RVAgreen 2050 Waste Reduction & Recovery Working Group 02/25/2021

NAME OF TAXABLE PARTY.

#### **Drafting Strategies**

## City of Richmond RVA9 reen 2050

Equitable climate action for a healthy and resilient Richmond

## Agenda

- Settling in and ground rules
- Review: RVAgreen 2050 structure
- Waste Reduction & Recovery strategy inputs
- Activity: Drafting strategies
- Wrap-up and next steps

# **Today's Objectives**

- Understand the various inputs (tools, technical resources, existing plans, etc.) for RVAgreen 2050
- Draft equitable climate action and resilience strategies!

## Ground Rules / Group Expectations



## **RVAgreen 2050 DRAFT Structure**

Goals	What is the purpose of RVAgreen 2050?		
Vision	What does the ideal future look like when RVAgreen 2050 is implemented?		
Community Priorities	What cross-cutting public values do we want to center in our plan?		
Pathways	What leverage points will lead us towards realizing and operationalizing the goals and community priorities?		
Objectives	What are the long-term aims we want to accomplish, organized into the different pathways?		
Strategies	What are the SMARTIE actions that will lead us toward our objectives?		
Implementation Plans	How are we going to implement, measure progress, and ensure accountability in this plan?		

## Goals

#### **Climate Action**

Achieve a 45% reduction in greenhouse gas emissions by 2030 from the 2008 baseline

Achieve net zero greenhouse gas emissions by 2050

#### **Climate Resilience**

Prepare for, adapt, and improve the City of Richmond's resilience to the local impacts of climate change



## Vision

All Richmonders, regardless of their identity or neighborhood, thrive in a climate-resilient and climate-neutral community.

Supporting Principles:

- Community and personal **well-being**, **local ecosystems**, **and economic vitality** are balanced in a truly sustainable Richmond.
- Everyone has equitable access across the entire city to resources that are clean, sustainable, and affordable, including air, water, food, energy, housing, transportation, economic opportunities, and natural resources.
- **Everyone has the ability and resources to take ownership** of equitable climate action and community resilience planning and implementation.
- "Identity" includes but is not limited to: race, ethnicity, age, ability, gender, sexual orientation, and religion. **We lead with race** in our work to transform systems impacting all historically disenfranchised communities.

Goals		
Vision		
Community Priorities		
Pathways		
Objectives		
Strategies		
Implementation		

Plans

## **Community Priorities**



Community Priorities

Goals

Vision

Pathways

**Objectives** 

**Strategies** 

Implementation Plans

## **Revised Pathways**

Buildings & Energy	Accelerate the equitable transition to healthy, resilient, climate neutral buildings and energy sources			
Waste Reduction & Recovery	Fostering sustainable methods of waste reduction - wasting less, reusing more toward a zero waste community			
Transportation & Mobility	Accelerate the transition for all to clean and equitable mobility systems			
Environment	Invest in resilient, healthy, and equitably distributed natural resources throughout the community to support biodiversity and human well-being			
Community Create an equitable and resilient Richmond that hon community priorities				

Goals Vision Community **Priorities** Pathways **Objectives Strategies** Implementation Plans

## **Revised Objectives**

What are the long-term aims we want to accomplish, organized into the different pathways?

Objective 1: Model zero waste through municipal operations

Objective 2: Reduce commercial waste

Objective 3: Reduce residential waste

Objective 4: Reduce industrial waste



## **RVAgreen 2050 Inputs Overview**



Vision Community **Priorities Pathways Objectives Strategies** Implementation Plans

Goals

## **Drafting Process - Strategies**



#### **Technical Information**

Climate and Energy Modeling Climate Vulnerability & Risk Assessment Policy Inputs

RVAgreen 2050 Community Priorities Greenlink Policy Toolkit Examples from other cities

Today's activity

#### <u>Starting Point for</u> <u>Strategies</u> Richmond 300 Master Plan Your ideas from last time

#### Your task today: drafting strategies

Preliminary checklist for strategies:

- Does it reduce greenhouse gas emissions or increase resilience to climate change?
- Is it equitable? (we will dive deeper into the equity tool at the next meeting)

Goals

Vision

Community Priorities

Pathways

**Objectives** 

Strategies

#### Implementation Plans

## Waste Reduction & Recovery Input: Climate & Energy Modeling

#### Current greenhouse gas emissions







## Waste Reduction & Recovery Input: Climate & Energy Modeling



#### Max scenario: CO2 emissions trajectory if we take ambitious action



Emissions after Policies

## Waste Reduction & Recovery Input: Climate & Energy Modeling

# Potential to Cut Landfill Waste by more than 70%

G greenlink



#### Waste Reduction & Recovery Input: Climate & Energy Modeling Co-benefits of taking ambitious action





#### Waste Input: Climate Vulnerability & Risk Assessment

#### Sensitivity

How much would assets/systems be affected?

#### **Adaptive Capacity**

Can the assets/systems "bounce back" on their own?

#### Consequence

- People, esp. those most vulnerable
- Literal costs
- Public safety services
- Economic activities
- Public health
- Natural environment

**Probability** What assets/systems are actually in harm's way? Your input from the meeting

Detailed analysis of climate data

# Relative vulnerability of assets/systems:

- General Solid Waste
   Management System
- Transfer Stations
- Solid Waste Landfill Facilities
- EPA Emergency Response Facilities (4 types)

#### Waste Input: Climate Vulnerability & Risk Assessment

Asset/System	Heat Threats Priority	Water Threats Priority
Transfer Stations	4	1
Composting	1	2
Municipal solid waste	2	3
Recycling	3	4
Solid Waste Landfill Facilities	5	5
EPA Emergency Response - Risk Management Plan Facilities	8	6
EPA Emergency Response - Toxic Substances Control Act Facilities	9	7
EPA Emergency Response - Toxic Release Inventory Facilities	7	8
EPA Emergency Response - Facility Response Plan Facilities	6	9

Specific feedback:

- General Solid Waste Management System: Heat and flooding are both threats for system operations and community health impacts.
- Transfer Stations: Located in high heat and potential flood zones; flooding is a more significant threat.
- Solid Waste Landfill Facilities: Closed landfill within floodplain, low threat to assets in use.
- **EPA Emergency Response Facilities (4 types):** Many EPA regulated sites within floodplain or upstream. Environmental and drinking water hazard.

## Waste Input: Community Priorities



Racial Equity & Environmental Justice

Engagement & Communications

Government Accountability



Community Wealth



Housing & Buildings



Neighborhoods



Health & Well-Being

## Waste Input: Greenlink Policy Toolkit

Optimize trash and recycling receptacle size
Mandate Commercial & Multifamily Recycling
Recycling & Site Plan Approval
Construction & Demolition Waste Recycling
Municipal collection of food and yard waste for residential homes
Mandate Commercial & Multifamily Food Waste Composting
Implement Unit-Based Pricing for waste collection
Optimize industrial waste through by-product synergy
Landfill Gas Energy Use

Richmond Strategies for Net Zero Emissions

G greenlink

## Waste Input: Examples from other cities

	Chicago	Incentivize deconstruction (taking buildings apart and reuse/recycle remaining parts) over recycling in permitting
	Boston	Reduce problem products and packaging; divert more reusable goods
CLIMATE ACTION & OF A CONTRACT	New York	Transform Don't Trash NYC as a campaign to transform the commercial waste industry and create good jobs and clean, safe communities
	Portland	Continue to support development of local and regional biogas resources, including anaerobic digestion of food scraps, while minimizing disproportionate impacts on low-income populations and communities of color
Charling a Course 10 Worthin and Acad Shortheas Charling a Course 10 Worthin and Acad Shortheas Charling a Course 10 SA CLIMATE READY: MARGING A COURSE	Providence	Highlight and celebrate local businesses who are composting, recycling, and incorporating other sustainable actions throughout their business operations; explore different types of recognition models/awards programs for maximum incentivization
	San Antonio	Accelerate the diversion of organics from landfills to the highest and best use opportunities and ensure low-carbon composting solutions
	San Francisco	Residents offered support, tools, and education with recycling and composting mandates

## Waste Input: Richmond 300 Master Plan

# Richmond 300 Goals & Objectives - starting point for drafting strategies

- Require new construction projects to provide areas for dumpsters, recycling , and composting
- Advocate in the General Assembly for enabling legislation allowing cities to ban or tax plastic bags, single-use plastics, balloons, and styrofoam
- Lobby the General Assembly to encourage bottle deposit to decrease litter, especially near the river
- Expand the City's Adopt-a-Street Program to include waterways, greenways, and bike lanes.
- Develop a comprehensive 'green business' program, similar to that of Montgomery County, Maryland or the Loudoun County, Virginia Green Business Challenge
- Reduce litter in the city, by encouraging more trash/receptacles and more frequent cleaning/ management of areas with a lot of litter, so the litter does not flow into city waterways

#### **RICHMOND 300** A Guide for Growth



## **Drafting Process - Strategies**

Waste Reduction & Recovery Inputs

#### **Technical Information**

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Today's activity

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Your ideas from last time

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## **RVAgreen 2050 Nexus**

vehicles



Risk

## Activity

- Divide into 4 breakout rooms
- Facilitators will switch between rooms to guide discussion on strategies within one of the draft objectives
  - Objective 1: Model zero waste through municipal operations
  - Objective 2 : Reduce commercial waste
  - Objective 3 : Reduce residential waste
  - Objective 4: Reduce industrial waste
- Take 15 minutes per objective (~4-5 mins. per strategy bucket) to:
  - Refine draft objectives
  - Draft strategies

#### Strategy rules for today:

- MUST reduce GHGs
   and/or increase resilience
- MUST be equitable

If it doesn't follow the rules, don't write it down!



#### **ACTIVITY EXAMPLE**

# Objective #1: Model zero waste through municipal operations





# 5-minute break

# Go into breakout rooms!

Objective #1 - Priscilla Model zero waste through municipal operations



Objective #1: Model zero waste operations	- MUST reduce GHGs and/or increase resilience - MUST be equitable (we'll discuss in more detail next	= Richmond 300 = ideas from our last meeting	
Lead by example for citizens by having highly visible, transparent internalFrom WG: 0	n the Community Community	time) If it doesn't follow the rules, don't write it down!	We need to 'exude' a feeling of sustainability when
surrounding region by initiating programsprograms that align with the community'sgarder comp compusing our waste stream / population economies of scale to shape the mold.programs that align with the community'scomp	START AT HOME with City Agencies before moving to the public. In order to gain credibility	Are we offering incentives to reduce trash?	people walk through the door Behavior Change to lower footprint, City, asking staff to bring individual water bottle to
Procurement Policy that specifies Model a municipal composting program in all city buildings and facilities.	uce the City's urement of le-use plastics ept for uses like rgencies, etc.). Install signage in parks and other publi areas that explains	c Develop an employee recognition program (or create a new	use cooler remove plastic cups at coolers, centralized bins (no more desk-side cans), Clty commits to not buying plastic or styrofoam containers
City departments should	what the City is doing in this arena and what it is trying to achieve sustainability in eral and green 2050 cifically.	category within an existing one) to	

Objective #2 - Dawn Reduce commercial waste

#### **Objective #2: Reduce commercial waste**

Require new construction projects to provide areas for dumpsters, recycling, and composting

Develop and implement a multi-family and commercial recycling program

Space is a major problem with multi-family recycling infrastructure

funding from the resident so should be subsidized

Create incentives for construction and demolition material Lobby the General Assembly to encourage bottle deposit to decrease litter, especially near the river

Advocate in the General Assembly for enabling legislation allowing cities to ban or tax plastic bags, single-use plastics, balloons, and styrofoam

Develop a comprehensive 'green business' program, similar to that of Montgomery County, Maryland or the Loudoun County, Virginia Green Business Challenge te Work with commerce to reduce organic waste.

Engage corporate

stores)

Encourage

restaurants.

Alliance 🔀

partners (e.g. grocery

attractions. breweries

and hotels to join the

Virginia Green Travel

Lobby for legislation

that promotes a

circular economy.

Speaks to broader

context of city as a

whole.

Where are the

funding streams

we can't expect

the convincing

argument /

coming from because

businesses to do this

on good faith- what is

Work with businesses on packaging

Education campaign for citizens, businesses, and institutions to inform how to reduce upstream emissions.

Consider waste from commercial landscapers

Educate owners about how to reduce their waste costs to balance their investments in reducing their waste. - MUST be equitable (we'll discuss in more detail next time) If it doesn't follow the rules, don't write it down! Identify opportunities for a circular economy: local currency, repair workshops, bartering locally

Strategy rules:

- MUST reduce GHGs

and/or increase resilience

Align incentives with effective organic waste reduction.

Encourage businesses to join the state's Virginia Environmental Excellence Program Sustainability Partners track.

Include a diversity of tactics

Who is going to pay for it/ is "reduce organic waste" a demand on the public or on industry?

= Richmond 300

= ideas from our

last meetina

= your new

ideas!

Reduce Consumption and Minimize Waste with specific strategies targeted to specific groups.

Manufacturers should look at the 'repairability' of their products to reduce waste (France)



Objective #3 - Jason Reduce residential waste

<b>Objective #3: Reduce resid</b> Expand the City's Adopt-a-Street Program to include waterways, greenways, and bike	Education campaign for citizens, businesses, and institutions to inform how to reduce upstream emissions	Provide drop off composting facilities / options. * Reduce barrier in regulation/ new standards based on reason	Strategy rules: - MUST reduce GHGs and/or increase resilience - MUST be equitable (we'll discuss in more detail next time) If it doesn't follow the rules, don't write it down!	<ul> <li>= Richmond 300</li> <li>= ideas from our last meeting</li> <li>= your new ideas!</li> </ul>
lanes.       residents; Implement         Create pay as you       formal backyard and         Create pay as you       community         throw program       programs.         Increase citywide       *INCENTIVES*         Increase citywide       communication	Does this apply to things like "spending habits". e:education Educate citizens or the consequences of not reducing waste (i.e. getting to the top of watershed/root and	Align incentives with effective organic waste reductive Consider strategies that promote sustainable packaging as less	Support improved recycling systems- develop multiple ways to handle (not just the one way we currently handle it)	From the community WG: Prioritize the reduction of construction waste
composting by coordinating with private composting companies Re: PAYT - "Pay as you throw" sometimes runs into resistance due to messaging that people end up paying more; it doesn't	working our way down). K12 is key. Consider accountability Six pack rings/ we have the most breweries/ create national	expensive; reduction of solid waste needs to be affordable Biochar?!	From the community WG: Incorporate education and incentivizing language into these objectives	Amending compost comment: have a municipal/ city-run compositing entity (not just private contracts) to ensure equitable access and reduce cost to individual
have to be that way	standard. Encourage/ require the use of biodegradable six-pack rings.	***		



**Determine strategies** to reduce solid waste generation.

Define solid waste because the average citizen does know what that term includes

Start neighborhood composting sites (e.g. small neighborhood pilot project)

From community WG: How accessible is the waste infrastructure

All services need to be offered in all zip codes.

Construction standards; biochar

Identify all potential recycling strategies

From the community WG: Look to facebook groups like 'buy nothing' and 'freecycle' to show how we can reduce consumption and get behind community programs that already exist to reduce waste

From community WG: How can we focus on 'REDUCE' before other strategies

Objective #4 - Wendy Reduce industrial waste



#### Objective #4: Reduce industrial waste

From the community WG: Focus on the schools because the education starts there (prioritize the education of the K-5 to see what trash looks like at the landfill and really harp on waste and where it goes; let RPS be the significant partner in this and build it into the curriculum)

Require/incentivize facilities to do annual waste audits (you can't reduce what you don't measure). From Community WG: Create an infographic over time that shows year over year 'Richmond is sending x fewer tons of waste to the landfill' or 'we have slowed the filling of the landfill from x to x year over year' to show progress

Encourage/incentivize facilities to join the Virginia Environmental Excellence Program, which requires facilities to develop environmental management systems, which would require tracking of waste (as well as energy, water, etc.).. From the community WH: Can the city provide incentives for apartments or other housing situations that don't provide opportunities for recycling?

Develop an awards program that rewards facilities that achieve the largest waste reductions. Perhaps tie into the BVAgreen 2050 branding.

Develop a mentoring program and ing the city's industrial sector because there are definitely some leade here who could help others reduce their footprints and probably save \$.





Strategies that may not fit in these objectives

# Strategies that may not fit within the current draft objectives

#### Strategy rules:

- MUST reduce GHGs and/or increase resilience - MUST be equitable (we'll discuss in more detail next time)

If it doesn't follow the rules, don't write it down!



# Exit breakout rooms

## Wrap-up and next steps

• Homework: Continue adding ideas to these slides until March 1st

• Next meeting: Thursday, March 4, 9:00 - 11:00

- NOW:
  - Fill out feedback survey
  - Share updates, upcoming events, and resources in the chat

## Waste Input: Community Priorities



Waste, Neighborhoods, and Health

Richmonders want to live in safe and beautiful neighborhoods

- Concerns include litter, beautification, and health, among others
- **Race** is the most significant predictor of whether a person lives near contaminated air, water, and soil
- Many renter households do
   not have access to curbside
   recycling

Requests for illegal dumping investigation (last year) RVA311



Proportion of renter households by race and ethnicity (2019)

