



## **ENVIRONMENTAL COMMISSION MEETING AGENDA**

**7:00 PM - Monday, November 14, 2022**

*Telephone/Video Conference only*

Please Note: Per California Executive Order N-29-20, the City of Los Altos Environmental Commission will meet via teleconference only. Members of the Public may call (669) 444-9171 to participate in the conference call (Meeting ID: 825 5066 4068, Passcode: 115630), or go online to

<https://losaltosca-gov.zoom.us/j/82550664068?pwd=V0Zma1JKMXNZRlpXTit2enl3bGZKQT09>

Members of the Public may only comment during times allotted for public comments.

Public testimony will be taken at the direction of the Chair and members of the public may only comment during times allotted for public comments. Members of the public are also encouraged to submit written testimony prior to the meeting to [ECpubliccomment@losaltosca.gov](mailto:ECpubliccomment@losaltosca.gov). Emails received prior to the beginning of the meeting will be included in the public record.

### **ESTABLISH QUORUM**

#### **PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA**

Members of the audience may bring to the Commission's attention any item that is not on the agenda. Please complete a "Request to Speak" form and submit it to the Staff Liaison. Speakers are generally given two or three minutes, at the discretion of the Chair. Please be advised that, by law, the Commission is unable to discuss or take action on issues presented during the Public Comment Period. According to State Law (also known as "the Brown Act") items must first be noticed on the agenda before any discussion or action.

#### **ITEMS FOR CONSIDERATION/ACTION**

**1. Environmental Commission Minutes**

Approve minutes of the special meeting of October 24, 2022.

#### **INFORMATIONAL ITEMS**

**2. Presentation on Heat Pumps (GreenTown and SJSU)**

Presentation on heat pumps by San Jose State University students, Nickon Ghodoosian and Roger Bumgarner, in collaboration with GreenTown Los Altos.

**3. Solid Waste (SB 1383) Outreach and Public Education**

Status update by staff.

**4. Environmental Commission Work Plan****a. Tree Protection Ordinance**

Status update by staff.

**b. EV Fair**

Status update by staff.

**c. Other Work Plan Items**

Subcommittees to provide updates.

**CITY STAFF UPDATES****COMMISSIONERS' REPORTS AND COMMENTS****POTENTIAL FUTURE AGENDA ITEMS****ADJOURNMENT****SPECIAL NOTICES TO PUBLIC**

In compliance with the Americans with Disabilities Act, the City of Los Altos will make reasonable arrangements to ensure accessibility to this meeting. If you need special assistance to participate in this meeting, please contact the City Clerk at least 48 hours prior to the meeting at (650) 947-2720.

Agendas, Staff Reports, and some associated documents for the Environmental Commission items may be viewed on the interment at [https://www.losaltosca.gov/meetings?field\\_microsite\\_tid\\_1=2261](https://www.losaltosca.gov/meetings?field_microsite_tid_1=2261).

If you wish to provide written materials, please provide the Commission Staff Liaison with **10 copies** of any document that you would like to submit to the Commissioners in order for it to become part of the public record.

For further questions regarding the meeting proceedings, please contact the City Clerk at (650) 947-2720.

**DRAFT MINUTES OF THE SPECIAL MEETING OF THE ENVIRONMENTAL  
COMMISSION OF THE CITY OF LOS ALTOS, HELD ON MONDAY, OCTOBER 24,  
2022, AT 7:00 P.M. TELECONFERENCE**

**ESTABLISH QUORUM**

PRESENT: Chair Delagneau, Vice Chair Hecht, Commissioners Teksler, Commissioner van Reis, Commissioner Humayun, Commissioner Lu, Commissioner Weiden

ABSENT: n/a

ATTENDEES: Council Member (Council Liaison) Neysa Fligor, Director (Environmental Services and Utilities) Aida Fairman, Director (Development Services) Nick Zornes, Tania Katbi (Sustainability Coordinator), Casey Leedom (Sustainability Coordinator), Gary Hedden, Ken Branson, Sybil Cramer, Connie

**PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA**

Public comments were provided by Gary Hedden and Jim Wing (by email).

**ITEMS FOR CONSIDERATION/ACTION**

**1. Environmental Commission Minutes**

Approved minutes of regular meeting of September 12, 2022

Action: Upon a motion by Commissioner Teksler, seconded by Commissioner Weiden, the Environmental Commission approved the minutes of the meeting of September 12, 2022, as amended.

The motion was approved (7-0) by the following vote:

AYES: Delagneau, Hecht, Humayun, Lu, Teksler, van Reis, Weiden

NOES: None

ABSENT: N/A

ABSTAIN: None

**INFORMATIONAL ITEMS**

**2. Introduction: New Sustainability Coordinators**

Director Aida Fairman provided an introduction to Tania Katbi and Casey Leedom, the new Sustainability Coordinators for the Environmental Services and Utilities Department. Casey and Tania shared about their professional backgrounds.

**3. Update: State and Federal Climate Action**

Ken Branson provided a presentation on recent State and Federal climate action. This was followed by questions by the Commissioners.

**4. Environmental Commission Work Plan**

a. **Reach Codes**

Tania Katbi provided a status update, followed by questions and comments from

Commissioners.

- b. **Tree Protection Ordinance**  
 Tania Katbi provided a status update, followed by questions and comments from Commissioners.
- c. **Single Use Plastics**  
 Tania Katbi provided a status update, followed by questions and comments from Commissioners.

**DISCUSSION ITEMS**

**5. Environmental Commission Work Plan**

- d. **EV Fair**  
 Tania Katbi provided an update on City staff role for the EV Fair per Goal 1.4A of the CAAP. Chair Delagneau provided input on prioritization of items within CAAP Coal 1.4A. Commissioner van Reis provided an update on EV Fair planning.

**Public Comment**

Sybil Cramer provided an update on EV Fair planning and proposed components of the Fair.

**CITY STAFF UPDATES**

**6. City Staff Updates**

Tania Katbi provided an update on the Compost Giveaway Event at Municipal Service Center on October 1, 2022.

**COMMISSIONERS' REPORTS AND COMMENTS**

Commissioner Teksler provided an update on the work of the Water Conservation Subcommittee. Chair Delagneau provided an update on the work of the CAAP Implementation Committee, including a meeting with BlocPower and a future meeting with Community Climate Solutions. Chair Delagneau provided update on meeting with Chair of Complete Streets Commission, which consisted of discussions on overlapping work between Commissions. Commissioner Teksler and Chair Delagneau reminded fellow commissioners of recent email notification regarding the Brown Act and social media.

Vice Chair Hecht, Commissioner Weiden, and Commissioner Lu volunteered to attend City Council meetings on 11/15, 11/29, and 12/13, respectively. Councilmember Fligor notified the Environmental Commission that the 12/13 City Council Meeting might be a Special Meeting.

**POTENTIAL FUTURE AGENDA ITEMS**

Presentation by GreenTown and SJSU on heat pumps (for November Environmental Commission)

Updates by EV Fair Planning Committee on EV Fair (potential for November or December Environmental Commission)

Commissioner Teksler proposed adding Shoulder Improvement Policy to future agenda. Commissioner Weiden seconded.

**ADJOURNMENT**

Chair Delagneau adjourned the meeting at 9:08 P.M.



**MEETING DATE:** November 14, 2022

**SUBJECT:** Presentation on Heat Pumps (Greentown and SJSU Students)

**PREPARED BY:** Casey Leedom, Sustainability Coordinator

**REVIEWED BY:** Aida Fairman, Director of Environmental Services and Utilities

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## **BACKGROUND**

GreenTown Los Altos teamed up with Nickon Ghodoosian and Roger Bumgarner, seniors at San Jose State University in the Dept. of Environmental Studies, to evaluate heat pump technology.

Nickon and Roger are enrolled in a Senior Projects class taught by Professor Katherine Cushing, head of the Environmental Studies Department. They reviewed the literature and interviewed experts in the field, homeowners who have heat pump systems and contractors who have installed heat pump systems. Nickon and Roger presented their findings at the Los Altos Library on Oct. 26.

## **STATUS UPDATE**

Nickon Ghodoosian and Roger Bumgarner, in collaboration with GreenTown Los Altos, will present on their Senior Project on heat pump systems.

Is There a Heat Pump in My Future?  
Suggestions for the Los Altos  
Environmental Commission (11/14/2022)

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Nickon Ghodoosian & Roger Bumgarner

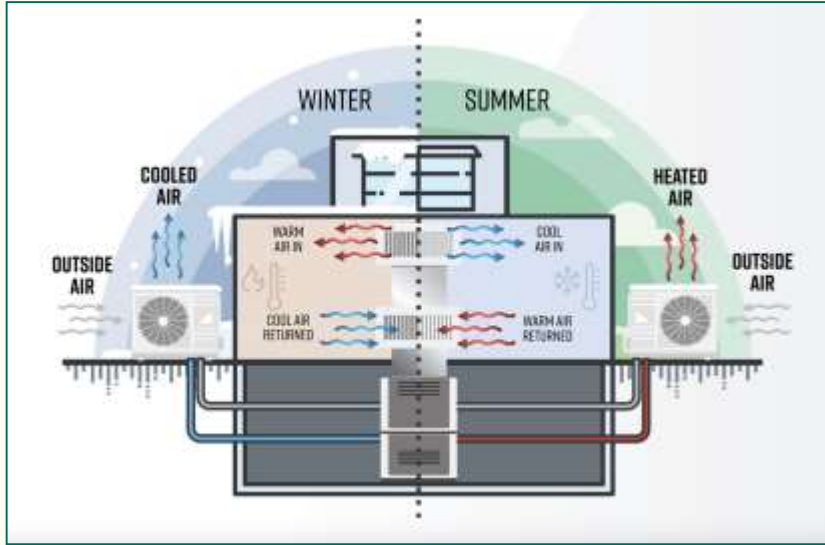
# A Brief Introduction

- Our research
  - San Jose State University
  - Collaboration with GreenTown Los Altos
  - Goal: Design public program on heat pump technology
  - How our research was conducted
  - Library discussion 10/26/2022

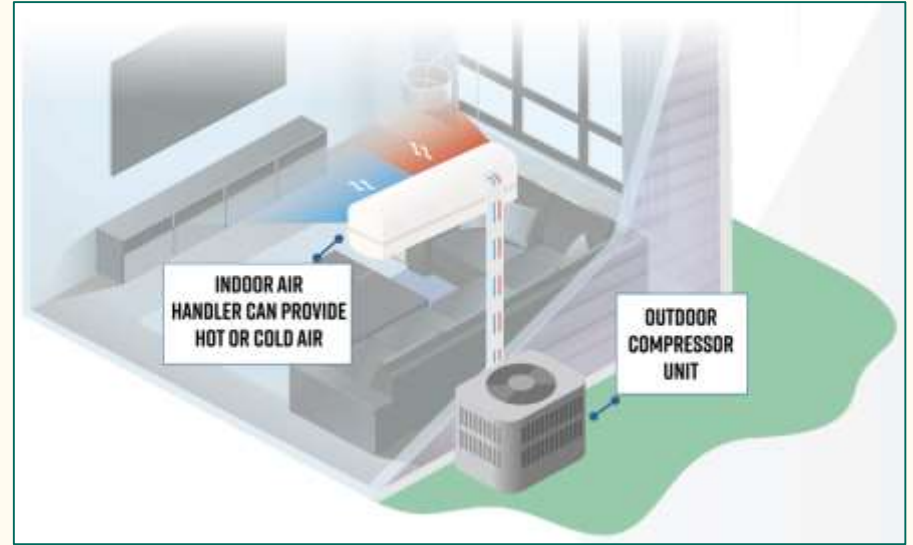




# Space Heating/Cooling (Air Source)

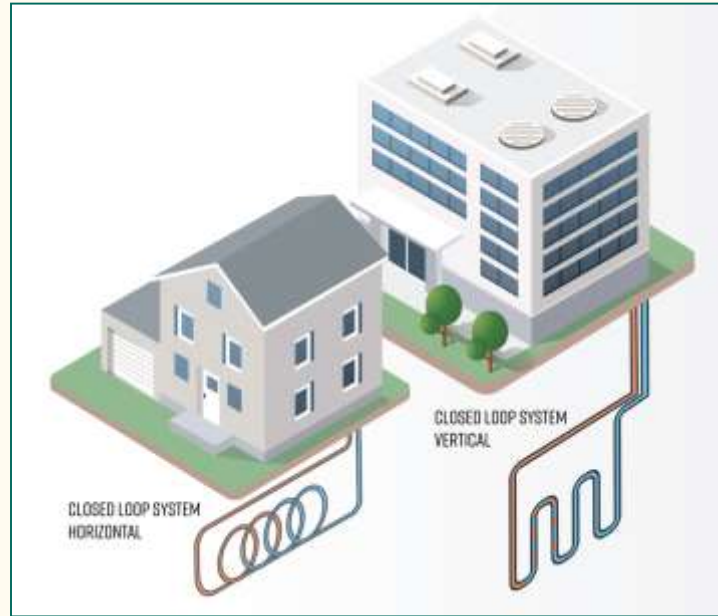


Ducted Air Source Heat Pump



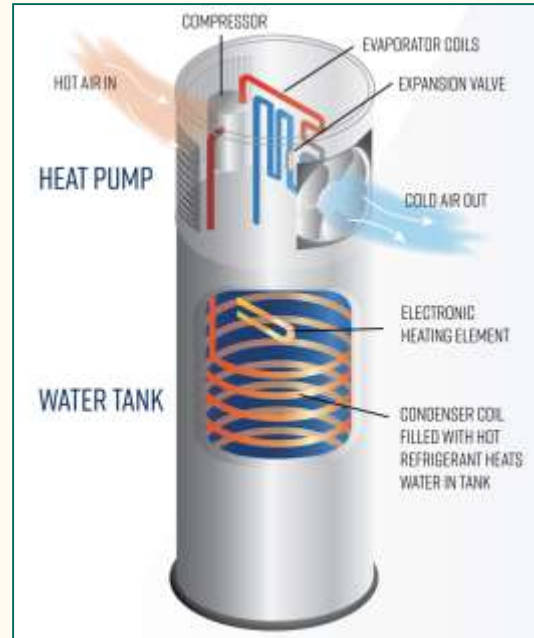
Ductless Air Source Heat Pump

# Space Heating/Cooling (Ground Source)



Ground Source Heat Pump Loops

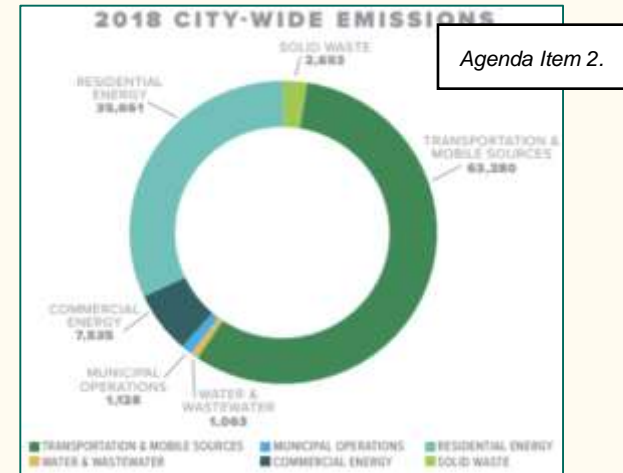
# Water Heating



Hot Water Heat Pump

# Why are Heat Pumps Important?

- Los Altos emissions by sector
  - Residential: 32%
- Climate Action & Adaptation Plan
  - The City of Los Altos has series of mitigation and adaptation actions
  - Residential building electrification
  - 2035 deadline



Agenda Item 2.

2018 City-wide Emissions



Mitigation and Adaptation Actions

# Average Cost Breakdown

- Single-family heat pump HVAC system:
  - Average total project cost (before incentives): \$21,212
- Single-family heat pump water heater:
  - Average total project cost (before incentives): \$6,461
- Incentives:
  - Inflation Reduction Act
  - Rebate programs (BayREN, SVCE)



# Home Electrification Incentives (IRA + Local)

ITEM	IRA DISCOUNT	LOCAL DISCOUNTS
Heat Pump Air Conditioner/Heater	\$2,000 Tax Credit \$8,000 Upfront Discount	\$2,500 Rebate for efficient heat pumps (BayREN and SVCE)
Heat Pump Water Heater	\$2,000 Tax Credit \$8,000 Upfront Discount	\$2,000 Rebates for efficient heat pumps (BayREN and SVCE)
Electric Panel	\$600 Tax Credit \$4,000 Upfront Discount	\$1,000 SVCE Rebate

Note: Many rebates and discounts are aimed at low to moderate income households and may not apply to you. Program features are continuing to be developed, modified and are subject to change.

# Benefits of Heat Pump Systems

- Dual-purpose
- Energy efficient
- Increased lifespan (+20 years)
- Low maintenance
- Eco-friendly
- Cost savings

# Potential Barriers

- Upfront cost
- Each home is unique (extra work may need to be done)
- Electrical panel may need to be optimized or upgraded
- Minor lifestyle changes





# Resources

- Installing HVAC, EV chargers, and more...
  - Locating a contractor
  - Tools on SVCE website
    - **The Switch is On**
    - **BayREN**
- Calculating savings:
  - **Rewiring America**



# Resident Feedback

- Questions on basic understanding of how systems work
- Does this system make sense for me? (return on investment)
  - What system makes sense for me? (Air-source vs. ground-source)
  - Integration with current systems vs. replacement of current systems
  - Suggestion: Establish at what point it makes sense for homeowners (ex: Top 50% of nat. gas consumers)
- Questions on how to reduce initial cost
  - Lack of understanding of incentives and tax credits (dependant on income?)
  - Information spread out through various organizations (BayREN, SVCE, Tech Clean CA, etc.)
  - Suggestion: create one location where residents can learn information on initial cost and incentives/tax credits
- Operating costs not clear
  - Tradeoff between electrical cost and gas cost
- Lifestyle concerns
  - Heat recovery time
  - Noise (duct & compressor)
- Contractor issues
  - Locating
  - Evaluating bids

Thank You for  
Listening!

# References

- Al-Falahat, A. M., Qadourah, J. A., Alrwashdeh, S. S., Khater, R., Qatlama, Z., Alddibs, E. & Noor, M. (2021). *Energy performance and economics assessments of a photovoltaic-heat pump system* (Vol. 13). Elsevier BV. <https://doi.org/10.1016/j.rineng.2021.100324>
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- Fan, Y., Zhao, X., Han, Z., Li, J., Badiei, A., Akhlaghi, Y. G. & Liu, Z. (2021). *Scientific and technological progress and future perspectives of the solar assisted heat pump (SAHP) system* (Vol. 229). Elsevier BV. <https://doi.org/10.1016/j.energy.2021.120719>
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- Environmental Protection Agency. (2020). *Sources of Greenhouse Gas Emissions*. Retrieved October 7, 2022, from <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

**From:** [Hans Zeller](#)  
**To:** [Casey Leedom](#)  
**Cc:** [Hedden Gary](#)  
**Subject:** Statement for Environmental Commission  
**Date:** Tuesday, November 8, 2022 12:42:33 PM

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Hi Casey,

Here is a Statement I would like to send to you for inclusion in the Environmental Commission agenda.

Thanks very much in advance.

After living without air conditioning for the last 30 years, the heat wave this September convinced me that it's a good idea to get at least one room of my house air-conditioned. Looking at my options I realized that a single-zone mini-split heat pump for my home office fits my needs perfectly. I see five advantages for my use case: First, I get an air-conditioned room on those very hot days when it's needed. Second, I get to use the same unit in the winter to heat that room and reduce gas consumption of my forced air furnace. Third and fourth are the increased efficiency of the heat pump over a space heater and over using possibly leaky air ducts. Finally, I hope to reduce peak load on very hot or cold days by keeping only one room at a comfortable temperature.

Hans Zeller



**MEETING DATE:** November 14, 2022

**SUBJECT:** Solid Waste (SB 1383) Outreach and Public Education

**PREPARED BY:** Casey Leedom, Sustainability Coordinator

**REVIEWED BY:** Aida Fairman, Director of Environmental Services and Utilities

## **BACKGROUND**

In September 2016, Governor Jerry Brown signed into law SB 1383 organic waste diversion regulations in an effort to reduce GHG emissions. In November 2020, the California Department of Resources Recycling and Recovery (CalRecycle) finalized SB 1383 regulations. SB 1383 requires the City to adopt an enforceable ordinance that requires businesses and residents to recycle their organic waste and comply with other regulation requirements.

Los Altos City Council adopted Ordinance No. 2021-482 (Amendment to the Los Altos Municipal Code to include requirements of SB 1383) during the November 9, 2021 City Council Meeting. Los Altos completed its Universal Roll Out process in 2022, in which businesses received organics bins. Public Education and Outreach will occur from 2022 through 2023. Enforcement of the ordinance will begin in January 2024.

SB 1383 Requirements:

- The City of Los Altos must reduce organic waste disposal by 75% by 2025 (from 2014 levels).
- The City of Los Altos must reduce edible food disposal by 20% by 2025 (from 2014 levels).

**SB 1383 is aligned with CAAP Action Item 3.1A: Increase the landfill diversion rate.**

## **STATUS UPDATE**

The City is in the public education and outreach phase of implementation. Cascadia (subconsultant to R3) is currently performing in-person outreach to businesses in Los Altos. This outreach includes providing businesses with signage to display near collection containers.

# Organics Program

## What Goes in the Organics?

### FOOD SCRAPS

- fruits & vegetables including peels, pits & rinds
- bread, pasta & other grains
- dairy products & egg shells
- coffee grounds & tea leaves
- meat & bones

### FOOD-SOILED PAPER

- paper plates & cups
- paper napkins & towels
- paper coffee filters & tea bags
- paper bags *(used to contain food scraps)*
- paper takeout containers
- newspaper *(used to wrap food scraps or line cart)*
- pizza boxes
- waxed paper & boxes
- wooden chopsticks

### YARD TRIMMINGS

- flowers
- leaves
- grass clippings
- small branches less than 6" in diameter

**NO GLASS, METAL, STYROFOAM OR PLASTIC**

**NO JUICE, SOUP OR MILK BOXES**

**NO DIRT, ROCK, CONCRETE OR BRICK**

**NO LIQUID FAT, OIL OR GREASE**

**NO PLASTIC BAGS**



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**MEETING DATE:** November 14, 2022

**SUBJECT:** Status Update – Tree Protection Ordinance

**PREPARED BY:** Casey Leedom, Sustainability Coordinator

**REVIEWED BY:** Aida Fairman, Director of Environmental Services and Utilities

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## **BACKGROUND**

On May 24, 2022, City Council directed the Environmental Commission to work with City staff to evaluate the City's Tree Protection Ordinance and recommend changes as needed. The City recently hired two Sustainability Coordinators, who are familiarizing themselves with the CAAP, City protocols, and Environmental Commission priorities as aligned with City Council direction. The Tree Protection Ordinance is the second priority in the Environmental Commission workplan and is related to **CAAP Action Item 5.2A: Increase urban tree canopy**.

## **STATUS UPDATE**

Staff presented initial recommendations for updates to the Tree Protection Ordinance to the Environmental Commission Subcommittee on November 2, 2022. The Subcommittee provided feedback to staff. Staff is also seeking information from a Certified Arborist to inform their recommendations for the Ordinance. Staff will continue to update Tree Protection Ordinance recommendations based on feedback and arborist input. Staff will bring updated recommendations to the Subcommittee. Staff will update the Environmental Commission at a later time, once this item is closer to completion.





**MEETING DATE:** November 14, 2022

**SUBJECT:** EV Fair

**PREPARED BY:** Casey Leedom, Sustainability Coordinator

**REVIEWED BY:** Aida Fairman, Director of Environmental Services and Utilities

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## BACKGROUND

**Goal 1.4A of the Climate Action and Adaptation (CAAP) Plan** recommends the following:

- Develop a yearly EV fair with participation from local dealerships and owners.
- Develop a map of the city charging network and available dedicated parking spaces.
- Create a webinar series on EV ownership.
- Promote all available incentive programs and encourage their use.

The goal is to increase education and awareness of available EV resources and incentive programs.

## STATUS UPDATES

The Sustainability Coordinators met with the EV Fair Planning Committee (Sybil Cramer – Silicon Valley Chapter of Electric Vehicle Association, Suresh Venkatraman – GreenTown, and Commissioner Van Reis) to discuss planning status and coordinate next steps. The Committee discussed potential venues, timeline, and elements of the Fair.

The Sustainability Coordinators will work together to lead the implementation of the EV Fair, in collaboration with GreenTown and the Electric Vehicle Association, based on the CAAP guidelines under goal 1.4A. They will attend meetings relating to this item and request support on various tasks from the Environmental Commission.



**MEETING DATE:** November 14, 2022

**SUBJECT:** Environmental Commission Work Plan

**PREPARED BY:** Casey Leedom, Sustainability Coordinator

**REVIEWED BY:** Aida Fairman, Director of Environmental Services and Utilities

**BACKGROUND**

The Environmental Commission Work Plan is intended to focus the Commission’s agenda items and align them with City Council priorities, and to serve as a roadmap for projects and actions, as appropriate, during the 2022/23 year. The Commission will review the targets, projects, and status updates at each of its monthly meetings and review its priorities every three to six months.

At the Environmental Commission’s regular meeting on August 8, 2022, the Commissioners discussed prioritization of the Commission’s Work Plan items upon request by staff and put forth the following priorities (listed in order) for review by staff. City staff have updated “EV Fair” to Priority #5 and “Greening City Operations” to Priority #6.

1. Reach Codes
2. Tree Preservation Guidelines
3. Water Conservation (MWENDO), Implementation of CAAP priorities
4. Update Environmental Webpage on City website
5. EV Fair
6. Greening City Operations
7. Assist staff with Outreach and Education Effort
8. Single Use Plastics
9. Gas-Powered Off-Road Engines

The prioritization of the tasks in the Work Plan and target dates will be updated by staff as needed.

**STATUS UPDATE**

City Staff are primarily focusing current efforts on the first three items listed above.

Subcommittees to provide updates on recent work related to the work plan.

**ENVIRONMENTAL COMMISSION**  
**2022/23 Work Plan**  
**Updated November 2022**

Category	Priority	Projects	Assignments	City Priority related to
Climate Action and Adaptation Plan	N/A	Implementation of City's CAAP priority actions for year	Subcommittee- Bruno Delagneau, Raashina Humayun, Carl van Reis	CAAP Goals
Climate Action and Adaptation Plan	1	Reach Codes 2.0	Subcommittee - Tom Hecht, Laura Teksler and Don Weiden	CAAP Goals
Natural Resource Management	2	Tree Protection Ordinance	Subcommittee - Raashina Humayun, Shiaoping Lu, Carl van Reis	
Natural Resource Management	N/A	Urban Forest Management	Subcommittee - Raashina Humayun, Shiaoping Lu, Carl van Reis	CAAP Goals
Water Conservation	3	Public communication and outreach efforts, assist staff with MWENDO	Subcommittee – Raashina Humayun, Shiaoping Lu, and Laura Teksler	CAAP & Resource Conservation
Public Outreach & Education	4	Update environmental webpage on the City web site	Staff (webpage) Commissioner Carl van Reis (Energy & Water usage metrics)	Public outreach and education
Climate Action and Adaptation Plan	5	EV Fair	EC Liaison Carl van Reis	CAAP Goals
Climate Action and Adaptation Plan	6	Greening City operations	Appropriate City staff coordinating with CAAP subcommittees	CAAP Goals
Public Outreach & Education	7	Assist staff with various outreach and education efforts		Public outreach and education
Solid Waste	8	Single Use Plastics	Subcommittee- Bruno Delagneau, Laura Teksler, and Don Weiden	CAAP & Solid Waste Reduction
Climate Action and Adaptation Plan	9	Gas Powered Off Road Engines	Subcommittee TBD	CAAP Goals