

Office of Sustainability FY23 Annual Report

Presented by Laura Thomas
Director of Sustainability



OFFICE OF
SUSTAINABILITY

City of Richmond
RVAgreen
2050

Who We Are



We're Hiring!
Sustainability Coordinator



Jasmin Johnson
Energy Coordinator



Michael Smart
Sustainability Engagement
Coordinator



Bryan Epps
Sustainability Manager

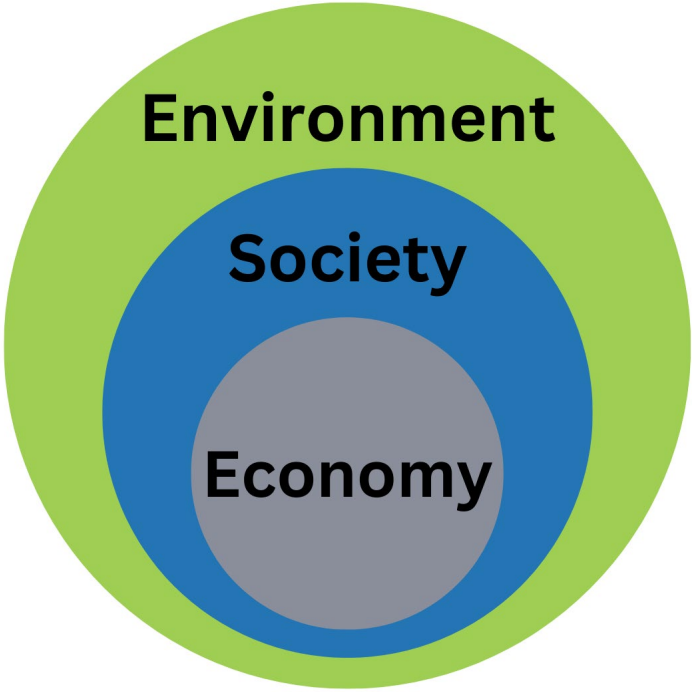


Dawn Oleksy
Energy Manager



Laura Thomas
Sustainability Director

Sustainability & Resilience



Nesting Model of Sustainability



Resilience as Social Determinants of Health

Frontlines of Climate Change

- Population (race, children, elderly, etc.)
- Household (renters, elderly living alone, etc.)
- Income & Education (SNAP, public assistance income, etc.)
- Housing & Transportation (internet access, vehicle access, etc.)

**Based on data from the U.S. Centers for Disease Control:
Social Vulnerability Index*

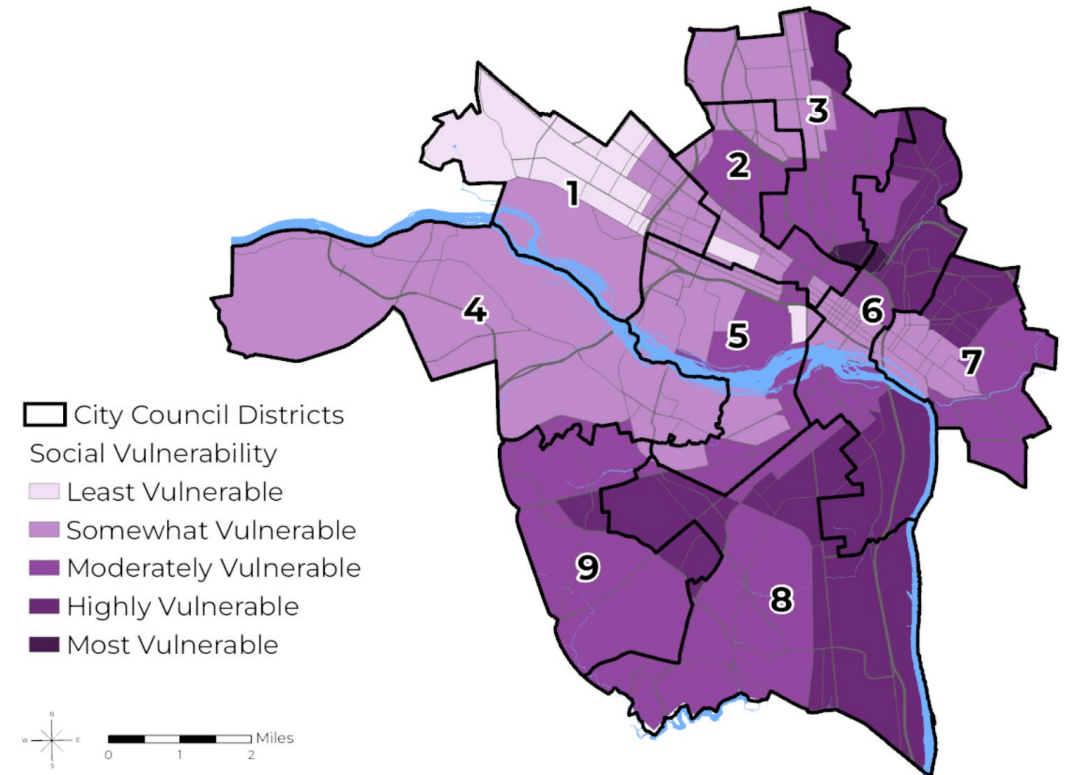
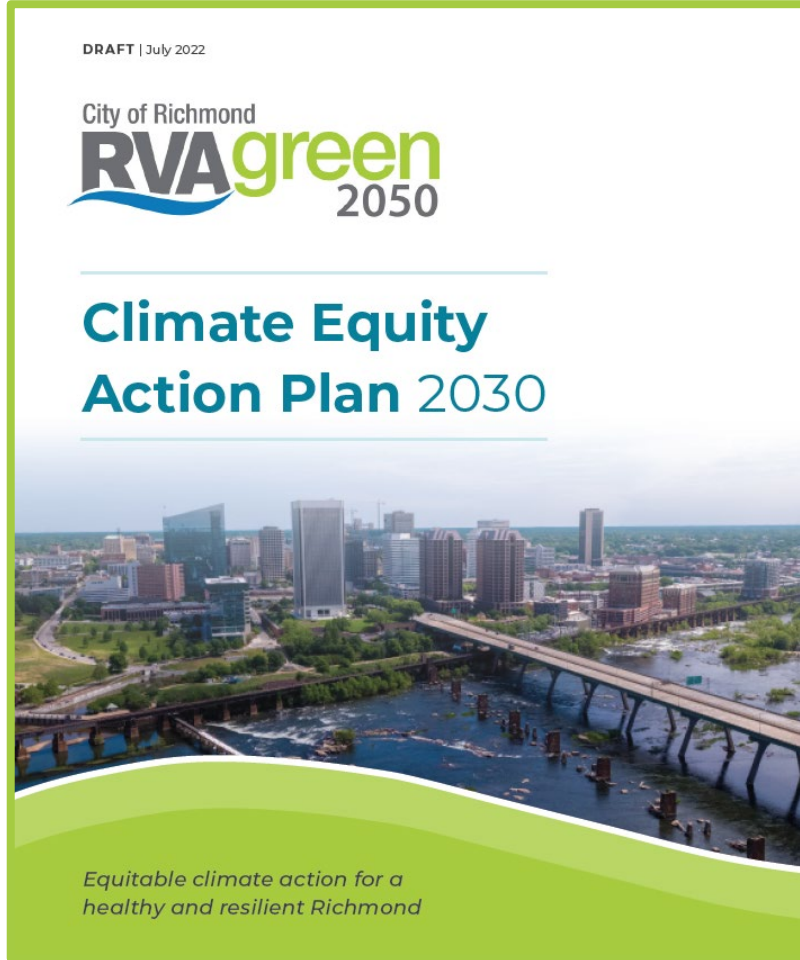


Figure 3.6. Social Vulnerability to Climate Change (RVAgreen 2050 Climate Equity Index, 2019)

RVAgreen Adoption



1 Vision: all Richmonders, regardless of their identity or neighborhood, thrive in a climate-resilient and climate neutral community

2 Goals: 45% reduction in GHG emissions by 2030 and net zero by 2050; Prepare for, adapt, and improve the community's resilience to local climate impacts



» Buildings & Energy -



» Environment -



» Transportation & Mobility -

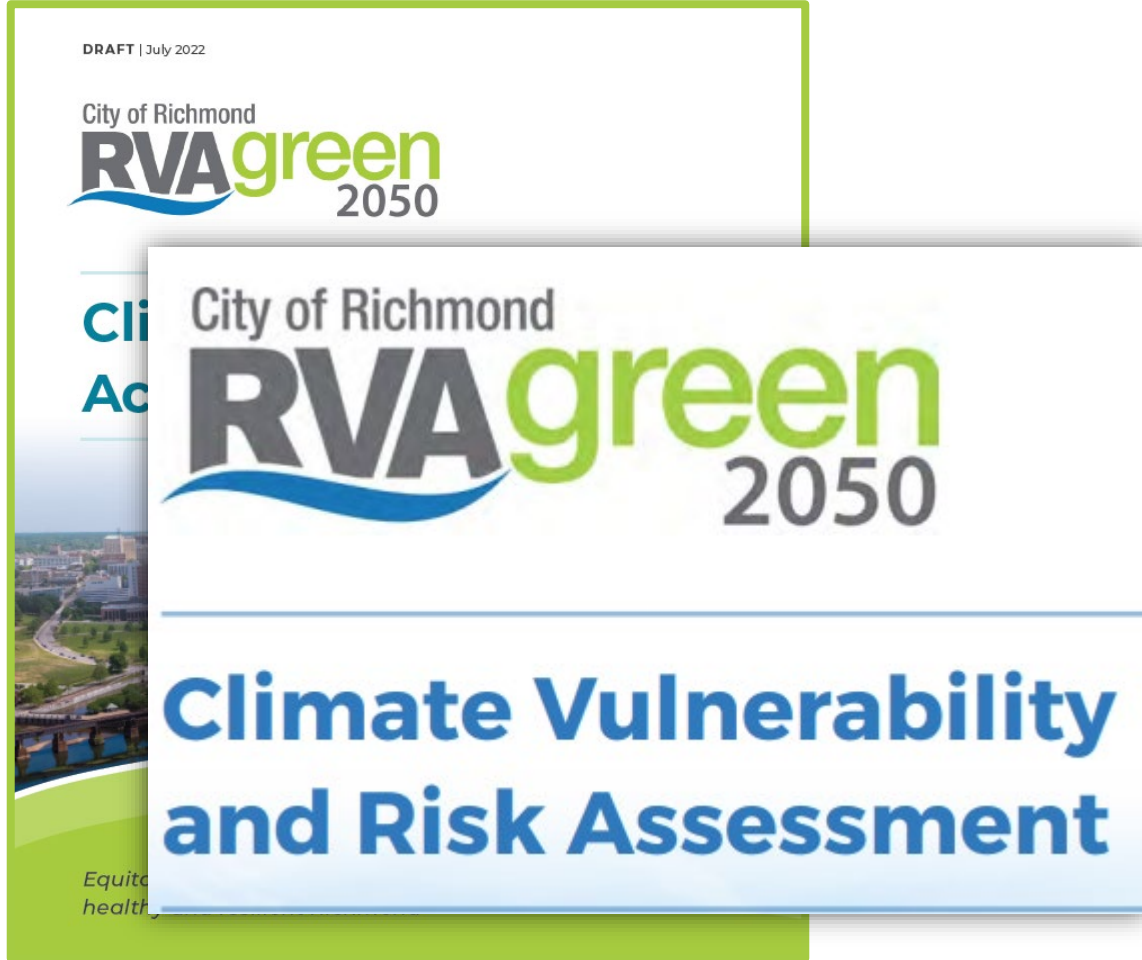


» Community -



» Waste Reduction & Recovery -

Climate Vulnerability Assessment



How vulnerable are our assets to climate change?

What is the impact?

Climate Vulnerability Assessment



Public Housing

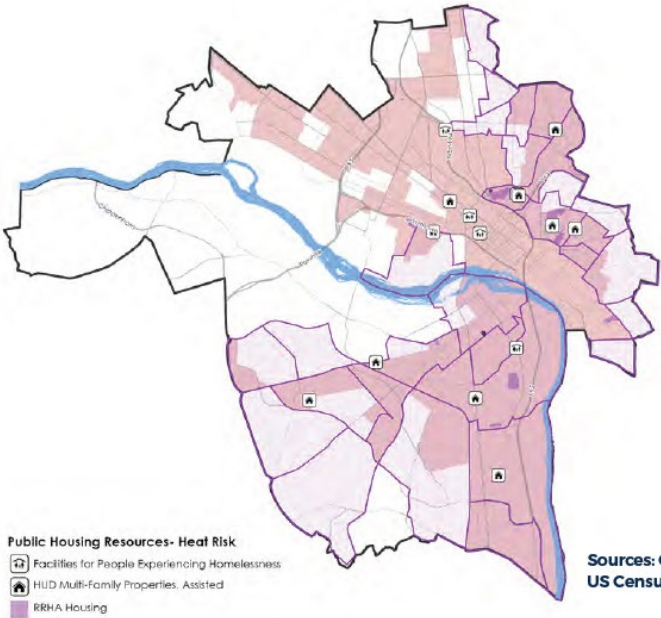
Those living in public housing are among Richmond's most vulnerable populations. These communities often have lower average incomes, more limited resources, and experience more chronic stressors such as poor housing conditions, crime, and health conditions. Climate impacts intersect with existing social, health, and economic vulnerabilities for these residents.

Built Assets Vulnerability and Risk



Built Assets at Risk

| Public Housing Resources | Heat Risk | Flood Risk |
|----------------------------|-----------|------------|
| HUD Multifamily Properties | 13 | 2 |
| RRHA Housing | 36 | 42 |



Sources: City of Richmond, US Census Bureau

Climate Vulnerability Assessment Complete

Asset Class

| Asset Class | Heat Risk | Flood Risk | Consequence |
|--------------------------------------|-----------------|-----------------|-----------------|
| Communications Infrastructure | Medium | Medium | Medium |
| Community Buildings | Med-High | Med-High | Med-High High |
| Education | Medium High | Medium Med-High | Medium Med-High |
| Health and Social Services | Medium Med-High | Med-High | Med-High |
| Historic | Med-High High | Med-High High | Medium Med-High |
| Economic Development and Planning | Medium Med-High | Med-High High | Medium Med-High |
| Energy Infrastructure | Med-Low High | Low High | Low Med-High |
| Food System Assets and Resources | Med-High | Med-High | Med-High |
| Government Facilities | Med-High | Med-High | Med-High |
| Parks and Open Spaces | Med-High High | Med-High High | High |
| Public Housing Resources | High | High | High |
| Public Safety and Emergency Response | Medium Med-High | Med-High | Med-High |
| Stormwater and Sewer Infrastructure | Medium | High | High |
| Waste Management Infrastructure | Medium | Med-High High | Med-High High |
| Water Supply Infrastructure | Medium Med-High | Med-High High | High |

Asset Class

| Asset Class | Heat Risk | Flood Risk | Consequence |
|-----------------------|-----------|------------|-------------|
| Roads and Bridges | Medium | Med-High | Med-High |
| Bike/Ped | Med-High | Med-High | Med-High |
| Rail and Transit | Medium | Med-High | Med-High |
| Marine | Med-Low | Med-High | Med-High |
| Airport | Med-High | Med-High | Med-High |
| Parks and Open Spaces | Med-High | Med-High | High |
| Terrestrial Habitat | Med-High | Med-High | High |
| Trees & Vegetation | Med-High | Med-High | High |
| Water Bodies | Med-High | Med-High | High |

Climate Vulnerability Assessment Complete

Table 6.4 – Prioritized Needs – Critical Flood Risk

| Asset Category | Asset Name | Assets at Risk in Highly Socially Vulnerable Areas | Resources Serving SV Groups at Risk Outside Most SV areas | Units | Critical Flood Risk | | Districts |
|-----------------------------------|----------------------|--|---|----------|---|-------------|--|
| | | | | | Most Vulnerable Assets with exposure to Critical Flood Risk (located within or serving socially vulnerable groups) | Consequence | |
| Community Buildings | Community Centers | 2 | 0 | centers | Creighton Court Community Center; Calhoun Community Center and Playground | | 3 rd District, 7 th District, |
| | Religious Centers | 4 | 0 | Centers | Saint Kim Taegon Catholic Church; Fifth Street Baptist Church; Bethlehem Baptist Church; Grayland Baptist Church | | 6 th District, 7 th District 8 th District |
| | Voting Stations | 3 | 0 | stations | Calhoun Center; John Marshall High School; 5th Street Baptist Church | | 3 rd District, 6 th District |
| Economic Development and Planning | CARE Zones | 2 | 11 | zones | *Belt Boulevard, *Brookland Park Boulevard, *Fulton Hill, *Hull Street, *Jackson Ward, *Midlothian Turnpike, *North Avenue, *North 25th Street, *Shockoe Bottom, *Swansboro, *Upper Hull Street, Lombardy/Chamberlayne, Meadowbridge, | | 5 th District, 6 th District, 7 th District, 8 th District |
| | Community Unit Plans | 4 | 0 | plans | See map for locations | | Various |
| | Enterprise Zones | 3 | 0 | zones | III (2746.8 acre), III (47.1 acre), I (3611.2 acre) | | Various |
| Education | Childcare Centers | 4 | 0 | centers | North Richmond Branch YMCA; Fairfield Elementary School; Oak Grove Child Care Center; Bethlehem Baptist Church Child Development Center | | 3 rd District, 7 th District, 8 th District |
| | K12 Public Schools | 4 | 0 | schools | Oak Grove Elementary School; John Marshall High School; REAL School; Thomas H Henderson Middle School | | 3 rd District, 6 th District, |
| | Private Schools | 1 | 0 | schools | Geara Group/Educational Developmental Center | | 6 th District |

Climate Vulnerability Assessment Complete

Table 6.2 Prioritized Needs - Critical Heat Risk

| Asset Category | Asset Name | Assets at Highest Heat Risk in Most Socially Vulnerable Areas | Assets Serving SV Groups at Highest Heat Risk Outside Most SV Areas | Units | Critical Heat Risk - Afternoon Mean High Temp >96* | | District |
|-----------------------------------|--------------------------------------|---|---|------------|--|-------------|--|
| | | | | | Assets/locations exposed to Critical Heat Risk (Above 96*) | Consequence | |
| Education | Childcare Centers | 1 | 0 | centers | Oak Grove Child Care Center - 2200 Fairfax Avenue Richmond VA 23224 | | 8 th District |
| Health and Social Services | Dialysis Clinics | 0 | 1 | clinics | *DaVita Richmond Community Dialysis - 913 North 25th Street Richmond VA 23233 | | 7 th District |
| | Homeless Facilities | 1 | 1 | facilities | Caritas - 1125 Commerce Road Richmond VA 23224, *Pilgrims Passage - 1500 Sherwood Road Richmond VA 23220 | | 3 rd District, 6 th District |
| | Nursing Homes | 0 | 1 | homes | *Brook Haven Rest Home - 610 Fourquarean Lane | | 6 th District |
| Historic | National Register Historic Districts | 4 | 0 | Districts | Union Hill; Southern Stove Works; Chesapeake Warehouses; Highland Park Plaza | | 3 rd District, 6 th District, 7 th District |
| | State Federal Historic Sites | 1 | 0 | sites | Southern Stove Works Manchester | | 3 rd District |
| Economic Development and Planning | CARE Zones | 1 | 2 | zones | *Lombardy/Chamberlayne, *North 25th Street, Meadowbridge | | Various |
| | Enterprise Zones | 2 | 0 | zones | III (2746.8 acre), I(3611.2 acre) | | Various |

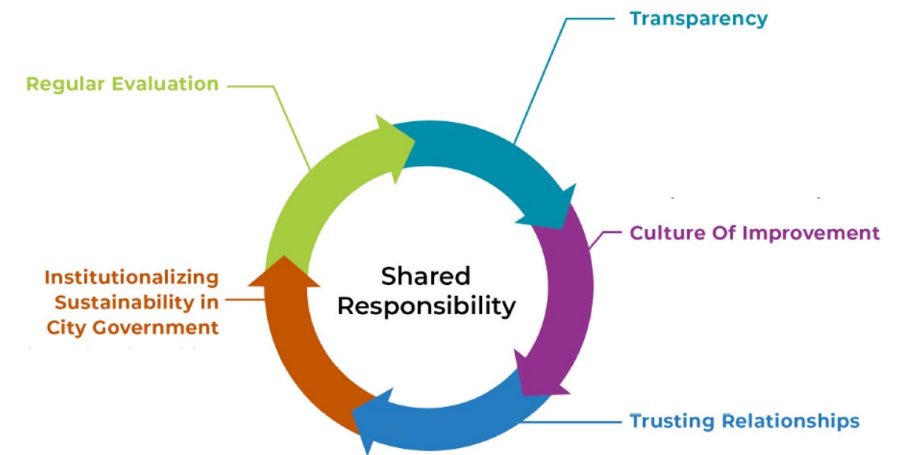
RGGI- Regional Greenhouse Gas Initiative

- Clean Energy & Community Flood Preparedness Act of 2020
- RGGI established the Community Flood Preparedness Fund (CFPF)
- Richmond has received \$8.7M
 - McGuire & Chapel Drive Drainage
 - Floodwall Digital Baseline
 - Staff planning & capacity building
 - Windsor Farms resilience plan
 - Mayo Island Acquisition



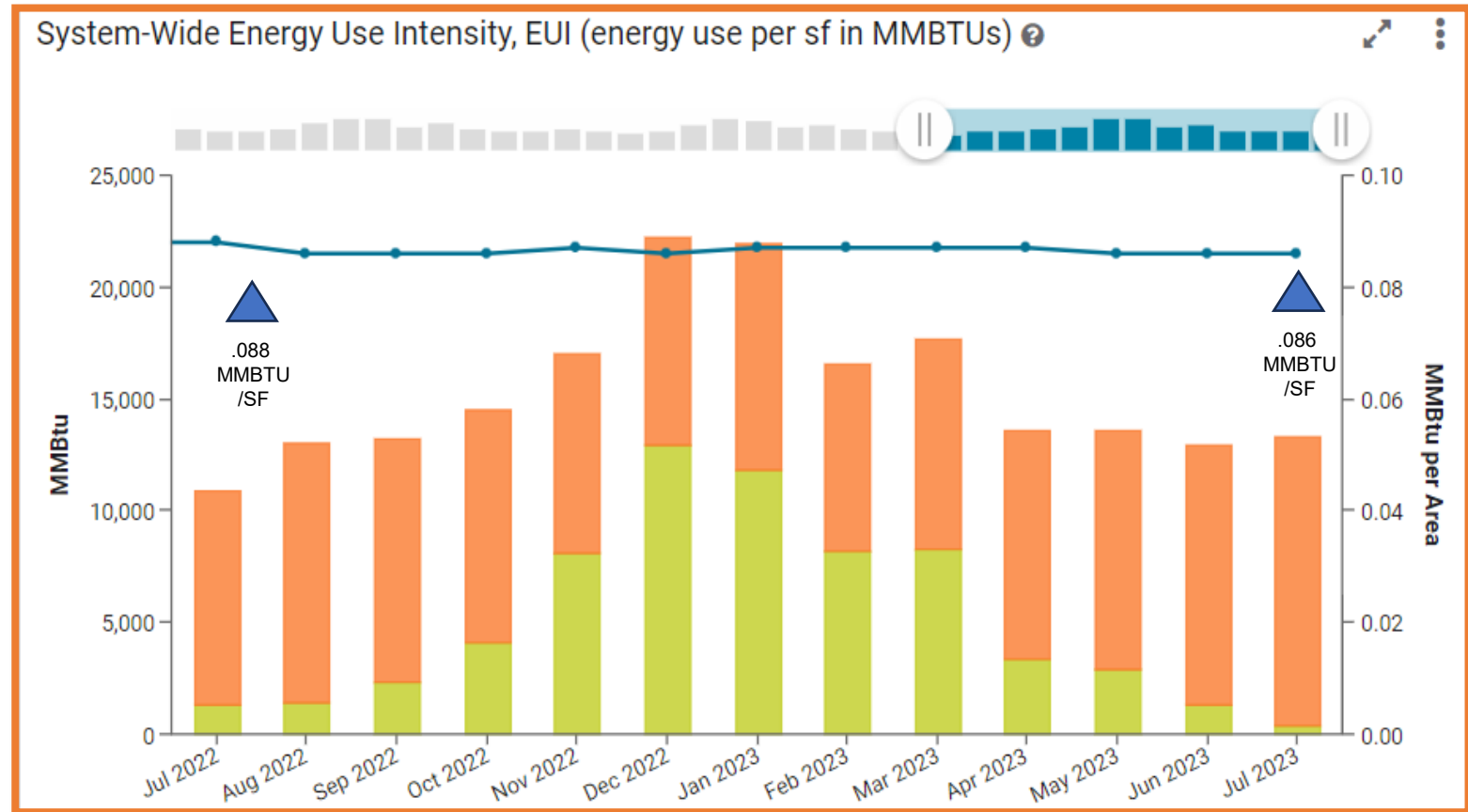
Energy Program Creation

- Mayor's 2023 50% Renewable Energy Goal
- Joint Energy Committee (JEC)
- Automated Utility Tracking
 - Dominion Key Account Portal
 - EnergyCAP Database
- EECBG | Household Energy Burden Relief



Energy Program Progress & Reporting

- Carbon footprint from municipal energy usage down 7.6% (2021 to 2022)
- 10 electric vehicles purchased
- Energy Expenditures:
\$22,695,857
Electricity- \$16,717,229
Natural Gas- \$2,215,323
Fleet Fuel- \$3,763,304
- Energy Cost Avoidance Year 1:
\$168,326



Community Engagement

- Neighborhood Climate Resilience Grant Program (ARPA) \$865,000
- Oakgrove/Bellemeade SAP
- Over 200 ongoing individual community-member connections
- 40+ participants in the Federal Climate Funding sessions



Grants – Federal Climate Funding Convening

- First-in-the-nation model (CBOs, quasi/gov't) for Federal Funds
- OOS supporting \$14,341,231.04 in applications (Federal, State, other)
 - ARPA, EECBG, Urban Forestry, etc.
 - Active: \$8,140,000
 - Anticipated FY24 applications: \$7,000,000-\$15,000,000+
- More announcements to come!



Other Successes

- The New OOS!
- 12% RVAgreen 2050 Actions Completed
- VCAP- DPU/Green City Commission
- C-PACE
- Urban Forester | Climate & Sustainability Grant Writer
- Started first GHG Inventory since 2018



FY24 Focus Areas

- Federal Grants, cont'd
- Data Informed Program and Policy Delivery
- Community-Built Neighborhood Climate Tour
- “Get on the Bus” Campaign
- Sustainability Guide for Residents
- Energy Efficiency and Renewables Installation (Direct Pay)
- Support Redevelopment Projects, Small Area Plans, etc.
- Greenspace Support (UFMP, Parks MP, etc.)
- EECBG | \$265,000 Energy Efficiency in Low-Income Homes
- IRA Developer Forum – Nov 8th @ 4pm (Main St. Station)

Thank You

Questions?

Join us! September 27th at 4pm



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