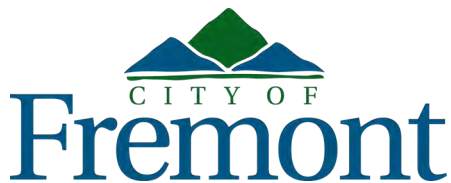




Climate Action Plan Update 2021

Climate Talks - Day 4
Water and Nature in the City



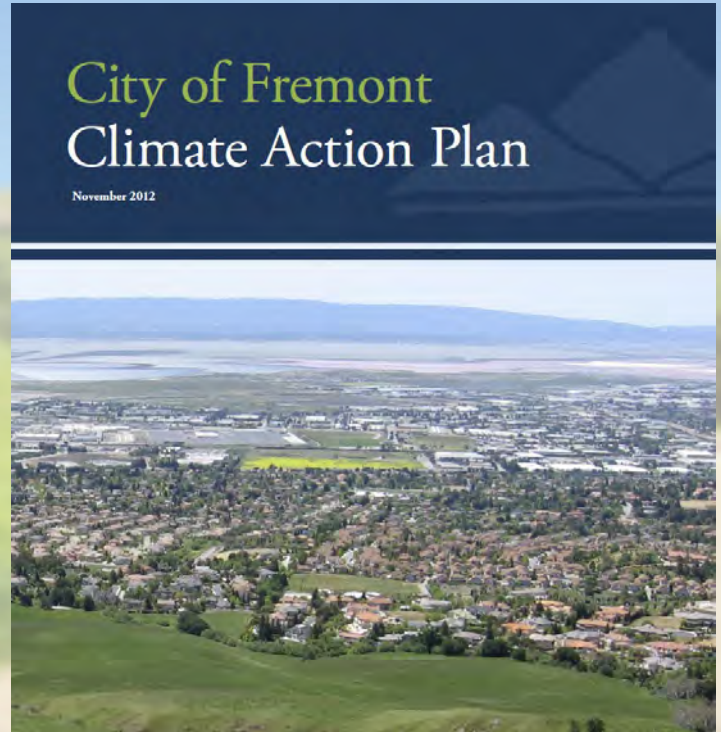
Agenda

Introductions and CAP Process Update	20 minutes
Brief Remarks from Panelists	10 minutes
Questions from the Chat	5 minutes
Community Discussion	20 minutes
Consider.it Platform Overview and Closing Remarks	5 minutes

- Please be respectful during the discussion.
- Chat box: Voice your questions, concerns, and ideas in the chat box. We ask that you stay on topic and try to be concise.
- **If you would like to speak during the discussion, click “Raise Hand” on bottom of Zoom interface or *9 for phone callers.**

Introduction to the Climate Action Plan

- Roadmap for specific activities a city will undertake to reduce greenhouse gas emissions.
- Fremont's 1st CAP adopted in 2012
- CAP 1.0 goal of 25% GHG emissions reduction by 2020
- Now that it's 2021, time to update!



2019 Carbon Neutrality Resolution Sets the Stage for CAP Update



By or before 2045

- Carbon Neutral City

2030 interim target

- 55% emissions reduction

2045 forward

- “Post-Carbon Community Framework”
 - ✓ 4 Overarching Values
 - ✓ 7 Key Strategies

Post-Carbon Framework Values



**Equity &
Access**



**Efficiency &
Innovation**



**Health &
Wellness**



**Resiliency &
Capacity-Building**

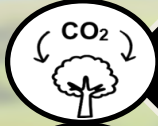
Post-Carbon Framework Strategies



Clean & Renewable Power



Electrification & Fossil Fuel Phase-Out



Carbon Sequestration



Mobility & Connectivity



Resource Conservation & Elimination of Waste

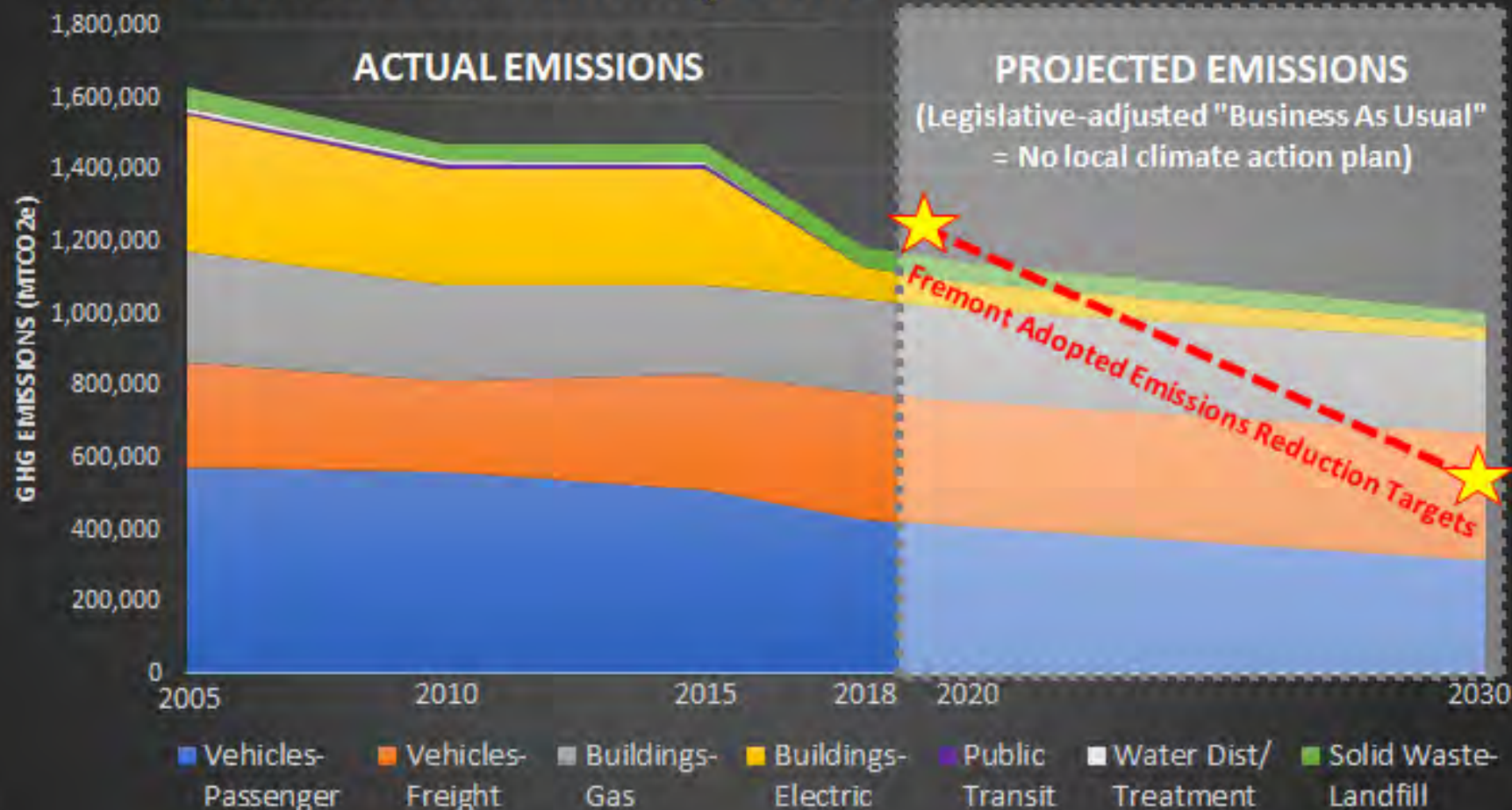


Restorative Ecology & Green Infrastructure



Climate Adaptation & Resilience

Fremont Community-Wide GHG Emissions



Closing the Gap through Local Action

- local ordinances
- city building and zoning codes
- incentive and recognition programs
- infrastructure and upgrades
- regional collaboration
- state and federal policy advocacy
- funding mechanisms



Collaboration is Key

Local Government



Partner Public Agencies

Community Members

Community Outreach

- **Virtual Community Workshops**

- Workshop #1: Visioning a Sustainable Future (Sept 22)
- Workshop #2: CAP Climate Talks Week (Feb 1-5)
- Workshop #3: Resilience, Equity, & Community Connections

- **Outreach to key community sectors**

- Youth, Seniors, Environmental Organizations, Faith-Based & Cultural Organizations, Neighborhood Associations, Small Business, Industry, Energy Utilities, etc.

- **Online polling/surveying: www.Fremont.gov/CAPConsiderIt**

Consider.it Community Forum

Fremont.gov/CAPConsiderIt

- Open through mid-Feb
- Participants can comment, add CAP measure ideas, and respond to others
- Can adjust view to see opinion of various stakeholder groups

▼ Natural / Urban Landscapes & Food

show opinion of: [everyone](#)



Stimulate local urban farming

Update City codes and partner with regional organizations to support organic and regenerative urban agricultural practices, including community gardens, edible landscapes, and pollinator habitats.

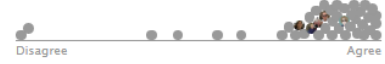
Added: 12/10/2020 | 4 considerations | [add a consideration](#)



Promote nature-based shoreline resilience

Protect and enhance living levees and salt marsh ecosystems along the shoreline to protect against rising sea levels.

Added: 12/10/2020 | 2 considerations | [add a consideration](#)



Support a healthy urban tree canopy

Develop an Urban Forestry Master Plan that establishes policies, protocols, and best practices for proper selection, planting, maintenance, and removal, and replacement of both street trees and trees on private property in Fremont.

Added: 12/10/2020 | 8 considerations | [add a consideration](#)



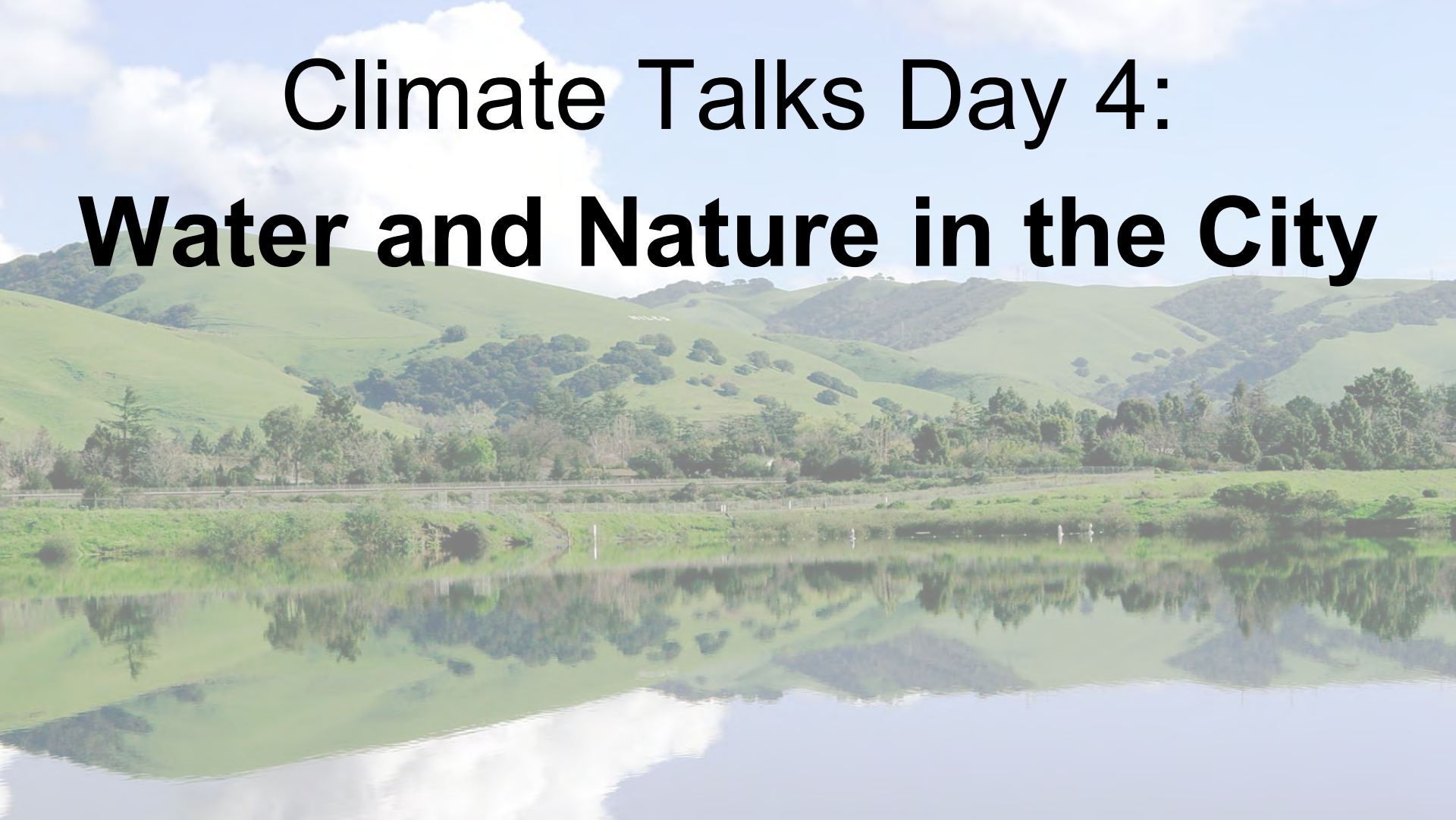
Provide environmental education and access

Promote good environmental stewardship through community education and engagement programs and provide easy access to healthy, natural spaces for all community members through strategic community design.

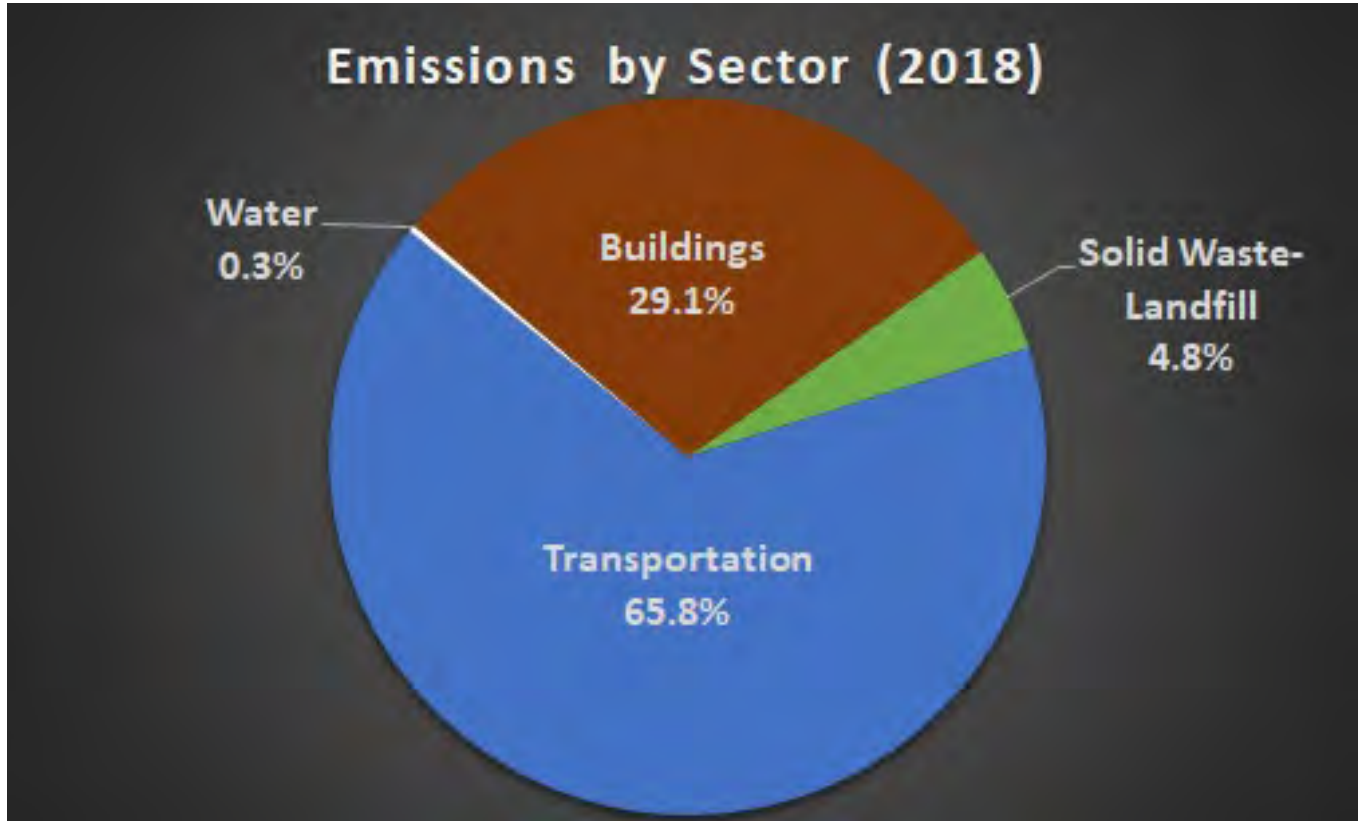
Added: 12/10/2020 | 5 considerations | [add a consideration](#)



Climate Talks Day 4: **Water and Nature in the City**



Fremont's Greenhouse Gas Emissions



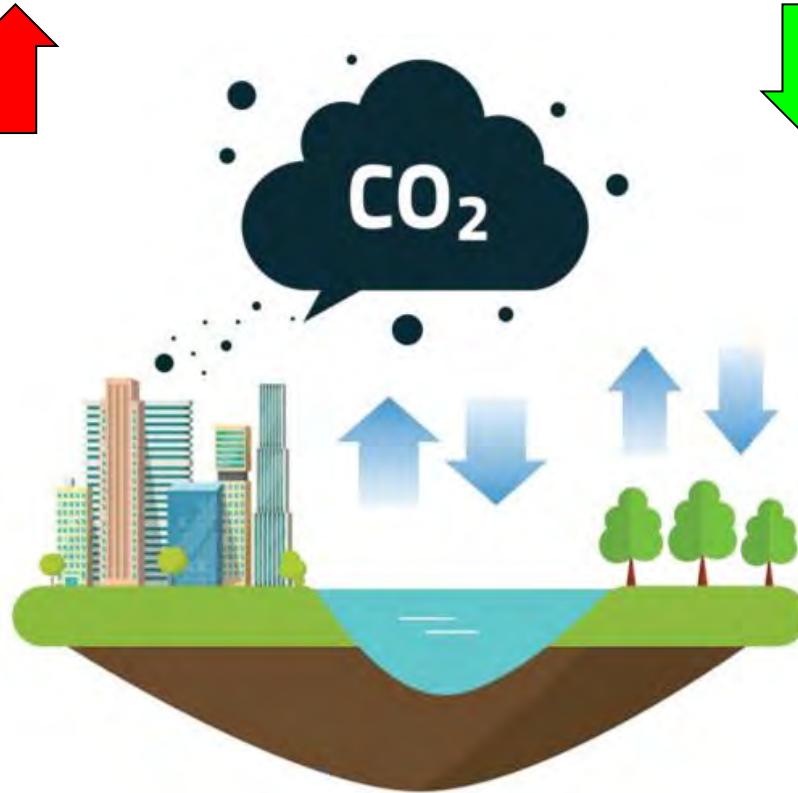
Getting to Net Zero Carbon with Sequestration

CARBON +

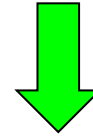


GHG emissions are produced by burning fossil and other fuels in buildings & vehicles, as well as decomposition of waste and other off-gassing.

Emissions can be reduced significantly by replacing fossil-based fuel with clean & renewable power and increasing efficiency / reducing waste.



CARBON -



GHG emissions are captured or sequestered by carbon sinks such as the ocean, soils, and through living matter like plants and trees.

In addition, carbon capture & storage (CCS) of factory emissions through technological methods is becoming increasingly feasible.

Key Strategies for Carbon Sequestration in Fremont

Efficient Use of Water Resources

- With increasing & more severe droughts, good water management is essential for the health of residents and the overall ecosystem.



Healthy & Well-Managed Urban Forest

- To maximize the benefits of trees, including their carbon sequestration potential, proper tree selection, healthy growth conditions, and regular care & maintenance are key.



Ecosystem Protection and Preservation

- To support healthy local ecosystem functions, the urban environment should integrate ecological practices and natural design principles.



Alameda County Water District

Preparing for Climate Change



Thomas Niesar
Water Supply and
Planning Manager

Stephanie Nevins
Water Efficiency
Supervisor

Mission Statement

It is the mission of the Alameda County Water District to provide a reliable supply of high quality water at a reasonable price to our customers.



Overview

- Founded in 1914
- Population Served
 - 357,000+ customers
 - 84,000+ connections

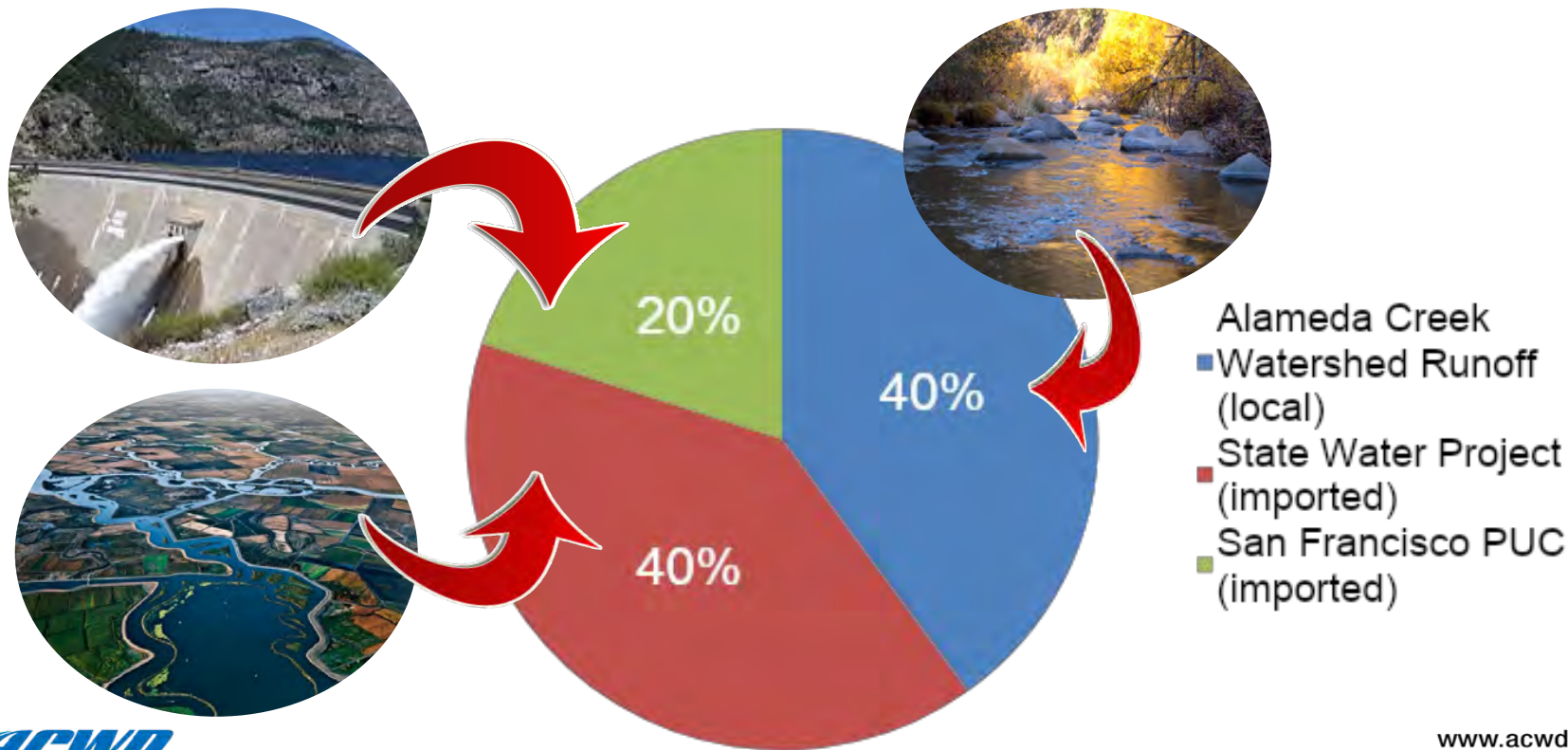


Service Area

Fremont, Newark and Union City – 105 square miles



Multiple Supply Sources = Flexibility



Three Hydrologic Regions

Diversifies impacts

60% Supply Imported from Sierras.

Warming temperatures will reduce snowpack & increase runoff. Existing Dams and waterways will be challenged. Less water overall

40% from Northern Sierra Region

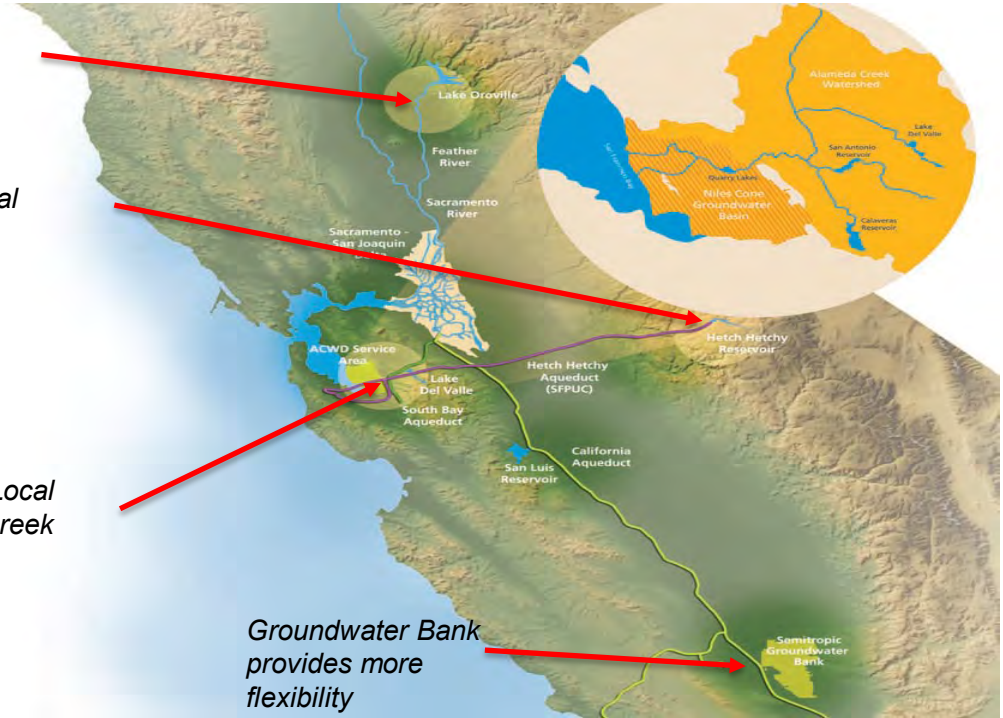
20% from Central Sierra Region

40% Supply is Local

- Higher temperatures will increase demand for water
- Precipitation patterns predicted to become more extreme (longer dry spells, more intense wet periods)
- Sea-level rise threatens groundwater supply

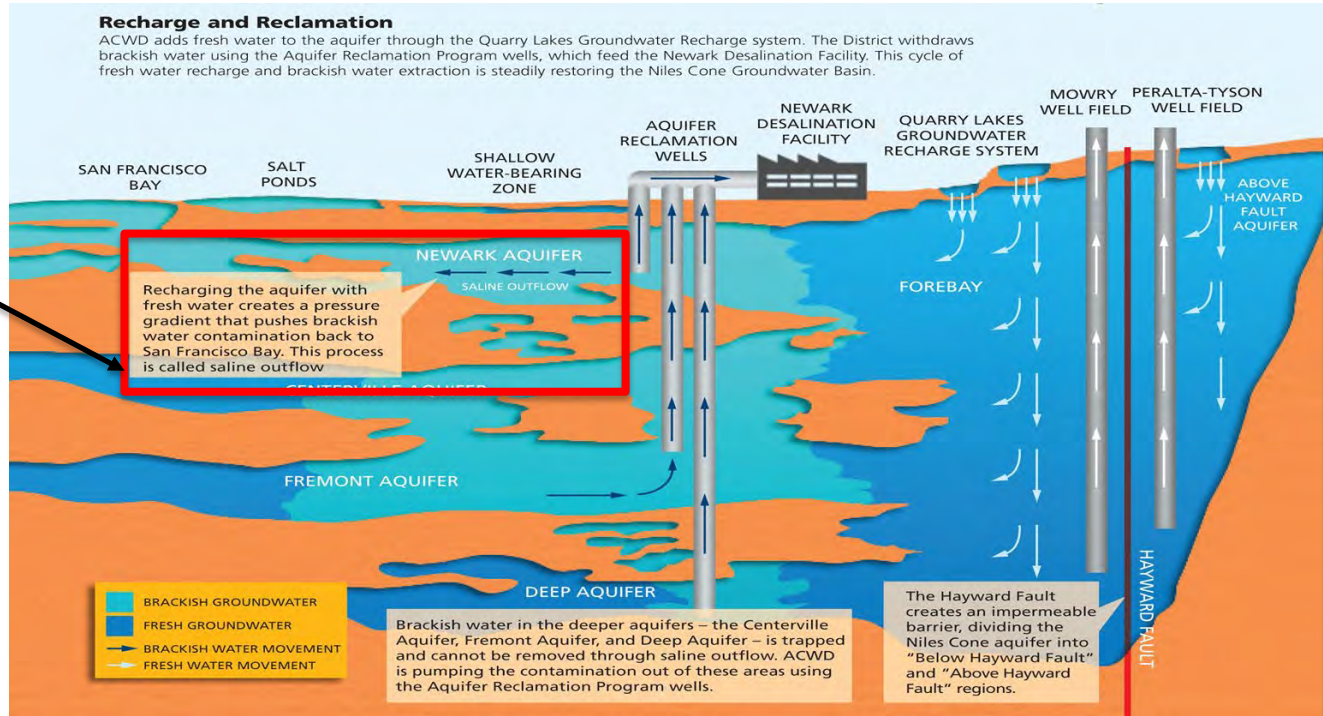
40% from Local Alameda Creek Watershed

Groundwater Bank provides more flexibility

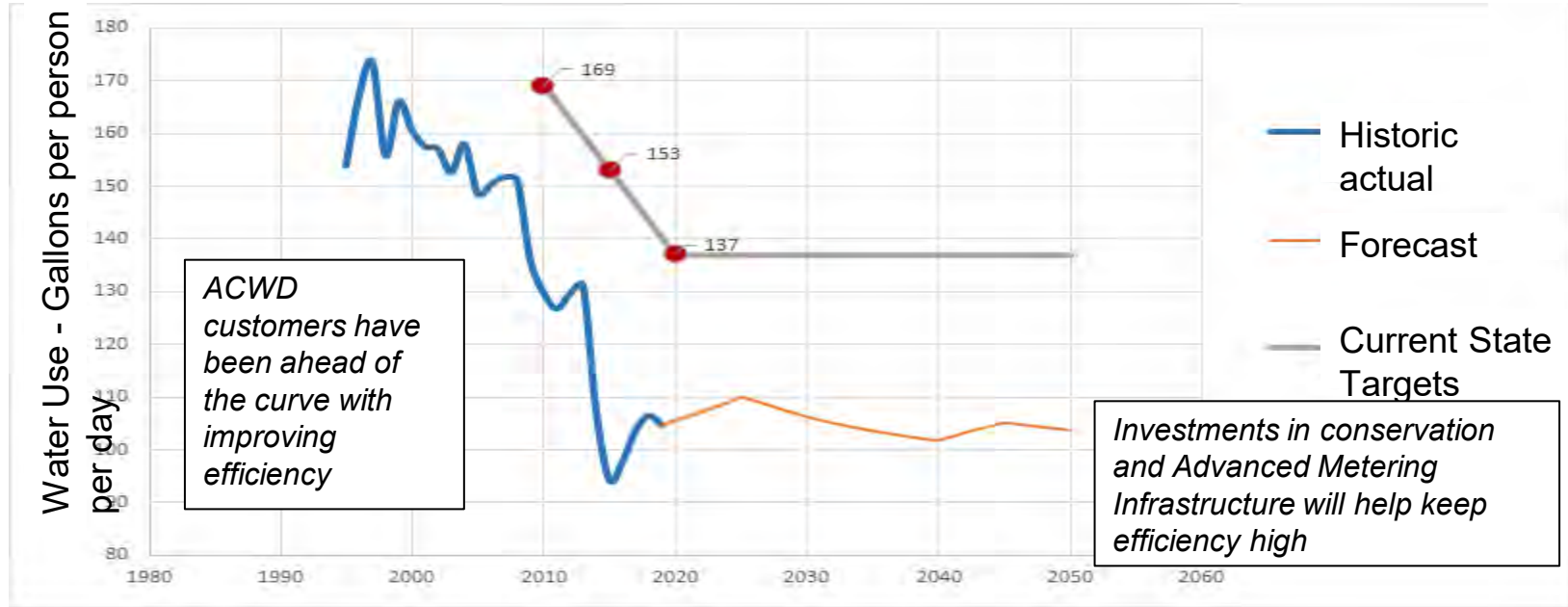


Niles Cone Aquifer

As sea-levels rise, so too will the Bay. More fresh water will be needed to push this brackish water out, leaving less for consumption





Water Use Efficiency is a 'Safe Bet'



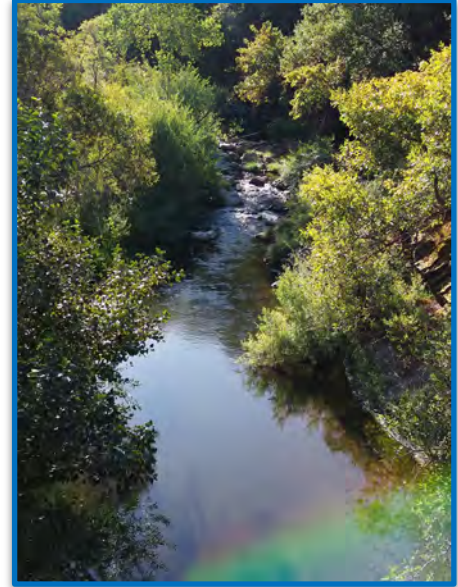
What Actions Are We Taking?

- Climate Change Adaptation Planning
 - Identify predictable impacts & make sound mitigation plans
 - Board direction to include Climate Change in planning policies
- Water Efficiency Master Plan (Draft final)
 - Comprehensive new plan to help ACWD invest in the most cost-effective conservation measures
- Urban Water Management Plan Update
 - 5-year plan undergoing an update now, public draft available in April 2021
- Integrated Resources Plan Update
 - ACWD's water supply master plan
 - Two years in development (2023-2025)
 - Will increase climate change studies, future water supply plans

Stay Connected to the District

- www.acwd.org
- ACWD Aqueduct Newsletter
- Facebook  & Twitter 
@AlamedaCountyWD

Alameda County Water District
43885 S. Grimmer Blvd.
Fremont, CA 94538
510.668.4200



Thank you



www.acwd.org



@AlamedaCountyWD



Urban Forest Management Plan



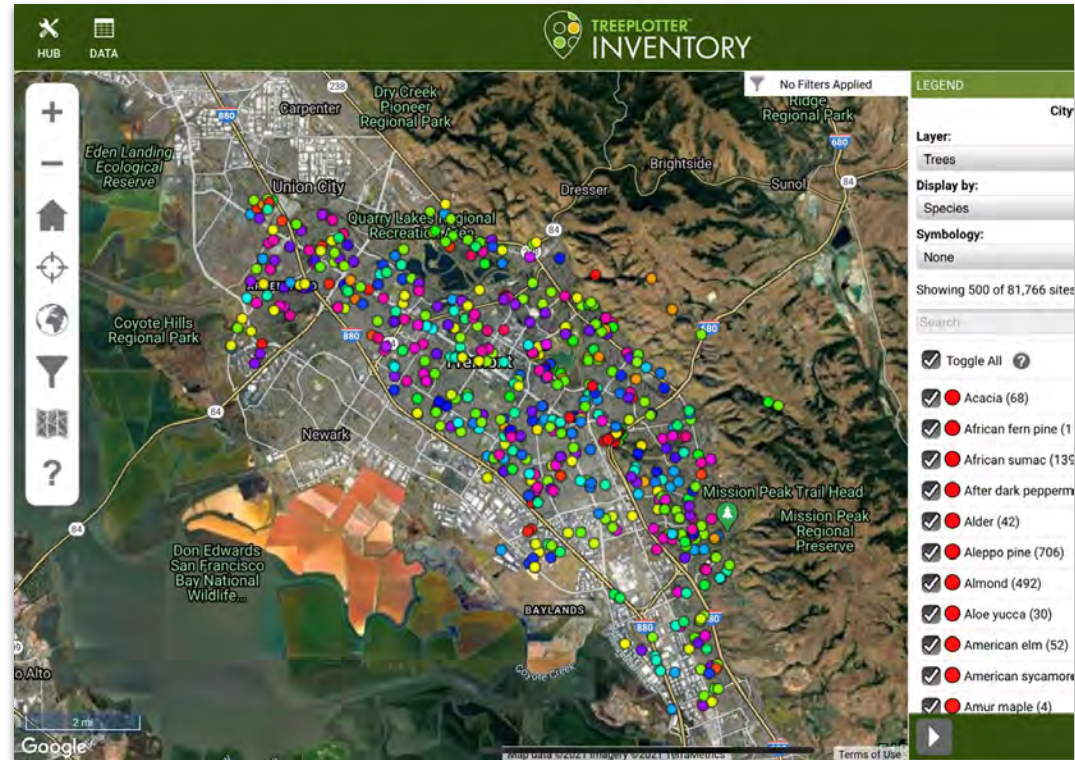
On May 7, 2019, CAL FIRE awarded the City of Fremont a grant in the amount of \$860,000 under the Prop 68 Urban Forest Management Activities grant program.

The program requirements include a goal of reducing net GHG emissions.

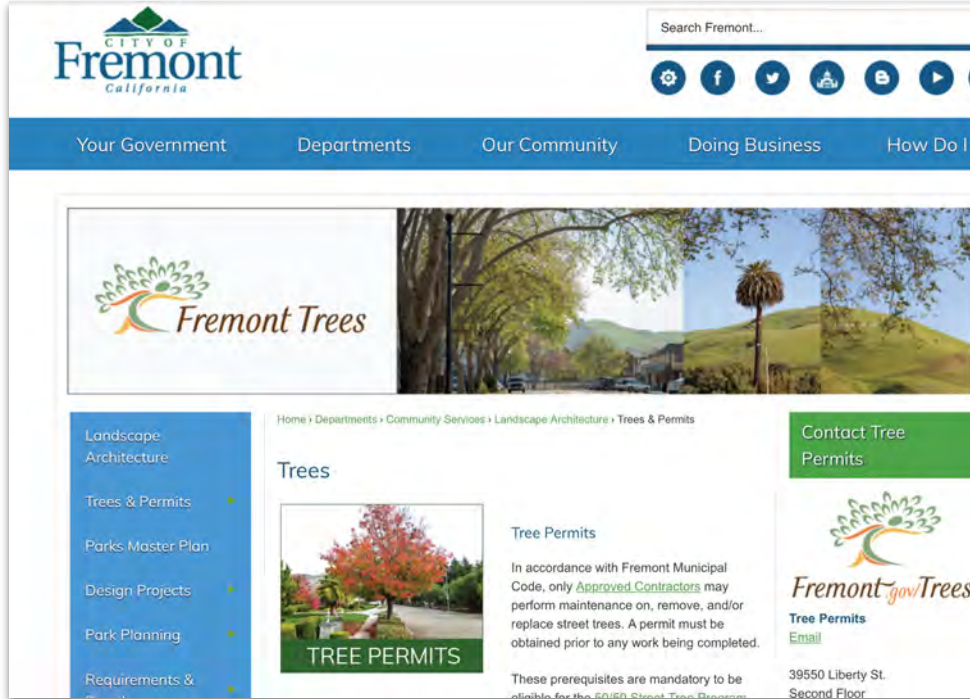
Citywide Tree Inventory

In order to demonstrate a net reduction of GHG emissions through tree planting and carbon sequestration, an inventory of the City's trees is necessary to quantify a baseline.

In September 2020, the City completed a City-wide tree inventory and canopy assessment. The City has approximately 81,000 public and street trees.



Urban Forestry Updates



As part of the UFMP and to increase the overall health of the urban forest, the City has also taken the following steps:

- Overhauled the City Tree Website
- Improved Tree Education web content
- Created a Tree Contractor Certification & Training Program
- Broadened the 50/50 funding to include pruning
- Increased the number of outreach letters sent to property owners and tree companies by over 1200%

UFMP Primary Components

Acquire Data

ID	Tree ID	Common Name	Latin Name	Condition	DBH
1	70322	Village Green Zelkova	Zelkova serrata Village green	Good	6
2	42455	Turkey Oak	Quercus semper	Good	35
3	42455	Alderflame Tree	Gringa brulie	Good	18
4	42500	Kentucky Coffee Tree	Symonistadus doica	Good	25
5	42597	Kentucky Coffee Tree	Symonistadus doica	Good	19
6	42592	Holly Oak	Quercus fax	Good	18
7	42576	Red Oak	Quercus rubra	Good	2
8	42595	Kentucky Coffee Tree	Symonistadus doica	Good	20
9	42593	Kentucky Coffee Tree	Symonistadus doica	Good	21
10	42594	Kentucky Coffee Tree	Symonistadus doica	Good	23
11	42595	Kentucky Coffee Tree	Symonistadus doica	Fair	15

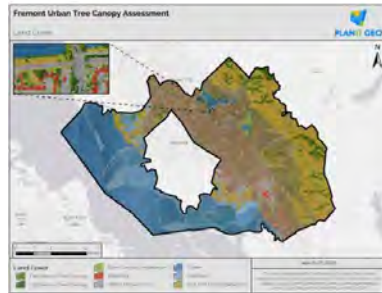
Analyze Data



Data Summaries



Canopy Analysis, Prioritization, Goal Setting



Land Use	Urban Tree Canopy		
	Acres	%	Dist.
Crossroads Mixed-Use Center	80	12%	1%
Downtown Regional Growth Center	73	7%	1%
General Commercial	56	7%	1%
Heavy Industrial	147	4%	2%
Light Industrial	34	6%	1%
Major Institutional Campus	65	10%	1%



The City is now focused on establishing an Urban Forest Management Plan to identify a long-term, forty (40) to fifty (50) year plan to enhance the urban forest with meaningful and achievable goals.

The major components of the UFMP include:

1. Analysis
2. Public Engagement
3. Management
4. The Plan

UFMP Approach

The Urban Forest analysis will include:

- Evaluating the current inventor, canopy assessment, and growth opportunity
- Create targeted goals to address urban tree canopy growth and GHG reductions
- Create a forward thinking City-wide tree planting list
- Analyze and evaluate the City's resources

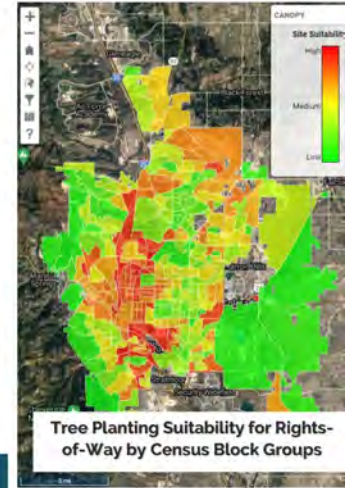
PROJECT APPROACH DETAILS

Task 1: Urban Forest Analysis

UTC Growth Report

Land Use	Urban Tree Canopy %	Possible Planting Area %
Commercial	8%	8%
Drainage Easement	21%	41%
Golf Course/Cemetery	19%	29%
High-Density Residential	21%	12%
Industrial	8%	12%
Institution	4%	15%
Low-Density Residential	37%	23%
Medium-Density Residential	33%	17%
ROW	10%	21%
School	12%	34%
Vacant	7%	46%
Totals	18%	31%

Land Use	Existing Canopy %	Modeled Canopy %	Trees Needed	Added Overall Benefit
Vacant Land	7	20	309,520	\$1,285,591
Airport/Military Installa	2	20	84,751	\$352,013
General Commercial	7	20	23,865	\$99,122
Warehouse/Wholesale	8	20	17,271	\$71,734
Primary/Secondary School	7	20	15,415	\$64,000



UFMP Engagement

Public engagement will include:

- 15 public sessions including surveys, meetings, and workshops
- Statistically Valid Survey
- Guidance, support, and recommendations on support to a Community-based Tree Group, establishing a Tree Advisory Committee (TAC), and long-term educational and outreach to support urban tree canopy growth
- A comprehensive public feedback report

PROJECT APPROACH DETAILS

Task 2: Public Engagement

Planning	Outreach	Engagement	Input/Feedback	Reporting
Internal Work Plan	Website	Planting Event	Public Surveys (2)	Outreach/Education
PEP	Social Media	Photo Contest	Public Meetings (3)	UF Partner/ Tree Committee
Stakeholders	Press Releases	Focus Groups Mtgs (2)	Plan Review	Feedback

Community Meetings



Visioning



Marketing



Surveys

Of the following tree planting and care issues, which are the most important concerns to you?



Website

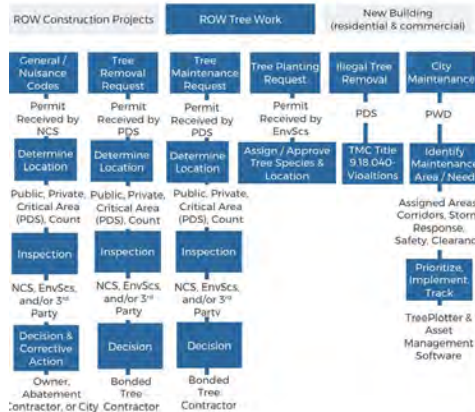


Implementation of the UFMP

PROJECT APPROACH DETAILS

Task 3: Management

City Staff Interviews



Benchmarking Research

Criteria	US Average	Western Average	Population Group	CITY
Total Trees	55,332	34,939	73,723	46,685
Trees/Capita	0.55	0.38	0.51	0.23
Canopy Goals	44%	N/A	N/A	30%
Urban Forest Budget	\$801,595	\$675,314	\$1,368,607	\$1,609,909
Budget per street tree	\$42.59	\$38.77	\$64.35	\$45.99
% Urban Forest Budget of Total	0.50%	0.40%	0.50%	0.07%

The Management Task will include:

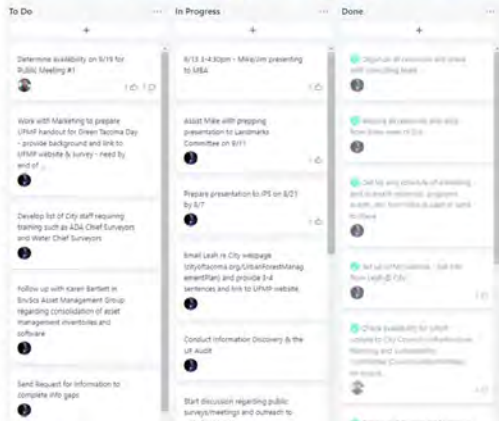
- Evaluating the current organizational, management, and operational structure
- Review and recommend possible changes to the City's Tree Protection Ordinances
- Audit city-wide tree related expenses and provide a cost-benefit analysis with recommendations on how to maximize services

UFMP Goals

PROJECT APPROACH DETAILS

Task 4: Urban Forest Management Plan

- Plan outline by chapter
- Internal work plan
- Monthly meetings
- Project management software
- Review periods
- Drafts in Word & PDF
- Final draft using InDesign provided in Word & PDF



Create a long-term (40-50 year) Urban Forest Management Plan with targeted goals relating to:

- Environmental Sustainability
- Best Management Practices
- Urban Tree Canopy Growth
- Environmental Justice
- Reductions of GHG emissions
- Comprehensive Urban Forestry

UFMP Next Steps



The City realizes we have many Urban Forest related issues, challenges, and obstacles.

Over the next 14-18 months the Urban Forestry Program will continue to provide the highest level of service possible while focusing on creating and implementing an UFMP that will take proactive and progressive steps in urban Forest Management for the City.

510-494-4730
Urban Forest Program Team
www.fremont.gov/trees

Parks and Recreation Master Plan



www.InventFremontParks.com

What **IS** the Parks and Recreation Master Plan?

✓ **Assesses the public's needs:**

- current recreational programming
- recreational needs
- environmental needs
- park maintenance needs

✓ **Establishes priorities:**

- Park facility improvements
- Future park development
- Land acquisitions

✓ **Reviews policies and practices**

✓ **Creates funding strategies**

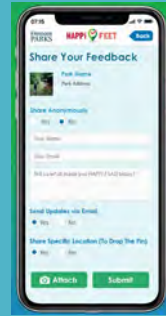
✓ **Establishes park maintenance standards**

Parks and Recreation Master Plan

Community Input, Data Gathering



InventFremontParks.com



HAPPiFEET
Fremont
PARKS



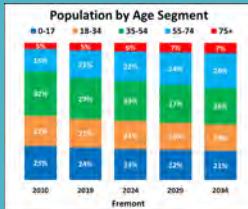
Stakeholder Focus
Group Meetings



Virtual Community
Input Meetings



Community
Surveys



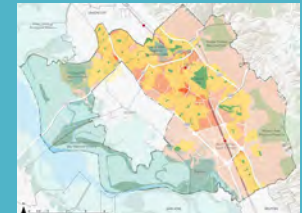
Demographics and Trends Report



Recreation
Program
Assessments



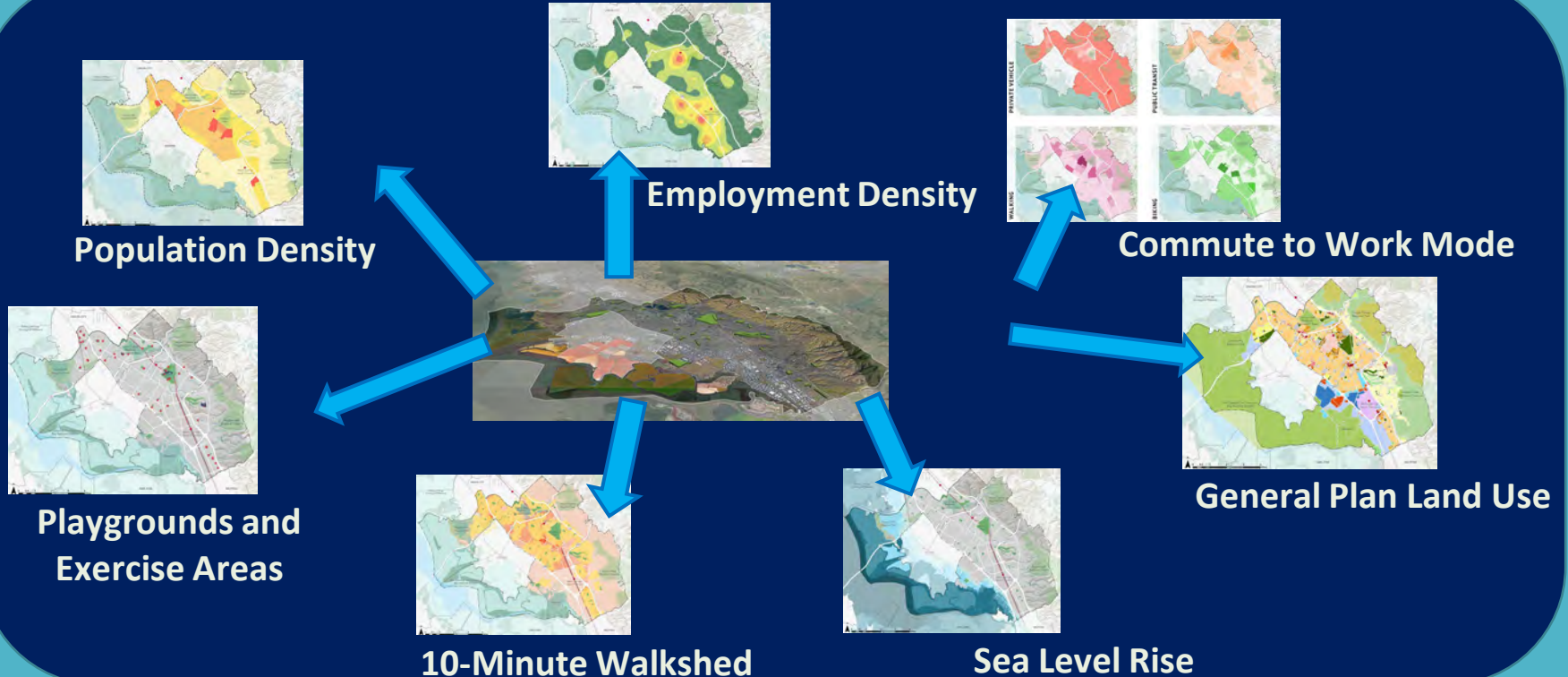
Fremont Parks
Inventorying



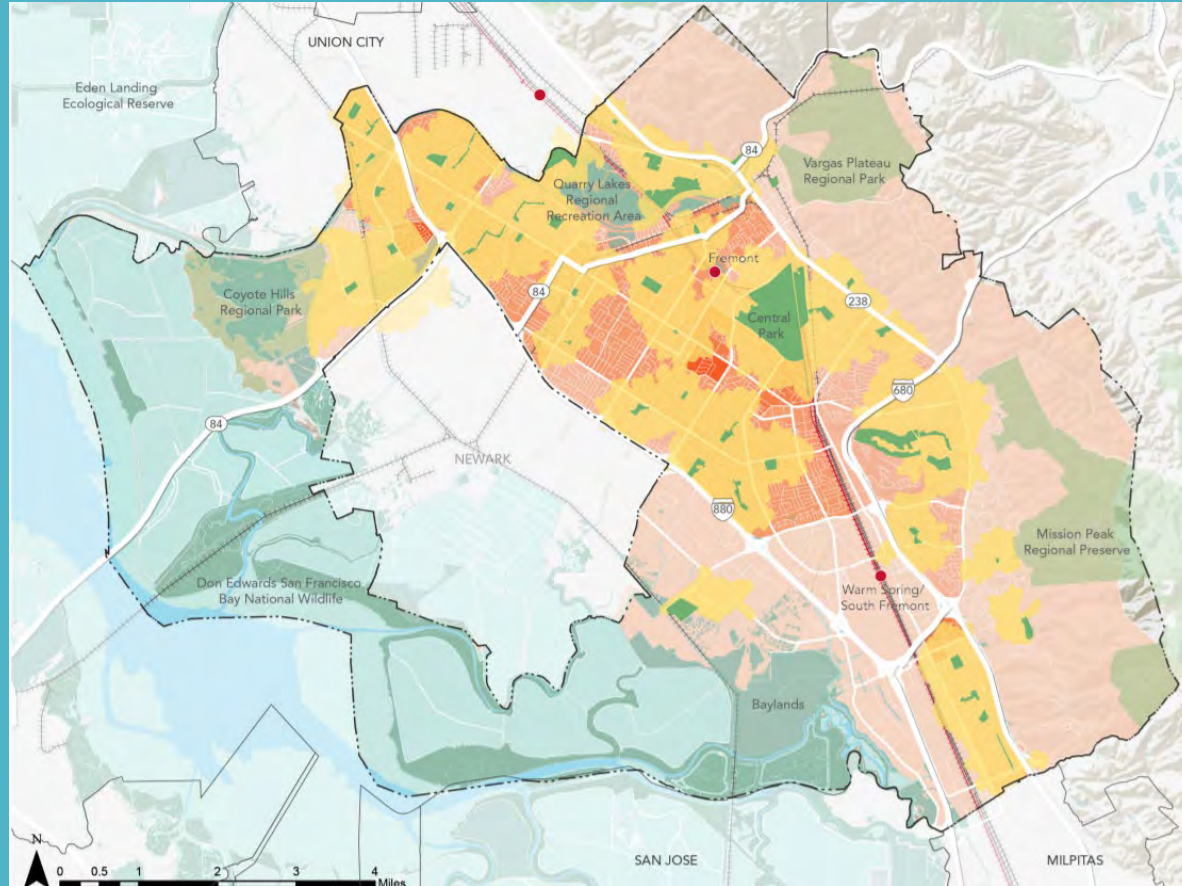
Mapping

Parks and Recreation Master Plan

Mapping



10-Minute Walk Campaign



Asset and Equity Mapping



Current City of Fremont Landscape Policy

Requirements for ALL City and Development Projects



Bay-Friendly Landscape Practices by City Council Resolution:

- Natives and low water use plants
- Use compost and minimum 3" depth mulch

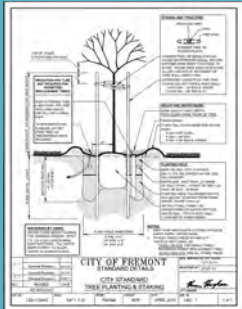


CA State WELO/AB1881 Restrictions on Landscape Watering:

- No lawn in new park designs unless active recreation area
- Lawns in medians replaced with low water use planting
- Fremont consistently under ACWD's water budget
- Weather-based smart irrigation controllers
- Point-source irrigation (drip irrigation or special overhead)

Other:

- Provide pedestrian linkages to sidewalks
- Minimize hardscape/impervious surfaces
- Provide ample tree pits for planting



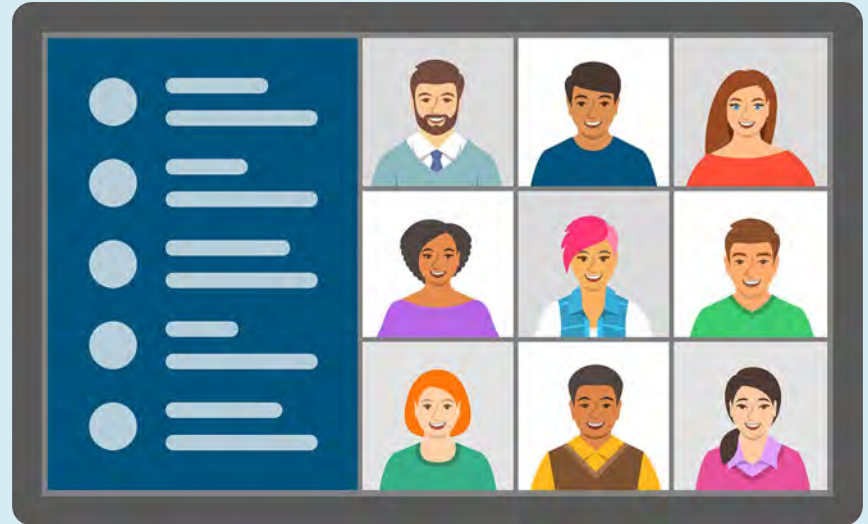
Questions from the Chat

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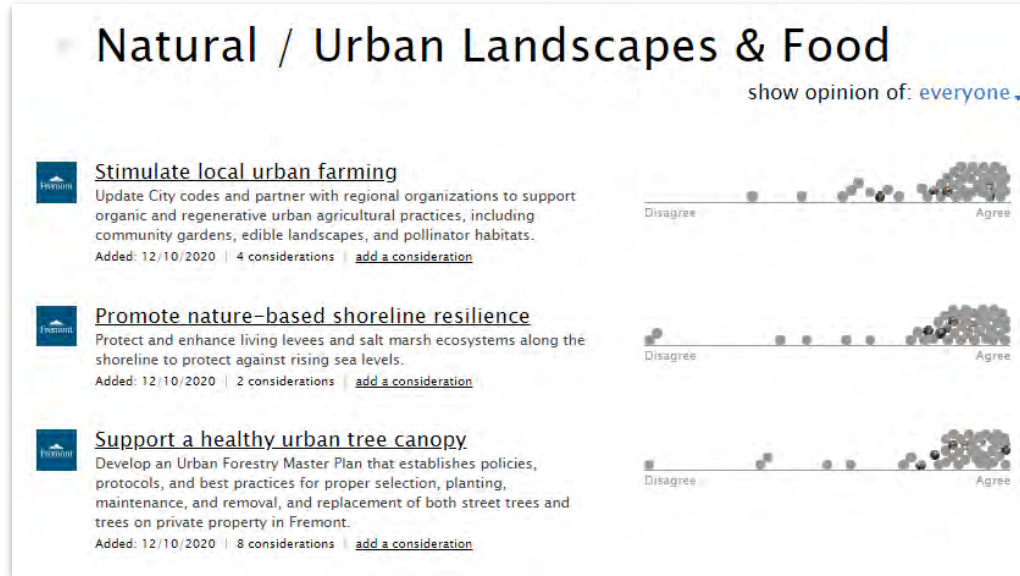
Community Discussion

- If you would like to voice your question/comment, click “Raise Hand” on bottom of Zoom interface or dial *9 for phone callers



Continue the Discussion

www.Fremont.gov/CAPConsiderIt



Please sign up on Consider.it to continue the discussion!

Open through early Feb 2021

CAP Update Project Timeline - Next Steps



Stay Connected

City Website:

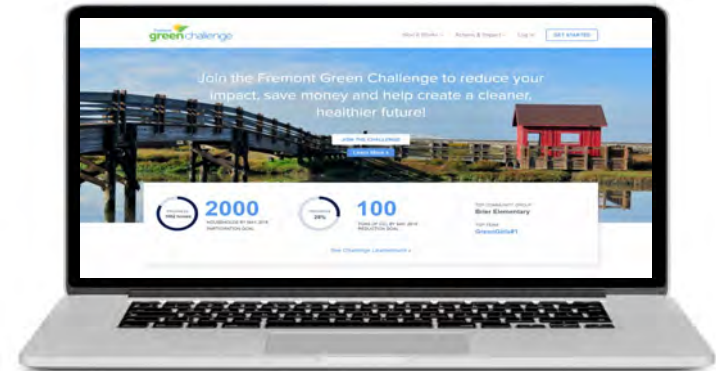
www.Fremont.gov/ClimateAction

Sustainability Newsletter:

www.Fremont.gov/FGCNewsletter

Climate Action Platform:

www.FremontGreenChallenge.org



Thank you!



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