



SDOT Climate Change Response Framework

Seattle Planning Commission
November 9, 2023

SDOT's Climate Change Response Framework

- Context setting: the opportunity
- Centering community benefits
- CCRF solutions
- Implementing the CCRF



Seattle Department of Transportation

Climate Change Response Framework

2023



Seattle
Department of
Transportation

1. Context Setting and The Opportunity



Context on our Climate Response

Mayor Harrell Signs \$6.5 Million in 2022 Green New Deal Opportunity Fund



WA HB 1181 analysis:
"A focus on vehicle miles of travel (VMT) reduction is necessary even if the state can achieve a rapid transition to an all-electric fleet..."



EQUITY & ENVIRONMENT AGENDA



December 2022 Executive Order (2022-07)

"One Seattle Climate Justice Actions to Reduce Emissions from the Transportation Sector"



Climate Work as Equity Work

ONE SEATTLE CLIMATE JUSTICE AGENDA

Equitable Clean Energy Economy

Just Transition Away From Fossil Fuels

Healthy, Resilient Communities

Building on what we know works to accelerate investments and prioritize actions that achieve Climate Justice.

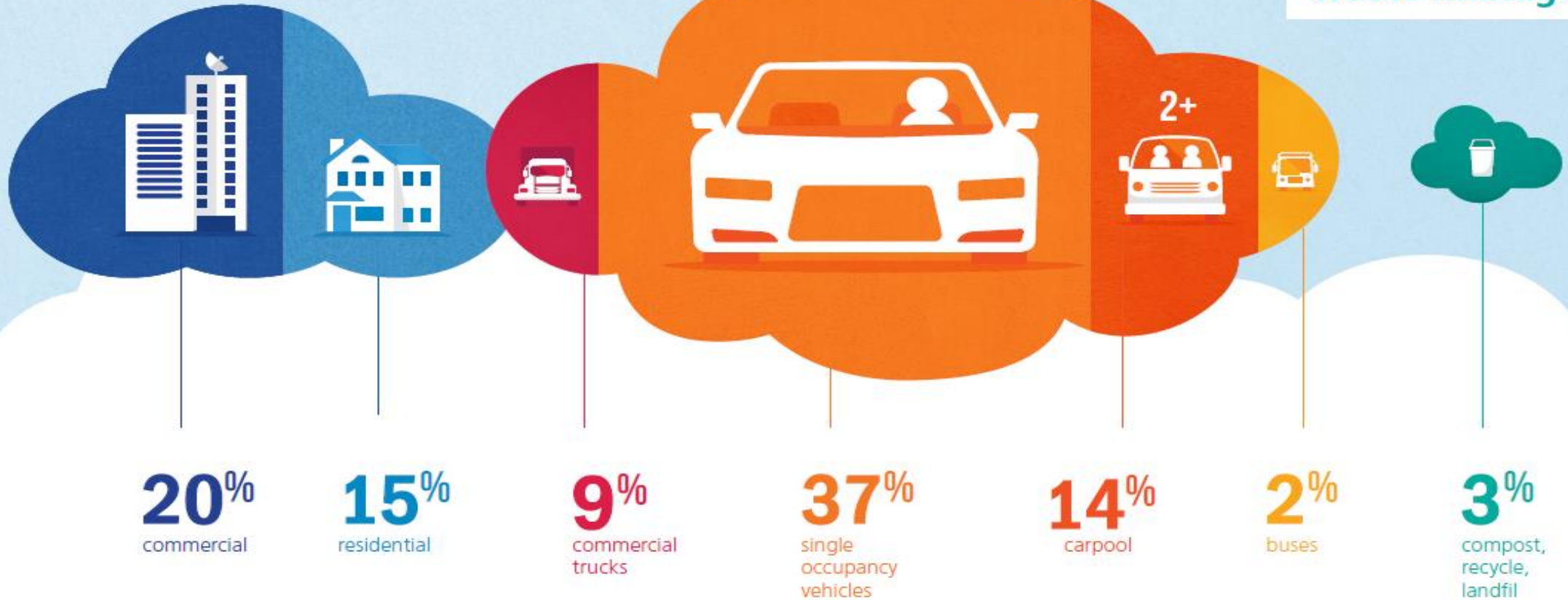


Seattle Core Emissions Sources

road transportation

building energy

waste management



Seize the Opportunity!

Most trips within Seattle are relatively short, but we rely on cars for a large share of these short trips.



The average trip within Seattle is **2.2 miles**.



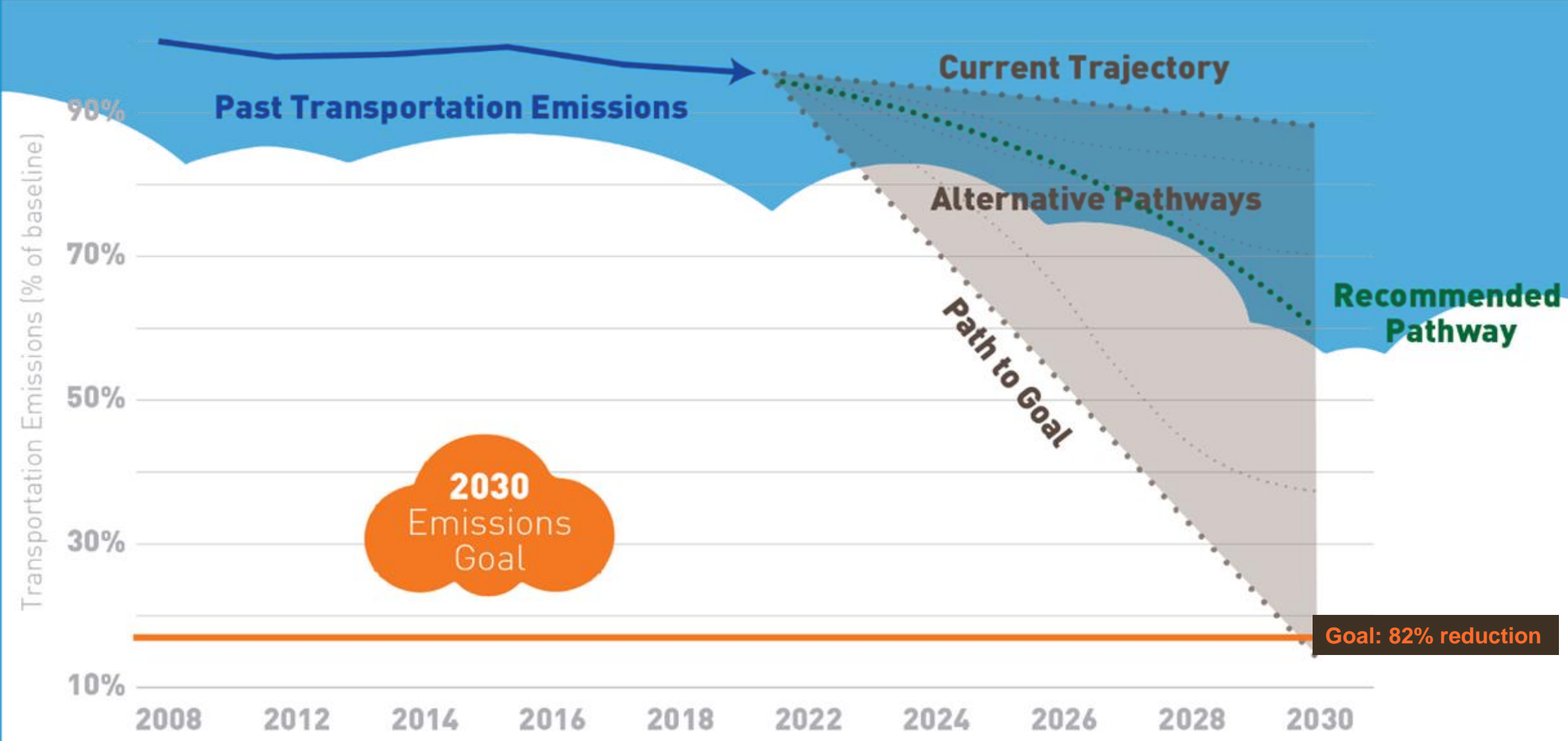
41% of trips in Seattle are less than 1 mile.

73% of trips in Seattle are less than 3 miles.



2 out of 3 car trips within Seattle are less than 3 miles.

Bending the Emissions Curve



2. Centering Community Benefits

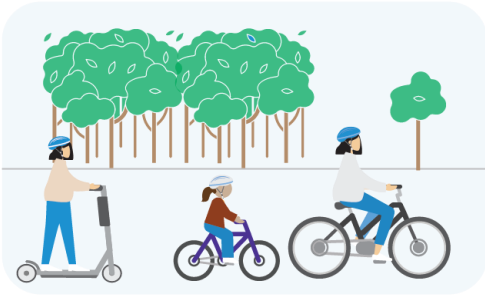


CCRF Aligns with SDOT's Core Values

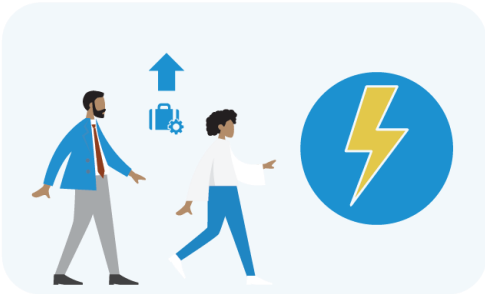
- Safety
- Equity
- Sustainability
- Mobility
- Livability
- Excellence



CCRF Highlights Community Benefits of Climate Response



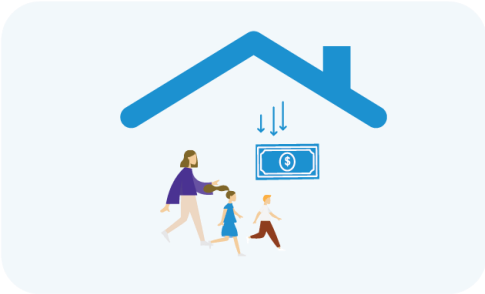
Clean Air



Economic Revitalization



Safety



Household Savings



Health

CCRF Co-Benefits

For each \$1 invested

\$8 - 10 in co-benefits



Safety - Less driving and safer streets lead to fewer crashes, injuries, and deaths.



Health - Shifts to walking, biking, and active modes enable increased physical activity and health savings. Reductions in driving and increasing electrification reduce harmful air pollution.



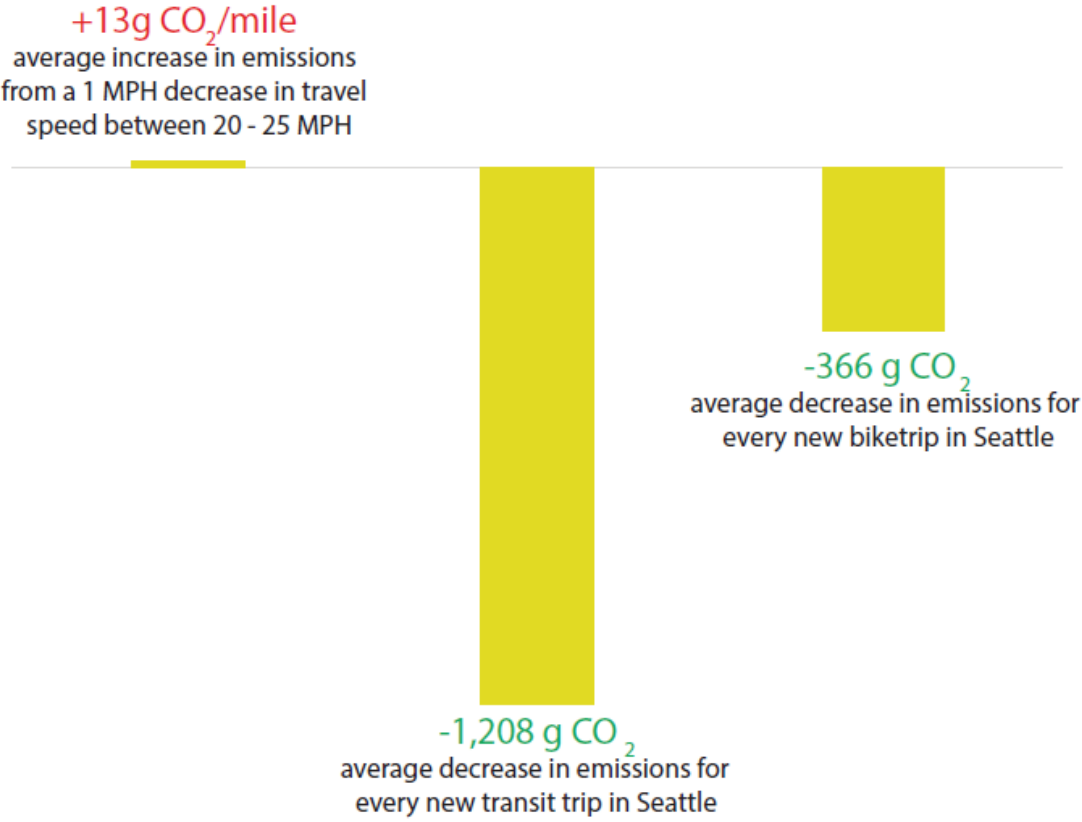
Neighborhood Economic Benefits - By driving less, households reduce their transportation costs and have more money to support local businesses and economies. Investments in walking, biking, and transit increase foot traffic and street-level activity.

Co-benefits are based on the estimated reduction in vehicle miles traveled from CCRF strategies and quantified using the United States Department of Transportation's Benefit-Cost Analysis Guidance for Discretionary Grant Programs

What About Idling Vehicles and Local Air Quality?

Marginal decreases in vehicle speeds and/or increases in congestion (e.g. vehicles idling)...

...is significantly offset by a reduction in miles driven as people switch modes because of investments in walking, biking, and transit infrastructure



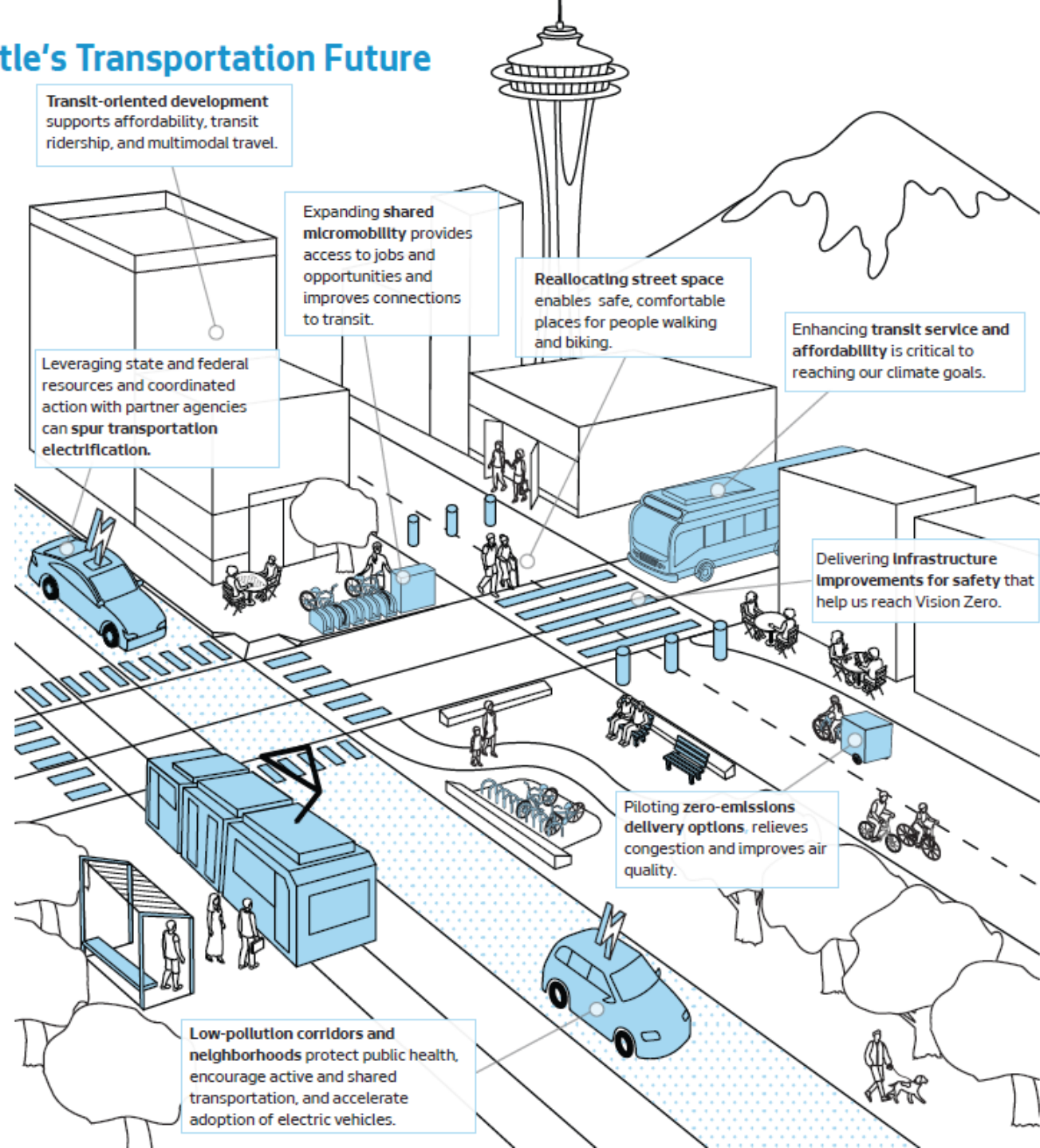
In Seattle, every new transit trip eliminates 1,208 grams of carbon dioxide on average and every new bike trip eliminates an average of 366 grams of carbon dioxide.

3. CCRF Solutions



CCRF focuses on expanding and accelerating the work we're already doing, in pursuit of a healthy, safe, and equitable future

Seattle's Transportation Future



The Solutions: 6 Strategy Categories



Create a culture of climate action and optimism



Make short trips safe, affordable, and zero-emission



Make it more convenient, reliable, and affordable to ride transit



Enable use of climate-friendly travel choices



Improve freight efficiency



Electrify Seattle

The Solutions by Category



Create a culture of climate action and optimism

- Lead by Example Through Internal Operations and Processes
- Co-create Climate Solutions and Optimistically Communicate the Benefits



Make short trips safe, affordable, and zero emission

- Explore Launching an E-Bike Rebate Program
- Implement Low-Pollution Neighborhoods
- Accelerate Pedestrian, Bike, and E-Mobility Network Implementation
- Expand and Reduce the Cost of Shared Micromobility
- Expand the Bike and Micromobility Parking Program
- Launch a Community and Mobility Hubs Program



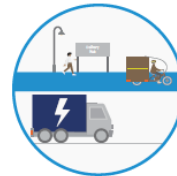
Make transit more convenient, reliable, and affordable

- Accelerate Bus-Only Lane Installations and Other Travel Time + Reliability Improvements
- Continue to Support Partners in Expansion of Link Light Rail Network
- Support Increased Transit Oriented Development (TOD) with Transit Expansion
- Continue to Fund Bus Service Increases
- Increase Reach of Reduced Transit Fare Programs



Enable use of climate-friendly travel choices

- Expand Reach of Existing Transportation Demand Management Programs
- Pursue Off-Street Parking Pricing and Usage Reforms
- Support the State and Region in Advancing Mobility Management Strategies
- Explore Launching a Mobility Wallet Program
- Implement On-Street Parking Reforms
- Pursue Reforms to Limit Off-Street Parking Supply in New Development



Improve freight efficiency

- Enable More Right-Sized, Zero-Emission Urban Delivery Vehicles
- Implement Commercial Vehicle Permitting and Delivery Fees
- Increase the Number of Commercial Vehicle Loading Zones



Electrify Seattle

- Support Electrification of Personal Vehicles
- Support Electrification of Freight Vehicles
- Support Electrification of Shared Mobility Vehicles
- Support the Transition to Zero-Emissions Transit
- Electrify the City Fleet

Each solution has a summary sheet in CCRF with short description, relative cost and impact on GHG reduction, potential lead(s) and partner(s), and notable community benefits

Example CCRF Summary Sheet: Bus-Only Lanes



Accelerate Bus-Only Lane Installations and Other Travel Time + Reliability Improvements

Seattle works closely with King County Metro and other transit partners to improve travel time and reliability through projects such as bus-only lanes, transit signal priority, boarding enhancements, and streamlining fare payment. These are proven tools to improve bus riders' experiences and attract new riders. Some of these tools, particularly bus-only lanes, require reallocating street space, often away from general purpose traffic or on-street parking and toward our most efficient means of transportation. We will target an expansion of bus-only lanes and other tools, focusing on high ridership routes and routes serving historically underinvested areas of Seattle. Other travel time and reliability improvements will be implemented on many remaining routes.

New or Expanded Program



Expanded

GHG Reduction



High

Strategy Lead and Partners

- Lead: SDOT + KCM

Cost



High

Legislation Needed

No

Downtown Benefits



High

Neighborhood Benefits



High

Community Benefits



Climate Justice



Safer Streets



Healthier Communities



Thriving Economy

Example CCRF Summary Sheet: Supporting Freight Electrification

Support Electrification of Freight Vehicles

As the largest city in the most trade-dependent state, Seattle has long recognized the importance of freight and urban goods movement. The Port of Seattle and the freight community are taking many positive steps to electrify and reduce emissions, for example through electrification of drayage trucks and programs to position their workforce for this transition. With the increased volume of goods movement due to post-pandemic consumer preferences and a growing regional population, it is important to accelerate a transition to reduce emissions and detrimental impacts to public health. Freight electrification incentives and strong partnerships can encourage the transition of private fleets to EVs and support market transformation in freight and goods movement.



New or Expanded Program

Not Applicable to SDOT

GHG Reduction



High

Strategy Lead and Partners

- Lead: SCL + OSE
- Partners: Port of Seattle, NW Seaport Alliance, SDOT, Private Sector

Cost



High

Legislation Needed

No

Community Benefits



Climate Justice



Healthier Communities

Downtown Benefits



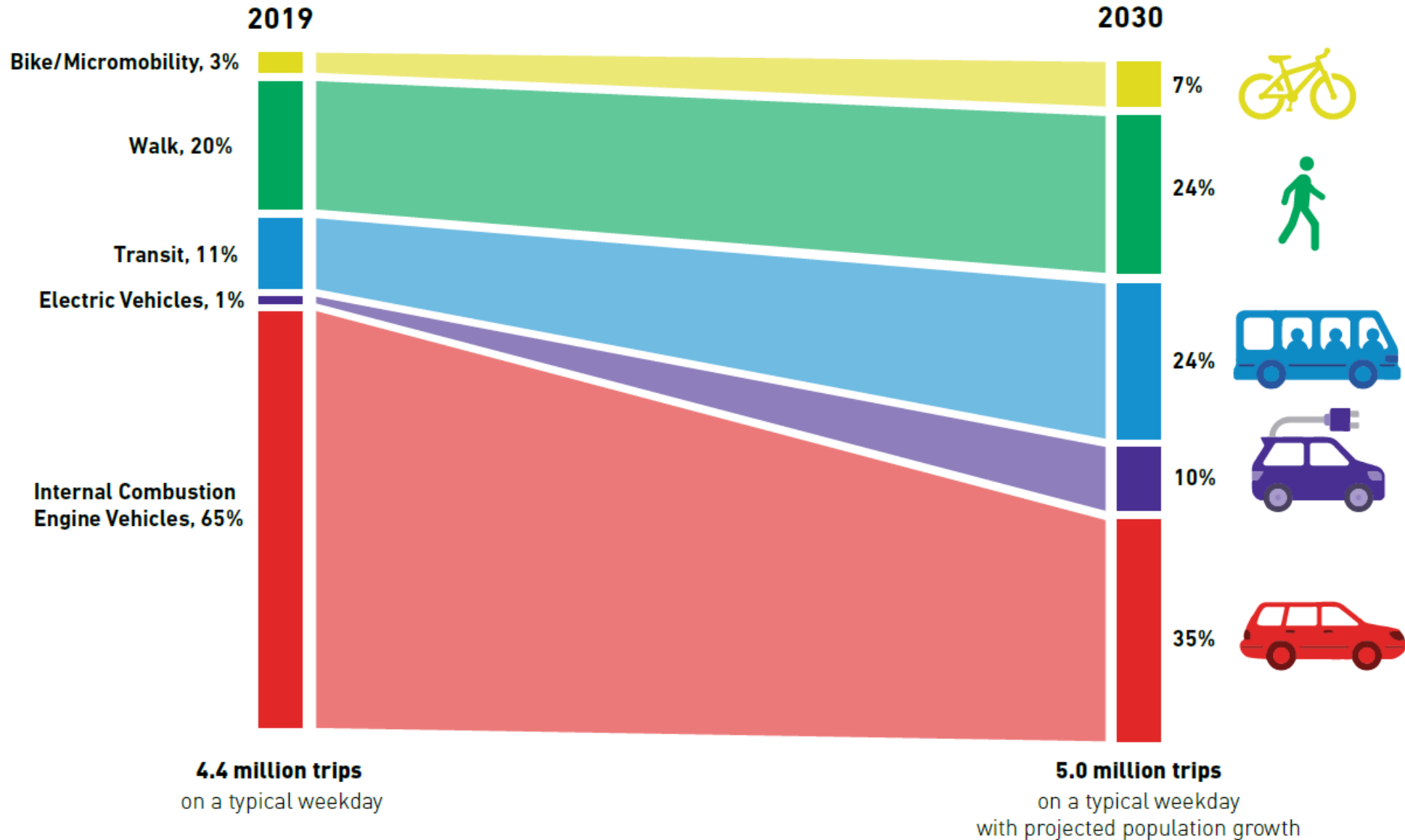
Moderate

Neighborhood Benefits



Moderate

Potential Outcomes of the CCRF



CCRF Technical Model: Where can GHG Reduction be Achieved?

Emission Reductions by Category (2030)

Implementing a range of strategies at a **level and speed well beyond current planned commitments is needed** to respond to climate change.

Electrification

TDM and
Mobility
Options

Pricing and
Curbside
Management

Land Use

Transit
Operations and
Investments

Walk and
Bike
Investments

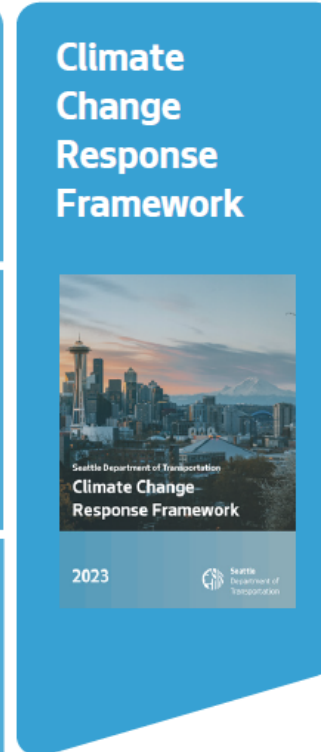
Freight

4. Implementing the CCRF



How Does the CCRF Fit In?

- Informed by our key priorities and TEF goals
- Act as “climate element” of Seattle Transportation Plan
- Inform funding approach:
 - Incorporating into STP-F process
 - Grant priorities
 - Partnerships and innovation
- Inform Comp Plan, via STP



CCRF is Reflected in the Draft STP



SUSTAINABILITY



Climate Action

Goal: Respond to climate change through innovation and a lens of climate justice

- **CA1:** Improve neighborhood air quality and health outcomes by promoting clean, sustainable travel options
- **CA2:** Green city streets with landscaping and street trees to better handle changing climate
- **CA3:** Foster neighborhood vitality and improved community health
- **CA4:** Support the transition from fossil fuel to electric vehicles for personal, commercial, and delivery trips
- **CA5:** Advance mobility management strategies to encourage walking, biking, and transit trips

CCRF Implementation Principles

- » We will lead and inspire
- » We will expand capacity to deliver climate action
- » We will expedite project delivery
- » We will advocate for necessary legislation
- » We will work to inform a funding approach
- » We will measure and report

Communicating Our Approach Publicly



*“Responding to the climate crisis requires **empathetic, innovative, and practical solutions** that we are ready to deliver”*

*“Everyone who travels in Seattle can be **climate champions**”*

*“**Take the next step with us**”*

Internal Rollout of the CCRF

- Capitalizing on release: potential for everyone to grow their work on climate solutions!
- Future deeper dives at Division staff meetings, CCRF “Labs” and continuing staff-level Climate IDT
- Forums for knowledge sharing and **development of Climate Tactics**
- Exploring [Climate Fresk](#) workshops for training on how to raise awareness, educate, and inspire
- Continue close coordination w/ Transportation Equity team

Glowing and Growing at SDOT

COMMON THEMES ACROSS CLIMATE IDT, CLIMATE ESC, AND TEW:

1. Climate communications and storytelling

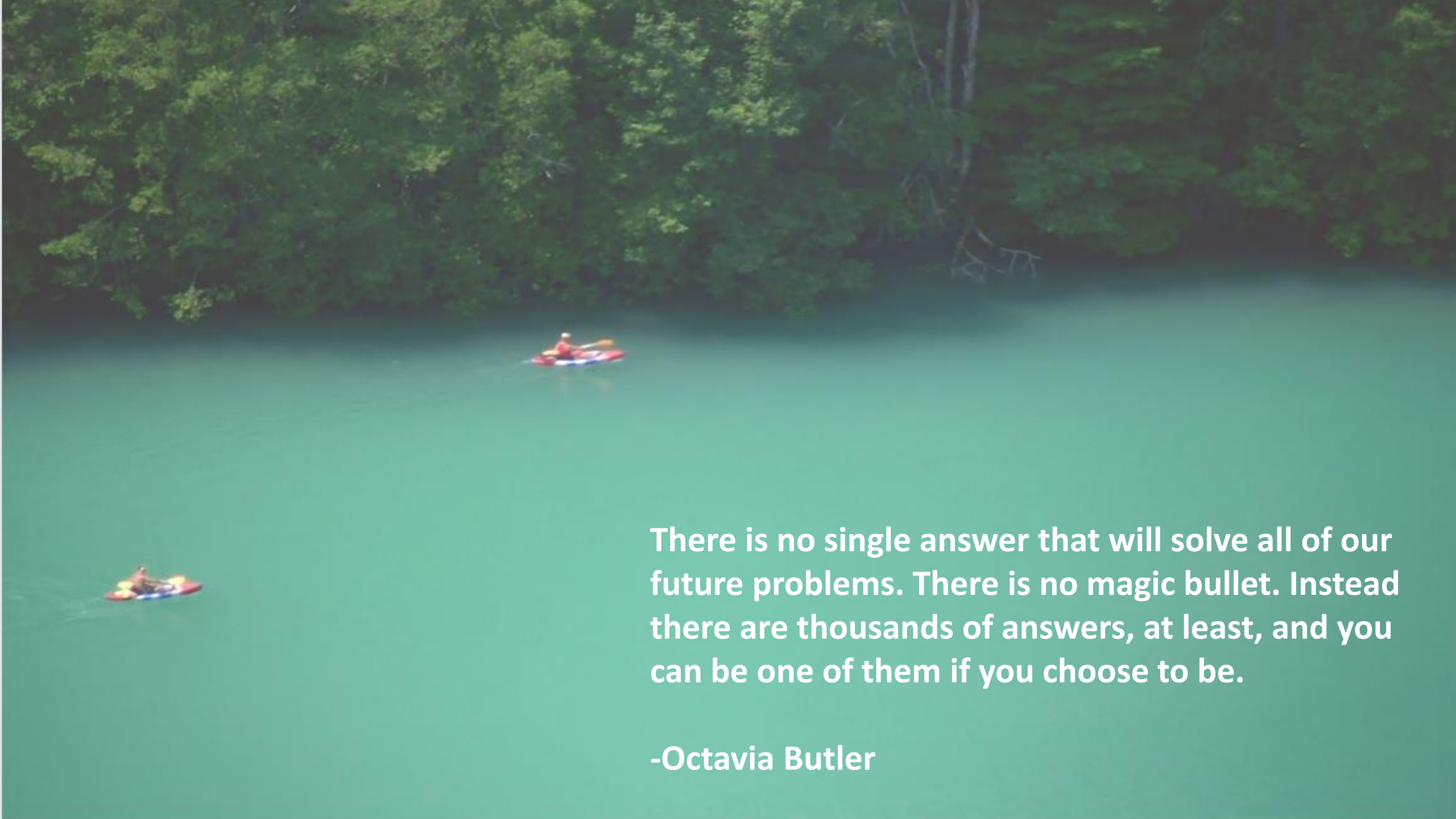
- messaging that resonates with different constituencies
- “connecting the dots” with climate optimism

2. Values to practice

- translating our personal and organizational values around climate into the everyday practices we carry out at SDOT
- integrating climate work into everything we do

3. Climate, equity, and safety nexus

- seeing our work in transportation as safety, climate justice, and racial equity work
- making these front and center in our decision-making



There is no single answer that will solve all of our future problems. There is no magic bullet. Instead there are thousands of answers, at least, and you can be one of them if you choose to be.

-Octavia Butler

Thank You!

Ben.Rosenblatt@seattle.gov | (206) 683-3797

Radcliffe.Dacanay@seattle.gov | (206) 945-2407

Michelle.Abunaja@seattle.gov | (206) 256-5317

www.seattle.gov/transportation/about-us/climate-response

