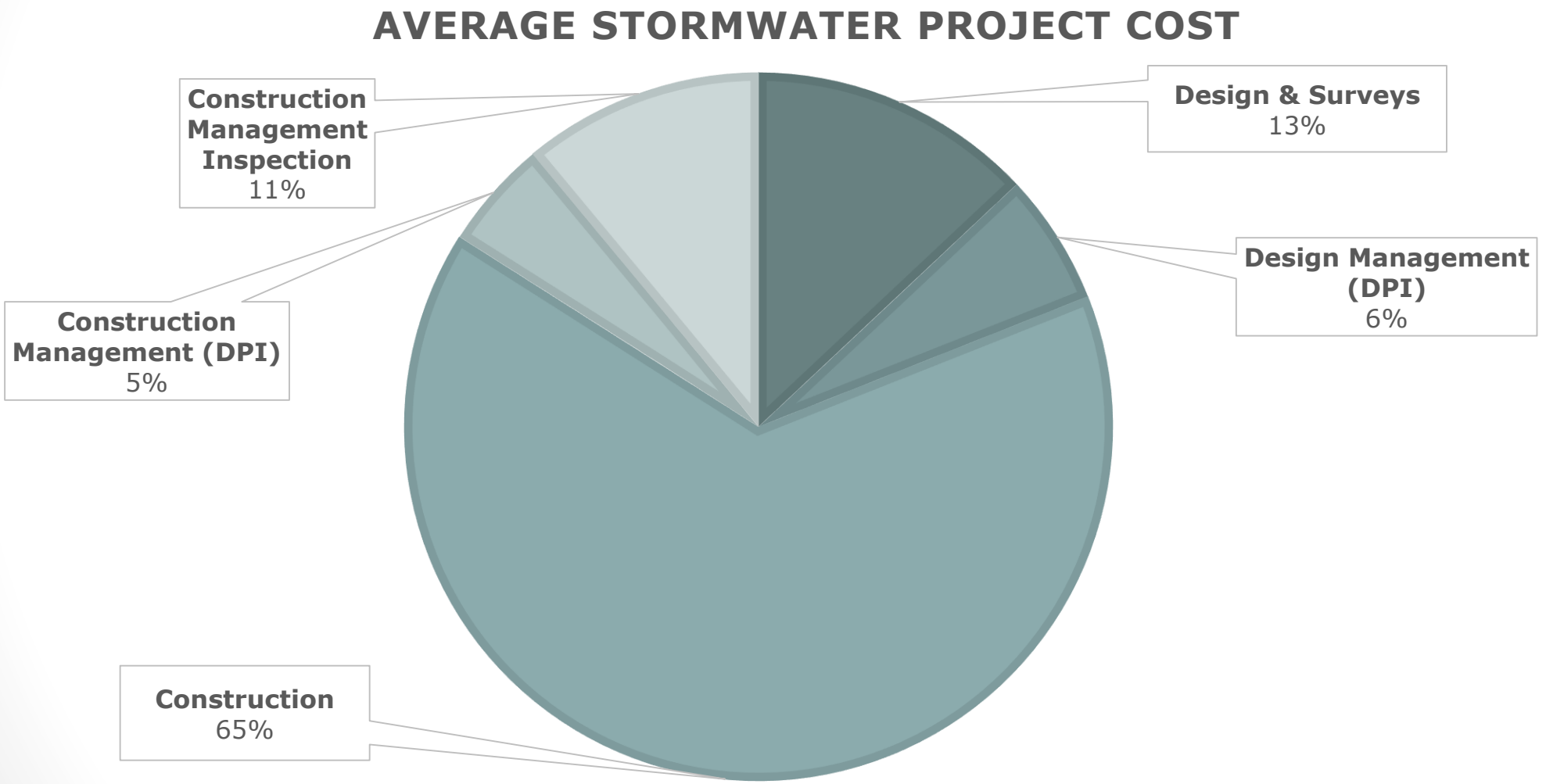
Stormwater Program Breakdown



$275M Capital Program Breakdown



Capital Project Component Costs



Typical Project Delivery Schedule (*Once Funded)

Storm Sewer Capacity Projects (Major CIP)

Range of Average Timelines: 3-5 **years**

Procurement	Design	Construction Procurement	Construction
• 4-8 mos.	• 12-24 mos.	• 4-6 mons.	• 10-24 mons.

Spot Improvements Projects

Average Time: 8-20 **months**

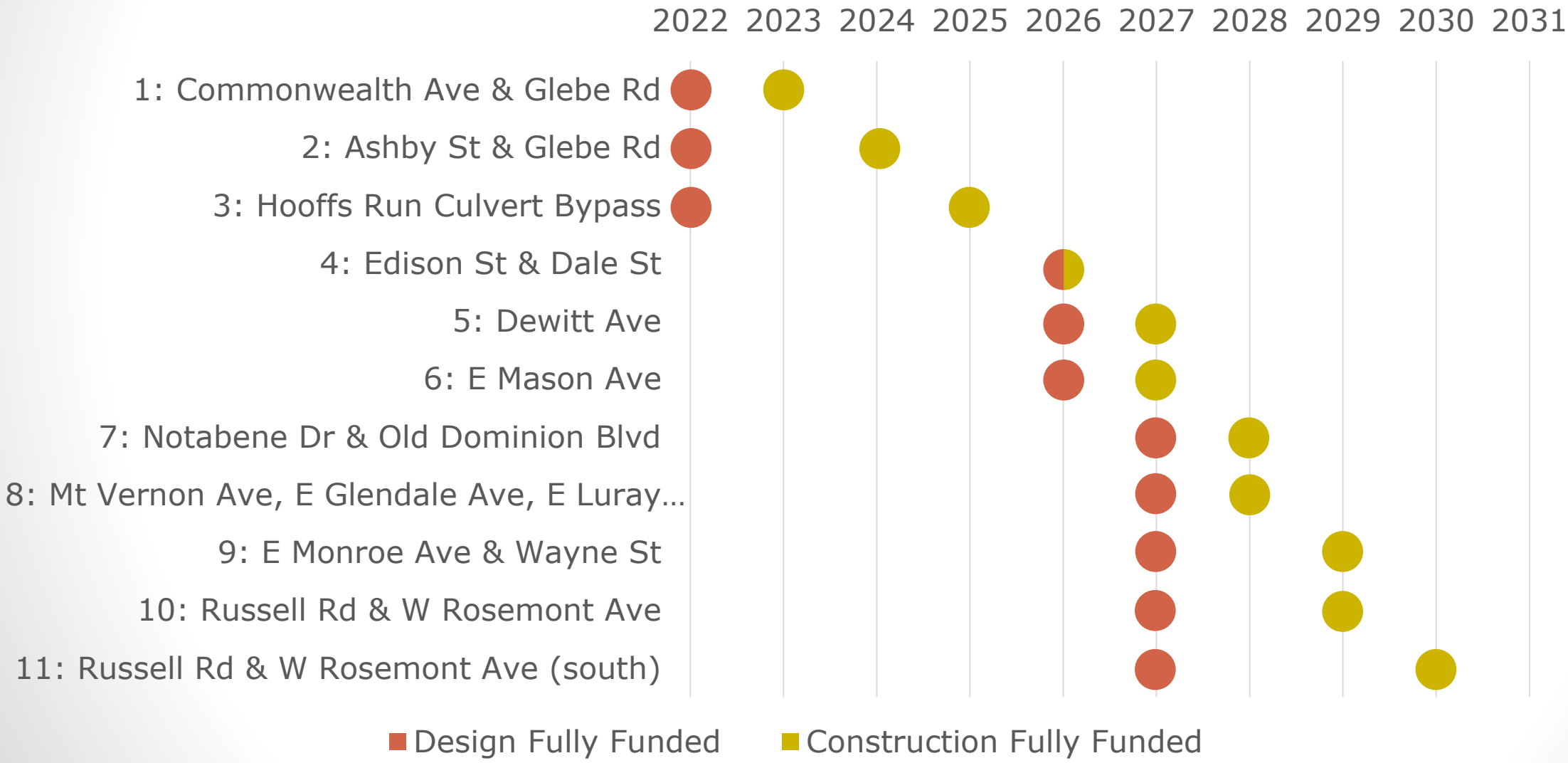
Design	Procure (*if needed)	Construction
• 1-6 mos.	• 4-6 mos.	• 3-8 mos.

Common Sources of Delay & Schedule Risk

- Protracted Stakeholder Engagement/Opposition to Project
- Obtaining Easements / Right of Access on private property
- Utility conflicts and/or relocation
- Changes in Funding (deferral, reprioritization, etc.)
- Contested Procurements / Lack of responsive bidders
- Project Prioritization changes based on new data/new issues
- Regulatory Approvals / Time of Year Restrictions
- Unforeseeable circumstances:
  - Change in property ownership/new stakeholder engagement
  - Changes in Regulatory or Environmental Requirements
  - New development/redevelopment

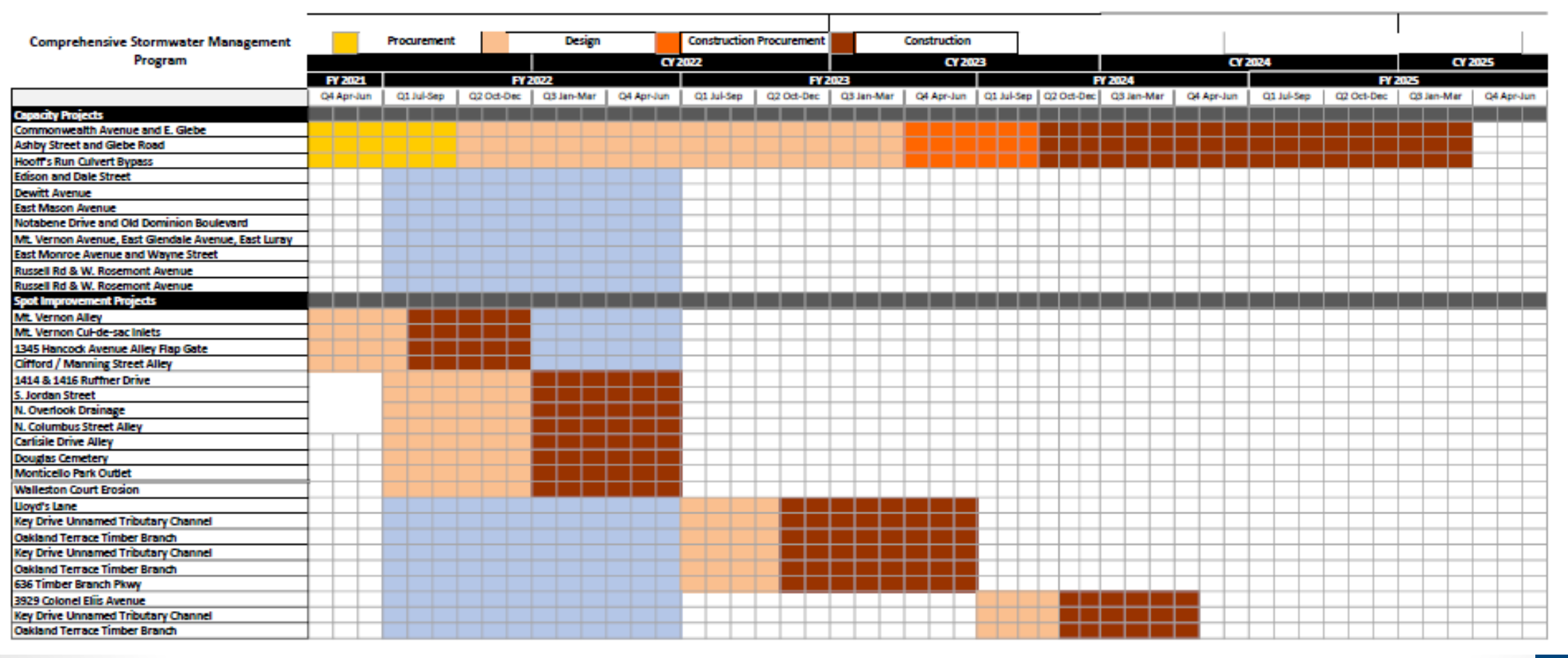
Funding* Timeline for Capacity Projects

(*for Planning & Budgeting Purposes, by fiscal year)



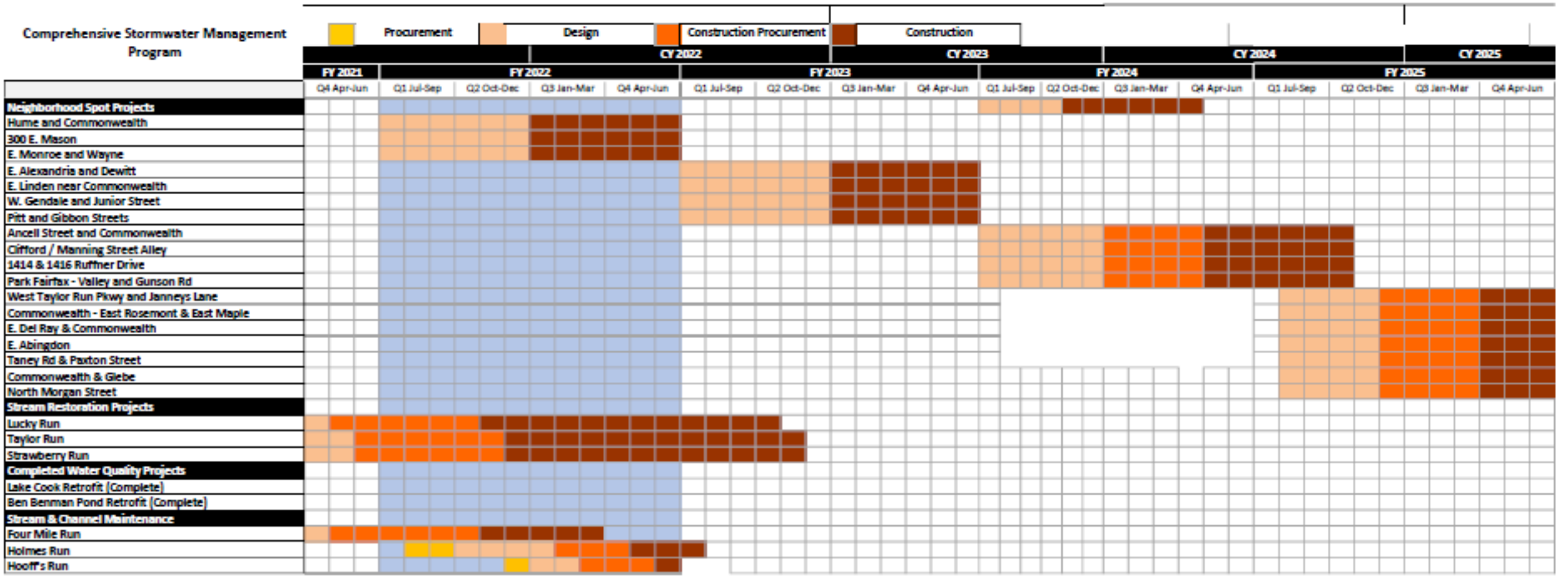
Capacity & Spot Improvement

Near Term Task Schedule



Neighborhood Spot, Stream Restoration & Channel Maintenance Projects

Near Term Task Schedule



Key Outcomes

Mitigation Element	Current	Proposed	Change
Capacity Projects	$19M over 10 years (3 projects)	$170M over 10 years (11 projects)	**+$151M over 10 years (+6 FTEs)**
Spot Improvement Projects	~$0.5M/year (3-5 projects/yr)	~$2.5M/year (8-11 projects/yr)	**+$2M/year (+2 FTEs)**
Stream & Channel Maintenance	$0.5M/year	$0.9M/year	**+$0.4M/year**
State of Good Repair	$1M/year	$2.5M/year	**+$1.5M/year (+4 FTEs)**
Pilot Grant Program	$0	$750,000/year	**$750,000/year**

Thank you!
Questions?

Background Slides

More Frequent, Intense Rainfall Events

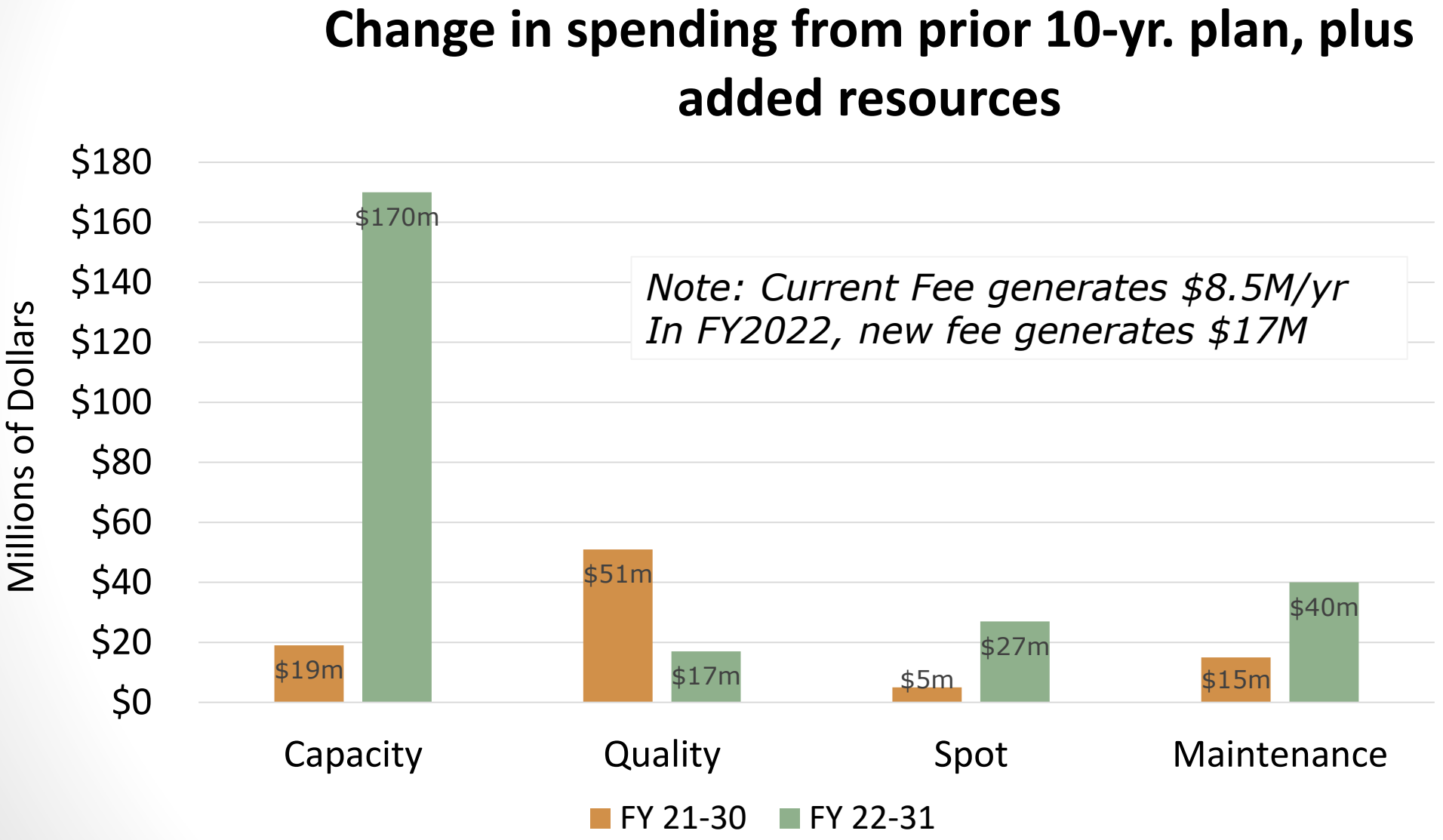
- **2018**: Virginia's wettest year on record, 20"+ over normal
- **July 8, 2019:** Regional Flood
- **July 23, 2020:** Local Flash Flood
  - 60-80% of monthly avg in 30 minutes
- **Sept. 10, 2020:** Local Flash Flood
  - 2.5-4" with rates up to 3"/hr in 10 mins
  - Daily rainfall record at National Airport
- Increase in reported problems of property damage

Radar, September 10

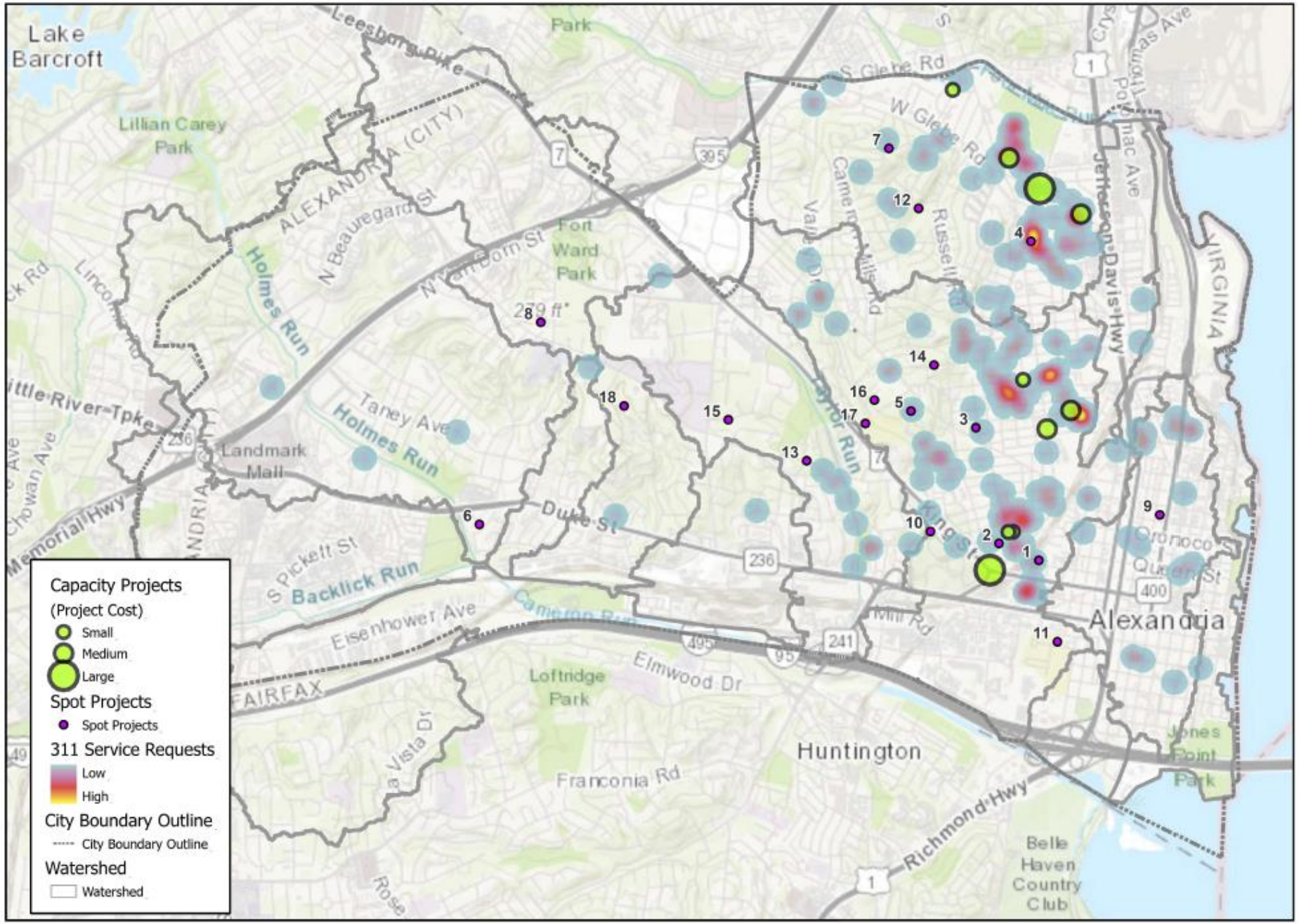
Interdepartmental Flooding Management Task Force

- Assembled to **urgently address** recent flash flooding from climate-change-induced severe rain events
- Six-week work period
- Developed recommendations for:
  1. Budget
  2. Programs & Legislation
  3. Early Warning & Communications
- **Extensive neighborhood-level engagement** ongoing to hear residents' concerns and identify additional needs

Reprioritized Stormwater Management Plan



Capacity and Spot Capital Projects



For illustrative purposes only

★ **Recommendation #1 (Budget):** Approve a 100% SWU Fee rate increase with additional, varying increases in subsequent fiscal years

Increase bond capacity and reprogram water quality funding

Reflects Council directive on November 16 to **be more aggressive**

Bill fee increase in two steps to generate **$14.8 million this calendar year**:

- May 2021 (FY2021)
- October 2021 (FY2022)

Increase of $283.8 million in resources to apply to needs over the next 10 years

★ **<u>Recommendation #2a (Programs):</u>** Develop a pilot grant program and technical assistance program to incentivize flood mitigation on private property.

Pilot Grant Program

- Partial reimbursement for flood-proofing on private property
- Retroactive to July 2019
- Examples include flood-proof doors, windows, and walls
- Program to be developed before FY 2022

Technical Assistance Program

- Help residents assess cause of flooding and identify potential solutions
- Complements pilot grant program
- Program has been initiated

★ **<u>Recommendation #2b (Legislation):</u>** Support legislation that provides authority and funding to support localities dealing with the impacts of inland and urban flooding.

Legislative priorities approved by Council on December 8, 2020:
➓ Increase Stormwater Local Assistance (SLAF) funding and evaluating scoring criteria to capture stormwater capacity needs
➓ Joint Subcommittee on Inland and Urban Flooding
➓ Authority to use City-sponsored grant funds on private property for flood protection measures that have a public benefit
➓ Authority to regulate modifications to single-family detached residential structures where land disturbance is <2,500 ft^2

★ **<u>Recommendation #3a (Early Warning):</u>** Enhance the City's flood early warning systems by taking the following actions by Summer 2021:

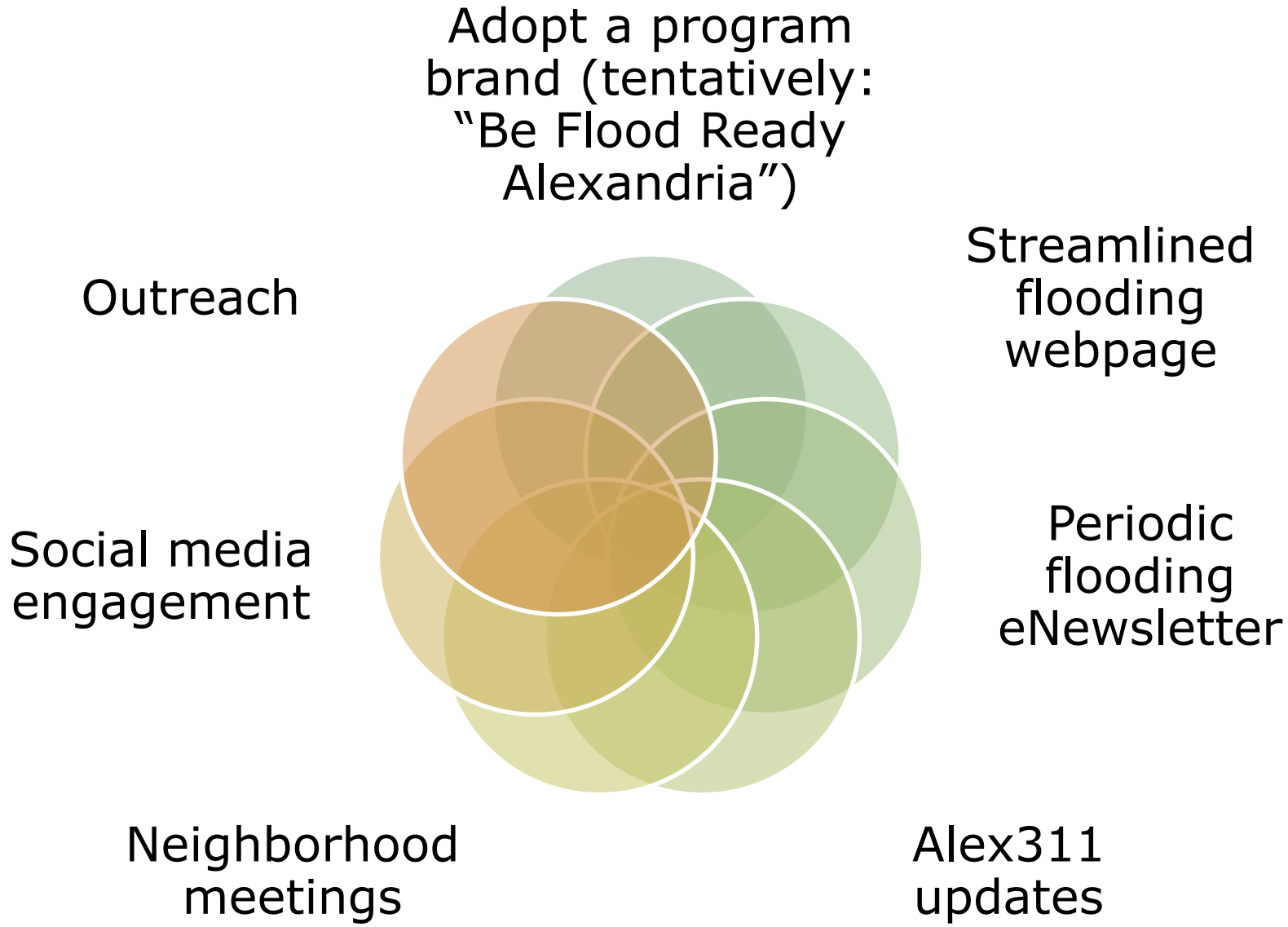
Add new stream and flow gauges

Upgrade rainfall data collection and flood warning systems

Enhance alert capabilities to reach more residents

Increase flood-related weather alerts

Explore a real-time stream gauge dashboard

Expand flood warning road signage

★ **<u>Recommendation #3b (Communications):</u>** Develop an enhanced outreach and communications strategy related to flooding.