

***City of Biddeford***  
**City Council - Workshop**  
**August 08, 2023 5:30 PM Council Chambers & Zoom**

Please click this URL to join:  
**<https://biddeford.zoom.us/j/92478607269?pwd=MFNxWGtjcTJPSTR5M2c1UGFqSUtCdz09>**

**Webinar ID: 924 7860 7269**  
**Passcode: 360308**

**Or One tap mobile:**  
**+13126266799,,92478607269# US (Chicago)**  
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**Or join by phone:**  
**Dial (for higher quality, dial a number based on your current location):**  
**US: +1 312 626 6799 or +1 646 558 8656 or +1 646 931 3860 or +1 301 715 8592**

**International numbers available: <https://biddeford.zoom.us/u/aq7SEnLV0>**

**Status:**

- 1. Roll Call**
- 2. Pledge of Allegiance**
- 3. Adjustment(s) to Agenda**
- 4. Presentation:**
  - 4.a. Safe Street Presentation by PACTS/GPCOG  
[Vision Zero - Biddeford Council Workshop - 080823](#)
  - 4.b. Climate Task Force Presentation  
[Climate Task Force Council Workshop Aug 8 2023 Brief](#)  
[Biddeford Climate Task Force Aug 8 Workshop](#)  
[Biddeford Strategies Poster 8.5 x 11](#)
- 5. Adjourn**

# City of Biddeford Council Workshop

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Vision Zero, Complete Streets  
August 8, 2023

**Belinda Ray**, Director of Strategic Partnerships

**Chris Chop**, Director of Transportation





# What's Vision Zero?

## Why now?

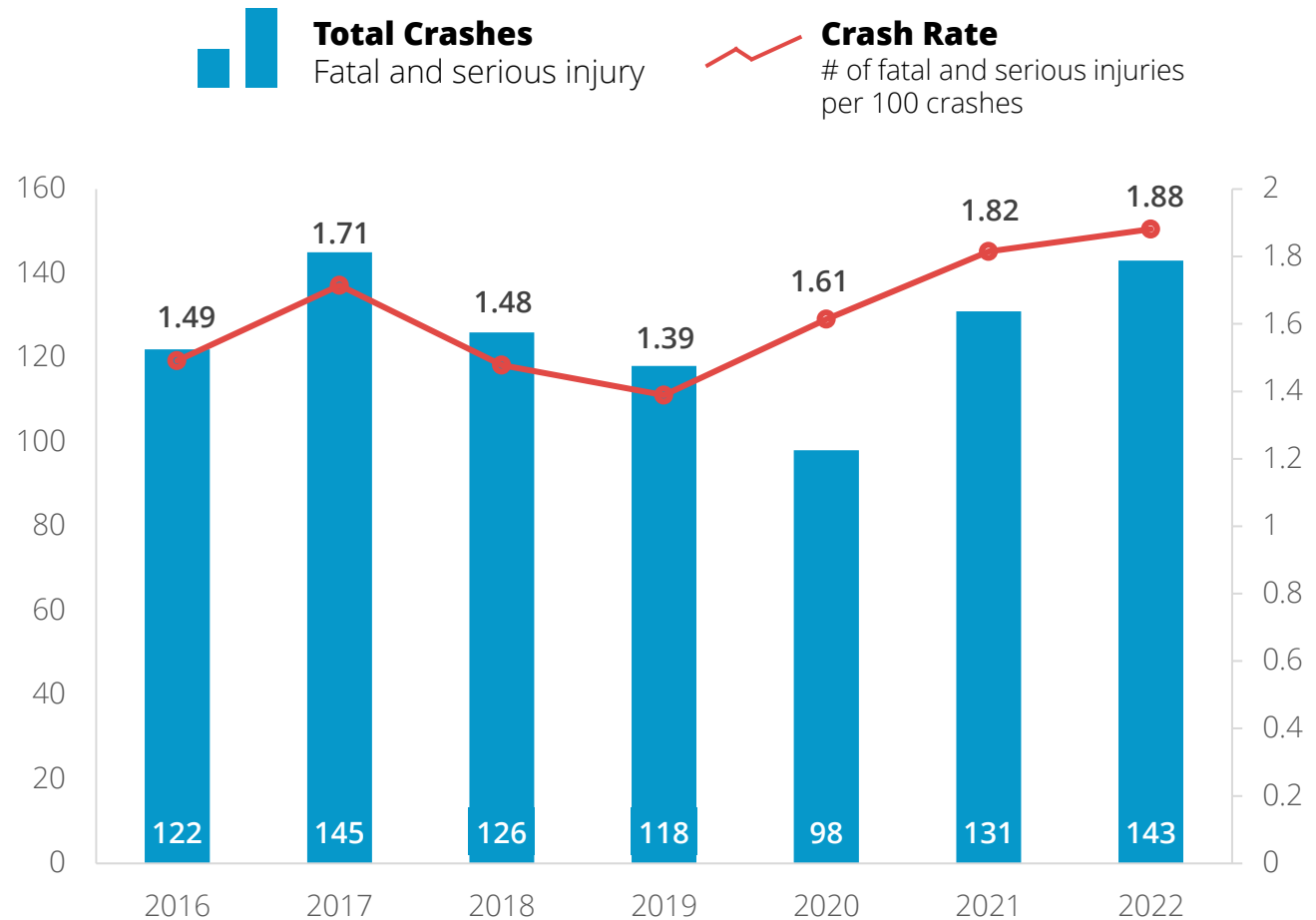


Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe — and now it's gaining momentum in major American cities.



Fatalities &  
serious  
injuries are  
**trending up.**

## Greater Portland Fatal and Serious Crashes by Year | 2016-2022





**Nationally,  
4,100  
pedestrians  
died in 2010,  
7,500 in 2021.**

(that's one every 70  
minutes).



**Vehicles  
have become  
safer.**





# They've gotten bigger, too.





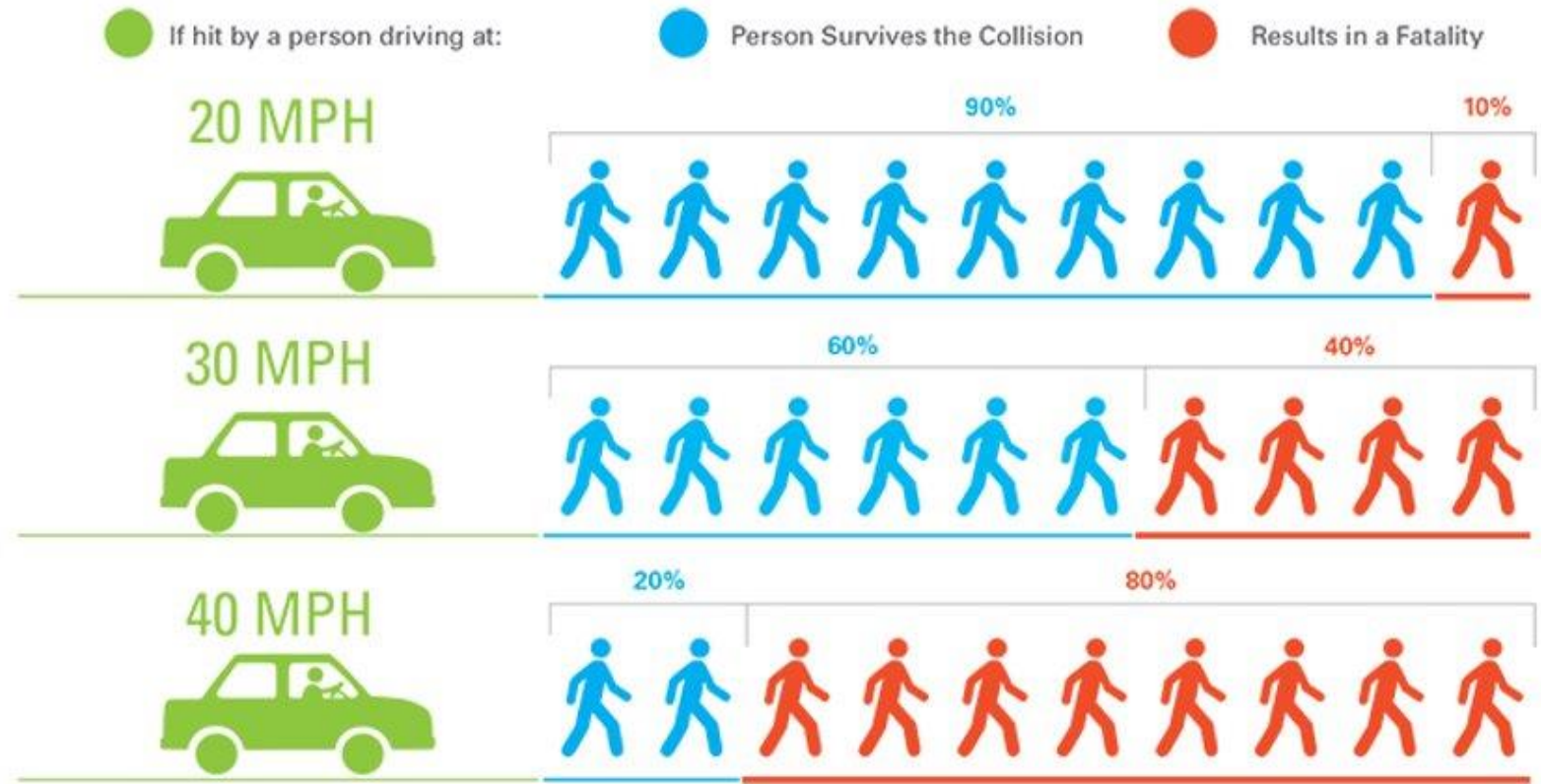
A woman with dark hair tied back is sitting in the driver's seat of a car at night. She is looking down at a smartphone held in her left hand, while her right hand rests on the steering wheel. The background shows a blurred city street with warm, glowing lights from buildings and street lamps, indicating a nighttime setting. The car's interior, including the dashboard and steering wheel, is visible.

**Distracted  
driving  
accounts for  
~10% of all  
roadway  
fatalities.**

# And speed kills.

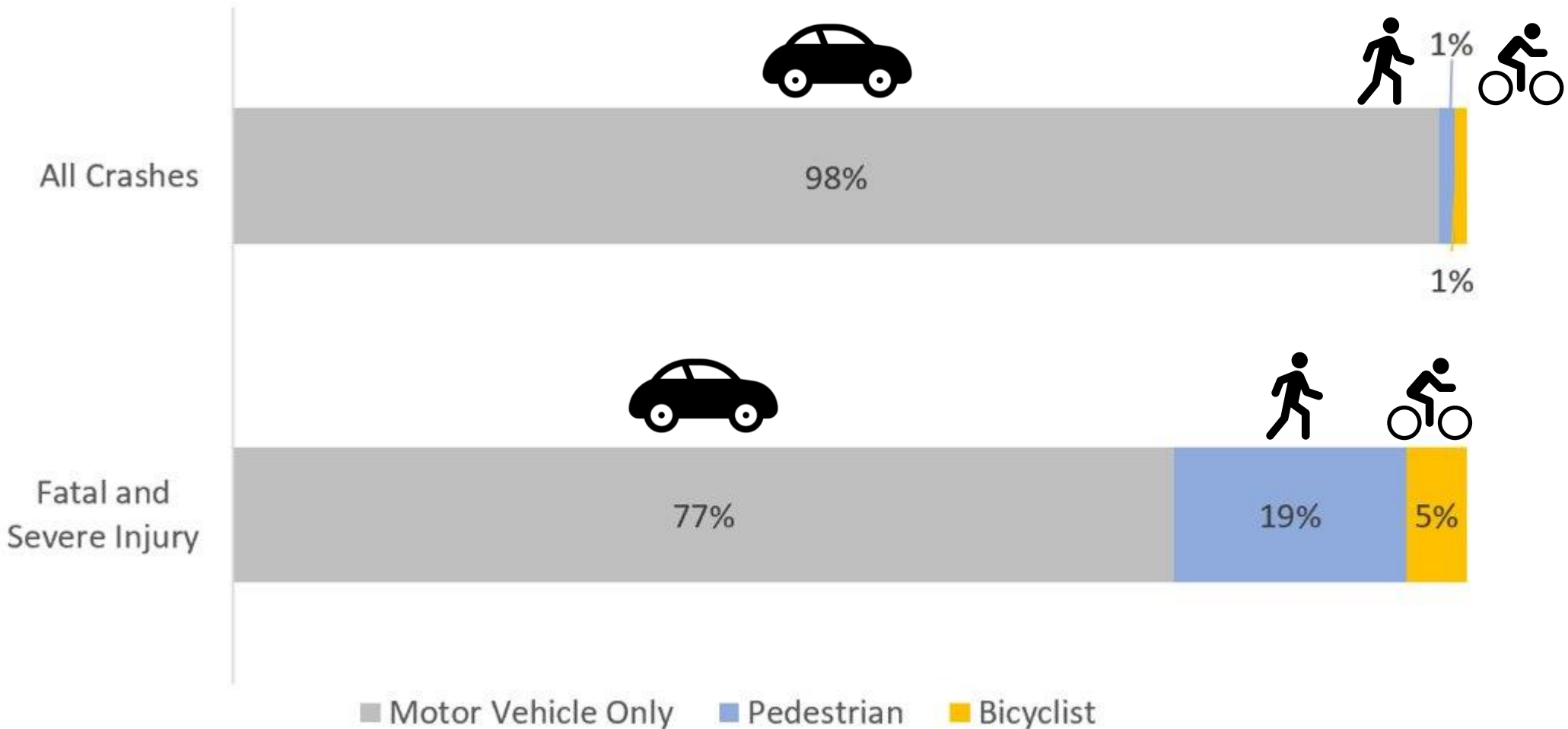
As vehicle speeds  
**increase**,  
pedestrians'  
chances of  
surviving a crash  
**decrease.**

Relationship between Speed and Safety





# Humans are vulnerable.



# We need a new approach.

## TRADITIONAL APPROACH

Traffic deaths are *INEVITABLE*

*PERFECT* human behavior

Prevent *COLLISIONS*

*INDIVIDUAL* responsibility

Saving lives is *EXPENSIVE*

VS

## VISION ZERO

Traffic deaths are *PREVENTABLE*

Integrate *HUMAN FAILING* in approach

Prevent *FATAL & SEVERE CRASHES*

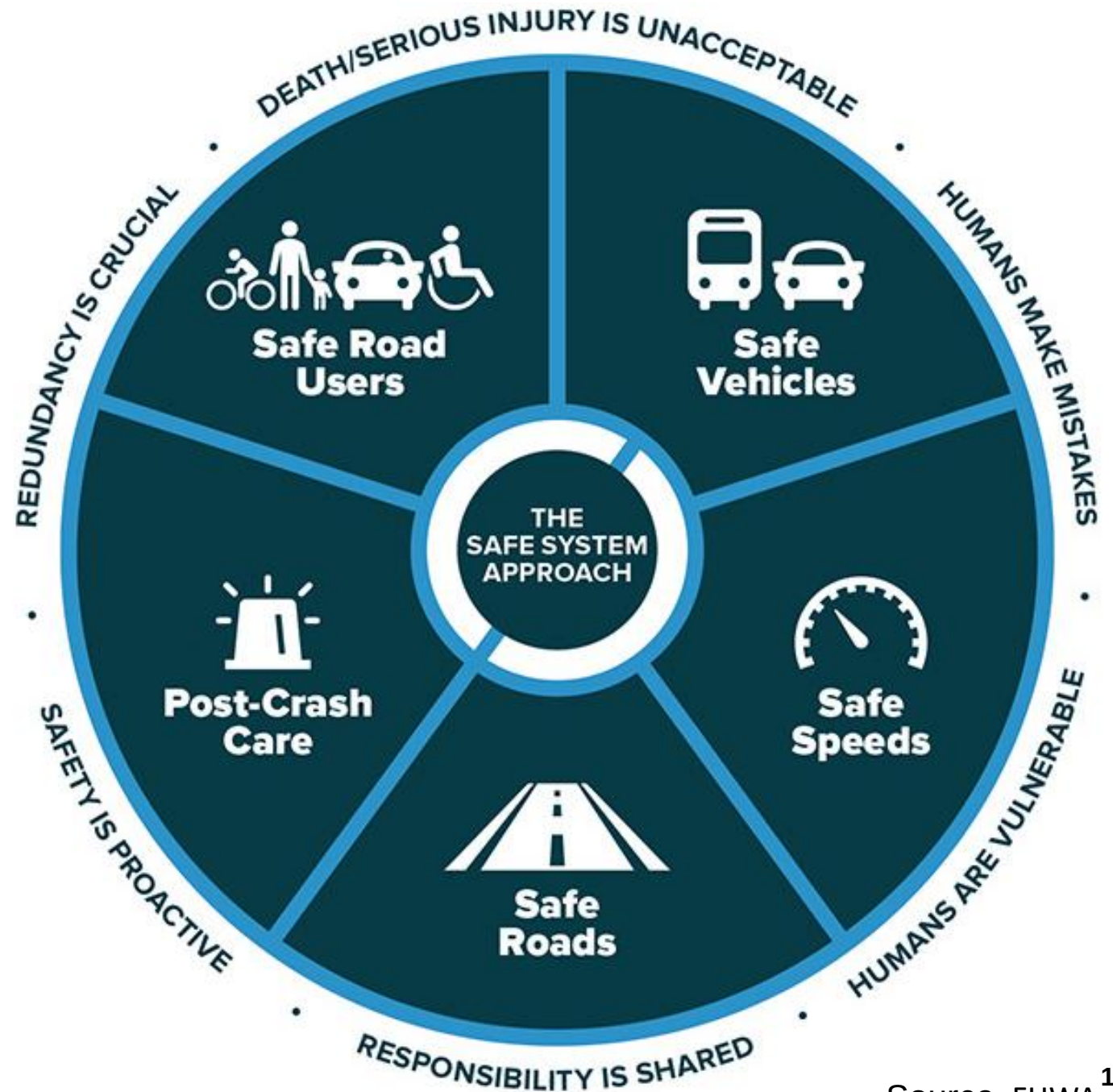
*SYSTEMS* approach

Saving lives is *NOT EXPENSIVE*



# Vision Zero = The Safe System Approach

*"Safety is an ethical imperative of the designers and owners of the transportation system."*





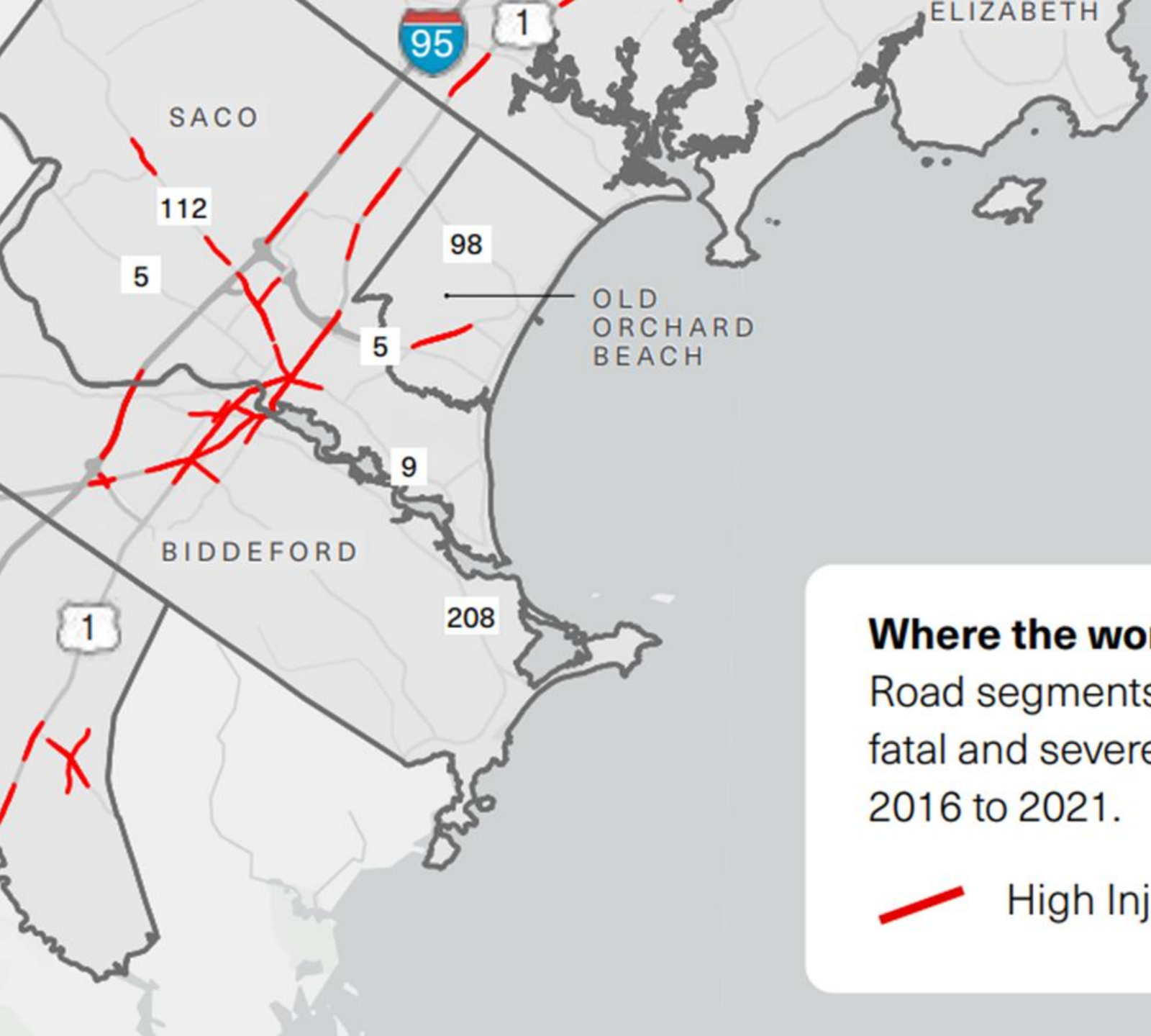
# The Region's Action Plan.



"To the people out there  
– come together and  
make a change so we  
have zero deaths"

You know, so we have zero deaths.

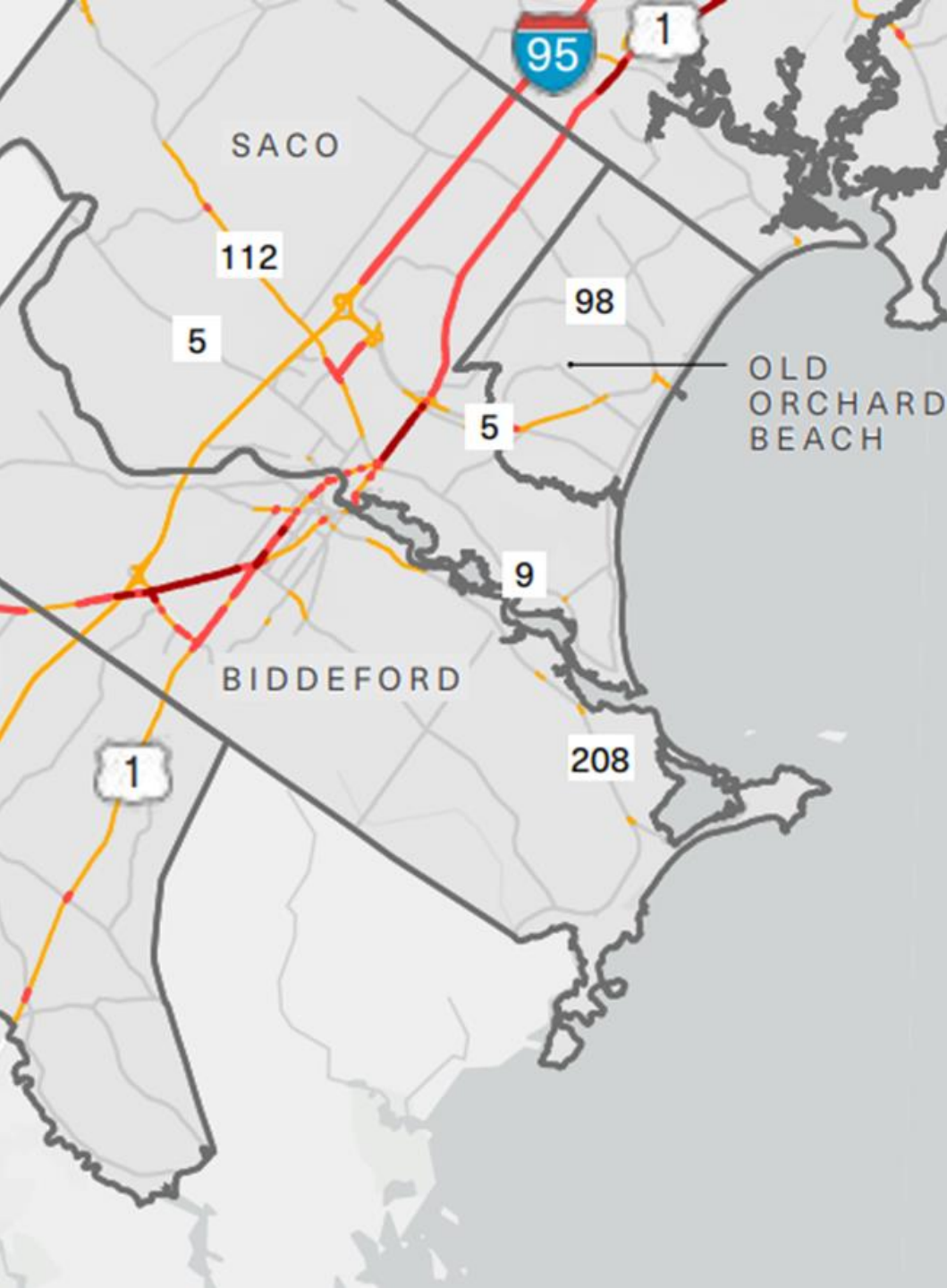




**Where the worst crashes have happened.**

Road segments with the highest numbers of fatal and severe injury causing crashes from 2016 to 2021.

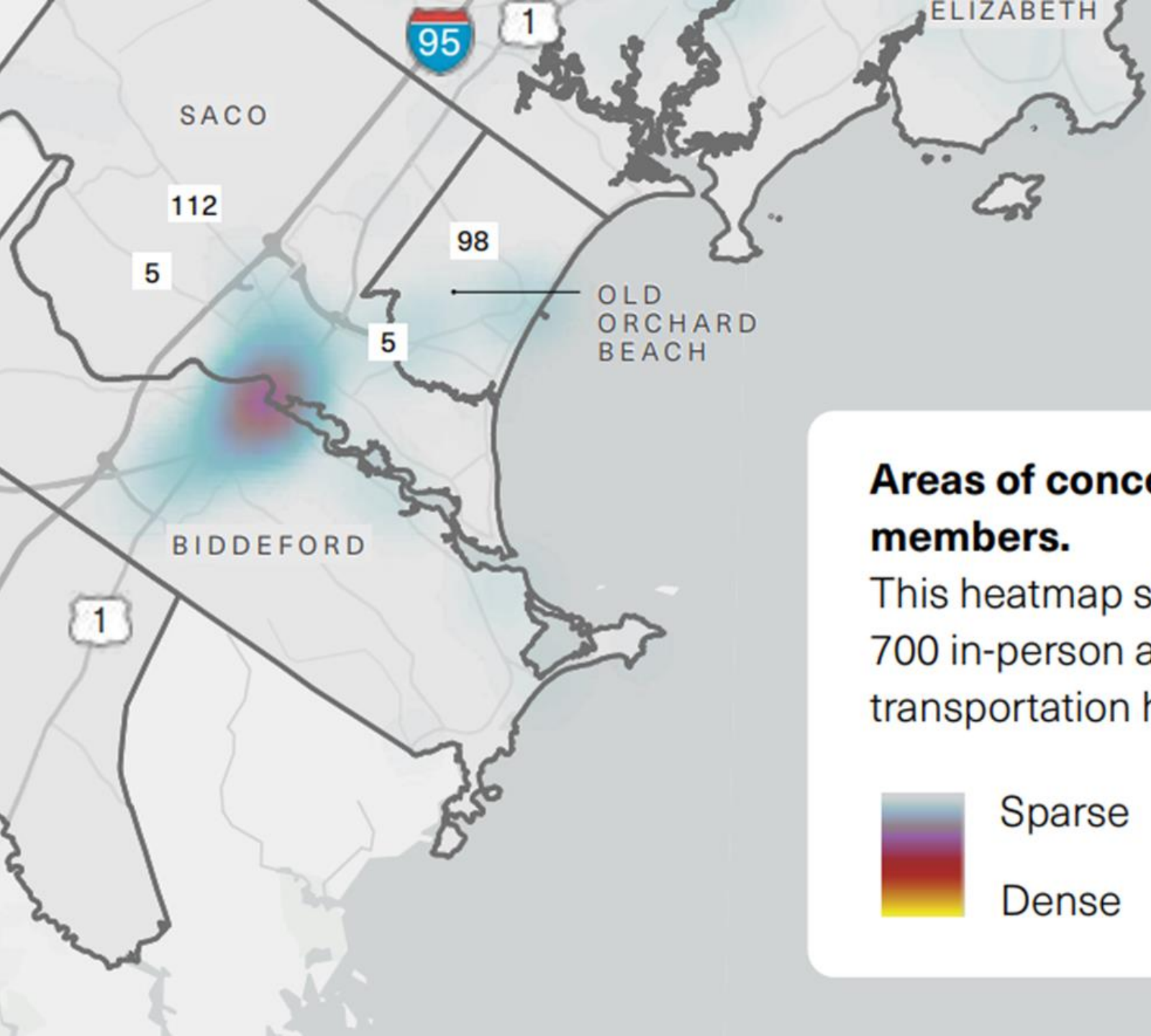
 High Injury Network



### **Where crashes are more likely to occur.**

This analysis compares the rate of fatal and severe crashes per mile of road with the regional average for certain characteristics such as number of lanes, speed limit, functional class, level of congestion, and transportation disadvantage.



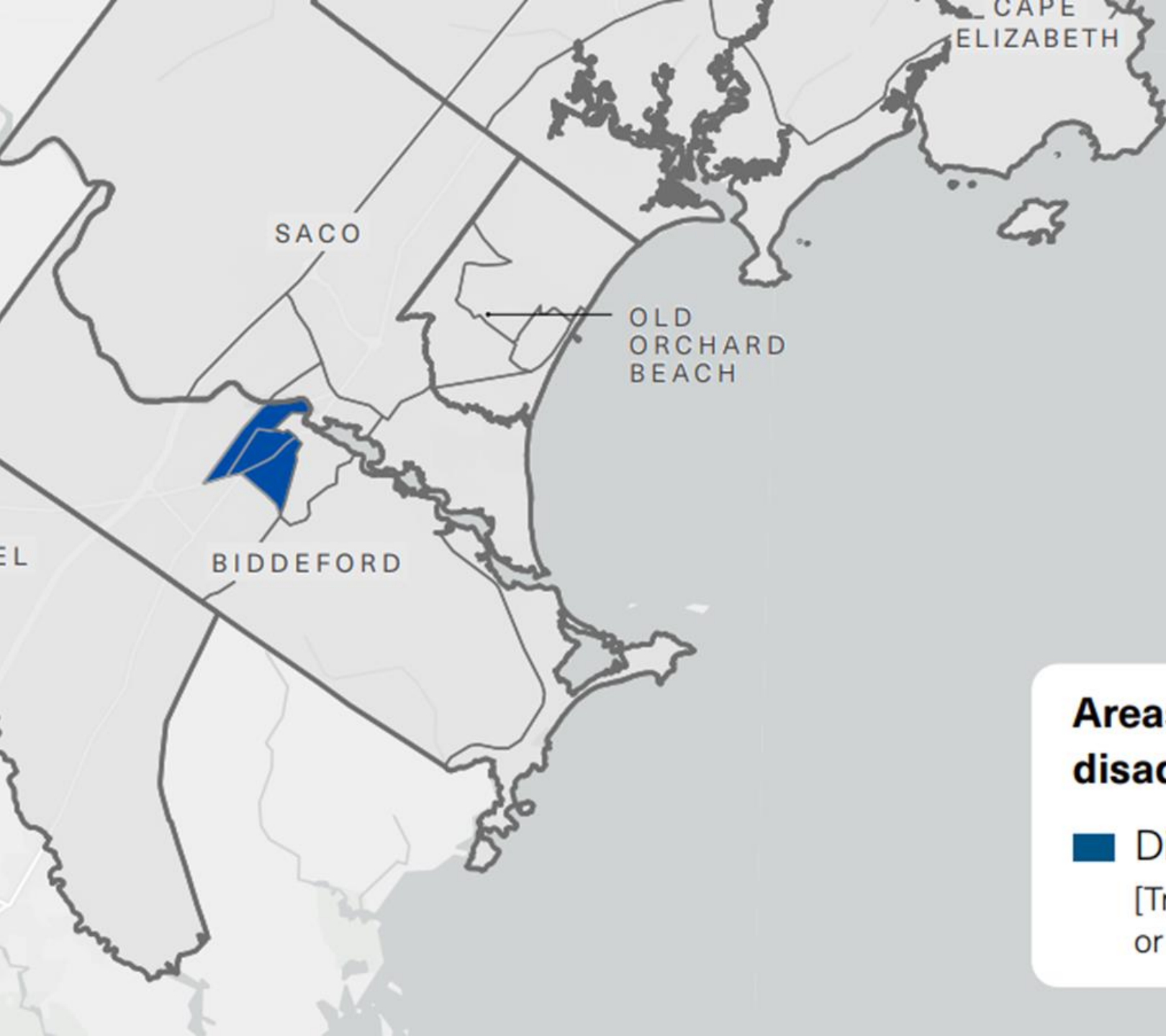


### **Areas of concern identified by community members.**

This heatmap shows the results from over 700 in-person and interactive entries to the transportation hazards map.

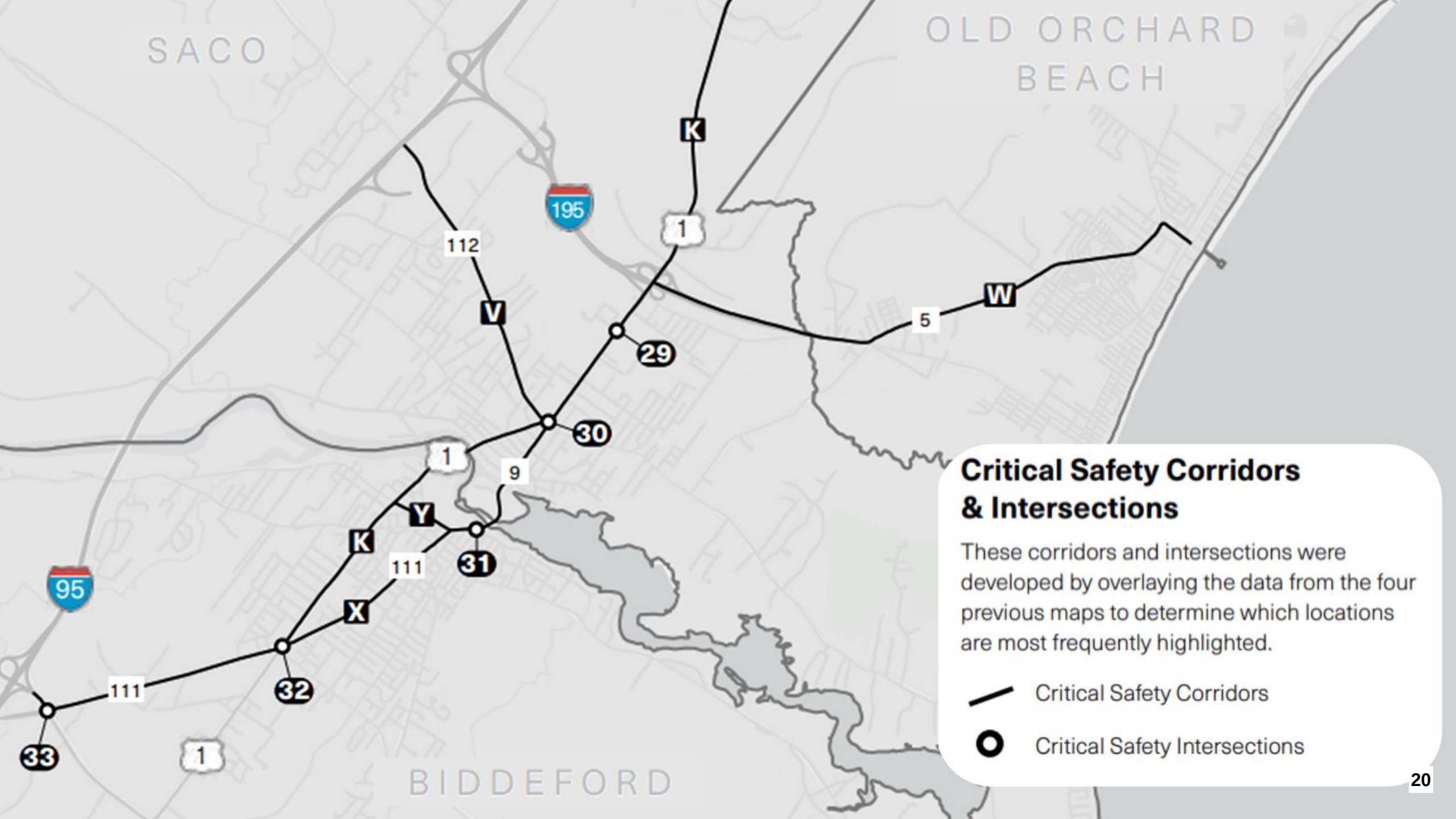






**Areas identified as “transportation disadvantaged.”**

- Disadvantaged census tracts  
[Tracts ranking in the 65<sup>th</sup> percentile or higher nationally]



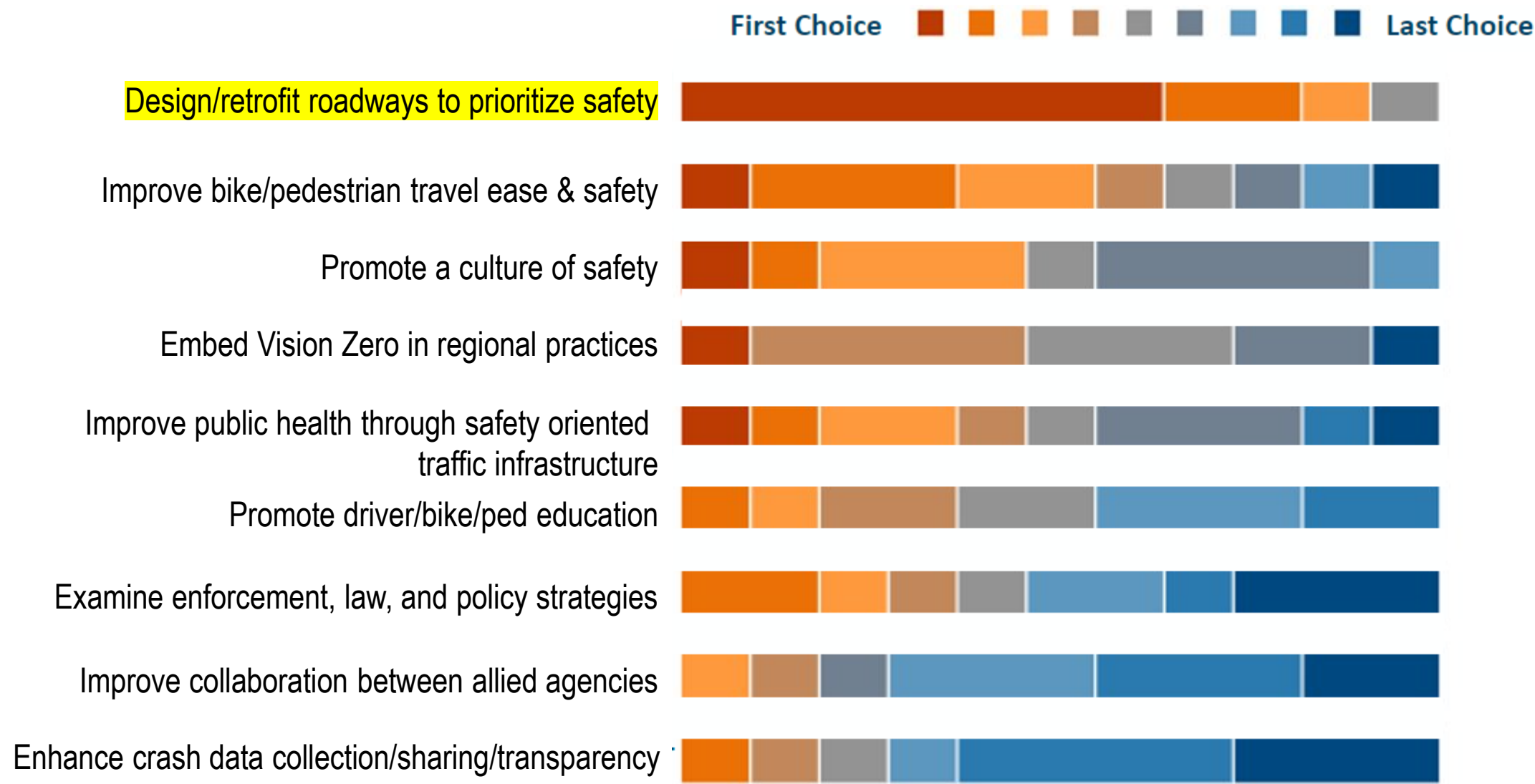
# Reimagining our Roadways:

## Part 1: Infrastructure





# What we heard.

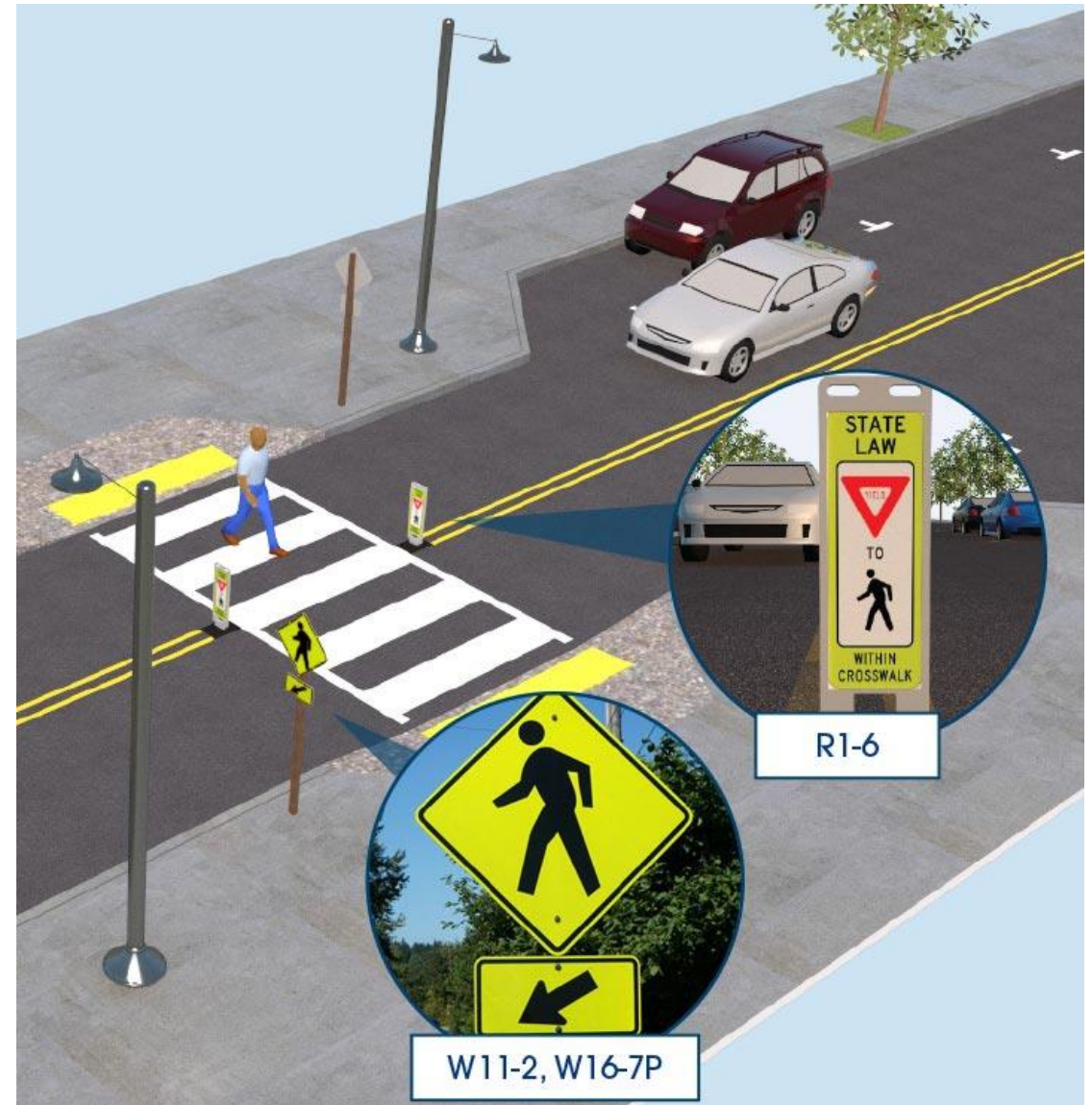


# Why Focus on Design?

- 1 We need a different approach. A paradigm shift.
  - 2 Roadway design is an upstream solution.
  - 3 Roadway design can reconnect communities and help address decades-long racial disparities.
  - 4 There's a lot of federal transportation funding for design and construction.
- ★ However, enforcement, education, policy, coordination, and emergency responsiveness are critical to achieving “zero”.

Crosswalk visibility  
enhancements: **up  
to 25% reduction**  
in pedestrian  
crashes

## Crosswalk Visibility





RRFBs: **up to 47% reduction** in pedestrian crashes

Rapid Rectangular Flashing Beacon (RRFB)



Pedestrian refuge  
islands:  
**56% reduction** in  
pedestrian crashes

Pedestrian Refuge Islands





Signalized  
intersection to a  
roundabout:  
**78% reduction** in  
fatal and injury  
crashes

Roundabouts





# Adams Street, Biddeford (2017)





# Adams Street, Biddeford (2019)





# Main Street, Biddeford (2017)





# Main Street, Biddeford (2019)







Elm, Pearl & Lincoln, Biddeford





Alfred Street

Alfred Street, Biddeford



# Complete Streets Higgins Ave., Missoula, MT (Existing)





# Complete Streets Higgins Ave., Missoula, MT (Proposed)





# Complete Streets Livernois St., Detroit, MI (2017)





# Complete Streets Livernois St., Detroit, MI (2022)



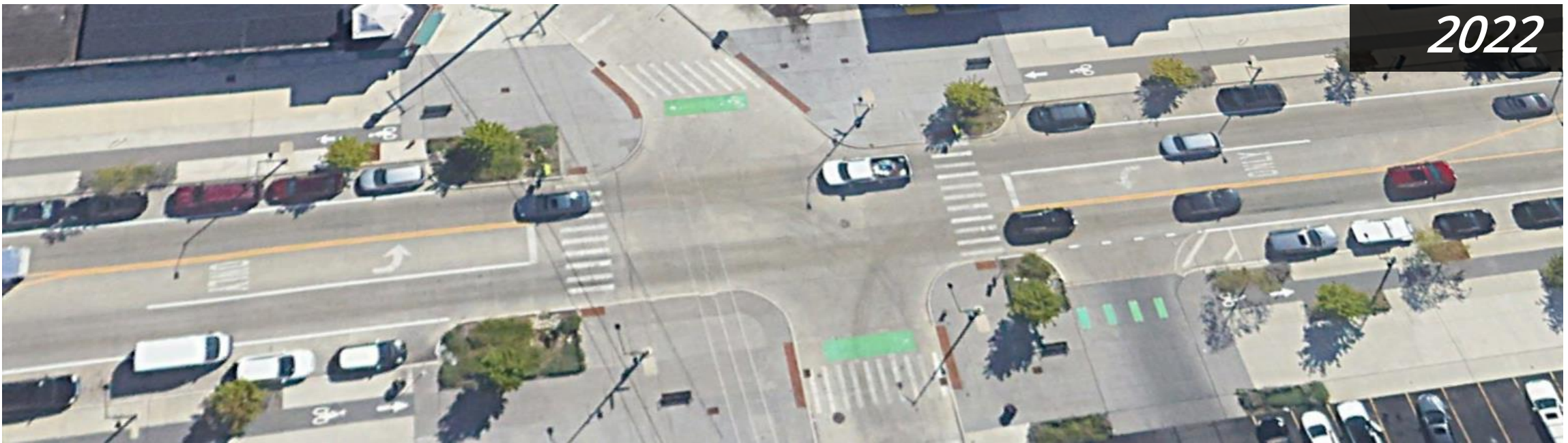


# Complete Streets Livernois St., Detroit, MI

2017



2022





# Complete Streets

## Rue Saint-Denis, Montreal (2019)





# Complete Streets Rue Saint-Denis, Montreal (2022)





# Reimagining our Roadways:

## Part 2: Paint



# Low-Cost Restriping





# Low-Cost Pilot Project: Broadway, South Portland





# Low-Cost Pilot Project: Revere St., Portland





# Low-Cost Pilot Project: Main St., Westbrook





# Low-Cost Pilot Project: Warren, MN





# Low-Cost Pilot Project: Lake City, MN





# Final Thoughts.

- 1 Data is key.
- 2 Learn from stakeholders and residents including those in harder-to-reach communities.
- 3 Explore options (infrastructure, outreach, education, enforcement, policy). And it's okay to experiment.
- 4 The GPCOG team is here to help.



An aerial, grayscale photograph of a city street intersection. The image shows several buildings, including a large, light-colored building with a gabled roof in the center. There are parking lots with cars, and a dense area of trees on the right side. The text "Thank You. Discussion & Questions" is overlaid in the center of the image.

**Thank You.**  
Discussion & Questions



# **Extra Slides**



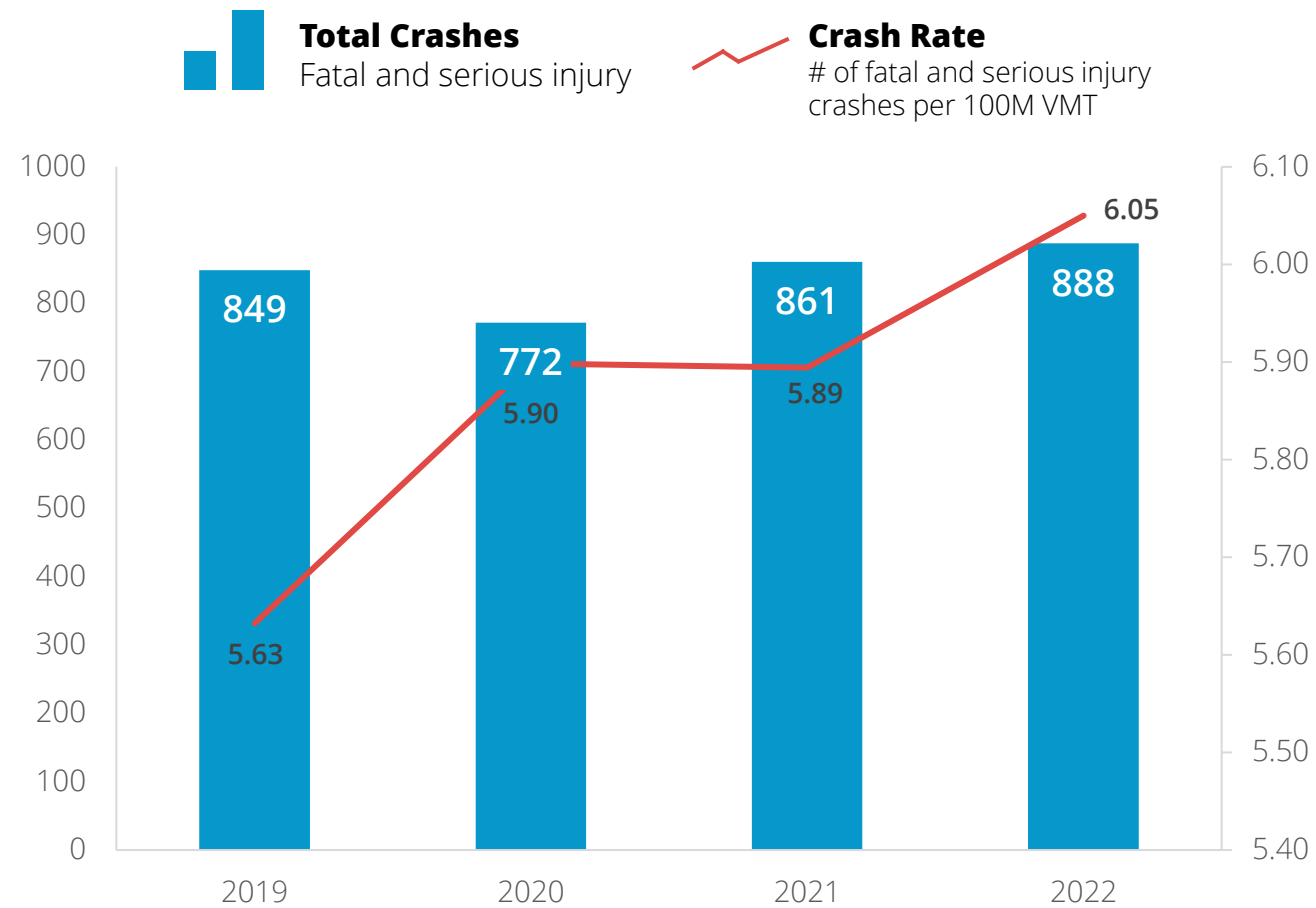
# Complete Streets Falmouth, Route 1





Fatalities and serious injuries are **trending up.**

Statewide Fatal and Serious Crashes by Year | 2019-2022







## Biddeford Climate Task Force

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Meeting Date: August 8, 2023

Meeting Time: 6:00 pm

Agenda Item No: [as it appears on the agenda]

Item Description: Proposed Climate Action Strategies and Public Engagement Update of Activities

Submitted by: Steve Reiter

Supporting Information/Documentation:

List of Proposed Climate Actions

Key Terms:

N/A

Executive Summary:

The Biddeford Climate Task Force has provided here a draft list of Climate Actions for consideration to be included in the upcoming Climate Action Plan. This list is the culmination of work completed by Southern Maine Planning and Development Commission (SMPDC) and the Task Force over an approximate one and one-half years. The Task Force is now in the midst a public engagement process to ensure these actions are in line with those that are important to Biddeford residents. During this workshop we will discuss how these actions were developed, how they have been evaluated by the Task Force, and the public engagement process now underway.

Detailed Review:

The Biddeford Climate Task Force, in partnership with SMPDC has crafted a proposed list of climate actions for consideration for Biddeford's upcoming Climate Action Plan. This list is based upon scientific data, anticipated local impacts, regional best practices, and robust local public engagement.

SMPDC prepared the draft list of climate actions using Biddeford's 2019 Greenhouse Gas Emission Inventory, their own vulnerability analysis for the four Southern Maine cohort communities (Kennebunk, Kennebunkport, Kittery, and Biddeford), input from ICLEI,\* and actions already underway here in Biddeford (e.g. retrofitting street lights with LEDs).

Also, the Task Force engaged the public with numerous efforts to inform this work. These efforts included:

\*ICLEI is an international non-governmental organization that promotes sustainable development.



- Workshop in early 2022 that was required to join the Community Resilience Partnership of the Governor’s Office of Policy, Innovation and the Future (GOPIF);
- Gallery event at Engine with climate artist Jill Pelto in February, 2022;
- Online and paper survey, open during this past April and May that received 387 responses;
- Presentations and listening sessions to stakeholder groups;
- Gallery event at Engine entitled “Climate Voices, Climate Actions;” and
- Tabling efforts at events such as Heart of Biddeford’s Music in the Park, Engine’s Art Walk, and;
- Social media posts.

The information obtained through these efforts were used by SMPDC in drafting the initial list of proposed actions.

These actions are grouped into five categories:

- Buildings and Energy;
- Transportation and Infrastructure;
- Land Use and Natural Environment;
- Health, Safety, and Wellbeing; and
- Leadership and Support.

Beginning with 73 actions as drafted by SMPDC, the Task Force conducted three workshops to evaluate each proposed action using five criteria:

- Effectiveness;
- Efficiency;
- Equity;
- Community Needs;
- Co-Benefits;
- Feasibility;

The resulting list was condensed down by the Task Force to 47 actions (included here in the agenda packet), tailoring them specifically for Biddeford.

Beginning July 26, the Task Force began a second phase of public engagement to ask the question, “Did we get it right?” This second phase includes a follow-up survey, four focus group meetings, and an open house at McArthur Library. The results of this engagement will be compiled by our public engagement consultant and discussed at the August 14 meeting of the Task Force. At that time, the Task Force will evaluate the public input received to further refine the proposed actions into a final version that will be written into the first draft of Biddeford’s Climate Action Plan.

The Task Force has endeavored to provide climate actions for Biddeford that are effective in helping us reach our mitigation goals for 2030 (62.6% reduction over 2019) and 2050 (net zero emissions), and help Biddeford anticipate and adapt to climate changes as they happen.



We thank City Council for its direction and discussion regarding the work achieved thus far by the Biddeford Climate Task Force.

Funding Source:

N/A

Staff Recommendation:

Information provided for Council Workshop discussion.



# Biddeford Climate Task Force

## Climate Action Development



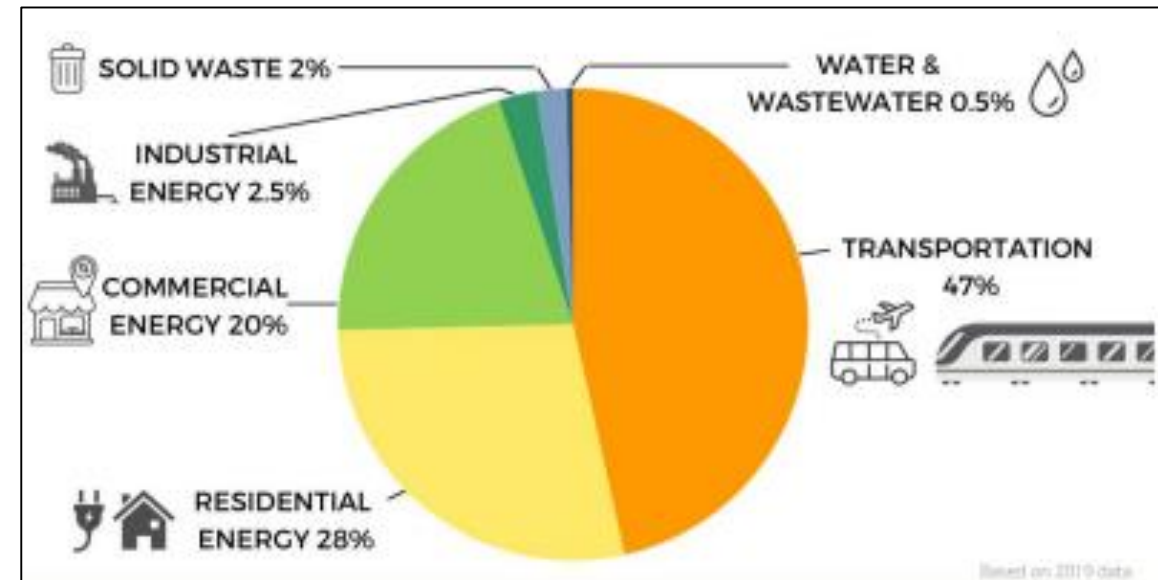
Developing Climate Strategies That are Right for Biddeford

# Gathering Insight



## Potential climate actions were developed using:

- Event – Climate Artist Jill Pelto
- Baseline Greenhouse Gas Inventory
- Biddeford Vulnerability Assessment
- Regional Climate Impacts
- Regional Best Practices w/ ICLEI Best Practices
- BCTF Public Engagement
- Actions Already Taken Here





# Gathering Insight

## BCFT Public Engagement:

- Workshop w/ GOPIF
- Survey (387 Responses)
- Video Clips for Social Media
- Presentations and Listening Sessions
- “Climate Voices, Climate Action” – Gallery Event at Engine
- Tabling Events (MITP, Art Walk, Pollinator Festival, Earth Day)
- BCTF Newsletter



# Initial Results

## SMPDC Presented a List of 73 Potential Actions in *Five Categories*:

### **BUILDINGS & ENERGY**

How can Biddeford make our city's buildings and energy systems ready for climate change?

### **TRANSPORTATION & INFRASTRUCTURE**

How can Biddeford make our transportation systems and infrastructure ready for climate change?

### **LAND USE & NATURAL ENVIRONMENT**

How can Biddeford help our city's natural environment be ready for climate change?

### **HEALTH, SAFETY, & WELL BEING**

How can Biddeford increase health, safety, & well being in our city?

### **LEADERSHIP & SUPPORT**

How can the City of Biddeford foster leadership and support to implement our Climate Action Plan?



# BCTF Workshop Review

## The BCTF Evaluated These Based on Six Criteria:



*Effectiveness*



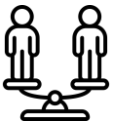
*Community Needs*



*Efficiency*



*Co-Benefits*



*Equity*



*Feasibility*

**Using these Criteria, the Task Force tailored this list for Biddeford, resulting in 47 Actions.**

# Did We Get it Right?

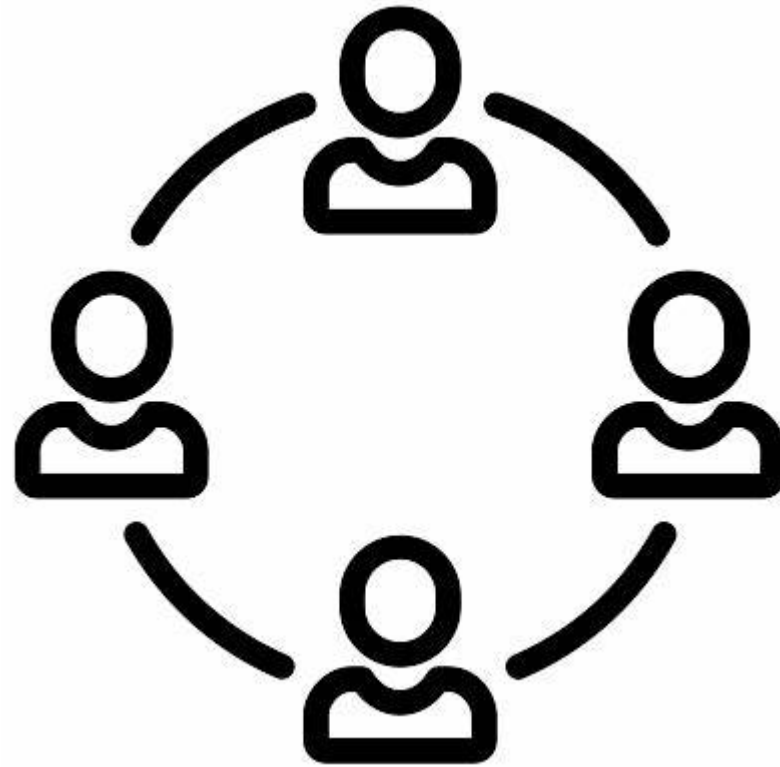
## Checking Our Work:

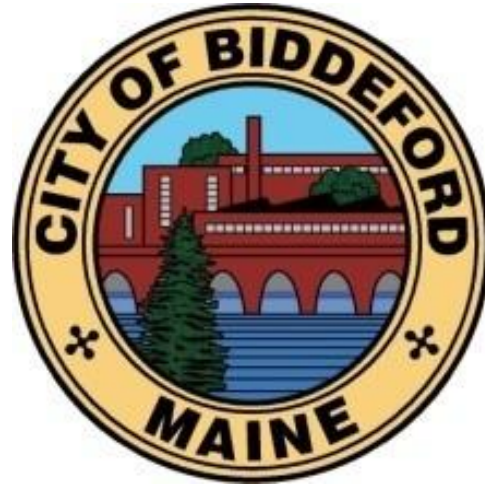
**What is most important to Biddeford residents?**

- *Follow-up Survey*
- *Focus Groups (4) - July 26 – Aug 8*
- *Open House - McArthur Library Aug 5*



# Key Messages





# Biddeford Climate Task Force

[Project: Biddeford Climate Task Force \(biddefordmaine.org\)](http://biddefordmaine.org)



# BUILDINGS & ENERGY

How can Biddeford make our city's buildings and energy systems ready for climate change?

## B1. Building weatherization

Create a program to help single family homes increase energy efficiency through weatherization efforts, such as improved insulation, sealing leaks, or improved ventilation.

## B2. Risk management

Reduce climate risks to buildings through improved information, education, and action, including:

- Requiring hazard disclosures for property transactions
- Increasing awareness of adaptation options
- Encouraging actions to manage flood risks

## B3. Maintain power at critical facilities

Develop and implement a plan for maintaining power at critical facilities during power outages.



## B4. Critical facility resilience

Increase the resilience of critical facilities such as our wastewater treatment facility through risk reduction or relocation.

## B5. Renewable energy

Encourage and incentivize small scale renewable energy installation, such as rooftop solar panels.



## B6. Building electrification

Create a program to encourage existing buildings & new construction to shift to all-electric heating and appliances.

## B7. Municipal energy efficiency

Increase municipal energy efficiency through:

- Energy audits
- Renewable energy installation
- Energy efficiency measures for all city-owned properties and buildings

## B8. Maine "Stretch Code" adoption

Adopt the most up-to-date building codes (also known as "stretch codes") to help new buildings to be more efficient.

## B9. Improve grid resilience

Work with power companies and state agencies to advocate for efforts to improve the resilience of the electrical grid.

## B10. Energy efficiency

Increase efficiency of large buildings and rental properties through local ordinances and standards, including:

- Standards to increase efficiency over time
- Programs to track and disclose energy consumption
- Efficiency standards for rentals

## B11. Limit reconstruction & encourage relocation

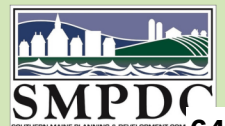
Limit reconstruction and/or encourage relocation of buildings damaged by hazards that are expected to recur or intensify with climate change.



## B12. Resilient design standards

Encourage or require new and redeveloped buildings to include sustainable and resilient design measures, especially in flood-prone areas.

**Help Guide Biddeford's Climate Action Plan!** The Biddeford Climate Task Force has been working hard to create a Climate Action Plan focused on changes that will have the biggest impact. What do you think of the proposed strategies? **Answer the survey linked in the QR code:**



# TRANSPORTATION & INFRASTRUCTURE

How can Biddeford make our transportation systems and infrastructure ready for climate change?

## T1. Public transit



Expand access to and use of public transit services.



## T2. Increase walkability



Improving the "walkability" of our city's roadways through a safe, comfortable, and convenient network of pedestrian walkways.

## T3. Encourage transition to electric vehicles (EVs)



Encourage maximum transition to electric vehicles (EV) through:

- Streamlined permitting, installation of public EV chargers
- Requirements for EV chargers in new development
- Transitioning city fleets to EV



## T4. Transit-oriented development

Concentrate housing, business, and leisure activities within easy walking distance to public transit in new development.

## T5. Protect critical infrastructure



Protect critical infrastructure such as wastewater treatment and evacuation routes from climate change hazards.

## T6. Increase bikeability

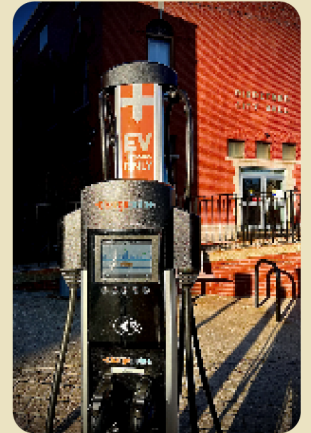


Improve the "bikeability" of our city's roadways with safe, comfortable, and convenient networks of bikeways and bike-related infrastructure.

## T7. Vulnerability assessment



Assess the vulnerability of transportation infrastructure to the impacts of heat, groundwater rise, and saltwater intrusion caused by sea level rise.



## T8. Reduce single-occupancy vehicle trips



Assess methods to reduce single-occupancy vehicle trips made by municipal staff.



## T9. Build infrastructure resilience



Modify roads, culverts, and bridges to increase their resilience to flooding, sea level rise, and other climate hazards, including raising, relocating, and/or upsizing.

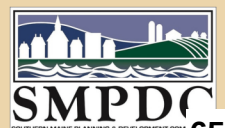
## T10. Direct development



Decrease the need for private vehicles by reducing sprawl through:

- Directing new development to areas where services are easily accessible
- Reducing minimum parking requirements

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# LAND USE & NATURAL ENVIRONMENT

How can Biddeford help our city's natural environment be ready for climate change?



## LN1. Protect vulnerable areas



Conserve areas of the city that are vulnerable to climate hazards, as well as those that help to minimize climate risks through carbon storage and flood reduction.

## LN2. Nature-based solutions



Promote and enable "nature-based solutions", such as the restoration of sand dunes or wetlands, to protect shorelines and coastal property from flooding and erosion.

## LN3. Land use ordinance review



Conduct a review of the city's land use ordinances and policies to identify changes needed to include climate resilience and sustainability measures and standards.

## LN4. Encourage development in appropriate areas



Encourage development in appropriate areas that are already developed, have public services (e.g., water and sewer), and are less vulnerable to natural hazards.

## LN5. Mixed-use zoning



Implement zoning to allow a blend of residential and commercial uses in some areas of the city, in order to reduce sprawl and make neighborhoods more walkable.

## LN6. Restoration of natural habitats



Promote the restoration or enhancement of natural habitats for biodiversity and wildlife protection.



## LN7. Sustainable landscaping



Promote and practice climate resilient and sustainable landscaping approaches, including limiting use of fertilizers, herbicides, and pesticides.



## LN8. Sustainable food systems



Promote and expand local and resilient food systems through sustainable practices, such as actions that improve soil health and store carbon.

## LN9. Direct development



Direct development away from areas of the city that are exposed to climate-related risks, including sea level rise, erosion, and inland flooding.

**Help Guide Biddeford's Climate Action Plan!** The Biddeford Climate Task Force has been working hard to create a Climate Action Plan focused on changes that will have the biggest impact. What do you think of the proposed strategies? **Answer the survey linked in the QR code:**



# HEALTH, SAFETY, & WELL BEING

How can Biddeford increase health, safety, & well being in our city?

## H1. Improve disaster planning



Improve disaster planning and response to be better prepared for climate change risks, including early warning systems and community evacuation plans.

## H2. Climate hazard training



Provide emergency responders and medical providers with training about the types of illnesses that might occur as a result of climate hazards.



## H3. Affordable housing



Encourage and support the creation of resilient, energy-efficient, and low-carbon affordable housing.



## H4. Shade structures ordinance



Develop an ordinance to require shade structures on city-owned properties. Shade structures can include: trees, covered bus stops, gazebos, etc.

## H5. Public health outreach



Conduct outreach about public health advisories for climate-related health impacts and weather events.

## H6. Resilience Hubs



Establish a designated site to serve as a "resilience hub" that can provide critical services to residents during climate-related emergencies or disruptions.

## H7. Monitor vector-borne diseases and invasive species



Explore options for monitoring and managing pests, like ticks and mosquitoes, that are associated with increases in diseases (e.g. Lyme disease) using natural and ecologically sound methods.

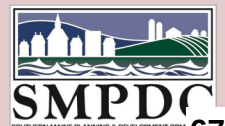


## H8. Ensure safe drinking water supply



Ensure the safety and quality of drinking water supplies, including through assessment and management of climate change impacts to septic systems and wells.

**Help Guide Biddeford's Climate Action Plan!** The Biddeford Climate Task Force has been working hard to create a Climate Action Plan focused on changes that will have the biggest impact. What do you think of the proposed strategies? **Answer the survey linked in the QR code:**





# LEADERSHIP & SUPPORT

How can the City of Biddeford foster leadership and support to implement our Climate Action Plan?

## LS1. Create Climate Commission



Create a municipal Climate Commission made of up city residents to assist with the implementation of the Climate Action Plan.

## LS2. Create Office of Sustainability



Create a municipal Office of Sustainability and position of Sustainability Coordinator, whose mandate will be to implement the Climate Action Plan.



## LS3. Include climate in decision-making



Incorporate future climatic conditions in land use planning and municipal policies.



## LS4. Include climate in municipal investments



Incorporate climate resilience and carbon emissions measures into planned investments for city-owned infrastructure and equipment.

## LS5. Build municipal capacity



Ensure municipal departments have the resources, guidance, and support to implement the Climate Action Plan.



## LS6. School curricula



Support local schools to include climate change and sustainability in school curricula.



## LS7. Establish local funding



Establish local funding mechanisms, such as fees on new construction, to support implementation of the Climate Action Plan.

## LS8. Climate change training



Provide climate change training for municipal boards, commissions, and committees.

**Help Guide Biddeford's Climate Action Plan!** The Biddeford Climate Task Force has been working hard to create a Climate Action Plan focused on changes that will have the biggest impact. What do you think of the proposed strategies? **Answer the survey linked in the QR code:**

