



**KEEP TRUCKEE MEADOWS BEAUTIFUL**

# **Environmental Impacts of Electronic Cigarettes and Barriers to Proper Disposal**

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# Research Background

NORTHERN NEVADA  
**Public Health**

*Serving Reno, Sparks & Washoe County*



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E-waste



Food Packaging



Plastics

## CAN IT BE RECYCLED?

Visit KTMB's all NEW  
**Recycling Guide**  
and see for yourself.

Funded by  
WASHOE COUNTY  
HEALTH DISTRICT  
ENHANCING QUALITY OF LIFE

# Electronic Cigarettes in Our Waste Streams

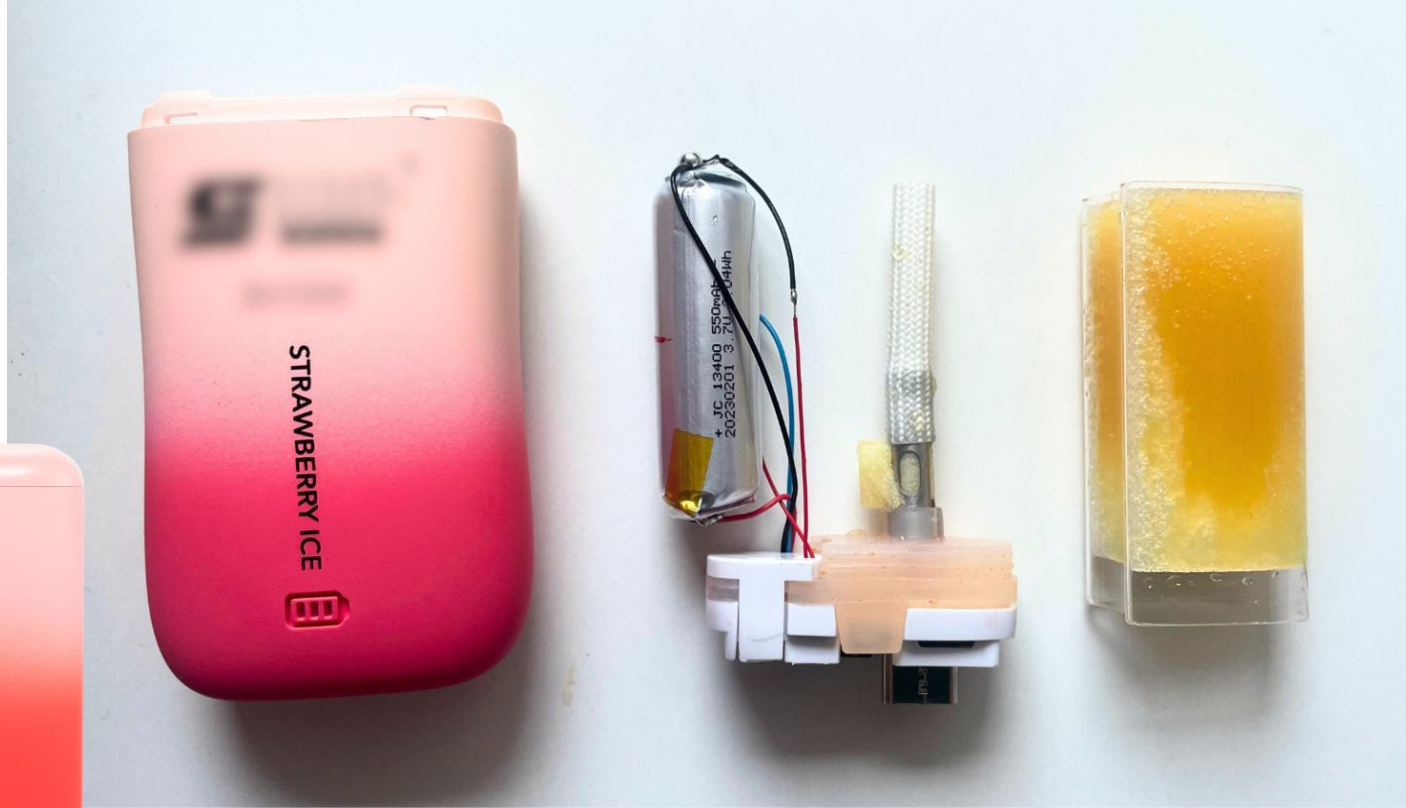
Approximately **4.5** vapes are thrown  
away every second in the US

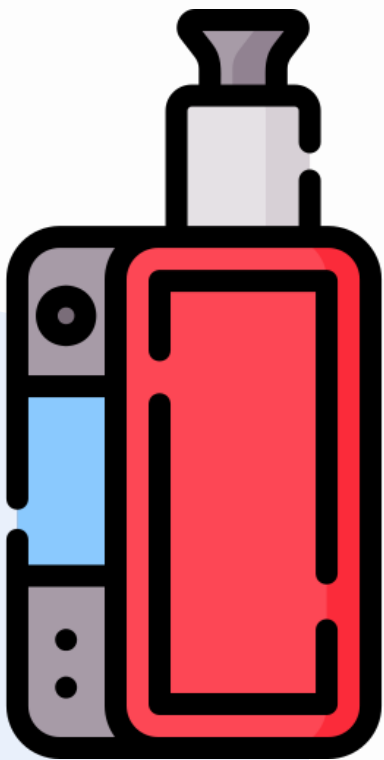


# Research Questions

- 1. How should tobacco products, such as electronic cigarettes, be discarded?**
- 2. What are the environmental impacts of improperly discarded tobacco products?**
- 3. What are local disposal options available to residents of Washoe County?**

# Vape Makeup



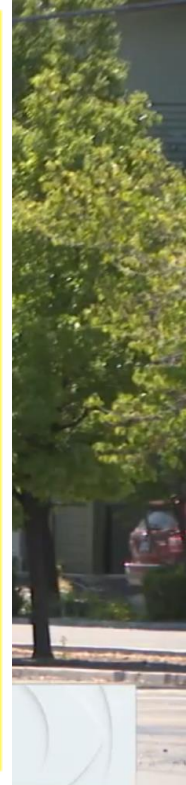


# 01 Proper Disposal of Electronic Cigarettes

Why are electronic cigarettes considered hazardous waste?  
What does this mean in terms of the disposal process?

Nicotine Cartridge

Lithium-ion Battery





# Methods of Disposal Among Youth

## Methods of e-cigarette waste disposal\*



Sell them 10%



12%



\*Data were from a survey of 15-24-year-olds fielded February – June 2020 and included 3,757 participants. Participants could select more than one response to questions.





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## Environmental Impacts

How are these devices impacting our environment?

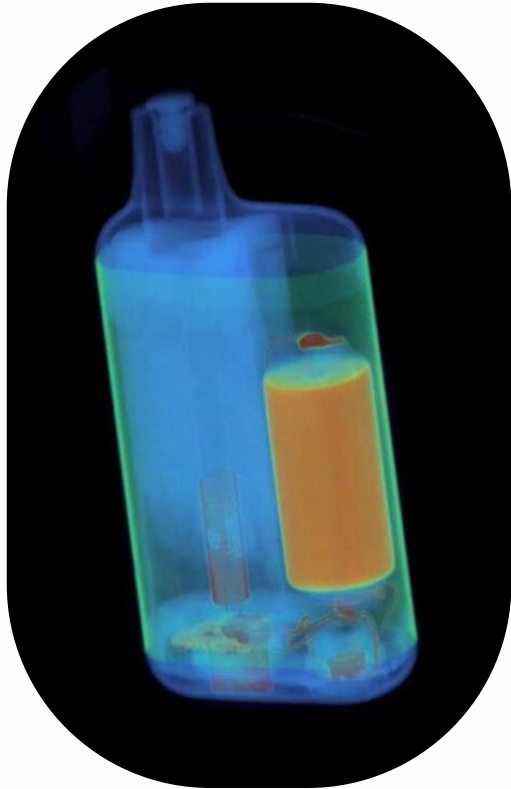
# Nicotine Cartridge



- Nicotine salts are directly poisonous to aquatic organisms, even at low concentrations.
- Nicotine salts are more stable, soluble, and volatile in water than freebase nicotine.
- Our community is more at-risk to pollutant inputs than others.



# Lithium-ion Batteries



- Increase in air pollution as fires caused by lithium-ion batteries continue to rise.
- These batteries contain heavy metals, which can potentially leach into the environment when littered or when put into landfills.
- Our community is at a higher risk of being affected by wildfires over the next 30 years.



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## Local Disposal Options & Opportunities

What can be done to eliminate potential barriers to proper disposal?

# Disposal Methods for Washoe County Residents



- Annual Voucher for HHW Disposal, provided by WM for Reno, Sparks, and Washoe County costumers.
- City of Reno Community Cleanups in Spring and Fall, which often offer HHW disposal.
- Washoe County Commissioner Garcia and Sun Valley General Improvement District working to expand access to HHW disposal in District 3.



# Thank You!

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