

Controlling Richmond's Combined Sewer Overflows into the James River by 2035

A Resolution to Express Support



Government Operations Standing Committee | May 2022



Purpose

- **Resolution:**

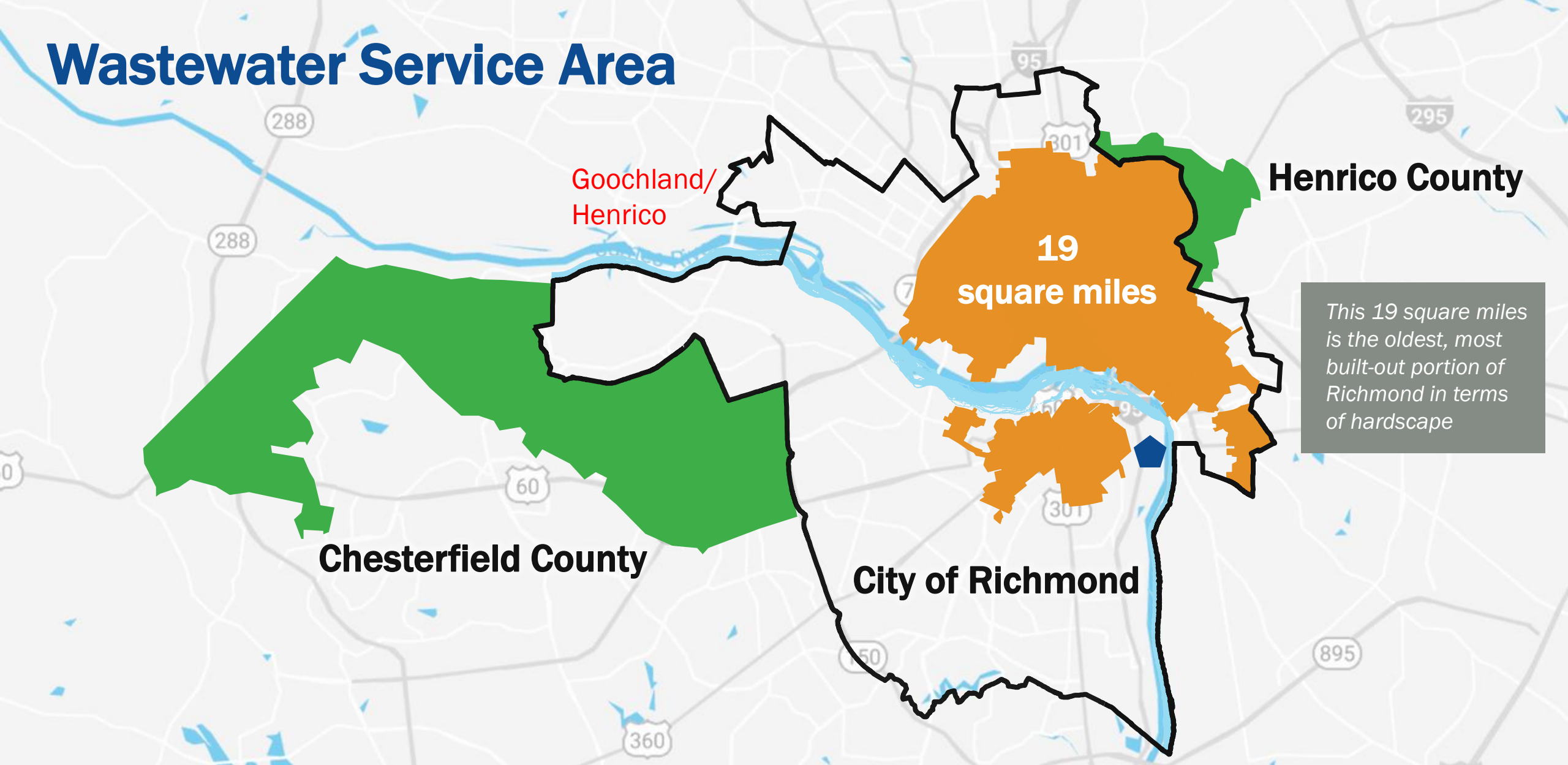
- To express the City Council's support for, and to prioritize the construction of, CSO Final Plan projects by July 1, 2035 to improve water quality in the James River.



Richmond's DPU has been working for decades with partners to improve water quality in the James River



Wastewater Service Area



Combined Sewer System
Drainage Area



County Area
Serviced by City



Wastewater
Treatment Plant

Combined Sewer System at-a-glance

Century-Old Sewer System

114 Average age of
sewer pipes (years)

950 Miles of pipes

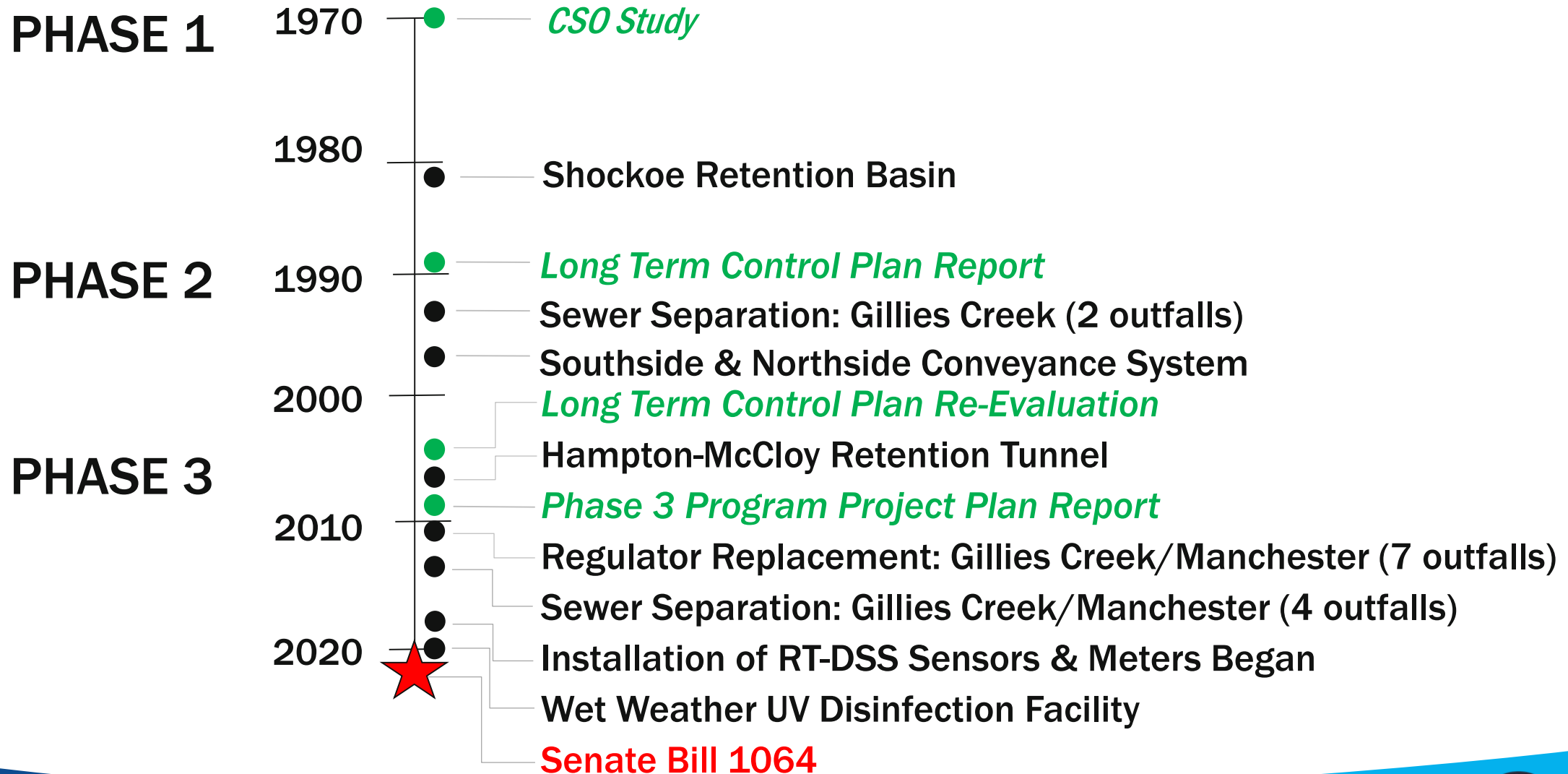
8" to 27' Pipe diameters

25 Combined sewer
outfalls

140 Wastewater
treatment plant
capacity (MGD)



Combined Sewer System Improvements



Progress

How It Started

46 Outfalls

75 WWTP capacity
(MGD)

5B Gallons of overflow
annually

\$117M Invested

How It's Going

25 Outfalls

140 WWTP capacity
(MGD)

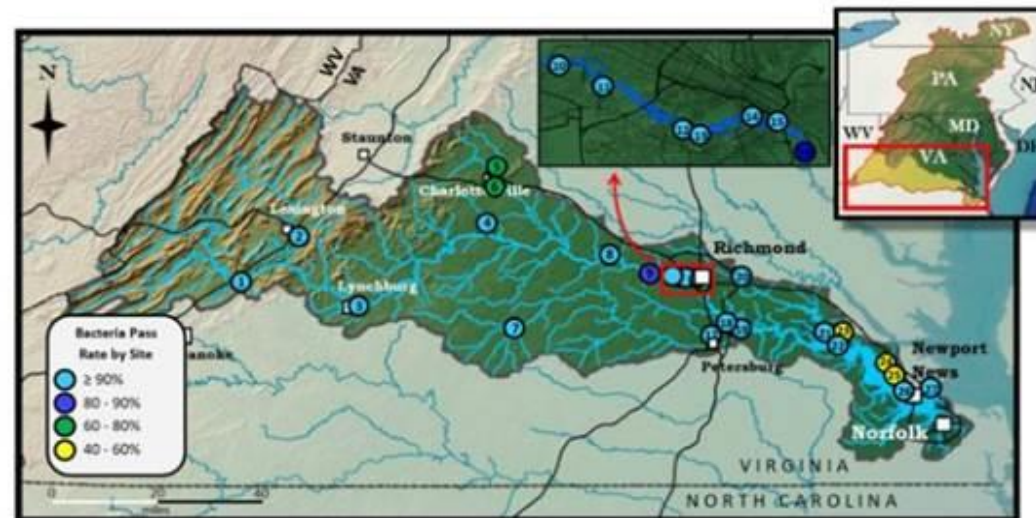
1.9B Gallons of overflow
annually

\$315M Invested to date

\$50M Provided by GA and
matched by DPU



Water Quality Progress



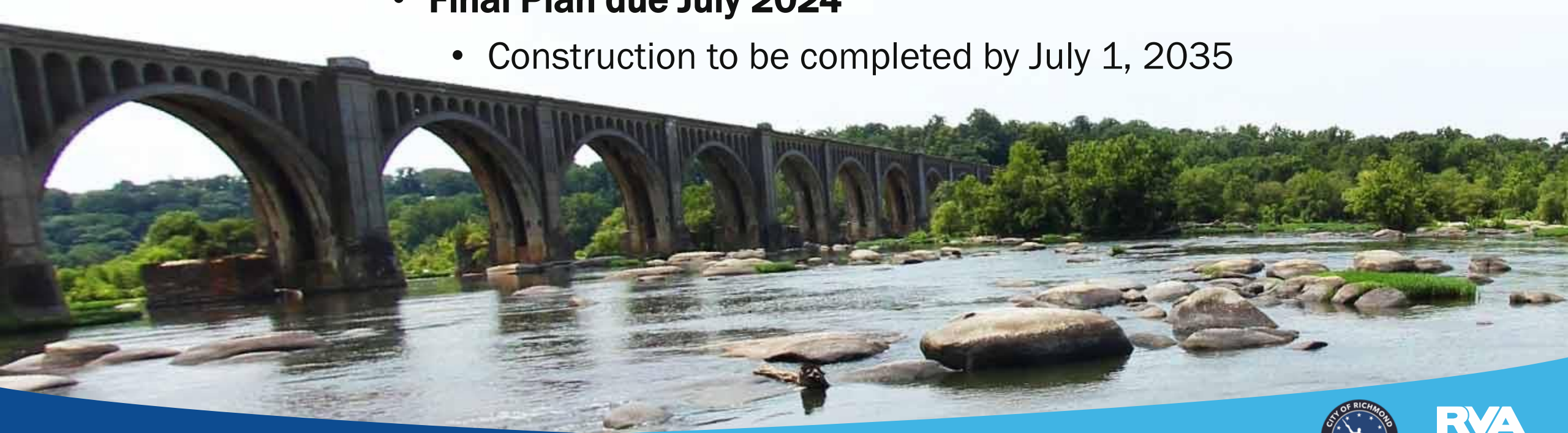
SITE NUMBER	SITE NAME	LOCATION	LENGTH OF RECORD (YRS)	PASS RATE (2013 - '18)	PASS RATE (2019)	DEPARTURE FROM AVG
1	Buchanan Boat Ramp	Buchanan	7	74%	100%	+26%
2	Maury at Ben Salem	Rockbridge	6	87%	100%	+13%
3	Riveredge Park	Lynchburg	7	95%	100%	+5%
4	Scottsville Boat Ramp	Scottsville	7	91%	100%	+9%
5	Rivanna at Riverview	Charlottesville	5	79%	71%	-8%
6	Rivanna at Darden Towle	Charlottesville	4	79%	71%	-8%
7	Main St. Bridge	Farmville	3	93%	92%	-1%
8	Tucker Park/Maidens	Goochland	7	86%	93%	+7%
9	Robious	Chesterfield	4	91%	83%	-8%
10	Huguenot Flatwater	Richmond	5	92%	93%	+1%
11	Pony Pasture	Richmond	5	91%	93%	+2%
12	42 nd Street	Richmond	5	80%	93%	+13%
13	Reedy Creek	Richmond	5	86%	93%	+7%
14	Tredegar	Richmond	7	83%	100%	+17%
15	14 th Street	Richmond	7	73%	93%	+20%
16	Rockett's Landing	Richmond	6	64%	87%	+23%
17	Harvell Dam	Petersburg	6	80%	100%	+20%
18	Hopewell (Rt. 10)	Hopewell	4	96%	100%	+4%
19	City Point	Hopewell	7	76%	93%	+17%
20	Grapevine Bridge	Henrico	6	86%	91%	+5%
21	Chickahominy Riverfront Park	James City	4	97%	100%	+3%
22	Jamestown Beach	James City	7	97%	100%	+3%
23	Powhatan Creek	James City	5	72%	47%	-25%
24	Denbigh Boat Ramp	Newport News	6	91%	57%	-34%
25	Riverside Beach	Newport News	6	98%	92%	-6%
26	Hampton River	Hampton	5	93%	92%	-1%
27	Deep Creek	Newport News	3	100%	57%	-43%
TOTAL	-----	-----	7	85%	90%	+5%



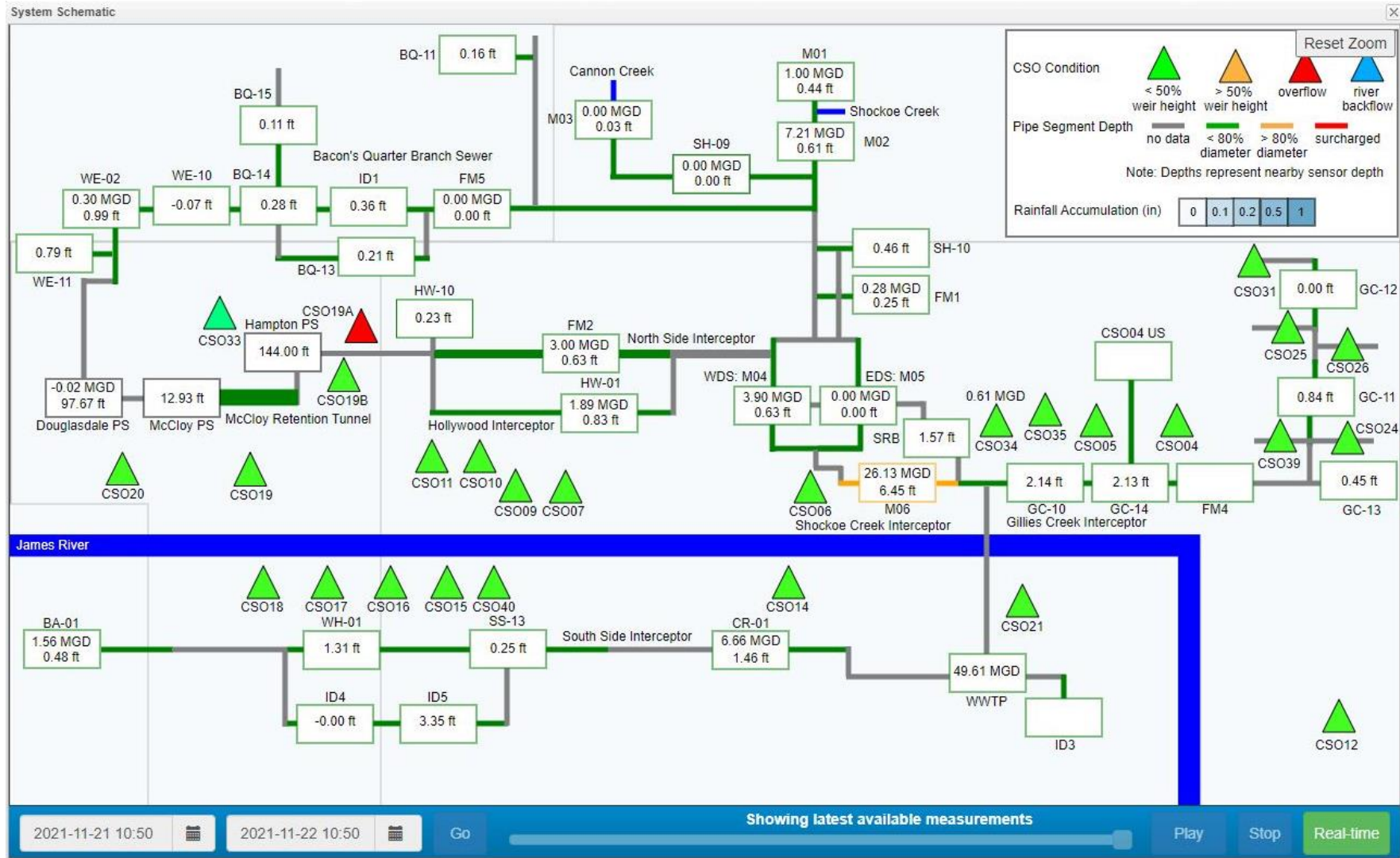
SB 1064 requires full compliance with Water Quality Standards by 2036

The City of Richmond is required to develop Interim and Final Plans:

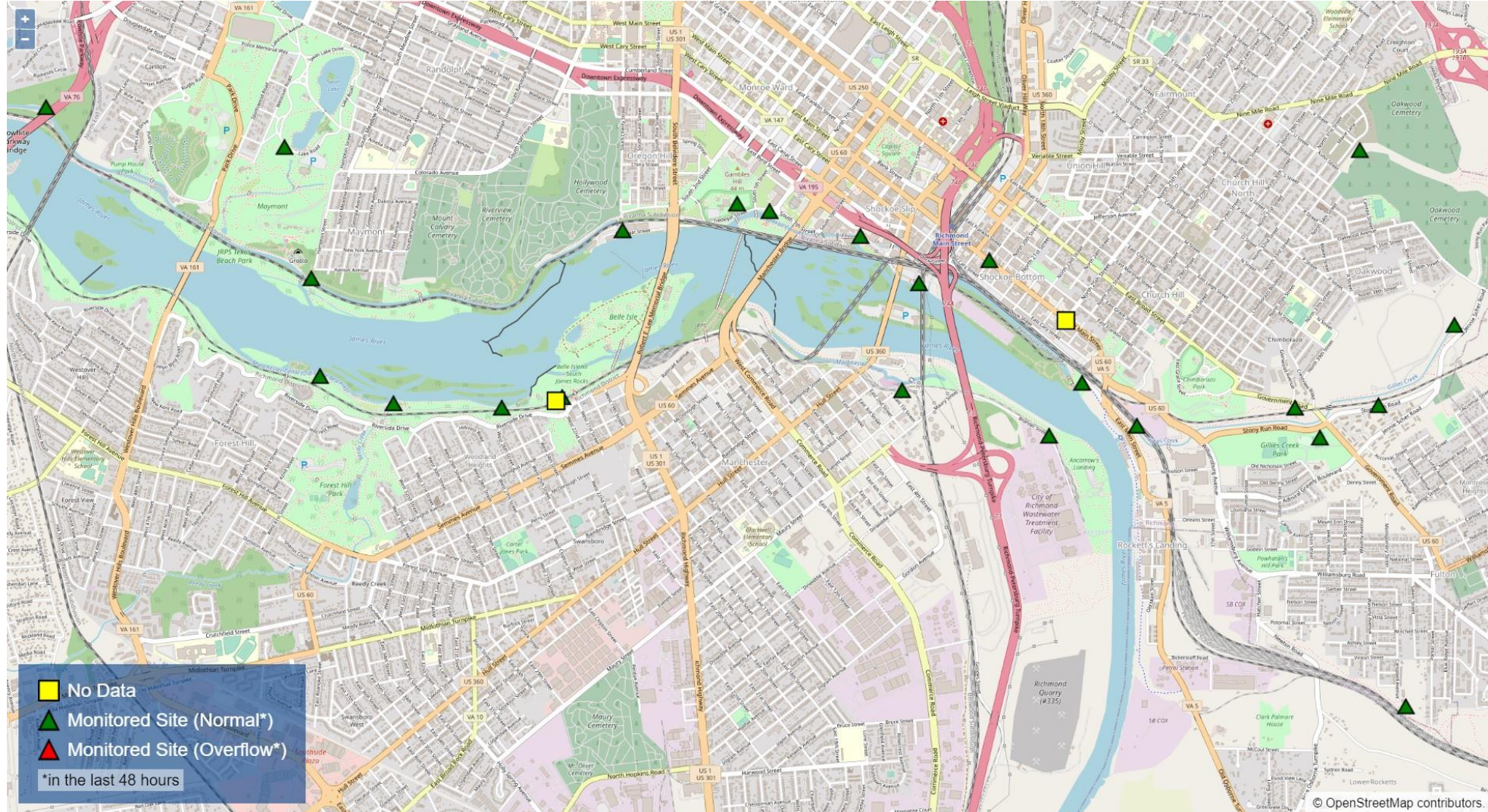
- **Interim Plan submitted July 2021**
 - Construction to be completed by July 1, 2027
- **Final Plan due July 2024**
 - Construction to be completed by July 1, 2035



Real-Time Decision Support System



First in Virginia: Public-Facing, Real-Time CSO Map



Final Plan – Three alternatives being evaluated

Must capture, convey, and treat up to 5 billion gallons per year

99% CSO Capture

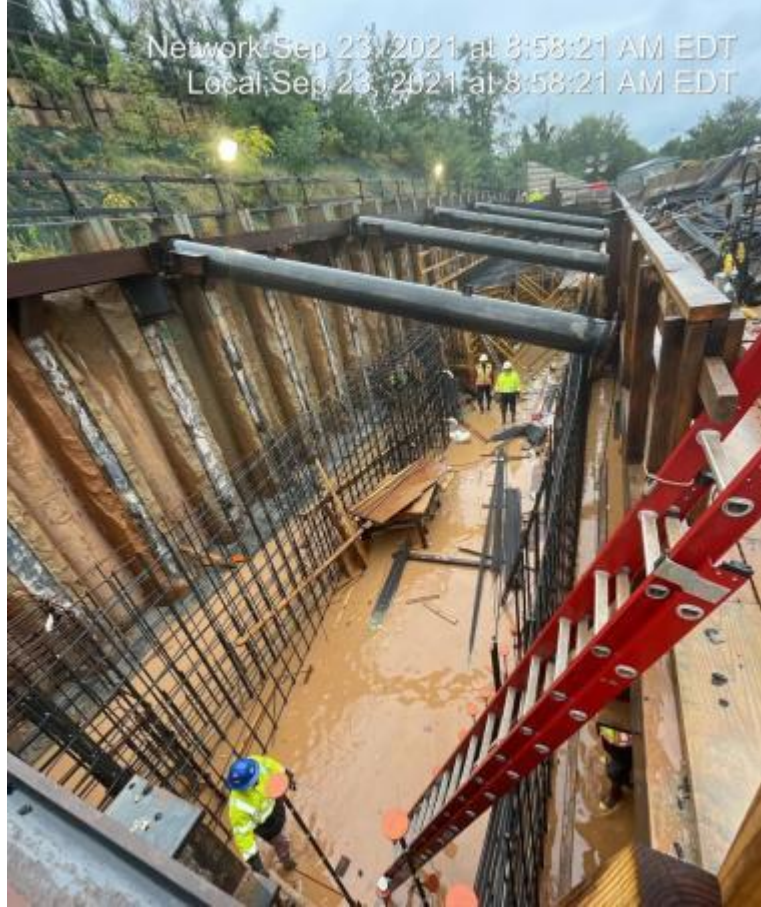
Estimated annual basis

\$1.3B*

*In 2021 dollars

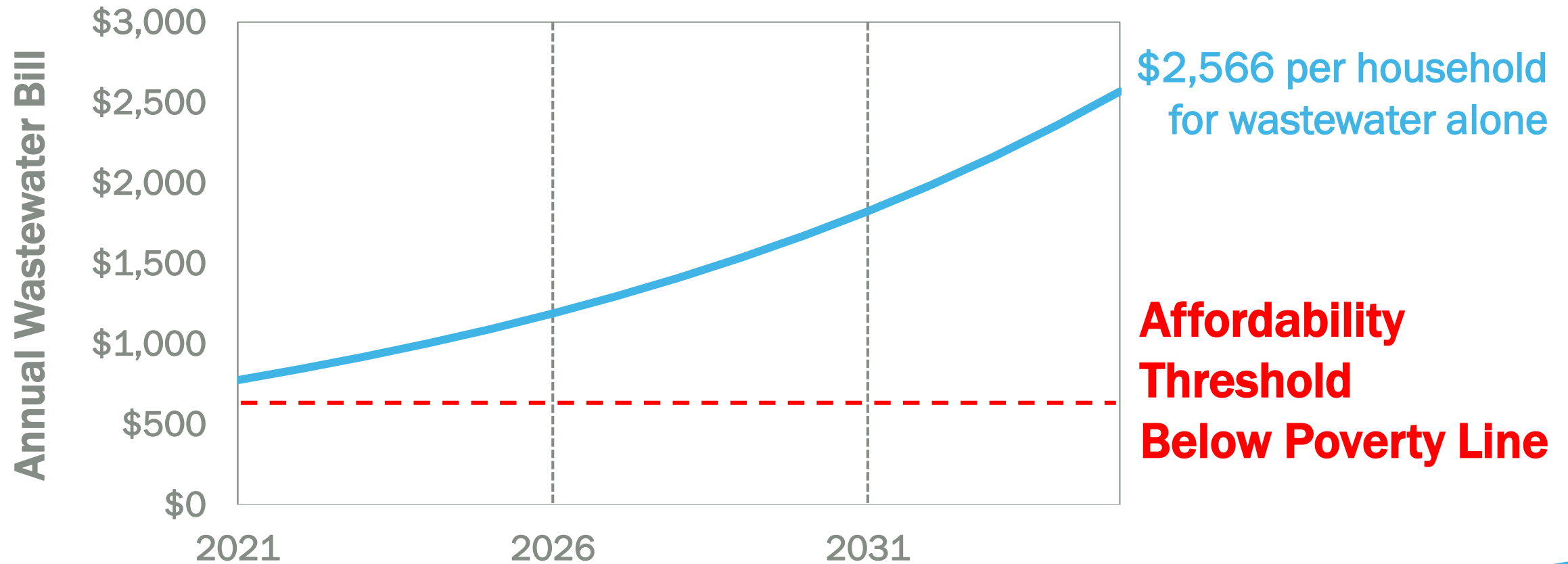


Very Large Infrastructure Projects



Wastewater bills would increase 232% to \$2,566 per year

Rate increases would create an affordability crisis for 53,000 citizens below the poverty line



The City needs to increase wastewater capacity significantly to handle increasing population

- *Richmond's population increased by over 32,000 from 2000 to 2019*
- *The City's population is expected to increase to 340,000 by 2037**



Communication

- **Past:**

- RVAH20
- Citizen's Academy
- State Water Commission
- Press Conference and Tour of Shockoe Retention Basin with Congressman McEachin, Senator Kaine and Administrator Regan

- **Going Forward**

- Final Plan Stakeholder Group
- Combined Sewer System and Water Plant Tours



Summary

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Questions?

