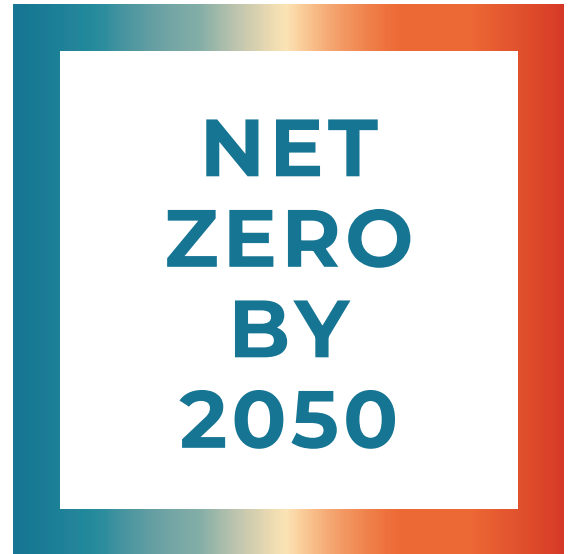


# TUALATIN'S COMMUNITY CLIMATE ACTION PLAN

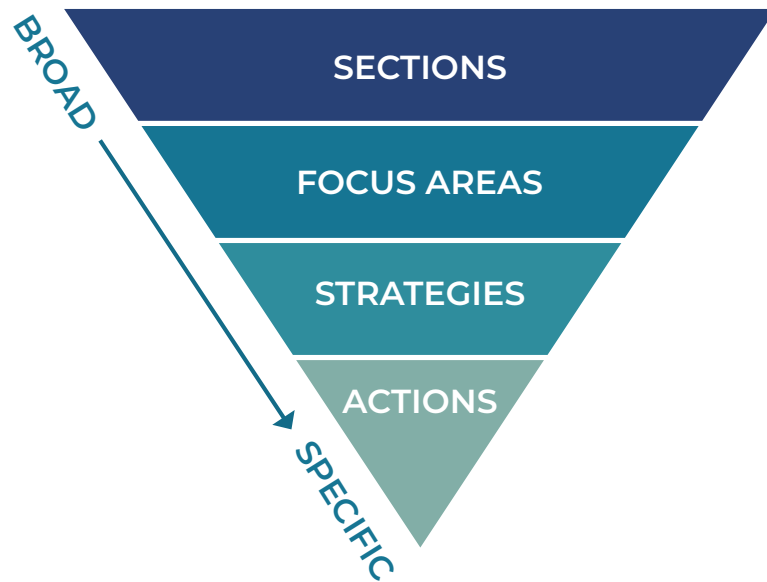
Executive Summary

Climate change is one of the greatest challenges we face today. While its effects are just now becoming more noticeable, they have been in the making for decades and will continue to increase if the world does not take action. Tualatin may not be able to address climate change on our own but we do have a role in addressing this challenge. By taking actions now, Tualatin as a community can help reduce our emissions that are directly causing climate change and prepare our community to continue to thrive in changing conditions. Tualatin has adopted a goal of net zero emissions by 2050. Tualatin's Community Climate Action Plan is a roadmap of potential actions we can take achieve that goal. The plan contains four sections – an introduction to the plan and process, what our changing climate may look like and how we can prepare, our contributions to climate change and how we can reduce emissions, and next steps to implement the plan and take meaningful action as a community. This executive summary provides a high-level overview of each section. It is a great place to start for an overview of the plan or do find sections that most interest you. For more detailed information check out the full planning to learn more about climate change in Tualatin and how you can take action to support our community efforts to address this global challenge.



## SECTION 1: INTRODUCTION

Climate change is an urgent, global challenge and we are already experiencing its impacts in the form of extreme heat, wildfire smoke, and increased flooding. If we act now, we can do our part to decrease carbon emissions and create a more resilient and thriving Tualatin. This plan provides strategies and actions that the Tualatin community and City can pursue to reduce emissions and reach our goal of net zero by 2050, and better prepare for the local impacts of climate change.



The plan was created over the course of two years. The process was guided by the following principles: science-based approach, equitable outcomes, identifying community benefits, and utilizing partnerships. The plan is based on local data, scientific modeling and forecasts, and input from the community, stakeholder groups, and experts.

The plan is organized into broad ideas called Sections. Within each section, there are more specific details on ways the ideas can be achieved. Some ideas, or actions, included in the CAP will require further community conversations and City Council action to successfully implement them.

## SECTION 2: PREPARING FOR CLIMATE CHANGE

Tualatin is already experiencing the impacts of climate change. Of the 13 hottest years recorded in Oregon, nine have come since 2000 and seven have come since 2010. Wildfire smoke from fires across the region has choked the skies and resulted in harmful health impacts.



FIGURE 1: Photos from the corner of 108th Ave and Herman Rd. Left: During a wildfire smoke event in 2020. Right: On a clear day in May 2023.

Tualatin's climate will continue to change. Without action, the climate will change dramatically, making our climate similar to Sacramento California. With strong climate action those changes can be lessened, though we will still see our climate change due to decades of fossil fuel use. Here's how Tualatin's climate could change with and without strong action.

- **Heat – it's going to get hotter.**

Without climate action, the number of days over 90 degrees are expected to increase from a historical average of 6 to nearly 60 by the end of the century. With strong climate action, we can reduce that to under 30.

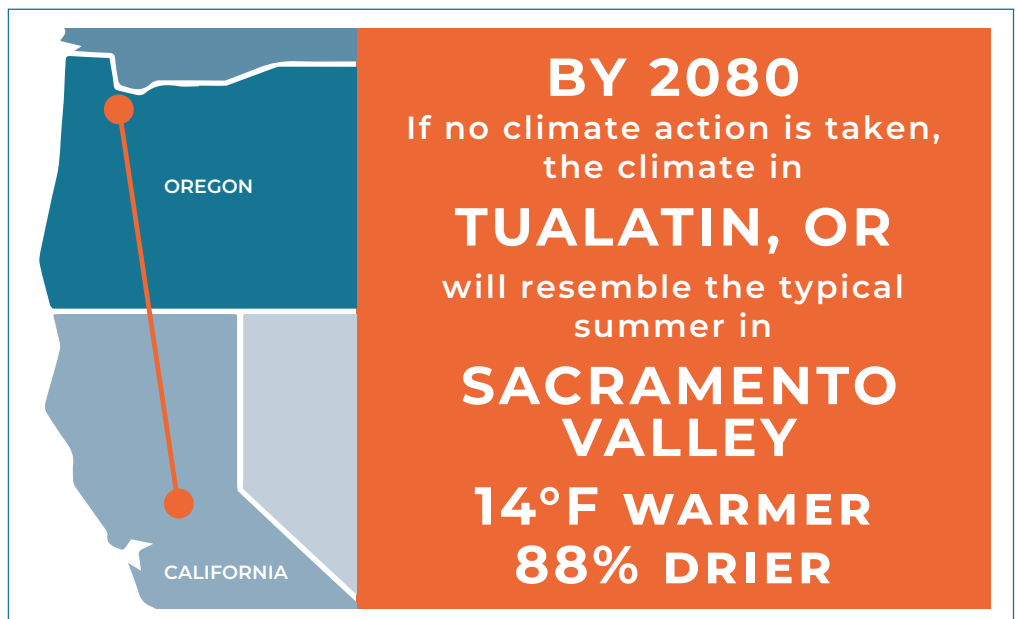


FIGURE 2: Without climate action, Tualatin's climate will feel like Sacramento Valley California's current climate.

- **Wildfire smoke – it’s going to get smokier.** While Tualatin is not at high risk for forest fires, we are at risk of smoke events from fires regionally. We are already seeing the devastating effects, with fires around Tualatin increasing steadily in the last few years. Without climate action, the current average of 10 days of extreme fire danger will double to 20 by the end of the century. Strong climate action can decrease the number of extreme fire danger days to 17.

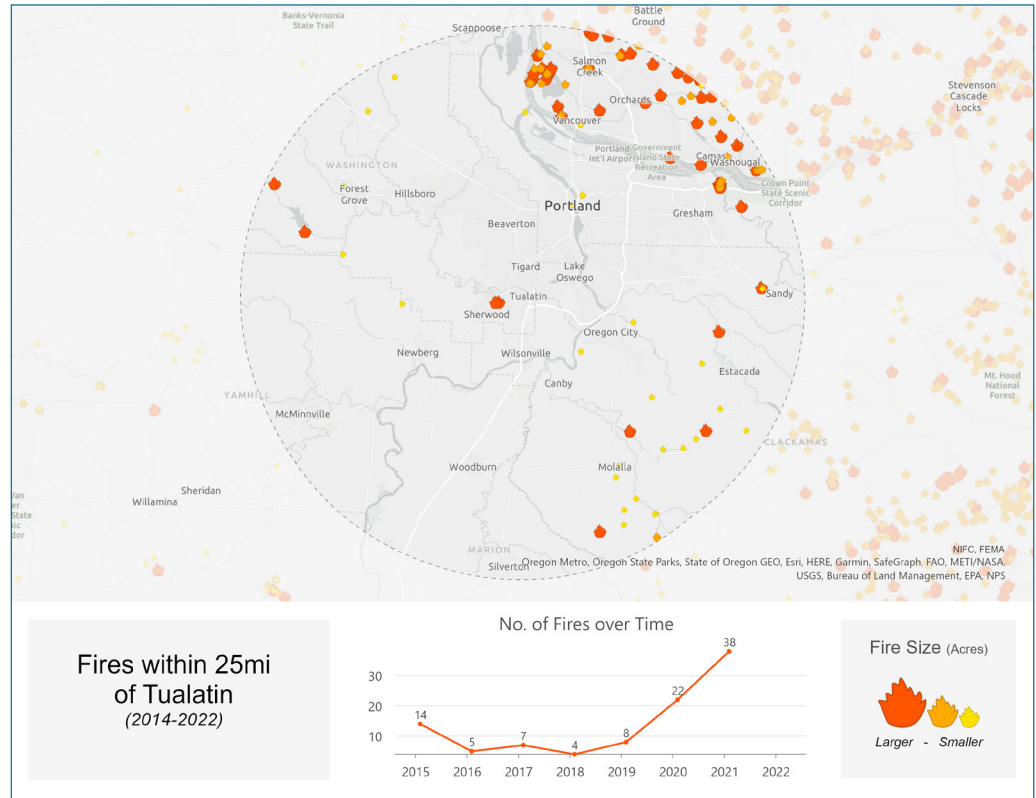


FIGURE 3: Recent wildfire conditions around Tualatin. The number of fires within 25 miles has increased significantly since 2018.

- **Flooding – it’s going to flood more.** Larger flooding events, like atmospheric rivers, are becoming increasingly likely. These result in higher volumes of water being dropped as precipitation over shorter durations.

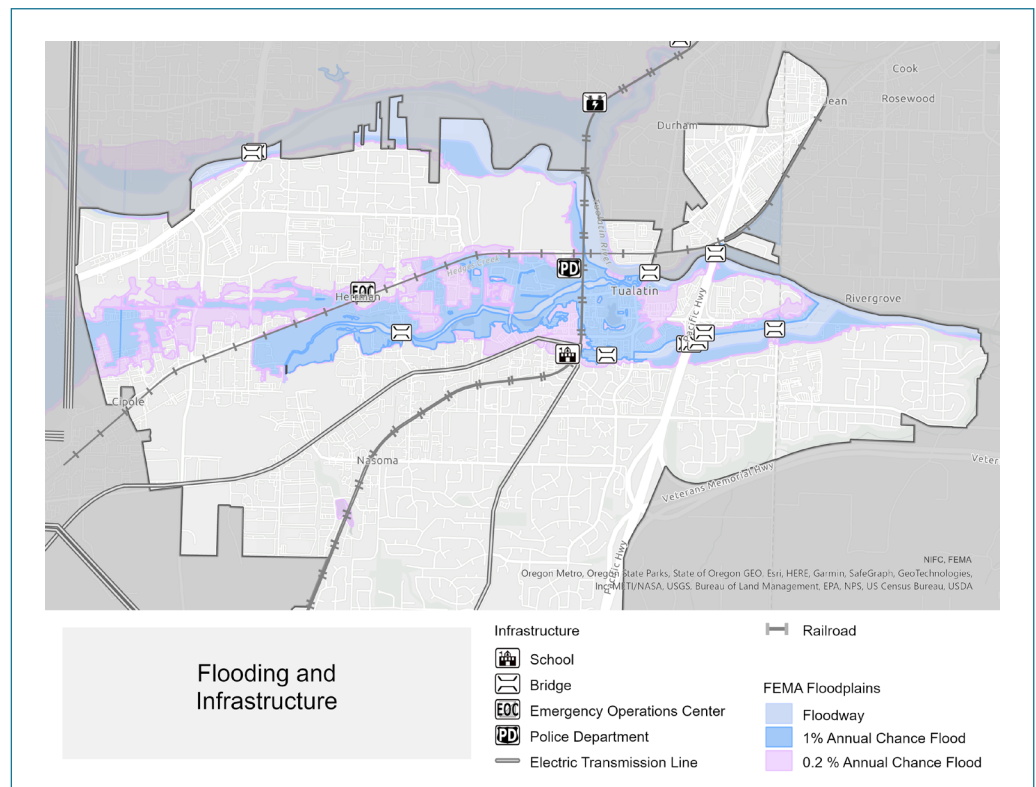


FIGURE 4: Tualatin’s current flood map

These changes will impact our natural systems, resources, and infrastructure, the health and safety of community members, and our economic system. The Preparing for Climate Change section includes 9 strategies and 59 actions meant to help Tualatin prepare for these changes.



**FOCUS AREA 1**  
**NATURAL SYSTEMS, RESOURCES, & INFRASTRUCTURE**

<b>STRATEGY 1.1</b>	Improve the resilience of Tualatin’s natural systems, resources, and infrastructure to extreme heat	11 Actions
<b>STRATEGY 1.2</b>	Improve the resilience of Tualatin’s natural systems, resources, and infrastructure to handle an increase in fire risk and smoke events.	1 Actions
<b>STRATEGY 1.3</b>	Improve the resilience of Tualatin’s natural systems, resources, and infrastructure to handle an increase in heavy precipitation events, flooding, and winter storms.	11 Actions



**FOCUS AREA 2**  
**HEALTH AND SAFETY**

<b>STRATEGY 2.1</b>	Increase preparedness and provide resources to help people who live, work, learn, and play in Tualatin better handle extreme heat events.	13 Actions
<b>STRATEGY 2.2</b>	Increase preparedness and provide resources to help people who live, work, learn, and play in Tualatin better handle more frequent wildfire and smoke events.	4 Actions
<b>STRATEGY 2.3</b>	Increase preparedness and provide resources to help people who live, work, learn, and play in Tualatin better handle the impacts of heavy precipitation events and winter storms.	10 Actions



**FOCUS AREA 3**  
**ECONOMIC SHIFTS**

<b>STRATEGY 3.1</b>	Improve the resilience of Tualatin’s businesses and workers to extreme heat.	2 Actions
<b>STRATEGY 3.2</b>	Improve the resilience of Tualatin’s businesses and workers to handle an increase in fire risk and smoke events.	2 Actions
<b>STRATEGY 3.3</b>	Improve the resilience of Tualatin’s businesses and workers to handle an increase in heavy precipitation events, flooding, and winter storms.	5 Actions

The outcomes of these strategies and actions include things like:



- **More access to shade and shelter outdoors.** For example, covered areas and shade in parks, at bus stops, along the roadway, and in parking lots.
- **Resilient utilities and healthy ecosystems that can withstand our changing climate**
- **Safe, vibrant, and accessible gathering places** that meet the community's needs today and in the future.



- **More access to indoor shelter**, such as cooling, clear air, and warming centers, during extreme weather events.
- **A connected, informed, and engaged community** that is prepared for changing climate conditions.



- **A coordinated local business response to climate hazards**, like flooding in the downtown.
- **Stronger cooling requirements in commercial and industrial buildings** that create a lot of heat to keep workers safe.

# SECTION 3: REDUCING EMISSIONS

Climate change is caused by an accumulation of carbon emissions that trap heat in the Earth’s atmosphere. A dramatic increase in human-caused emissions from burning coal, oil, gas, diesel, and propane (known collectively as “fossil fuels”) to heat and cool buildings, move people and goods, and produce food and goods is causing the climate to change.

To combat climate change, humans must rapidly reduce the amount of carbon emissions that we emit collectively. Tualatin’s goal is to achieve net zero carbon emissions by 2050. This goal aligns with the goal set forth by the landmark 2015 Paris Climate Agreement and, if achieved in developed nations, prevents us from exceeding the global “tipping point” of no return (1.5 degree Celsius). Exceeding this tipping point dramatically increases the likelihood of catastrophic climate consequences.

The City of Tualatin completed a community greenhouse gas emissions inventory to better understand our sources of greenhouse gas emissions (i.e. carbon pollution) to inform the development of this plan. The inventory is based on 2019 data, and it found:

- Tualatin’s local and imported emissions totaled nearly 677,000 metric tonnes of carbon dioxide equivalents (MT CO<sub>2</sub>e).
- On average, Tualatin residents generate 14.2 MT CO<sub>2</sub>e per person per year in *local* emissions. This is slightly less than the U.S. average of 15.2 MT CO<sub>2</sub>e per person per year, but significantly higher than the global average of 4.5 MT CO<sub>2</sub>e per person per year.

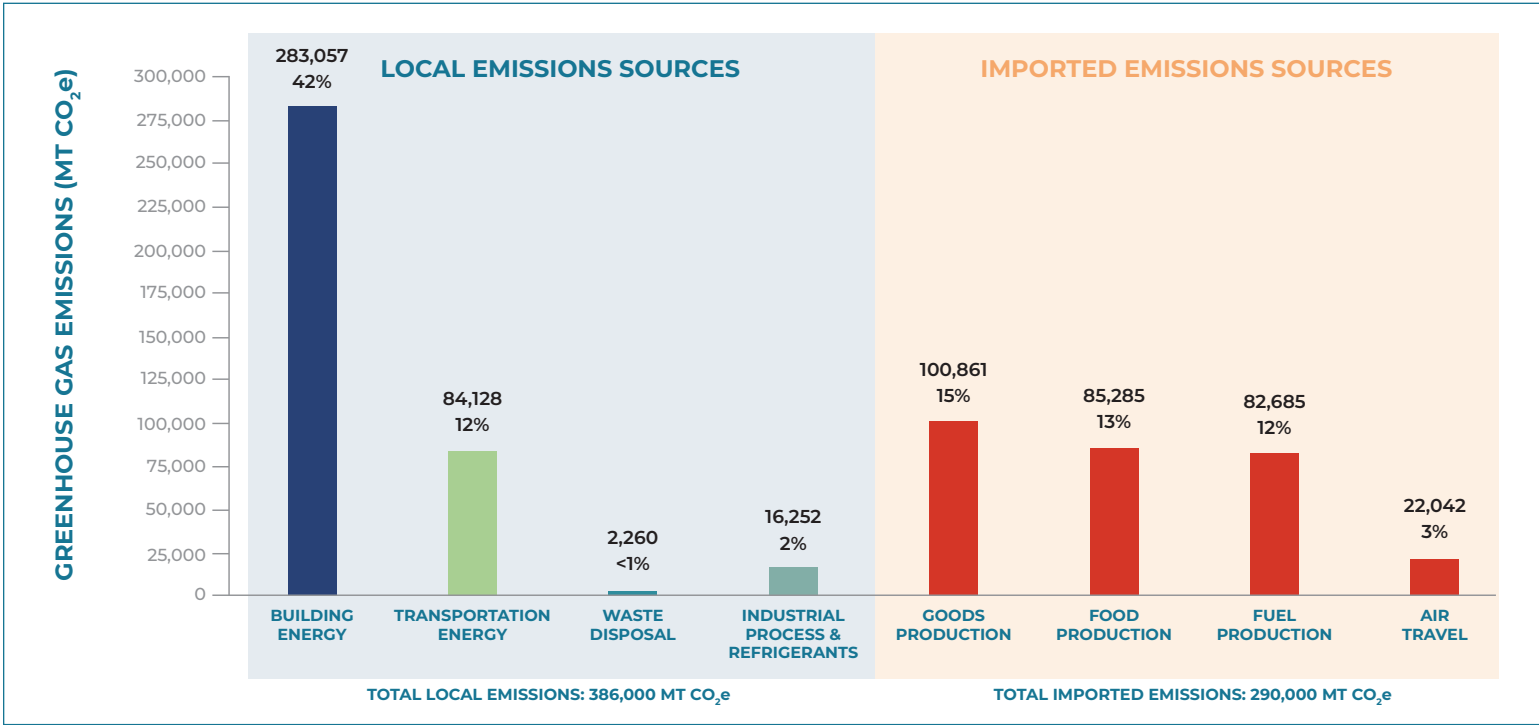


FIGURE 5: Tualatin’s emissions sources

- **Local emissions** sources refer to emissions from activities that take place within the city’s geographic boundary, like heating and cooling buildings, cooking food, and driving cars. Tualatin’s local emissions breakdown as follows:
  - Building energy (42%)
  - Transportation energy (12%)
  - Waste disposal (<1%)
  - Industrial processes and refrigerants (2%)

- **Imported emissions** sources refer to emissions from things that are made outside of the city but benefit the people within the City who use those items or services. This includes things like the production of food and goods, and air travel. Tualatin’s imported emissions breakdown as follows:
  - Goods production (15%)
  - Food production (13%)
  - Fuel production (12%)
  - Air travel (3%)

Local emissions in Tualatin are expected to decrease over time, primarily thanks to strong climate regulations from the State of Oregon impacting electric and natural gas utilities. While emissions are estimated to decrease by 80% in 2050 compared to 2019 local emissions without additional actions, **that is still not enough to hit our target of 100% greenhouse gas emissions mitigation to limit global warming to 1.5°C.** The Climate Action Plan includes additional strategies and actions that are needed to reach our goal.

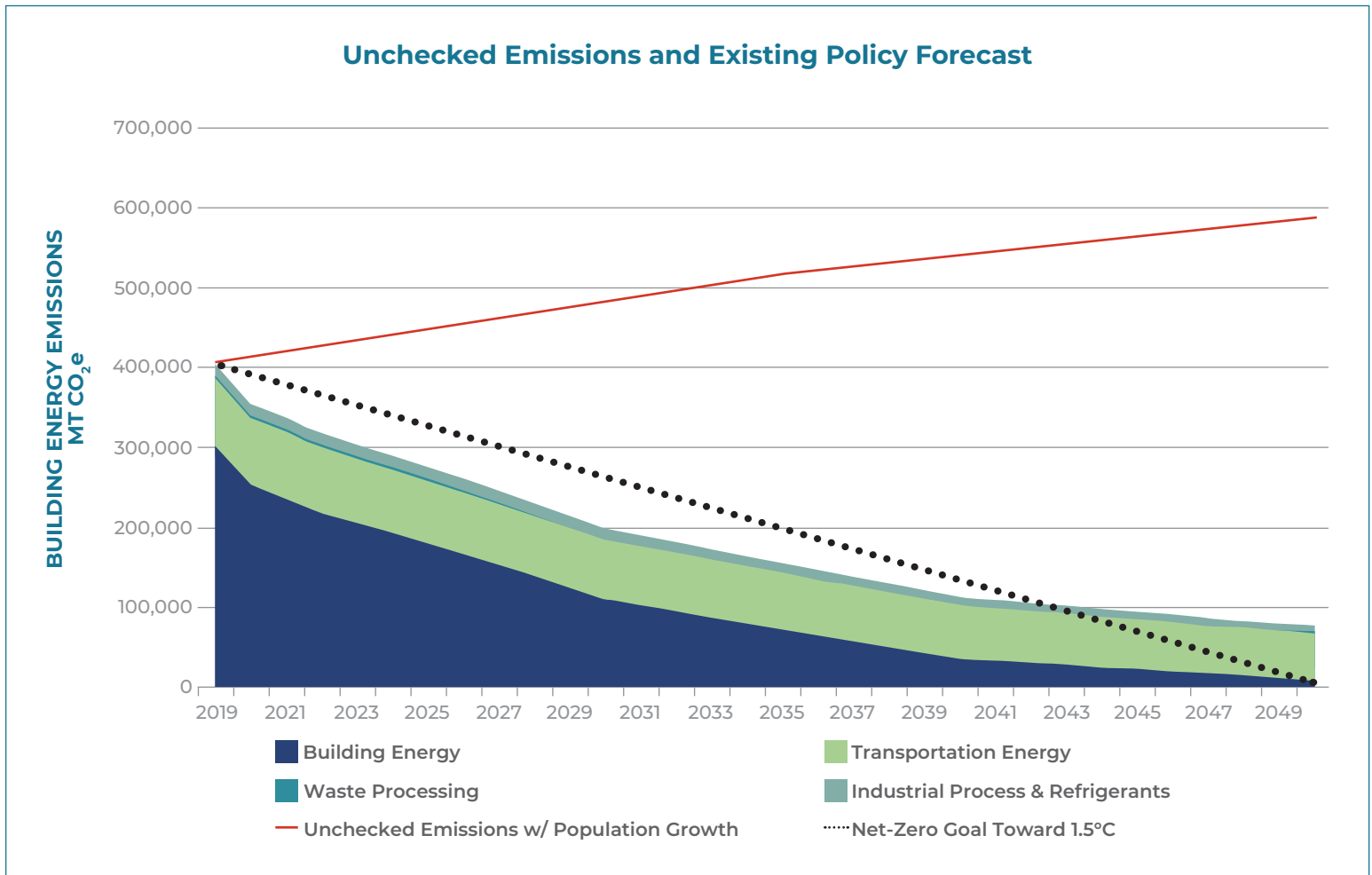


FIGURE 6: Tualatin’s unchecked emissions forecast (solid red line, population growth with no policy interventions) with forecasted emissions based on existing state and federal policy, and a net-zero by 2050 trajectory (black dotted line). This graph tells us that Tualatin will need to take additional action to decrease emissions and meet its goal of net zero by 2050.



Tualatin will need to take further action to decrease emissions, primarily from transportation, but also from industrial processes and refrigerants, waste processing, and building energy to meet its goal of net zero by 2050. This section includes 19 strategies and 87 actions meant to help Tualatin reduce community-wide emissions to net zero by 2050.



**FOCUS AREA 4  
BUILDINGS AND ENERGY**

<b>STRATEGY 4.1</b>	Energy efficiency and conservation	11 Actions
<b>STRATEGY 4.2</b>	Transition to 100% carbon-free electricity supply	4 Actions
<b>STRATEGY 4.3</b>	Transition to 100% renewable natural gas (RNG) and clean hydrogen supply	4 Actions
<b>STRATEGY 4.4</b>	Electrification of space and water heating for new buildings	2 Actions
<b>STRATEGY 4.5</b>	Electrification of space and water heating for existing buildings	2 Actions
<b>STRATEGY 4.6</b>	Voluntary purchase of verified carbon offsets	3 Actions



**FOCUS AREA 5  
URBAN FORM AND LAND USE**

<b>STRATEGY 5.1</b>	Dense future development resulting in reduced future vehicle miles traveled	7 Actions
<b>STRATEGY 5.2</b>	Urban/community forestry & carbon sequestration	6 Actions



**FOCUS AREA 6**  
**TRANSPORTATION – MODES AND FUEL SWITCHING**

<b>STRATEGY 6.1</b>	Fuel switching - Electric vehicles (EVs), renewable diesel, biodiesel, ethanol and other low-emissions fuels	<b>10 Actions</b>
<b>STRATEGY 6.2</b>	Active transportation to reduce car miles and fossil fuel (gasoline) use	<b>10 Actions</b>
<b>STRATEGY 6.3</b>	Transit transportation to reduce car miles and fossil fuel (gasoline) use	<b>4 Actions</b>
<b>STRATEGY 6.4</b>	Remote and flexible work options to reduce car miles and fossil fuel (gasoline) use	<b>3 Actions</b>



**FOCUS AREA 7**  
**CONSUMPTION – FOOD AND GOODS**

<b>STRATEGY 7.1</b>	Landfill diversion of organic materials (composting)	<b>4 Actions</b>
<b>STRATEGY 7.2</b>	Reduce emissions from food	<b>4 Actions</b>
<b>STRATEGY 7.3</b>	Reduce emissions from road materials	<b>2 Actions</b>
<b>STRATEGY 7.4</b>	Reduce consumption of new materials	<b>5 Actions</b>
<b>STRATEGY 7.5</b>	Responsible waste management	<b>4 Actions</b>
<b>STRATEGY 7.6</b>	Reduce emissions from landscaping	<b>1 Actions</b>
<b>STRATEGY 7.7</b>	Refrigerants Management (AIM Act)	<b>1 Actions</b>

The outcomes of these strategies and actions include things like:



- **More energy efficient buildings** resulting in lower emissions and financial savings.
- **More renewable energy.** Renewable energy sources, like wind and solar, reduce carbon emissions and result in additional benefits like improved air quality and increased energy independence compared to fossil fuels.



- **Walkable neighborhoods** in which community members can meet most of their daily needs without the use of a car.
- **Increase tree cover by strengthening tree removal regulations and enforcement (policy decision)**



- **More EVs and EV charging options.** By 2035, all new vehicles sold in Oregon must be electric. Readily available charging options around town can help community members feel confident that they can get from point A to point B.
- **More frequent and reliable transit service.**
- **More safe and enjoyable active transit routes** so community members can walk, bike, and roll to and from their destinations.



- **A connected, informed, and engaged community that understands the impacts of consumer choices on the climate** and is empowered to make climate-friendly choices when purchasing food and goods.

# SECTION 4: NEXT STEPS

We know that achieving our goal of net zero carbon emissions by 2050 won't be easy and we can't do it alone. We also know that it's not too late to take action to ensure that our community is a healthy and thriving place to live now and for generations to come. The community Climate Action Plan was created to provide an actionable roadmap to reduce carbon emissions and prepare the Tualatin community for the local impacts of climate change that we have already begun to experience.

To achieve Tualatin's climate goals, the city aims to prioritize actions that enhance equity, provide benefits to the community, and build on partnerships with other agencies, community organizations, and the business community. Climate mitigation and resilience work is already happening, and will continue, at multiple levels, including at the local, state, and federal levels.

We will only achieve our goals if we invest time, energy, and resources in taking action. City staff have identified 12 additional actions the City can take in the next 5 years to ensure the community continues to make progress towards its climate action goals.

ACTION	
<b>8.1.1 Create a climate action advisory group to prioritize actions, increase buy-in, and support implementation.</b>	The advisory group could be made up of community members and/or City staff.
<b>8.1.2 Develop a climate action engagement strategy to be used during plan implementation.</b>	Engagement efforts should focus on information sharing, gathering feedback on the implementation of specific actions, and celebrating the climate action work already being completed by community members.
<b>8.1.3 Hire a professional facilitator (consultant) to facilitate climate action-focused project ideation workshops to better prepare for outside funding opportunities.</b>	
<b>8.1.4 Dedicate employee resources to manage implementation of the Climate Action Plan.</b>	Implementation of the CAP will require ongoing stakeholder coordination, project management, identifying and obtaining external funding.
<b>8.1.5 Add a 'Climate Impacts' section to staff reports for City Council and the Planning Commission.</b>	Similar to the 'Financial Implications' section on the existing staff report template, including a dedicated section will require staff and elected officials to consider how a given recommendation impacts Tualatin's climate goals.
<b>8.1.6 Include 'Climate Impacts' as a scoring criteria in Requests for Proposals (RFPs) for City projects.</b>	Including climate impacts as a scoring criteria could be a good tool to help reduce emissions from City projects.
<b>8.1.7 Increase communication and education around climate change for community members and City staff.</b>	This action acknowledges that it is important to keep the conversation about climate going after the plan is adopted. Focus on highlighting 'climate wins' that are taking place in the community to inspire action, and provide information on actions that folks can take at the individual or household level. For example, the City could build a climate hub website with resources and climate action updates to be a one-stop-shop for community climate action information and updates.
<b>8.1.8 Evaluate potential funding sources to support climate action efforts.</b>	Sustainable, long-term funding will help to ensure the City can take meaningful climate action.
<b>8.1.9 Annual progress reports.</b>	Create annual reports on progress of actions and outcomes achieved to increase public accountability.

## ACTION

- 8.1.10 Update plan every 5 years.** Every 5 years the CAP and emissions inventory should be updated. This will help measure progress of emissions reductions and allow the plan to capture new policies, programs, partnerships, and technologies that become available over time.
- 8.1.11 Identify an ongoing funding source.** By identifying a consistent funding source the City can better plan and carry out actions that have a monetary cost or rely on consultant support. This could also be used to fund the full time employee recommended in another implementation action.
- 8.1.12 Create a 5 year work plan.** The CAP includes a large number and variety of actions. Creating a rolling 5 year work plan will make the plan more manageable and help focus resources and measure progress.

Completion of the community Climate Action Plan is just the start. The City is also considering undertaking an operational climate action plan to address emissions from City operations, as well as a Sustainability Plan to address broader issues that impact the environment. Those future phases may be picked up once the community Climate Action Plan is adopted and implementation has begun. In the meantime, the City is constantly seeking ways to reduce operational emissions as opportunities arise. Together, we can create a more resilient and thriving Tualatin.