



Metro Parks Tacoma - Climate Action Plan

Community Meeting
January 18, 2024

"The starting point for a better world is the
belief that it is possible."

- Margaret Mead



Welcome & Objectives

01

Understand context, purpose, and process for sustainability and climate action planning

02

Identify community experience with MPT resources and potential interaction with projected climate impacts

03

Review and provide feedback on the vision elements for a sustainable and climate resilient MPT

Introductions

- Your name
- What is your favorite park, or Metro Parks Tacoma experience?



Agenda

01

**Welcome &
objectives**

02

Project overview

03

Climate impacts

04

Visioning activity

05

Reflection

06

Next steps

02

Project Overview

Over the coming years, how will we
work together to increase MPT's
resilience to climate change impacts,
and mitigate climate change by reducing
MPT's environmental footprint?

Climate Action Plan

Discovery

Where are we today?

Vision

Where do we want to go?

Barriers

Why aren't we there yet?

Strategic Directions

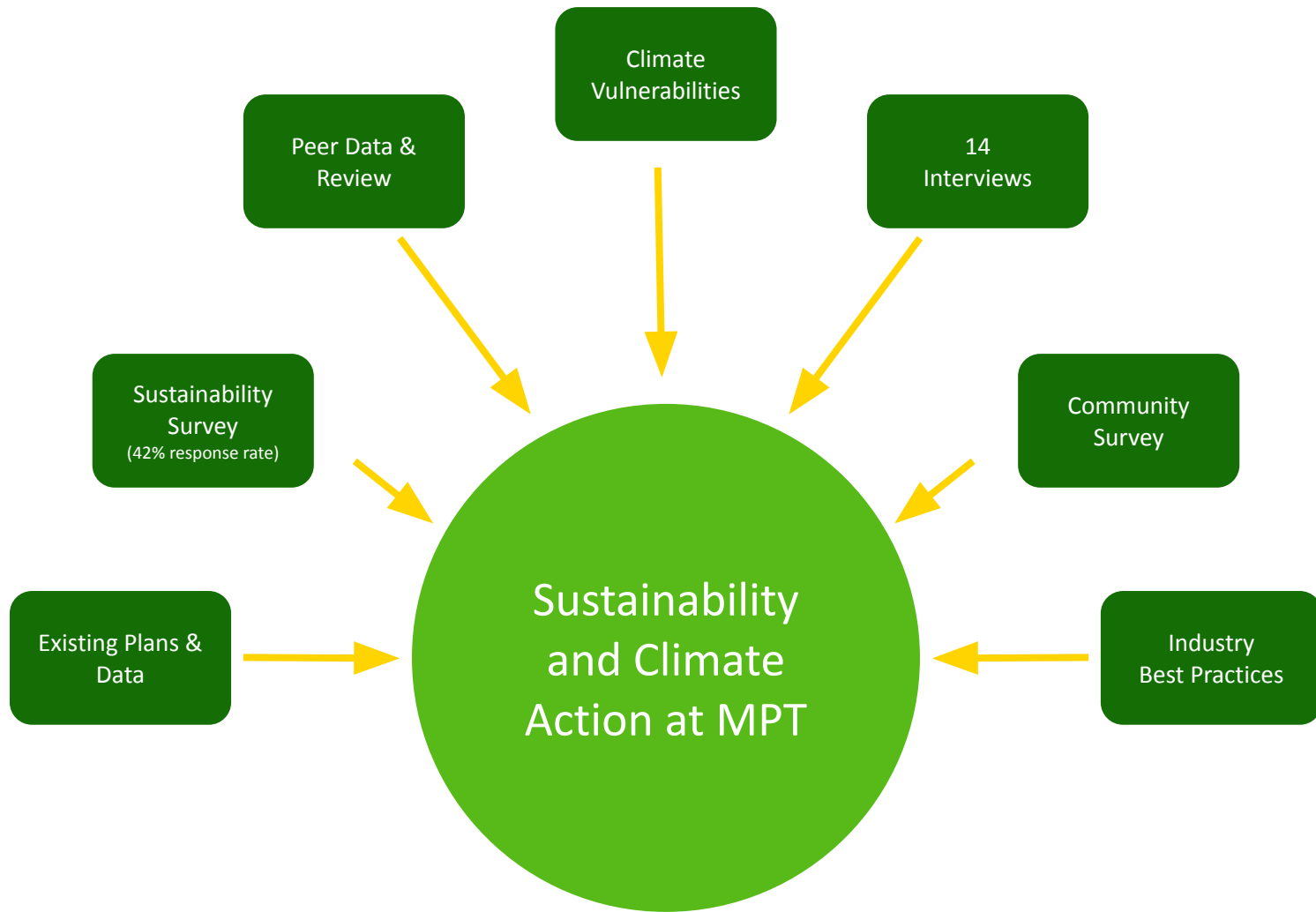
How do we co-create a way to get there?

Focused Implementation & Goals

Who is doing what by when?

How are we measuring success?

Current State



Climate Action Plan

Discovery

Where are we today?

Vision

Where do we want to go?



Plan Progress

Barriers

Why aren't we there yet?

Strategic Directions

How do we co-create a way to get there?

Focused Implementation & Goals

Who is doing what by when?

How are we measuring success?

Workshop Question

**“What would a more sustainable and climate resilient
Metro Parks Tacoma be like in 10 years?”**



Workshop Steps

- Individual Brainstorming
- Small Group Refinement
- Large Group Alignment



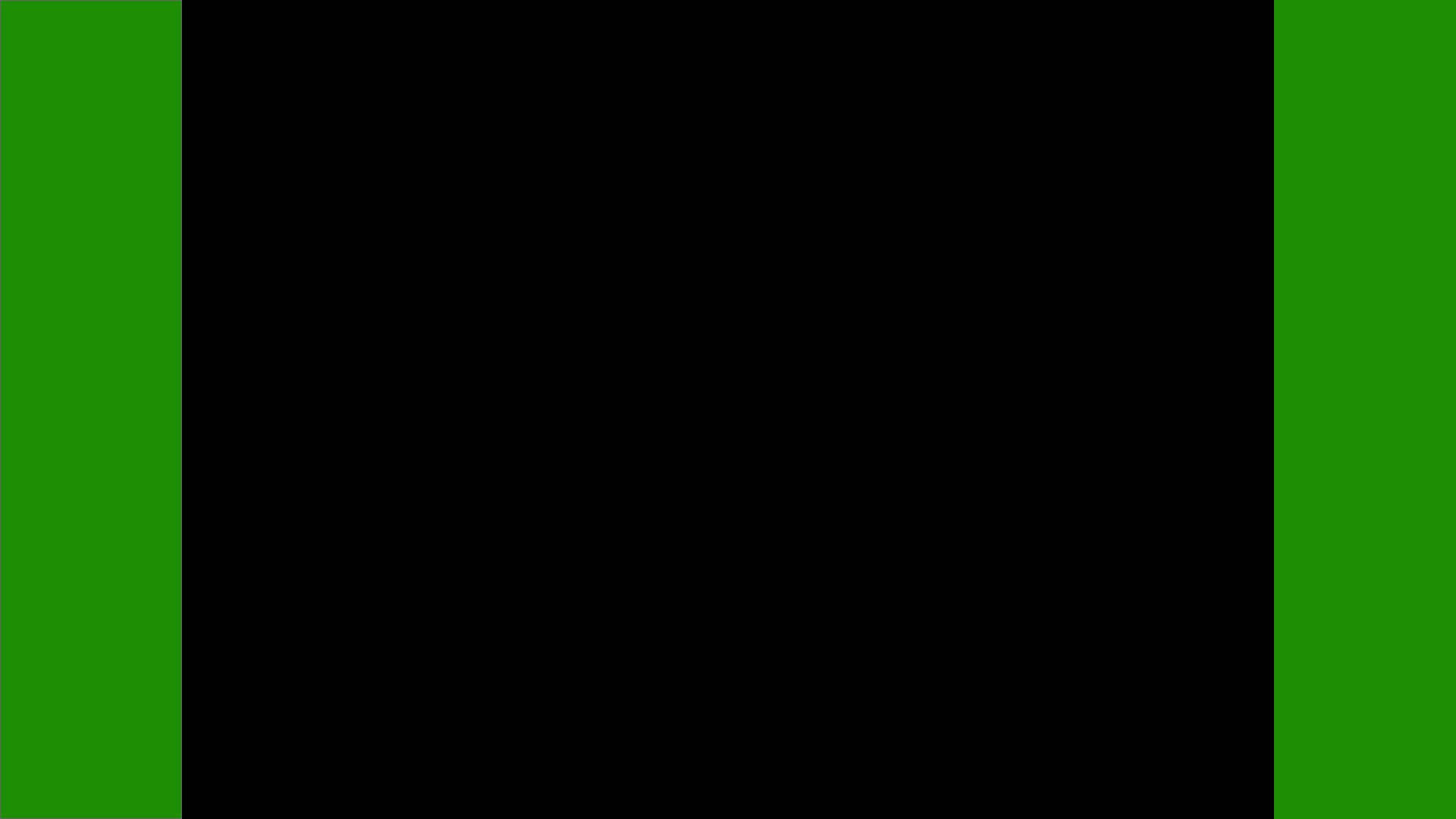
03

Climate impacts

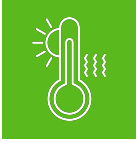
**What MPT
resources do you
use the most?**

2023 IPCC Update

1. Earth is on track to cross the critical 1.5°C threshold sometime in the 2030s
2. Warming is 'unequivocally' due to human activity
3. We can still prevent the most dire climate hazards, but the window is closing



Tacoma's Main Climate Impacts



Extreme heat



Landslide



Sea level rise



Air quality



**Precipitation
variability**



Warmer Temperatures

5.7°F

Average annual temperature increase by 2050s

The average annual temperature in 1990s for Tacoma was 52.5°F by 2050s that number is expected to climb to 57.7°F.

Tacoma

6.6°F

Increase in average maximum summer temperature

The average maximum summer-time temperature in 1990s for Tacoma was 74.5°F by 2050s that number is expected to climb to 81.1°F.

Tacoma

5.1°F

Increase in minimum winter temperature

The average minimum winter-time temperature in 1990s for Tacoma was 41.6°F by 2050s that number is expected to climb to 46.5°F.

Tacoma

Data collected for Tacoma and Puget Sound comparing averages from the 1990s to projected conditions by the 2050s under the RCP 8.5 model as advised by the most recent IPCC report. Data sourced from the [Climate Toolbox](#) unless otherwise noted.

Extreme Temperatures

14.8

Average days above 90°F

The average number of days above 90°F, will increase from 4 days in the 1990s to 14.8 by the 2050

Tacoma

5.6°F

Increase in average minimum summer temperature

5.1°F

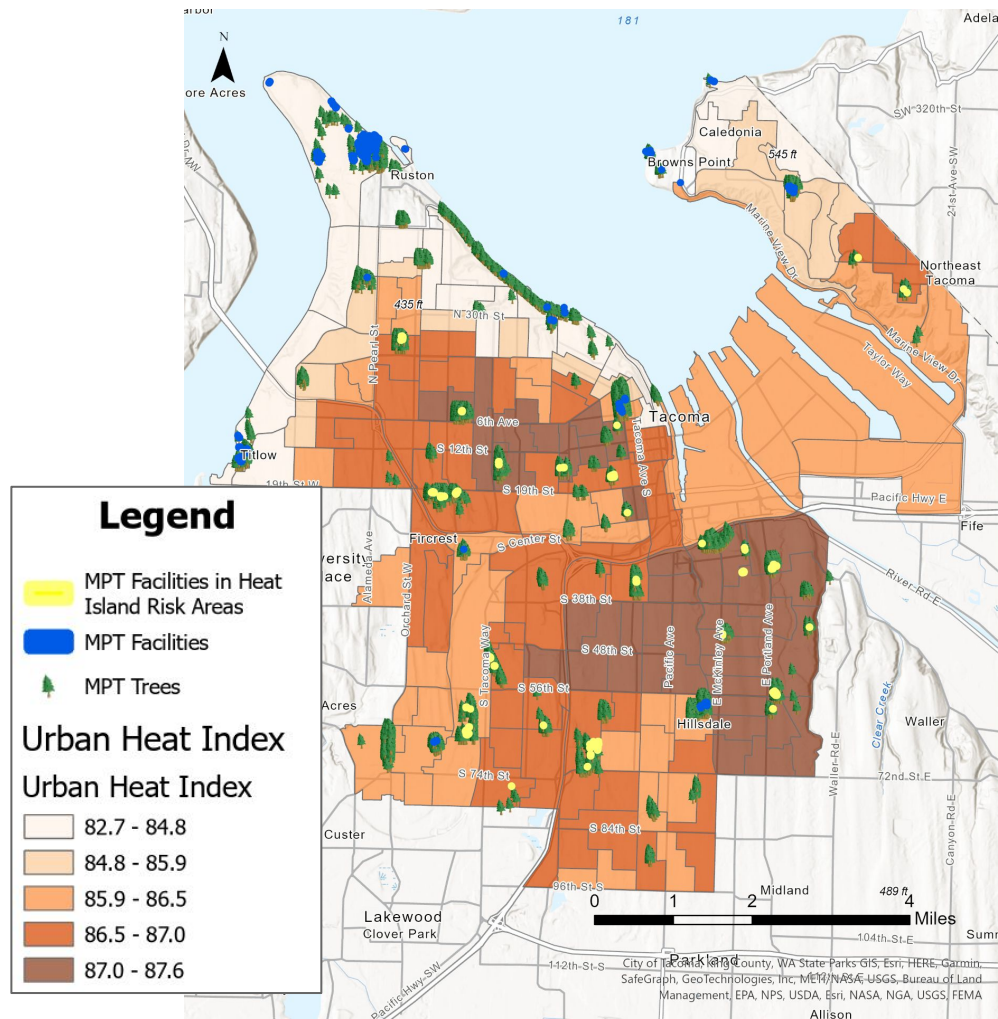
Increase in minimum winter temperature

Tacoma

- The frequency of extreme heat days to increase
- Coldest days projected not be as cold as those of today. **Source:** Tacoma Climate Change Resilience Study (2016)

Heat Index

- 63 MPT Assets are located within heat island risk areas



Increasing Precipitation

1.8"/4.5%

Average annual precipitation increase by 2050s

The average annual precipitation in 1990s for Tacoma was 39.8" by 2050s that number is expected to climb to 41.6".

-0.5"/-5.9%

Decline in summer precipitation

The average summer precipitation in 1990s for Tacoma was 3.3" by 2050s that number is expected to decline to 2.9".

1.2"/7.9%

Increase in winter precipitation

The average fall precipitation in 1990s for Tacoma was 15.4" by 2050s that number is expected to increase to 16.6".

0.3"/1.1%

Increase in Spring precipitation

The average Spring precipitation in 1990s for Tacoma was 9.2" by 2050s that number is expected to increase to 9.5".

- There is no significant projected increase in precipitation over all
- There is slight increase in projected precipitation for winter, spring, and fall, with slight decline in summer rainfall

Increasing Precipitation and Flooding

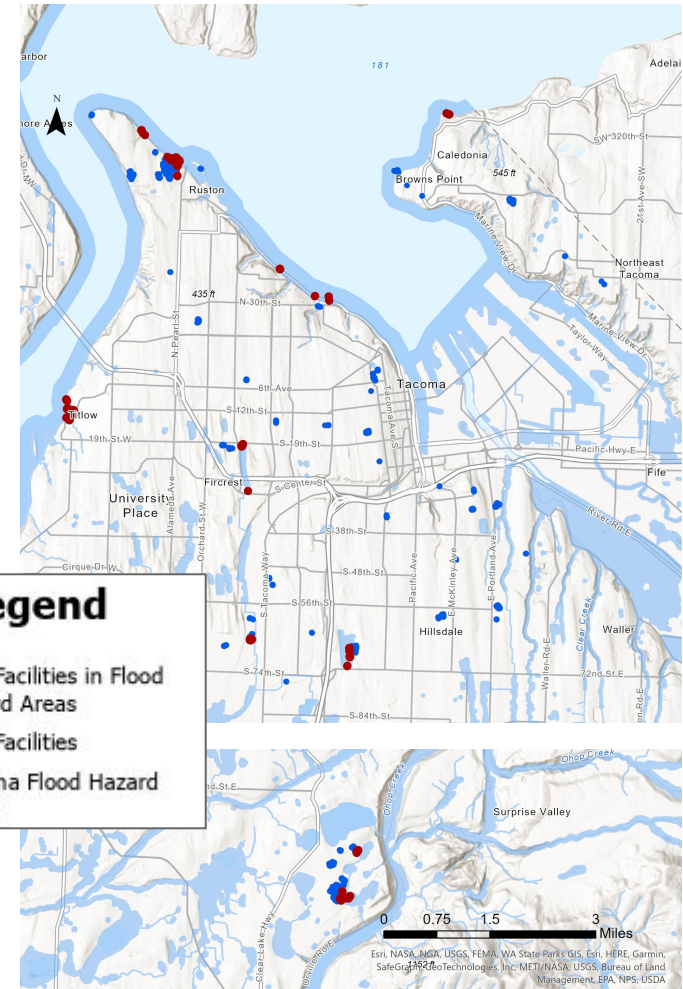
- Flood risk to increase, with the anticipated increase in heavy precipitation events in fall and winter seasons



Source: Foxweather.com , October 28, 2021, 11:39pm

MPT Assets in Flood Zones

- 52 MPT Assets are located within a flood hazard area



Sea Level Rise and Coastal Flooding

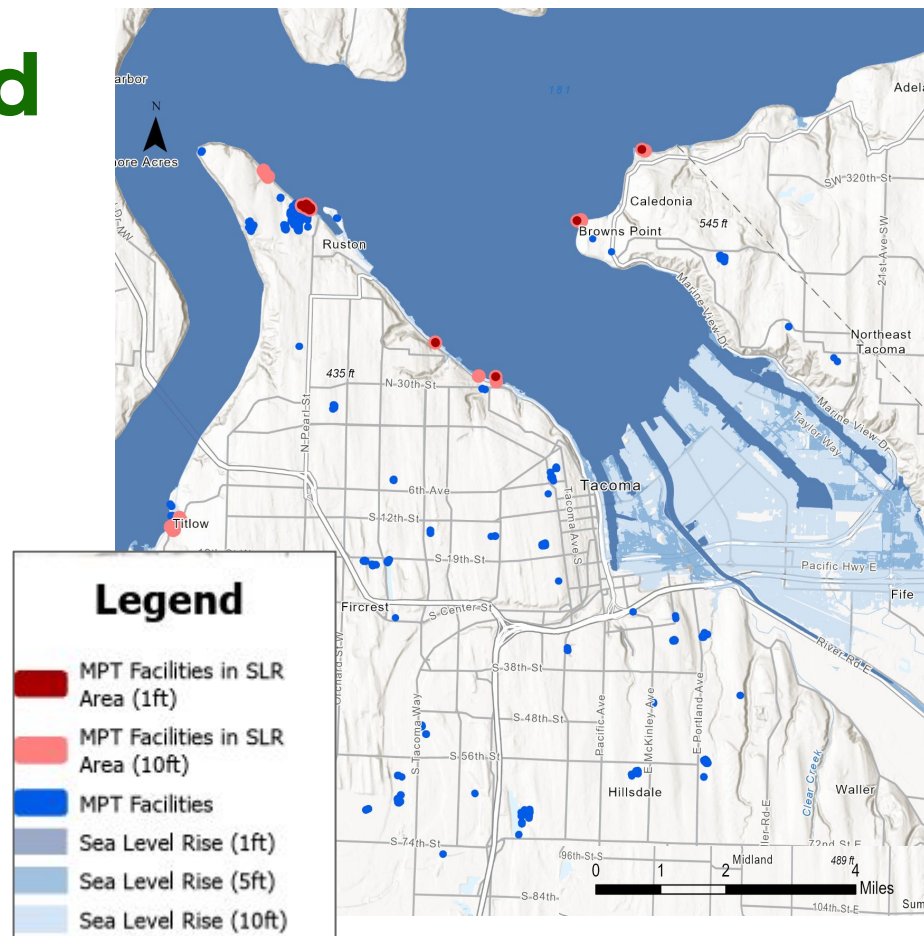
- Sea level projected to increase
 - 1950-19 inches
- Rise in coastal flooding and erosion



Coastal flooding on parts of Day Island in Tacoma, Dec. 27, 2022.

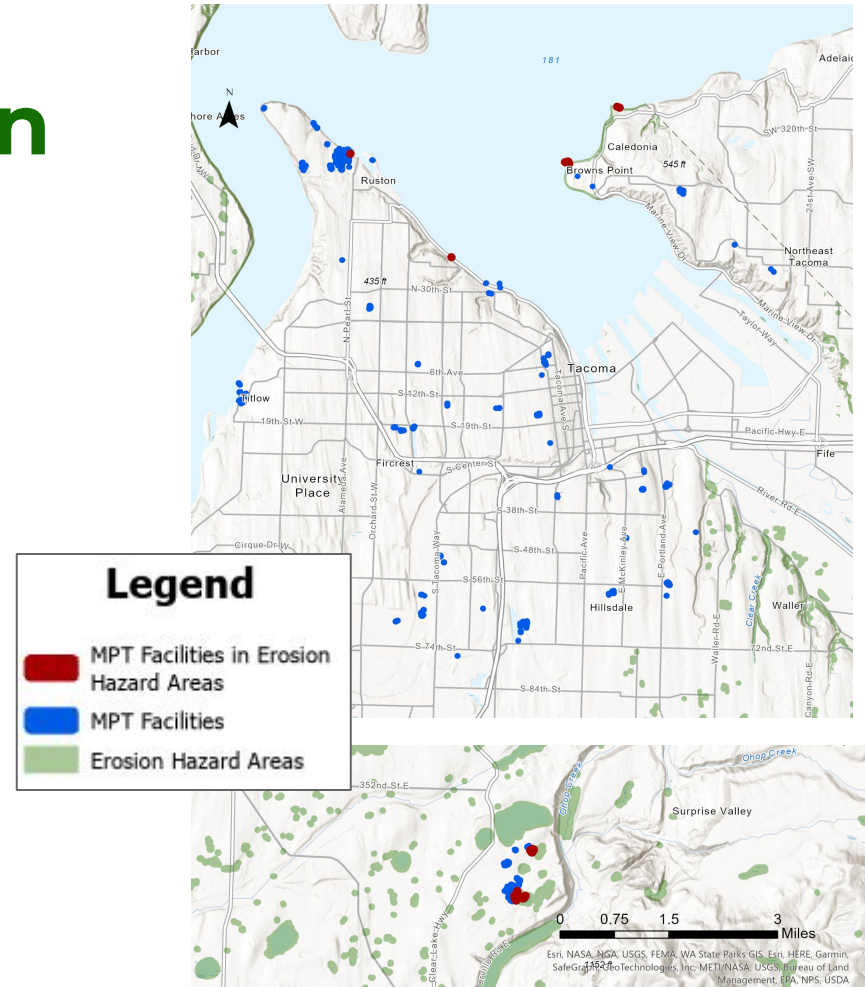
MPT Assets Affected by Sea Level Rise

- 28 MPT Assets are located within a 10 ft SLR risk area
- 8 MPT Assets are located within a 1 ft SLR risk area



MPT Assets in Erosion Hazard Areas

- 25 MPT Assets are located within erosion risk areas



Landslides

- Landslides are expected to become a more common occurrence



A landslide blocking East Pioneer Way in Puyallup, 2017.

Wildfires and Air Quality

- Warm temperatures combined with drier summers to increase risk of wildfire in Puget region



Climate Consequences

- How will these climate impacts change your experience with the MPT resources you identified earlier?



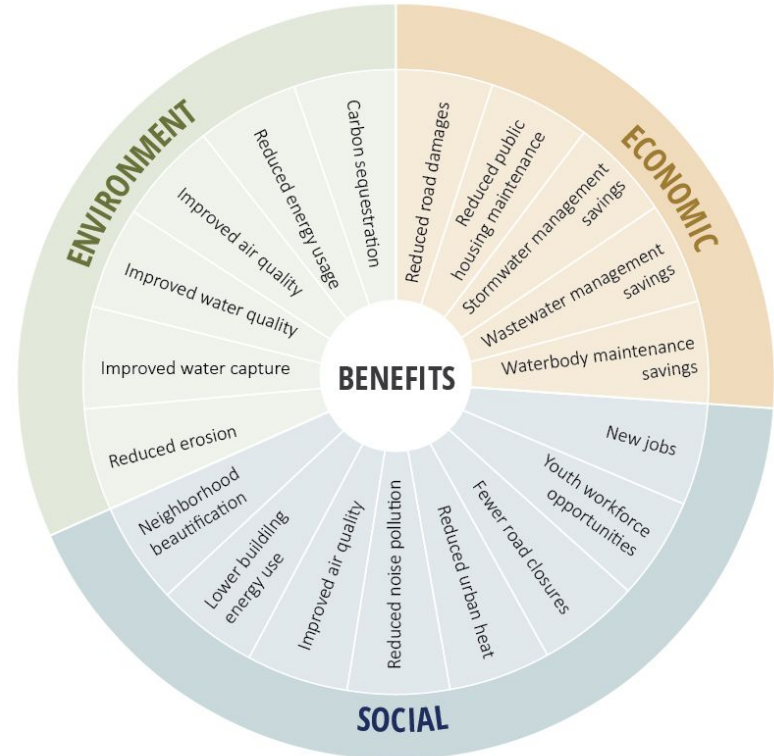
Climate Consequences

- How will these climate impacts change your experience with the MPT resources you identified earlier?
 - How?



Nature-based Solutions & Co-benefits

- Using Nature-based Solutions for climate adaptation & resiliency
 - Green infrastructure creates additional 'co-benefits'
 - Earth Economics values NbS co-benefits for more effective decision-making
-



04

Visioning Activity

Workshop Question

**“What would a more sustainable and climate resilient
Metro Parks Tacoma be like in 10 years?”**



Outcomes for Today

1. Identify hotspots in areas of support and areas of concern
2. Ensure community experience is included in climate action vision



Activity Steps Today

- Individual Brainstorming
 - In two rounds
- Small Group Refinement
- Large Group Alignment



Individual Round 1 - step 1

- Review and get any clarification on vision areas & elements
 - **Green**-resonates with me
 - **Yellow**-okay but have questions, needs refining, don't understand some of the components listed, has gaps
 - **Red**-Don't feel good about the inclusion in the vision



Individual Round 1 - step 2

- Review and get any clarification on vision areas & elements
- Use stickies on blue to signal how you feel about each vision area
 - **Green**-resonates with me
 - **Yellow**-okay but have questions, needs refining, don't understand some of the components listed, has gaps
 - **Red**-Don't feel good about the inclusion in the vision



Individual Round 2

- Articulate the gaps that you see in the vision areas
- What to add or change in each of the vision areas to make it green
- Take note of what to be re-written, to be added, or removed from a vision area
- Identify ways of altering the areas and elements so your yellows and reds turn green



Small Group Activity

- Share your ideas in a small group
- Refine and re-write on a sticky note card (3-7 words)
- Choose your group's top 5-7 ideas
- Be prepared to add the cards to the board



Large Group Consensus

05

Reflection

Reflection

1. What is one vision area or element that stood out to you the most?
2. What excites you the most about the vision overall?
3. How will realizing this vision alter your experience or access with MPT resources?



06

Next steps

Climate Action Plan

Discovery

Where are we today?

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Barriers

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**Strategic
Directions**

How do we co-create a way to get there?

**Focused
Implementation
& Goals**

Who is doing what by when?

How are we measuring success?

March 6, Virtual



Our Purpose is to create a thriving and resilient world

Thank you!



Certified



®

Corporation

07

Appendix

Climate Change Basics

Long-term shifts in weather patterns caused by the burning of fossil fuels (like coal, oil, and gas) for energy, transportation, manufacturing, food production, and more

Produces gases like carbon dioxide and methane, which create a heat-trapping blanket that warms the planet



Conceptual Alignment

Net zero. Reduction of GHG emissions by 90% from baseline.

Resilience. Ability to anticipate, prepare, and persist through disruption.

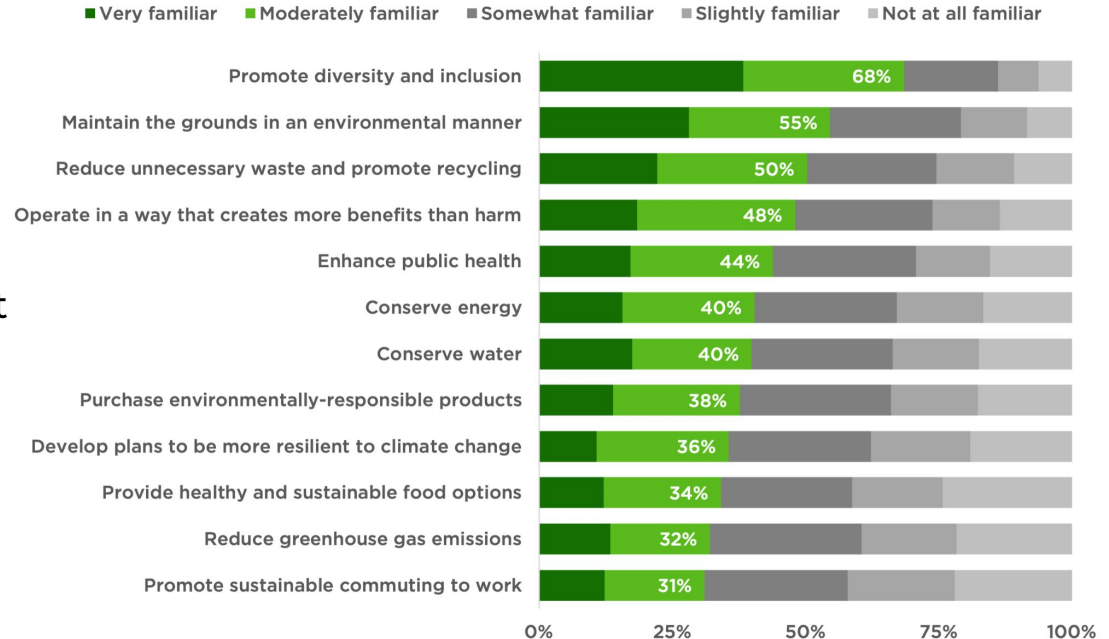
Living systems. Operating framework inspired by nature: open, self-organizing, interact with their environment.

Regenerative. Beyond mitigation and doing less harm to restorative, to doing more good.

Awareness of Efforts

43 - How aware are you of MPT's efforts to...

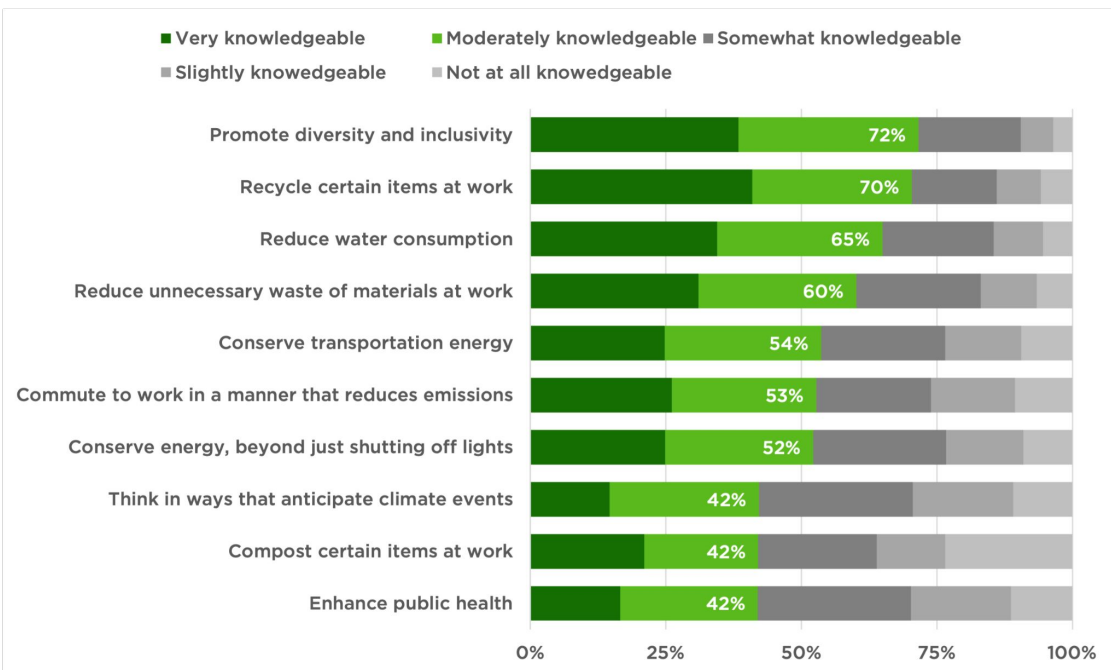
- Successful DEIJ awareness
- Lowest scoring dimension
- Lowest hanging fruit
- Awareness of the CAP process



Knowledge

55 - Knowledge of ways to personally do _ at work

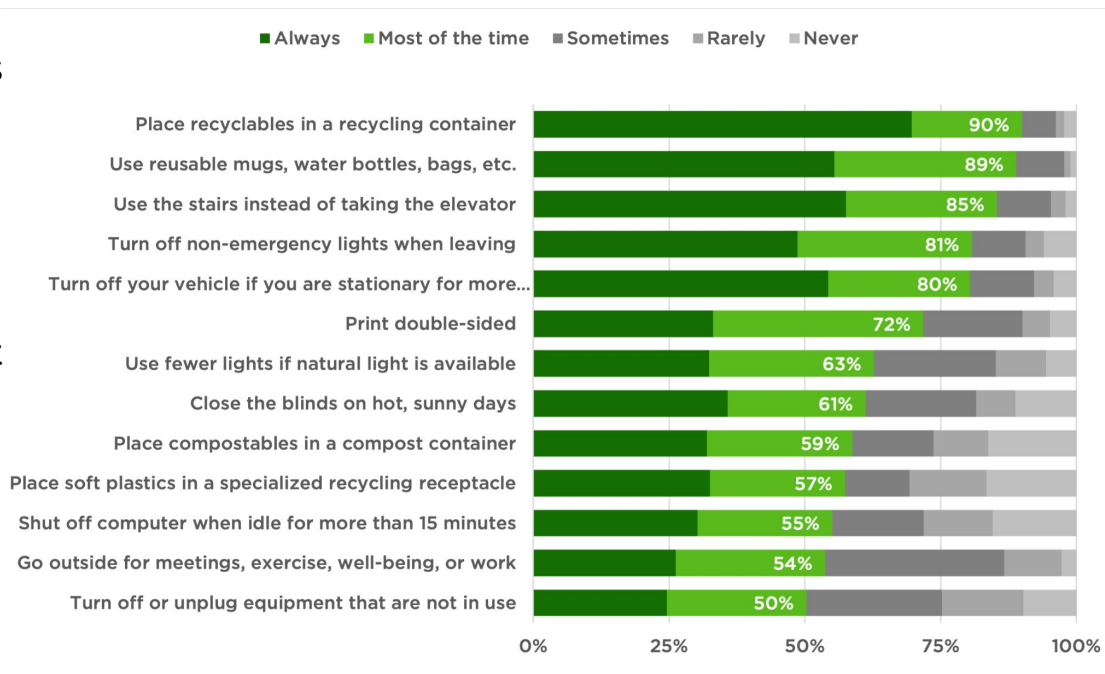
- Below average compared to other organizations surveyed
- Continuity w/ DEIJ and recycling
- Stronger sense of recycling at ZEED (81%)



Personal Behaviors

69 - How often do you do the following at work?

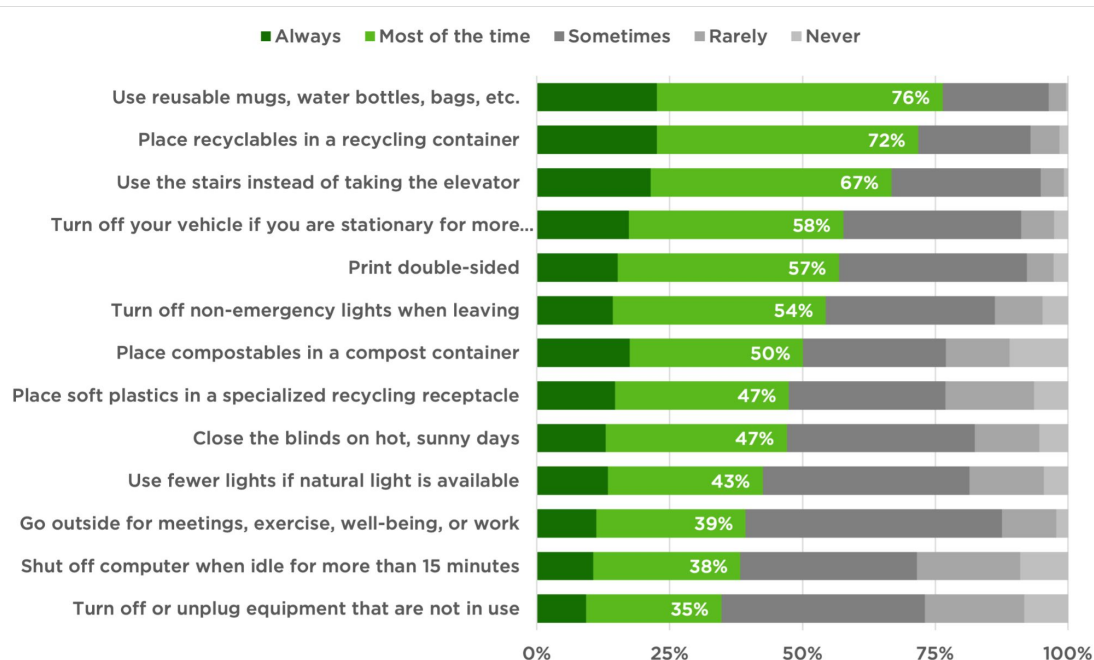
- Consistent strengths of waste management
- Least performed behavior - still 50% are sustainable most of the time



Perceived Norm

53 - How often do others do the following at work?

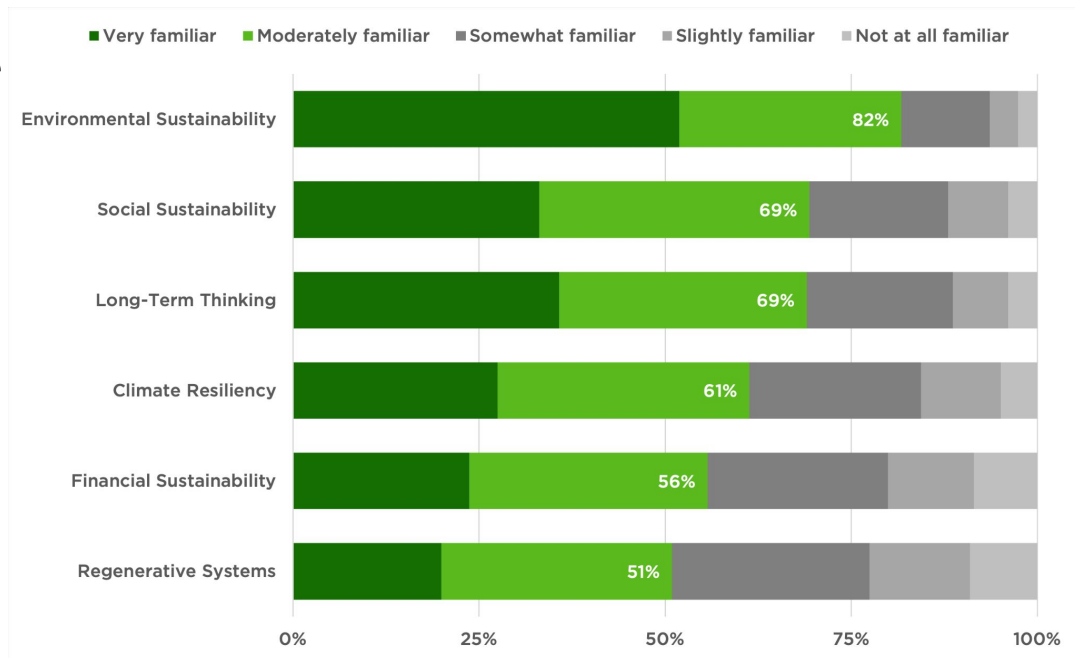
- Similar perceptions between ZEED and rest of MPT
- Reported personal and peer behaviors differ by just 16 – indicator of an organizational culture around sustainability

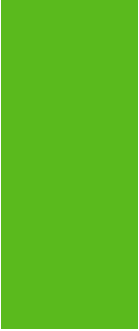


Familiarity

65 - Awareness of the following sustainability concepts

- Slightly above average
- Strong sense of environmental sustainability
 - ZEED was 88%
- Regenerative systems – traditionally low-ranked, gaining more recognition





Select Comments

Opportunities

- “It is difficult to keep morale high when all the recognition are based on how long you work with MPT. It would be nice to have different way to recognize hard-working people in addition to how long they work with MPT.” (ZEED)
- “Lots of water gets wasted when watering small patches of grass in our parks. Multiple parks have green space that is not usable, even during hot summer months, due to excessive watering.” (P&R)

Peer Review



Source

Focus Areas:



Energy Buildings EVs

Emissions



Diversion Rate

Waste



Capture



Reduce Use

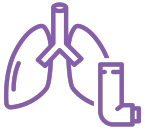
Water



Canopy



Food



Health

Equity

LA Green New Deal Example Goals:

- By 2050, L.A. will have a zero carbon grid, zero carbon transportation, zero carbon buildings, zero waste, and zero wasted water
- All new buildings will be net zero carbon by 2030; and 100% of buildings will be net zero carbon by 2050
- Increase the percentage of zero emission vehicles in the city to 25% by 2025, 80% by 2035, and 100% by 2050
- Increase landfill diversion rate to 90% by 2025; 95% by 2035; and 100% by 2050
- Increase equity of fresh food, tree canopy, and environmental justice scores reducing childhood asthma ER visits

Industry Context

- AZA Climate Change Position
- Aquarium Conservation Partnership Climate Commitment
- AAM's Environment and Climate Network
- Climate Heritage Network
- NRPA - Parks as Climate Change Solutions



Environment and Climate



NATIONAL
RECREATION AND PARK
ASSOCIATION



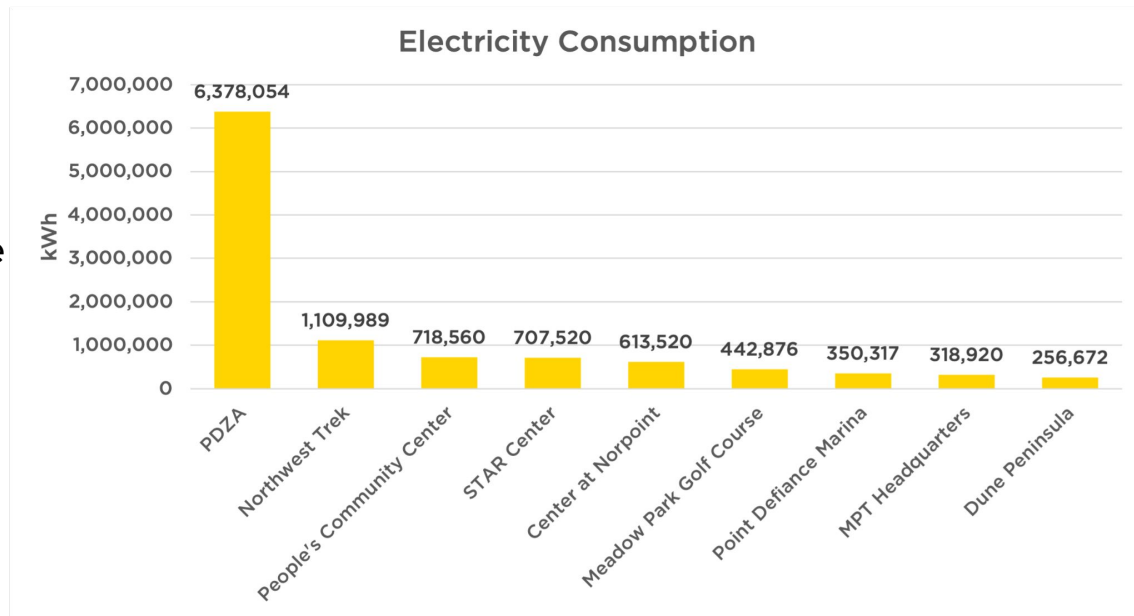
Climate Heritage
N E T W O R K

Mobilising arts, culture & cultural heritage for
#climateaction

2019 Electricity

85% of total electricity is consumed at 9 of the top usage locations

Point Defiance Zoo & Aquarium represented almost 50% of MPT's electricity usage in 2019

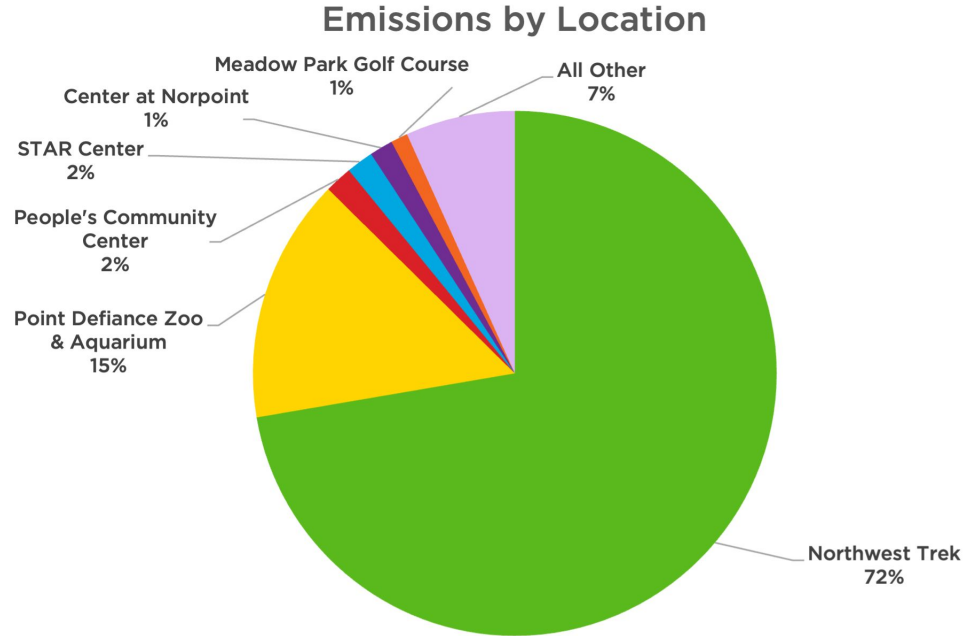


Electricity Emissions (2019)

Although PDZA consumed 6x more electricity, Northwest Trek produces more electricity-related emissions

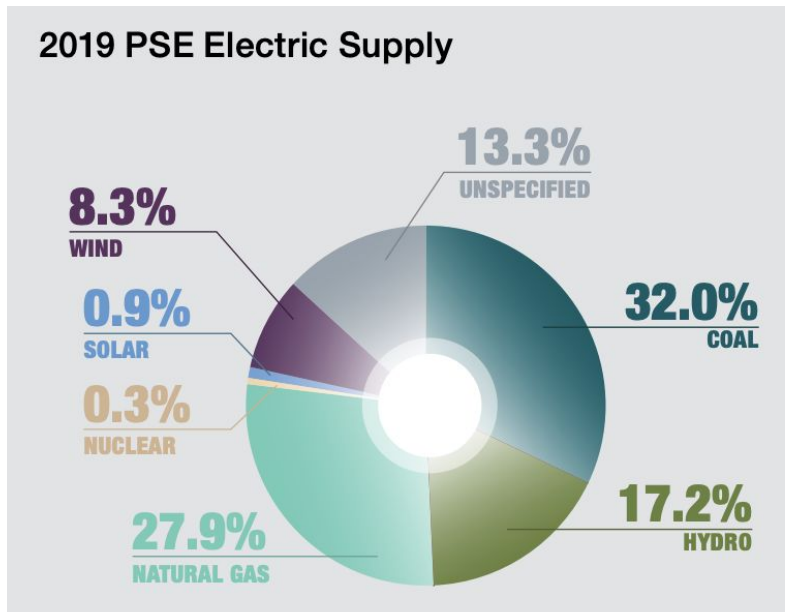
- Almost 5x more emissions
- Due to PSE's energy mix

Northwest Trek has made significant changes to decrease usage since 2019



Utility Decarbonization

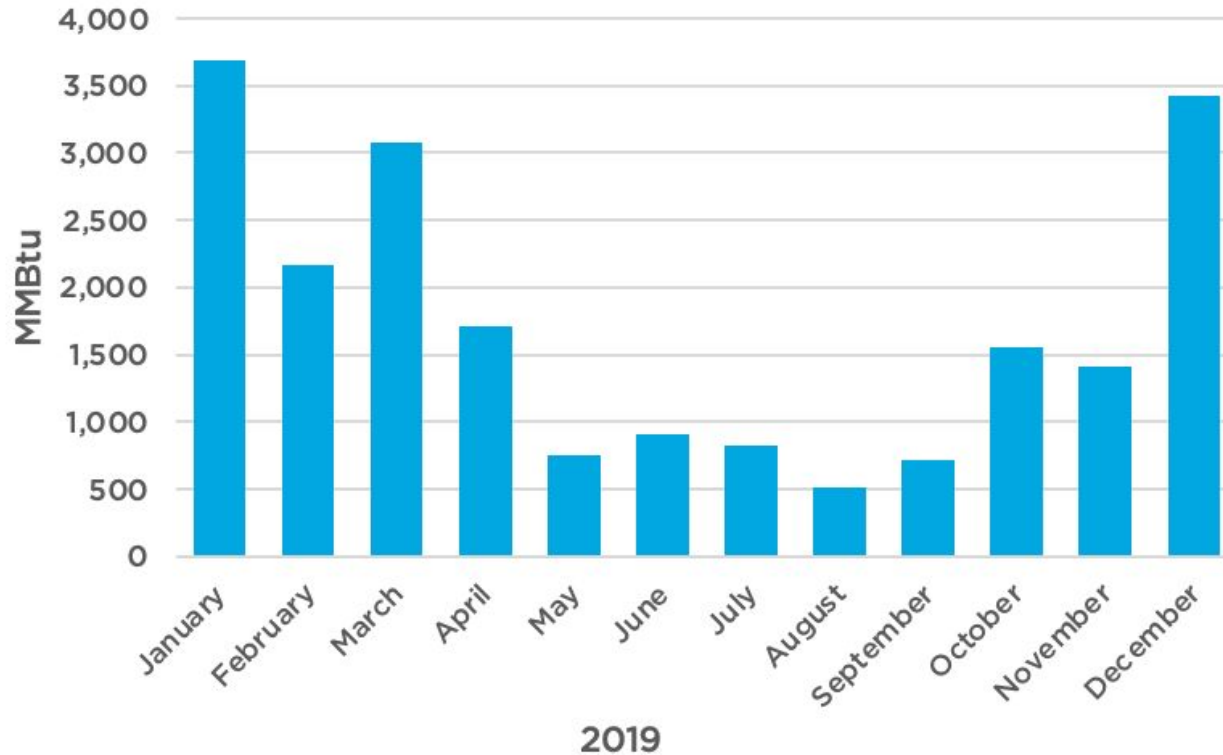
PSE



Source: [Pathway to Beyond Net Zero Carbon by 2045](#)

- 100% carbon-free electric supply by 2045
- Washington Clean Energy Transformation Act (CETA)
 - commits to electricity supply free of GHG emissions by 2045
 - All WA utilities required to fulfill requirements.
- Plans in place to achieve decarbonization goals
 - CEIP, CEAP, IRP

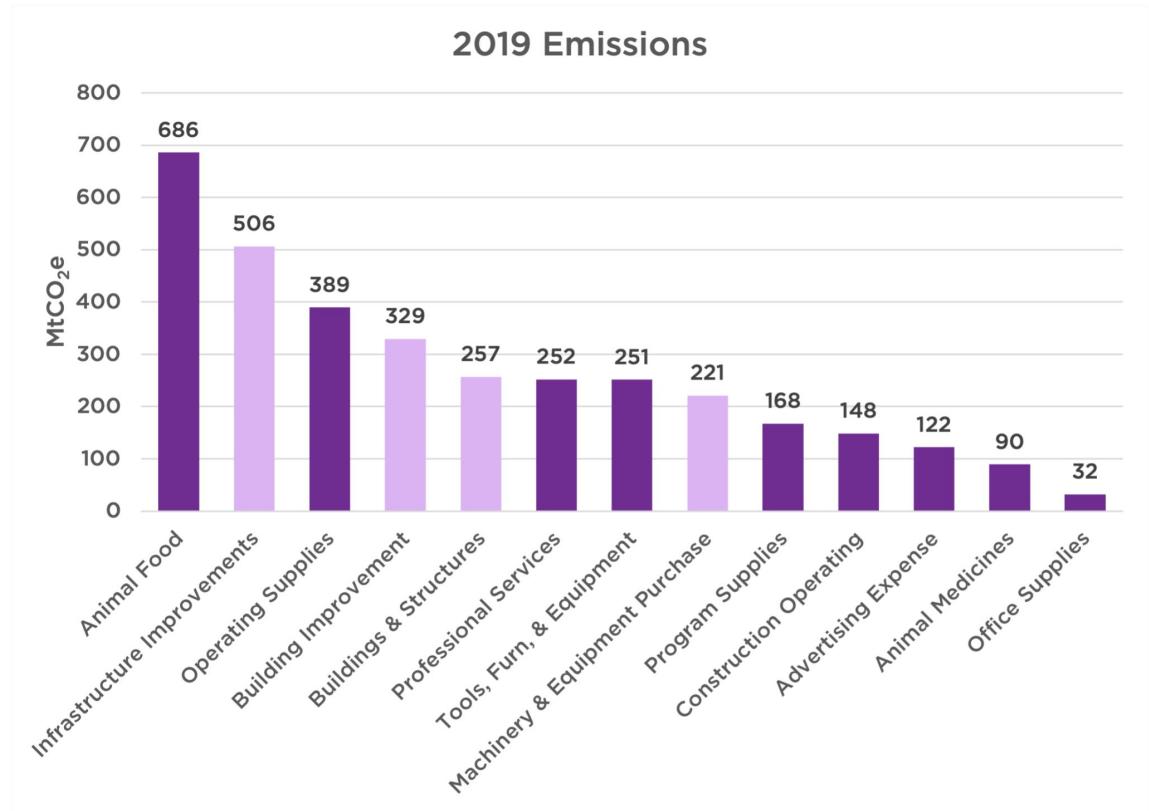
Stationary Combustion Usage



Procurement

Purchasing totals 3,607 MtCO₂e (38%) of the inventory

Most carbon intense purchasing comes from animal food, animal medicines, and food supplies

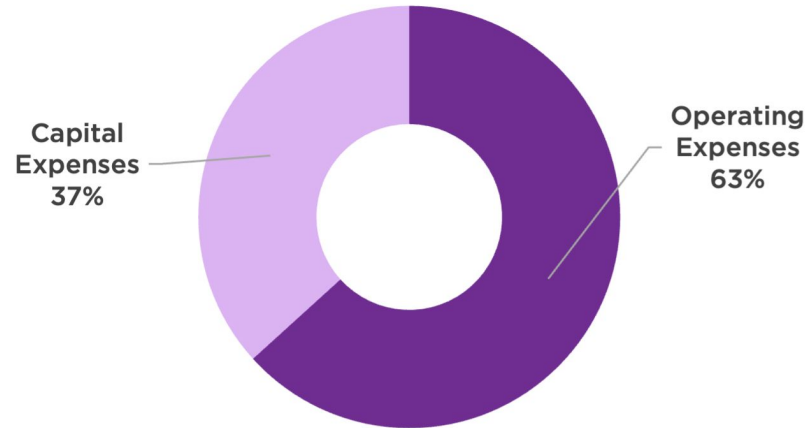


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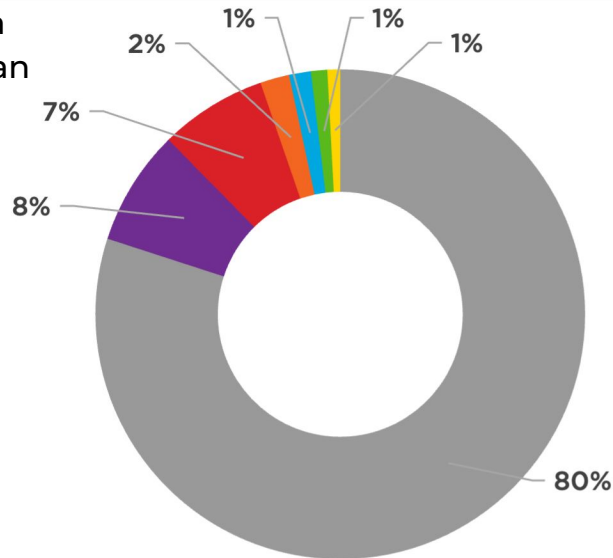
Purchasing Emissions



Active Commuting

Mode Split: the percent of trips employees make to work using a mode of transportation other than driving alone in a vehicle

Current Mode Split: 20%



Mode		2023
	Drive Alone	80%
	Work Remote	8%
	Carpool	7%
	Other	2%
	Walk	1%
	Transit	1%
	Bike	1%
GHG emissions (MtCO ₂ e)		1,895

Waste

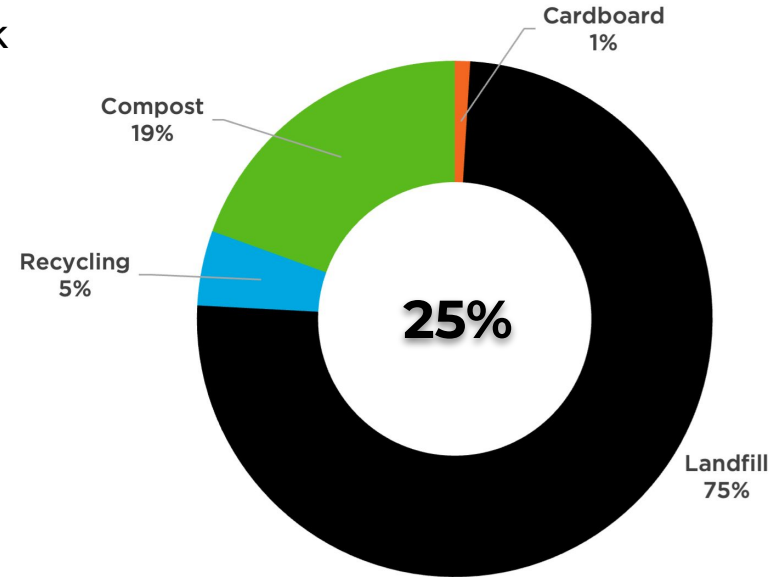
2019

35% of waste tonnage generated at Park Maintenance building and Titlow Park

Highest diversion rate at Park Maintenance building at 79%

5 locations have compost/yard waste pickup

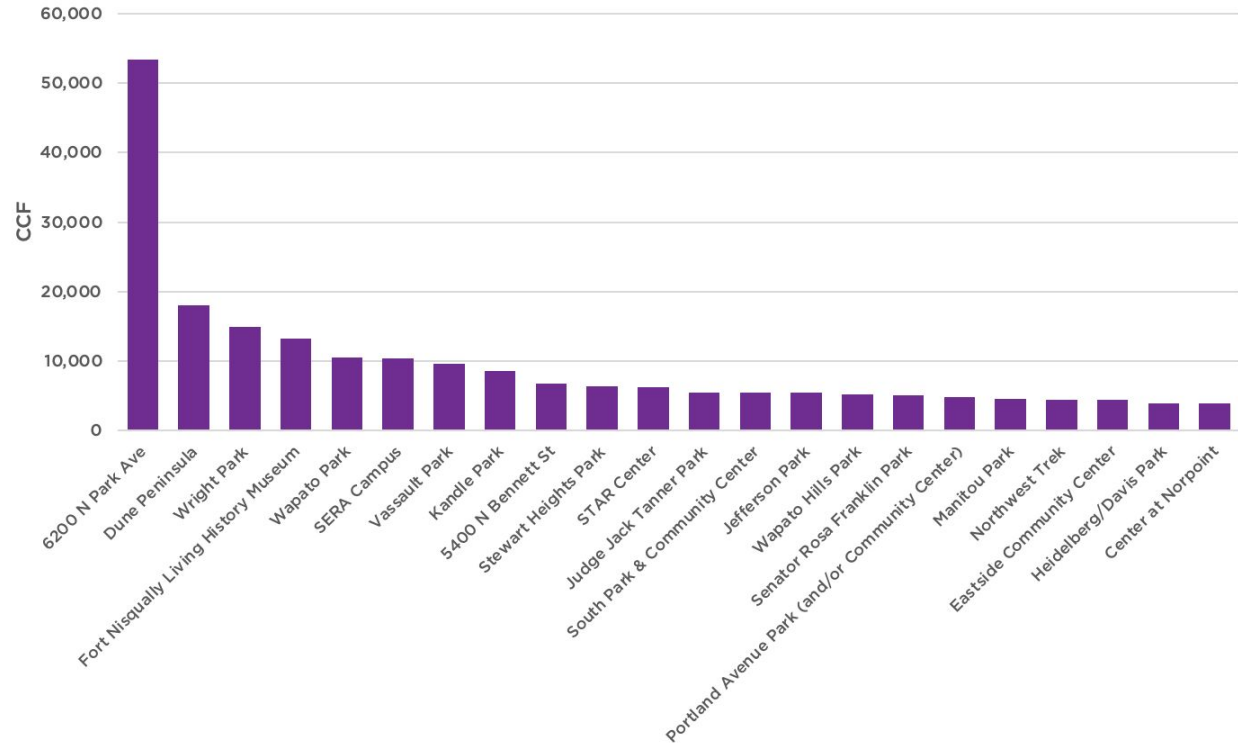
24% of recycling stream generated at PDZA Maintenance Building and East Side Community Center



Water Usage

22 locations represent top
78% of water consumption
in 2019

6200 N Park Ave near the
zoo used 20% of the total
water consumed in 2019

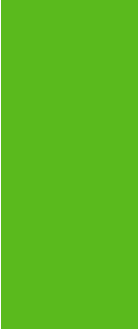


Sustainability Engagement Survey

Sustainability Engagement Score

Dimensions	2023
Awareness of Efforts (very/moderately aware) at the organization to be more sustainable	43
Knowledge (very/moderately knowledgeable) about ways to be sustainable at work	55
Behavioral Frequency (always/most of the time) self-reported key sustainable behaviors	69
Perceived Norm (always/most of the time) perceptions of how often others engage in key sustainable behaviors	53
Awareness of Sustainability (very/moderately familiar) familiarity with the concept of sustainability	65
Overall Score	57

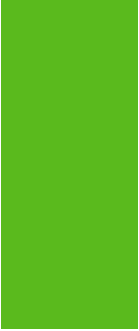
96% of respondents believe it is important for MPT to operate in a way that produces more benefits than harm



Select Comments

Strengths

- “Owen Beach redevelopment as an example of coastal resiliency. ZEED's work with endangered species (ie frogs), NW Trek conversion to electric trams.” (BAP)
- “Community Engagement has gotten much, much stronger in the last few years and has become one of MPT's greatest assets... Guest Engagement remains strong.” (BAP)
- “Newsletters that go out to staff/volunteers, and newsletters that go out to the public, keeping everyone informed and in the loop. Fort Nisqually does this well!” (P&R)



Select Comments

Opportunities

- “...We stopped public recycling at PDZA, which I understand is a logistical problem, but I think it sends a very poor message to our guests. I personally think poorly of facilities that don't offer recycling... We also "advertise" and offer compostable products but we don't actually compost it...” (ZEED)
- “...at the Marina, we have huge opportunities to conserve energy through facility upgrades to our electrical and lighting, that have (up until now) only been focused on convenience but not sustainability.” (P&R)

Partner & leadership interviews

Interview Methodology

- 1. Why?**
 - a.** Identify current state of MPT sustainability and climate action
 - b.** Document achievements and opportunities
 - c.** Clarify roles and expectations at the organization and across partners
- 2. Partner Matrix: 8 representatives across partner agencies**
- 3. Leadership Matrix: 6 members of MPT leadership**

Synthesized Key Takeaways

- 1.

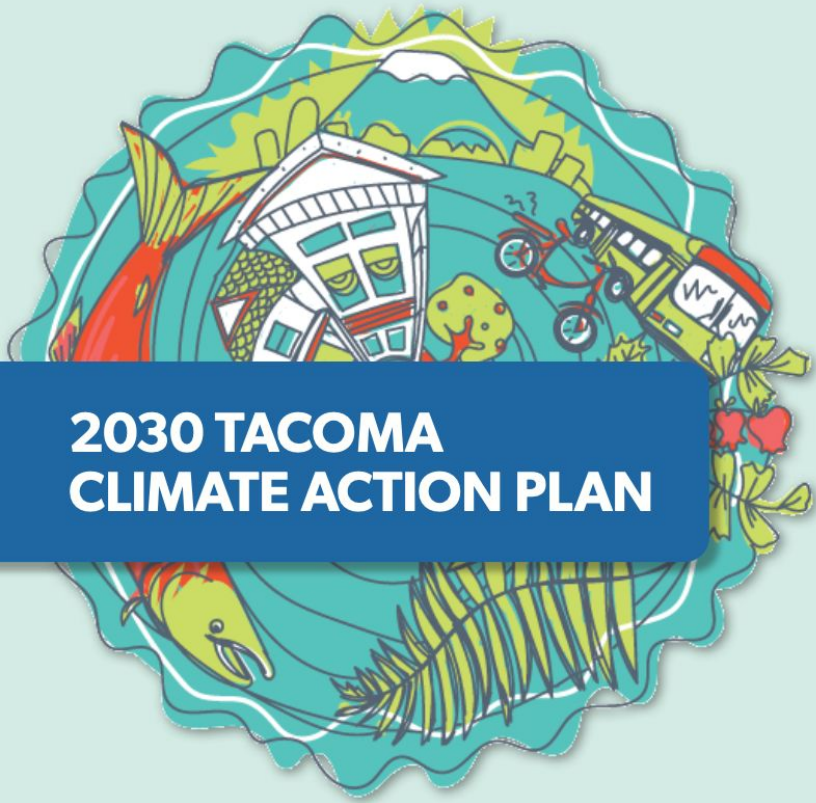
When thinking about the data inputs related to your current state...

1. What is one thing that stands out to you?
 2. What, if anything, about your data and the performance of your peers inspires you?
 3. What, if anything, challenges you about your data and your current state?
 4. How might your current state inform your vision of MPT's future?
-

Mission & Vision Alignment

MPT's mission is to create healthy opportunities to play, learn, and grow.

You envision a vibrant, active, and engaged community.



2030 TACOMA CLIMATE ACTION PLAN

Actions for a Better & More Just
Tacoma 2021-2024



Local Context

2021: City of Tacoma set a Net
Zero GHG goal

2030: Reduce emissions by 33%

2050: Net Zero GHG emissions

Local Context

Sustainability 2030:

Pierce County's Greenhouse Gas Reduction Plan



2021: Pierce County set GHG emissions goal

2030: Reduce emissions by 45%



Comprehensive Land Use Plan

August 2, 2023



Local Context

2019: Climate emergency resolution committing just transition to carbon neutral by 2050

2023: Land use plan goal to decarbonize tribal buildings, transportation and economy

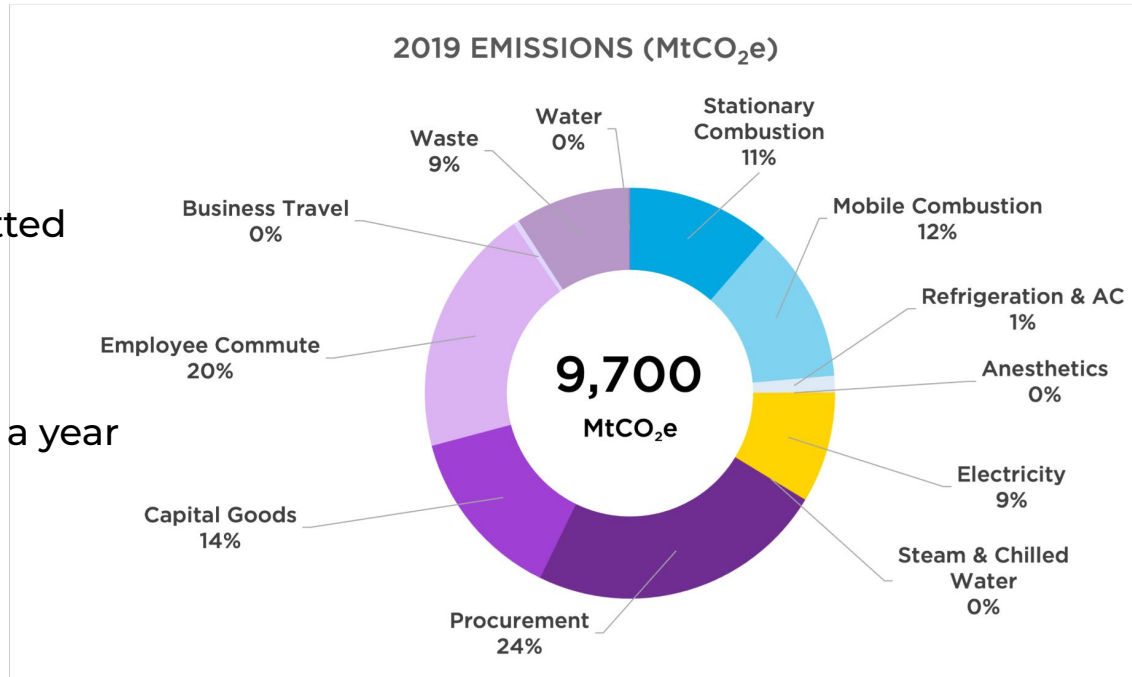
Key indicator baselines

Greenhouse Gas Inventory

In 2019, Metro Parks Tacoma emitted
9,700 metric tons of CO₂e

Equivalent to:

- **1,223 homes** using energy for a year
- **2,159 cars** driving for a year

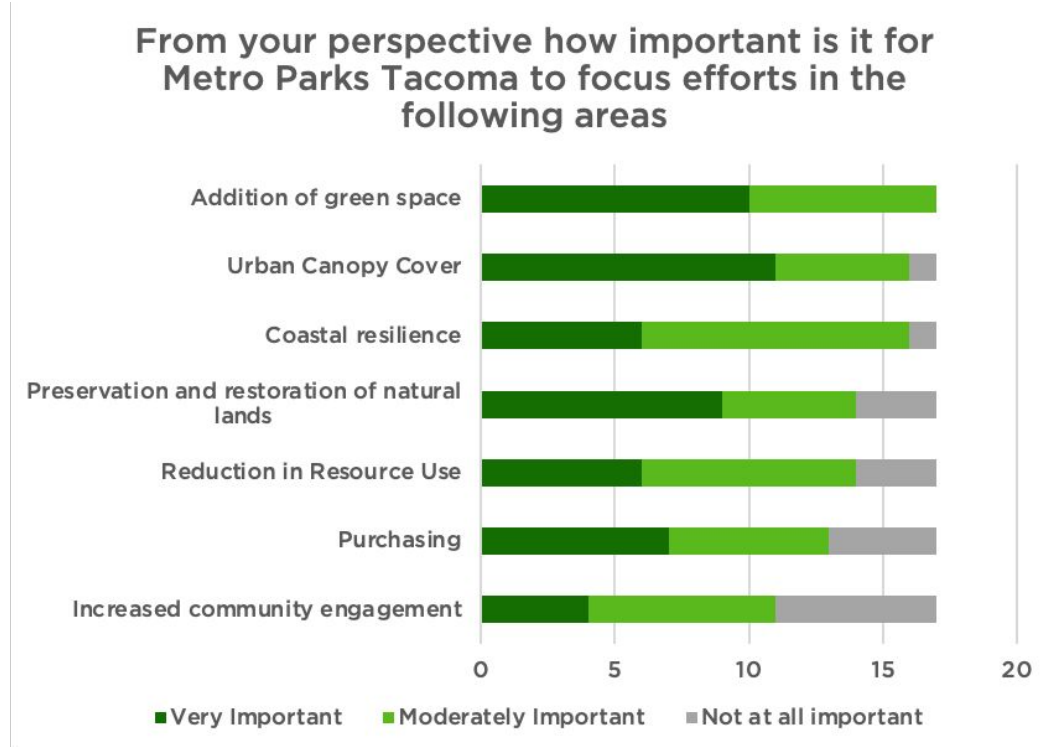


Community Survey

Community Survey Initial Results

Priority areas where MPT should focus efforts:

- Addition of Green Space
- Urban Canopy Cover
- Coastal Resilience



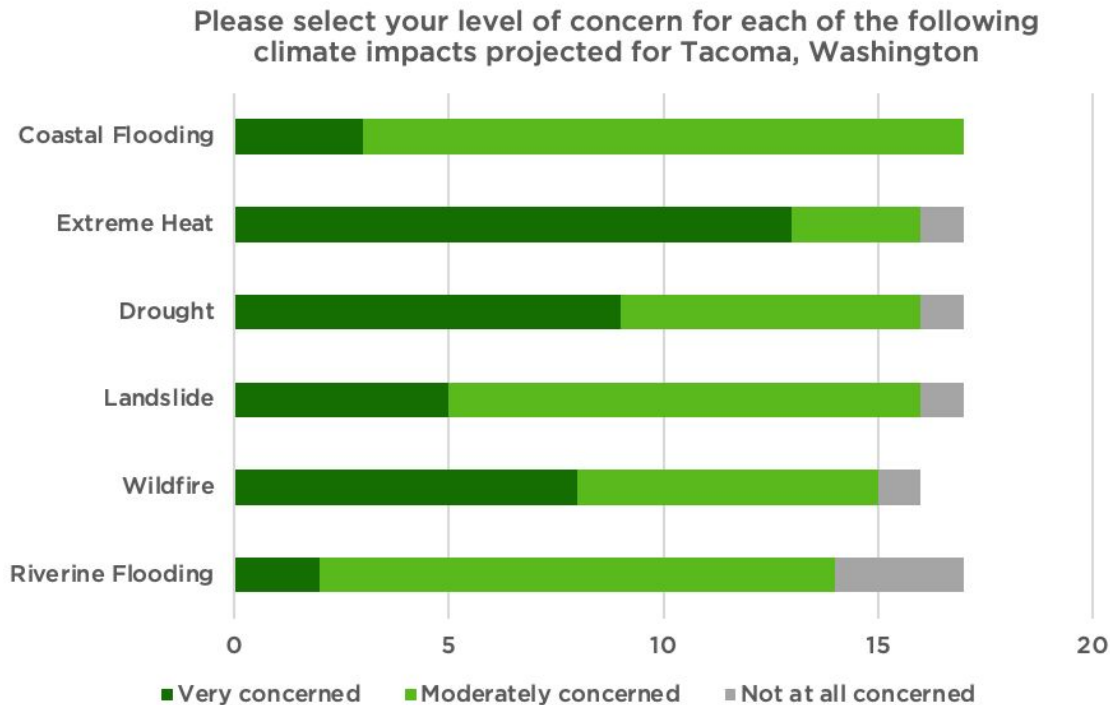
Community Survey Initial Results

Select Comments:

- Please keep public spaces safe! No more syringes and needles and encampments on our parks please. Also please remember to not forget the north end of tacoma for future developments
- Better coordination with the City of Tacoma to set and achieve mutual goals
- Increased bicycle friendly amenities (such as parking) and paths, improved access points to schools where parks are adjacent (DeLong, Franklin)
- Canopy cover and more areas dedicated to wildlife, with little bits of information and photos, maybe

Community Survey Initial Results

- 93% of responses indicate concern for Tacoma's projected climate impacts



Community Survey Initial Results

Select Comments

- Disproportionate effects on disadvantaged communities
- High winds having trees fall down and blocking the trails
- I'm just very worried about our problems with extreme heat

Peer review

Peer Review

	Total Size (Acres)	Number of Employees	Facilities
Tualatin Hills Park and Recreation District	2,532	1,000+	Rec Centers, Swim Centers, Sports Fields, Parks, Nature Parks, Skate Parks, Trails
Los Angeles Parks and Recreation	16,000	1,363 FT 6,628 PT	Cabrillo Marine Aquarium, Museums, Playgrounds, Rec Centers, Fitness Centers, Beaches, Pools, Hiking Trails
Norfolk Parks and Recreation	4,032	261 FT	Parks, Trails

Peer Review

Focus Areas:



Purchasing



GHG Reduction

Emissions



Zero Waste



Biodiversity

Ecosystem Function



Stormwater Runoff Reduction

Water Stewardship

Achievements:

- 100% of electricity is sourced from renewable resources
- Has a comprehensive sustainable purchasing policy
- Annual GHG inventory

Peer Review

Comprehensive Plan (2023) Goal Highlights:

- Consider sustainable alternatives to practices or products that may cost more initially but should pay off in the long run
- Consider the lifecycle effects of purchasing and operations on people and the environment
- Protect habitats, wildlife, and ecosystem functions
- Pursuing opportunities to reduce stormwater runoff and pollution
- Ensure activities are climate-neutral, produce zero waste, and generate no hazardous substances

Peer Review



Focus Areas:



Resources



Forestry



Access to Parks



Staff Wellbeing



Promote Play

Environmental Stewardship

Equity

Wellbeing

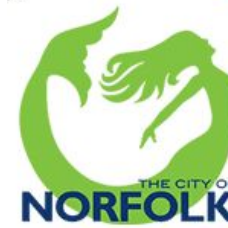
LAPRD Strategic Plan (2023) Goals

- Promote play and well-being of youth, families, and seniors
- Strengthen programs, experiences, and engagement in community
- Increase park equity and access to innovative park space
- Invest in staff and volunteers
- Provide stewardship of public lands, natural resources, and urban forestry

Source

Peer Review

Focus Areas:



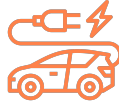
Source



Energy



Buildings



EVs



Bike

Emissions



Diversion Rate

Waste



Low Carbon Diet



Access

Food

City of Norfolk Climate Action Example Goals:

- Increase supply of non-carbon renewable energy citywide
- Optimize energy efficiency of municipal buildings and facilities
- Increase transit infrastructure and use of public transportation and non-auto modes of transportation.
- Increase use of fuel-efficient energy in public lighting
- Educate and encourage residents to prioritize a lower-carbon diet
- Increase education on Climate Change and carbon reduction
- Integrate carbon emission goals into all city planning, activities, events, and actions

Net Zero Pathway

SES Survey + GHG inventory

Measure emissions for Scope 1 & 2 and select scope 3s. Include engagement and commute survey.

Workshop #1

Brainstorm strategies on how MPT can achieve Net Zero



March 6, Virtual

Interviews & Research

Gather further data, meet with subject matter experts, compile third party data

Workshop #2

Co-create emissions reduction path supported by GHG projection tool.

Action Planning

Identify the actors, resources, and steps needed for the first 12-24 months. Involve leadership.

Feedback Survey

<https://forms.gle/m8AqpXWTPkXMjiay9>

