



CPSC
California Product
Stewardship Councilsm

**Batteries, Propane Cylinders, &
Piloting Special Projects for
Emerging Waste Streams
& Future Programs**

SWANA Western Regional Symposium

April 4-7, 2022



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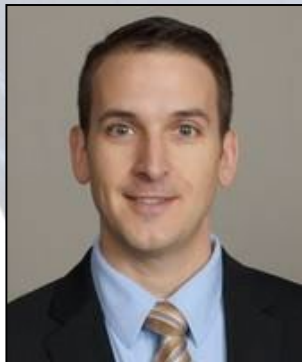
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RethinkWaste



Chris Sheppard
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Funding

Associates

Thank you to all the

- Cities
- Counties
- Districts
- JPAs

that fund us!



Sponsors

Platinum Sponsors (\$10,000+)



Other Levels: Gold (\$5,000+), Silver (\$2,500+), Bronze (\$500+), Green (\$250+)



CPSC Mission – Goals of EPR

To shift California’s product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order **to reduce public costs and drive improvements in product design that promote environmental sustainability.**

CPSC's Product Scope



Doug:

- Legislation
- Batteries
- Electronics
- All other product types



Joanne:

- Outreach
- Solar
- Marine Flares
- Textiles



Nate:

- Fundraising
- Medication
- Sharps
- Refuel Your Fun

Other Staff (We're Hiring!):

- Collection event planning
- Retailer recruiting
- Newsletters
- Social media



Batteries, Batteries, Batteries!

So many different types and chemistries of batteries!

So many different uses!

What's a consumer to do?



Loose, Embedded, both?

The Story of Why We Need Safe Battery Management



South Bayside Waste Management Authority

- Major fire at San Carlos MRF caused by lithium batteries
- Insurance premiums increased causing rates to increase
- **At risk of losing insurance coverage and having to self-insure!**

<http://www.rethinkwaste.org/>

MRF fire footage:

<https://www.youtube.com/watch?v=EkK4GdKjp-U>

Hilary running over a battery video:

<https://www.youtube.com/watch?v=9x7Gpygk9TM>

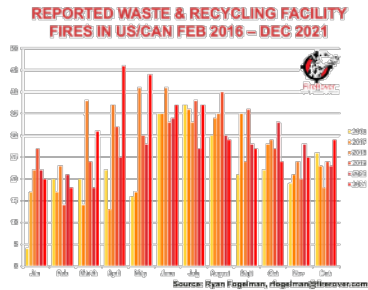


The Fires Keep Occurring!



REPORTED WASTE & RECYCLING FACILITY FIRES IN US/CAN FEB 2016 – JAN 2022

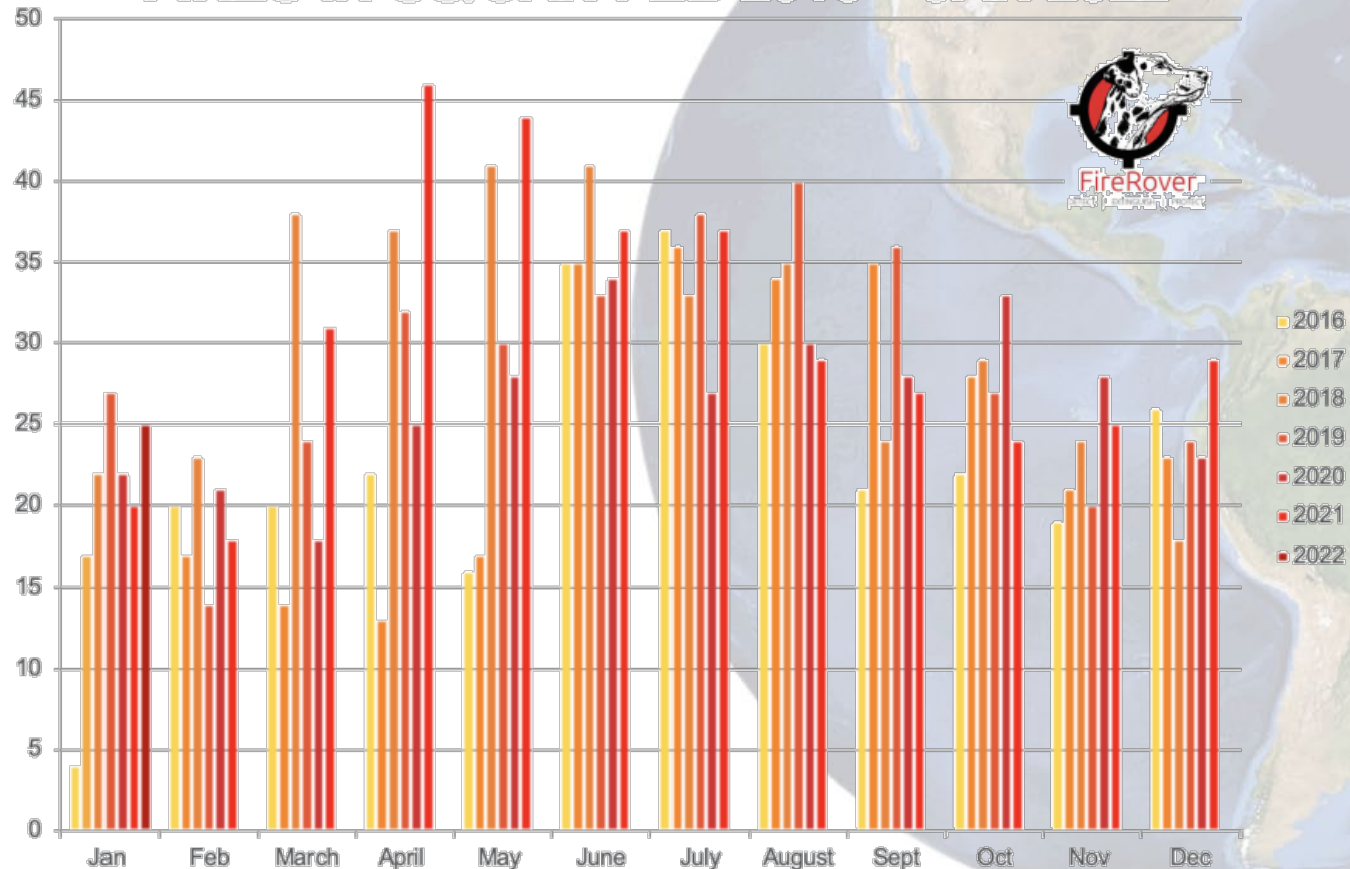
5th ANNUAL REPORTED WASTE & RECYCLING FACILITY FIRES US/CAN



2021 REPORT Published 2022

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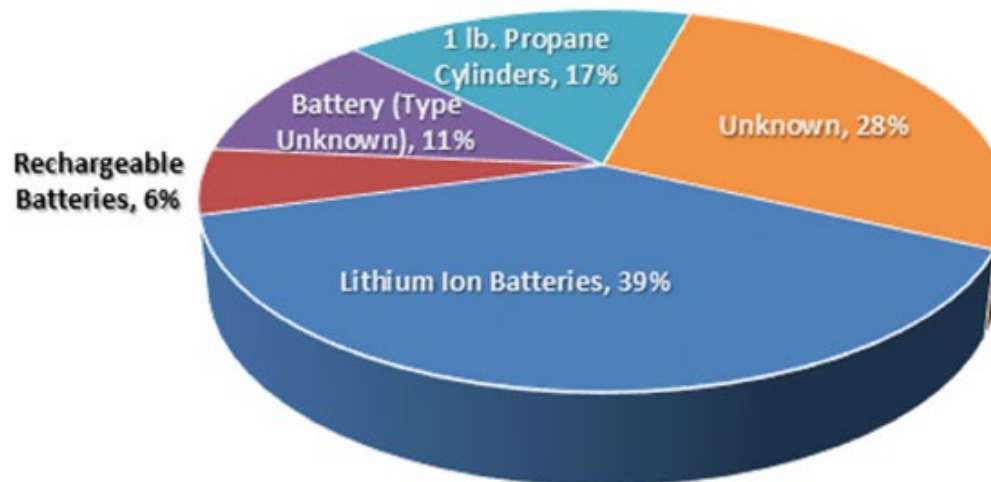
Source: Ryan Fogelman, rfogelman@firerover.com

CPSC Fire Incident Survey

CPSC conducted a survey in March 2018 to find out more about waste facility fires:

- 22 respondents from CA waste facilities, with 21 responding yes or no to facility fires.
- **86% of the 21 reported having a fire at their facility** in the last two years.
- When asked to identify the source of the reported fires, **56% of the reported fires** were due to batteries.
- Lithium ion batteries are the largest source of reported fires.

Sources of Fires at Waste Management Facilities



Press on Fire Incidents!



CPSC
California Product
Stewardship Council



COMPOSITION: EMILY LIPSTEIN/JASON KOEBLER

MOTHERBOARD
TECH BY VICE

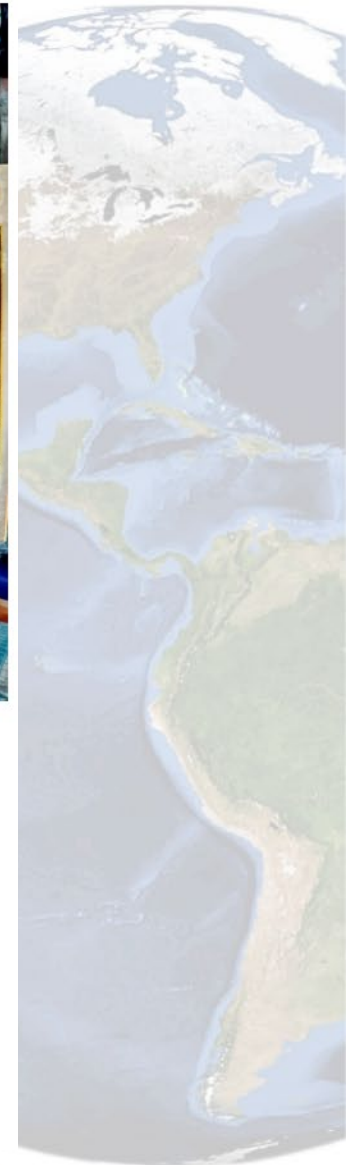
Lithium Battery Fires Are Threatening Recycling as We Know It

People are tossing old electronics in the recycling bin, and they're lighting on fire and exploding at municipal recycling centers at an alarming rate.



By [Audrey Carleton](#)

February 1, 2022, 7:52am



Even the US EPA Produced A Study!



An Analysis of Lithium-ion Battery Fires in Waste Management and Recycling

July 2021
Office of Resource Conservation and Recovery
EPA 530-R-21-002

1.6.1) California Product Stewardship Council Survey

The California Product Stewardship Council is an organization that supports stronger end-of-life management for products and Extended Producer Responsibility (EPR) programs. The group conducted a survey in 2018 on fires at waste management facilities in California (California Product Stewardship Council, 2018). Of the 26 surveyed waste facilities, 83% reported having a fire at their facility in the past two years. Forty percent of those fires were caused by LIBs, with another 25% sparked by other types of batteries (figure 4). These incidents were not reported as being caused by LIBs to the media according to our research, which means that they may have been small fires and not newsworthy. However, surveys of this kind shed light on a growing problem which may not be fully reflected by the media.

Sources of Fires at Waste Management Facilities

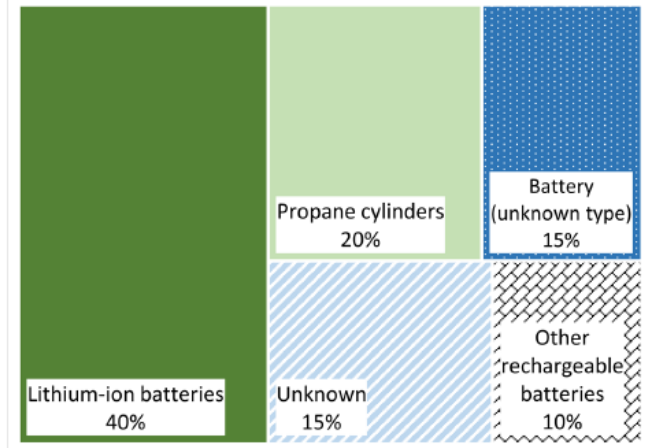


Figure 4: Sources of Fires at California waste management facilities, according to a 2018 survey by the California Product Stewardship Council

1.6.2) Fire Rover Report



EPR Battery Laws

U.S. Battery EPR Laws

**8 States and the
District of Columbia**

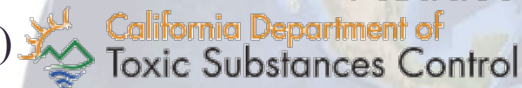


Source: Product Stewardship Institute, Inc. (2021)

California EPR Laws

True EPR

1. Oil Recycling Enhancement Act (AB 2076, Sher, 1991 ...)
2. Cell Phone Recycling Act (AB 2901, Pavley, 2004)
3. Rechargeable Battery Recycling Act (AB 1125, Pavley, 2005)
4. Product Recall Safety & Protection Act (AB 1860, Huffman, 2008)
5. Ag Pesticide Containers Recycling (SB 1723, Maldonado, 2008)
6. Mercury Thermostats (AB 2347, Ruskin, 2008)
7. Meds and Sharps (SB 212, Jackson, 2018)



Product Stewardship

1. Beverage Container Recycling Act (AB 2020, Margolin, 1986 ...)
2. Tire Recycling Act (AB 1843, Brown, 1989 & SB 876, Escutia, 2000)
3. Ewaste Recycling Act (SB 20, Sher, 2003 & SB 50, Sher, 2004)
4. Paint (AB 1343, Huffman, 2010)
5. Carpet (AB 2398, Perez, 2010; AB 1158, Chu, 2017; and AB 726, Chu, 2019)
6. Mattresses (SB 254, Hancock, 2015 and AB 187, Garcia, 2019)



California Battery Legislation

2013/2014 Session

[AB 2284 – Williams – Recycling: household batteries. batteries pilot projects](#) (Co-sponsored by CPSC and City of Sacramento) – Would require the department to develop and fund up to 3 local battery recycling pilot projects. **Introduced February 21, 2014. Held in Senate EQ June 15, 2014.**

2019/2020 Session

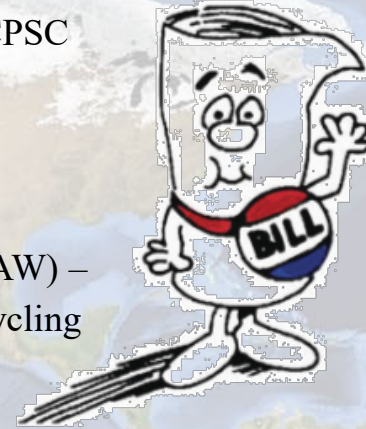
[AB 1509 – Mullin – Solid waste: lithium-ion batteries](#) (Co-sponsored by CPSC, SBWMA, and CAW) – Would establish the Lithium-Ion Battery Recycling Program in the Department of Resources Recycling and Recovery. **Introduced February 22, 2019. Held in Senate EQ June 25, 2019.**

2021/2022 Session

[SB 289 – Newman – Recycling: batteries and battery-embedded products](#) (Co-sponsored by CPSC, SBWMA, and CAW) – Would enact the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2021. **Introduced February 1, 2021. Held in Senate Appropriations May 20, 2021.**

[AB 2440 – Irwin – Responsible Battery Recycling Act of 2022](#) (Co-sponsored by CPSC, SBWMA, and CAW) – Would enact the Responsible Battery Recycling Act of 2022. **Introduced February 17, 2022. Last amended on March 28, 2022. Set for Hearing in Assembly ESTM on April 5, 2022.**

[SB 1215 – Newman – Responsible Battery Recycling Act of 2022](#) (Co-sponsored by CPSC, SBWMA, and CAW) – Would enact the Responsible Battery Recycling Act of 2022. **Introduced February 17, 2022. Last amended on March 29, 2022. Set for Hearing in Senate EQ on April 20, 2022.**



What's In AB 2440 & SB 1215?



FOR IMMEDIATE RELEASE: February 18, 2022

CONTACT (NEWMAN): Lizzie Cootsona, Lizzie.Cootsona@sen.ca.gov

CONTACT (IRWIN): Margaret Lie, Margaret.Lie@asm.ca.gov

Senator Newman and Assemblymember Irwin Introduce Legislation to Ensure Safe and Accessible Battery Disposal

Establishes the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2022

Would require:

- Producer funded and operated EPR program
- Certain Retailers to provide collection locations funded by Stewardship Organization
- HHW programs reimbursed for costs
- On-line manufacturers/distributors also must help fund program
- **All loose batteries!** (single-use, rechargeable)
- Certain embedded battery products
- No automotive or solar/power wall batteries
- Other exemptions include Insurance Companies, medical devices, CEW program items

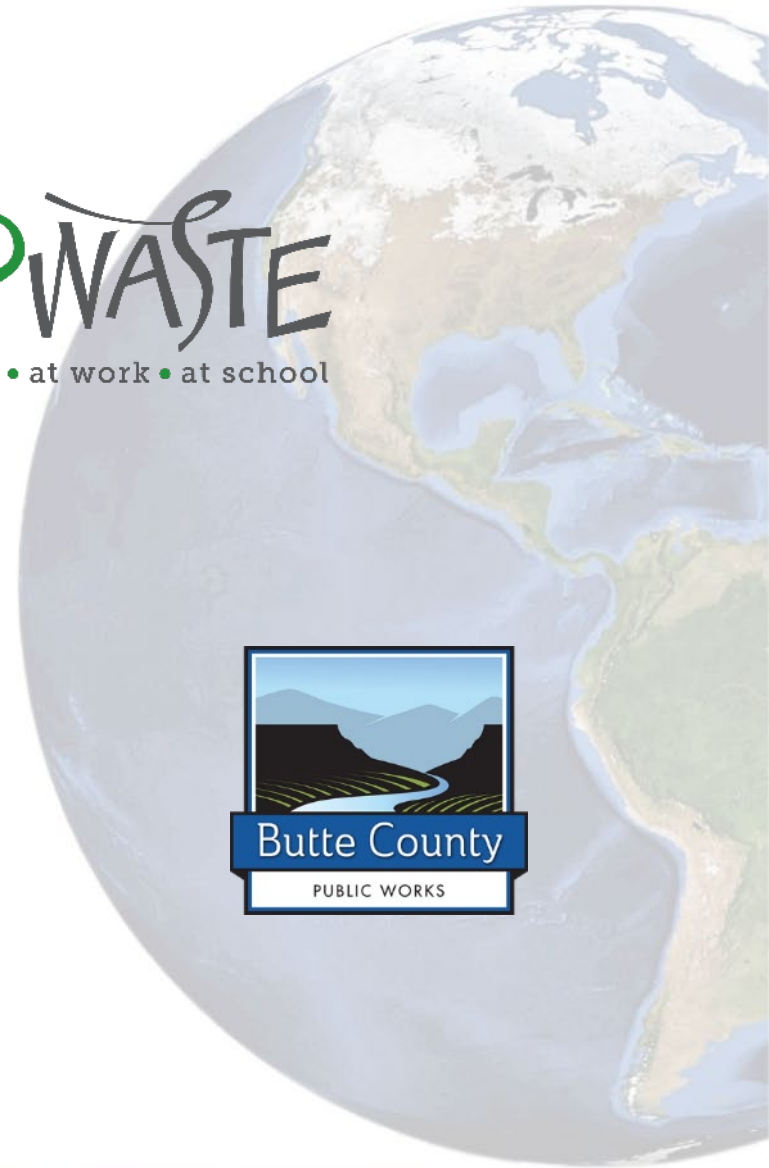
CPSC Solar Grant Projects



OFFICE OF
SUSTAINABILITY
COUNTY OF SAN MATEO



City of
**Santa
Monica**



Resident Surveys: Installation

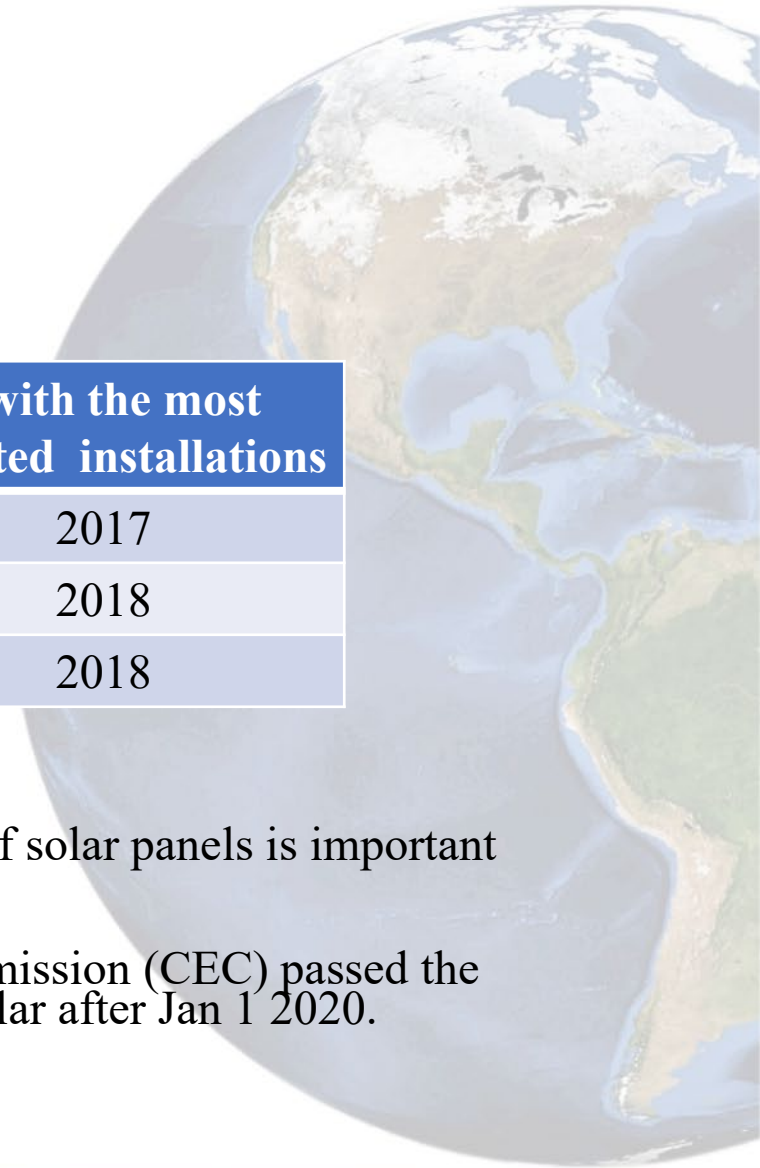
Reported installations occurred between 1971-2019

Table. Solar Installation Data from Resident Surveys

Jurisdiction	Average year of reported installation	Year with the most reported installations
Butte	2016	2017
Santa Monica	2010	2018
San Mateo	2007	2018

77% of survey respondents think responsible disposal of solar panels is important

Installations will increase after California Energy Commission (CEC) passed the requirement in 2018 that every new home must have solar after Jan 1 2020.



Installer Interviews: Advising on End-of-Life Management

86% of interviewed installers do not have a policy or process for advising on end-of-life management for panels;

52% said they have disposed of panels in the past;

29% of installers said they have panels awaiting disposal



Pictured (above): Table and (below) Solar Micromobility Scooter made with repurposed panels



Working panels can be donated or repurposed.

For example, used on an RV or for furniture

Solar Panels: Reuse



Pictured (above): Habitat for Humanities Restore

Pictured (below): Repurposed solar panels for dining table (left) Reused solar panels on an RV (right) Solar panel art installation



Special Solar Panel Sale



**220 Meyers St.
Chico, CA 95928**





*The ReStore does NOT accept solar panels from the public.
This is a special event in conjunction with the grant partners listed above.

Solar Panels: Temporary Collection Events



Photos (above): Butte Landfill

Photo (above): Santa Monica Collection Event

128 solar panels collected

281 solar panels collected

CPSC Marine Flare Grant Projects



recyclemore
WEST CONTRA COSTA INTEGRATED
WASTE MANAGEMENT AUTHORITY



**Delta Household
Hazardous Waste
Collection Facility**



More pending...

Marine Flares: Education and Outreach



Marine Flare Education Videos

CPSC MARINE FLARE STEWARDSHIP

CPSC is leading several marine flare recovery projects and policy development in California that expand circular systems with reduced cost-burden on local government and rate payers through producer engagement and green design.

FREE COLLECTION

PILOT PROJECTS

PRESS

New Webpage!

Coming this Spring/Summer:
Education Events in Marinas



Marine Flares: Temporary Collection Events

1. Planning
2. Outreach
3. Partnerships

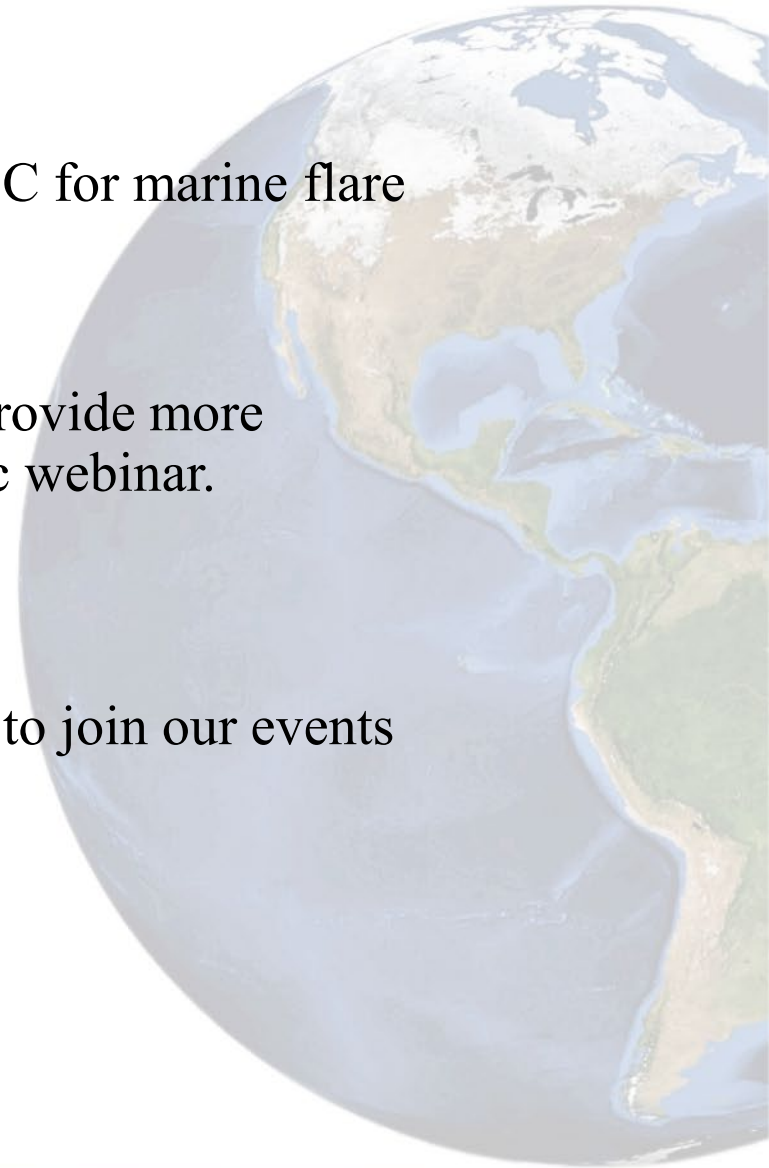


Pictured (above): CPSC staff with a resident with expired marine flares and LED flare



Get Involved in the Marine Flare Movement

1. Apply for a CalRecycle HD grant with CPSC for marine flare events and education
2. Join Delta Diablo and Alameda, who will provide more detailed updates at a future event and public webinar.
3. Join CPSC's NEW marine flare listserv.
Contact Joanne (email: joanne@calpsc.org) to join our events



CPSC's Textile Recovery Pilot Projects



SORTING
San Francisco Department of
the Environment (2020)



REPAIR
San Francisco
Department of the
Environment (2021)



HUBS
City of
Los Angeles

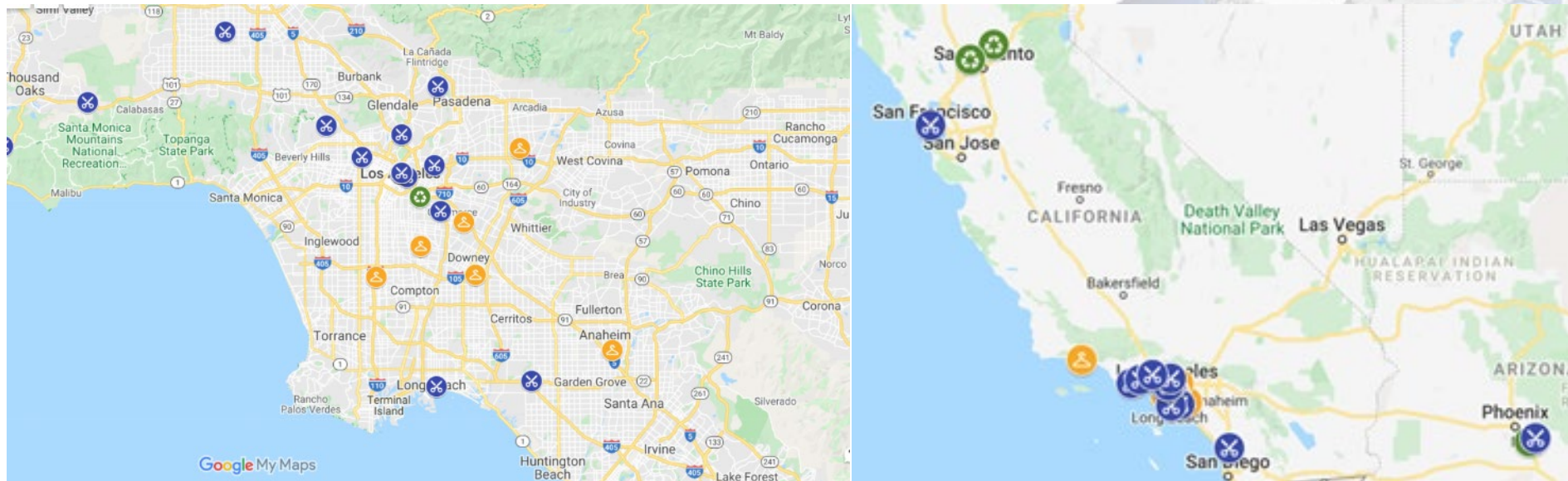


RECYCLING
County of
Los Angeles



REPAIR
County of Alameda
(StopWaste)

CPSC's Textile Handlers Map



Figures. Screenshots of the textile processors mapped for the textile recovery pilots lead by CPSC.

Adding more textile handlers regularly through website surveys and new projects.
Hoping to launch the public map in 2022, pending funding.

**Textile Recovery Map
Icon Legend**

-  Collectors
-  Repairers
-  Recyclers

Goals of Textile Policy Introduction

Policies at the state and local levels can offer specific tools to:

1. Increase landfill diversion for textiles and lifecycle value for materials giving brands direct access to the material feedstock;
2. Fund textile management programs charged with promoting reuse over recycling, and providing additional financial incentives, such as grants and subsidies;
3. Support regional economies by expanding sorting and grading capabilities for post-consumer textiles with incentivized labor expansion and technology upgrades;
4. Level the playing field for the industry leaders already striving for a circular economy.



Textile Stewardship Policy Priorities

Goals: Increase cross-sector engagement, job creation and market development, consumer protection

Local Policies

1. Green Purchasing to include contracts with repair and recycling
2. Recycle uniforms and buy with recycled content
3. Partnerships with charities require reporting and recycling
4. Public database of textile processors

State Policies

1. Tax incentives for repair
2. EPR for segments, such as Hospitality to reduce costs & footprint for an impacted industry
3. PFAS & Microplastics
4. Education and outreach

Federal Policies

1. Removing subsidies on virgin fossil fuels
2. Unfair tariffs on treated and recycled textiles
3. Invest in sustainable ag and fiber recovery
4. PFAS & Microplastics
5. Labeling standards

CPSC Hosted Textile Recovery Advisory Committee




SF Environment
Our home. Our city. Our planet.
A Department of the City and County of San Francisco

Rethink waste
South Bay Waste Management Authority
A Public Agency

environment LA SANITATION
CITY OF LOS ANGELES

FIBERSHED

RRS

COYUCHI

Reformation

Goodwill
SAN FRANCISCO | SAN MATEO | MARIN

REGENT
CELEBRATING 100 YEARS
OUR CENTENNIAL YEAR
1921-2021

one COUNTY one FUTURE

CBU PRODUCTIONS

FASHION REVOLUTION USA

Where we need to be heading!

CPSC's newest campaign “**D**” “**R**” “**Cubed**”

Following the lead of the European Union's [Sustainable Products Initiative](#), products need to be made more:

- Durable
- Reusable
- Repairable
- Recyclable



What else can CPSC fix?



Are there better options?

Available Alternatives



What about more restrictions?



CAMPFIRE RESTRICTIONS



ALLOWED:
grills, portable
stoves, and petroleum-
fueled stoves



ALLOWED:
campfires in grills and grates
at Forest Service developed
recreation sites



NOT ALLOWED:
campfires outside Forest
Service-provided
grills or grates



These year-round restrictions are in effect on the South Dakota portion of the Black Hills National Forest.





Refuel Your Fun Update



The Issue: Too Much Waste



CPSC
California Product Stewardship Council



Home

Maps & Events

Offer Reusables

Media

Contact



MAPS & EVENTS

Find a location that sells/refill/exchanges reusables, where upcoming events are happening, and where you can recycle your cylinders.



PARTICIPATE

Do you want to offer reusables or refill services? Learn how.



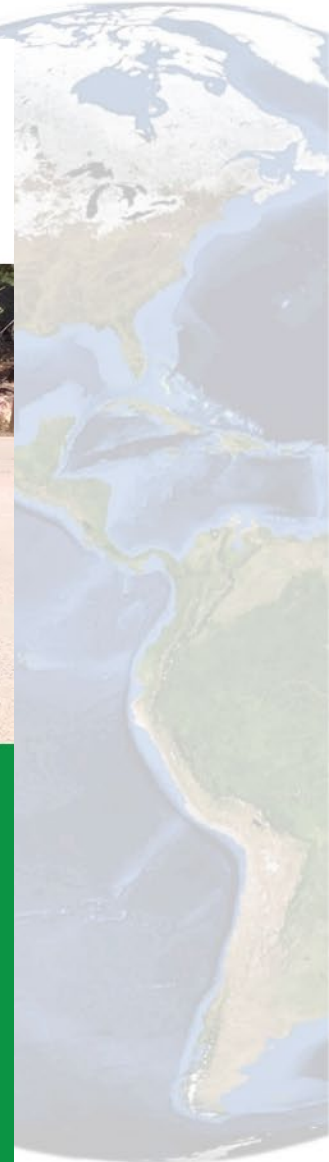
MEDIA

Watch our videos and read articles featuring ReFuel Your Fun!



CONTACT

Get in touch - we'd love to hear from you!

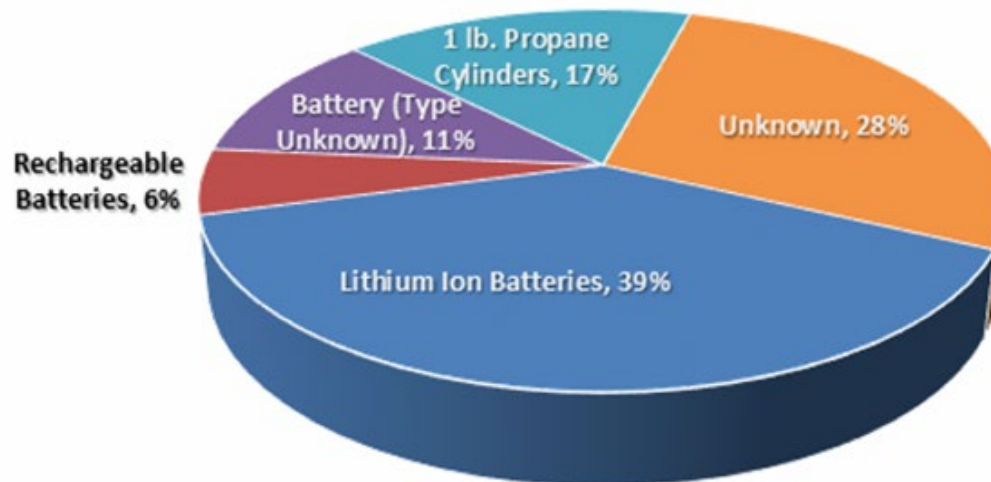


The Issue: Too Many Fires

CPSC conducted a survey in March 2018 to find out more about waste facility fires:

- 22 respondents from CA waste facilities, with 21 responding yes or no to facility fires.
- **86% of the 21 reported having a fire at their facility** in the last two years.
- When asked to identify the source of the reported fires, **56% of the reported fires** were due to batteries.
- Lithium ion batteries are the largest source of reported fires.

Sources of Fires at Waste Management Facilities



The Solution: Reusables



CPSC
California Product
Stewardship Council.



FOR ALL YOUR ZERO WASTE ADVENTURES

**CHOOSE
REUSABLE**

1 LB. PROPANE CYLINDERS



AVAILABLE AT



**Little
Kamper**

Eco-Friendly
Exchangeable
Cylinder

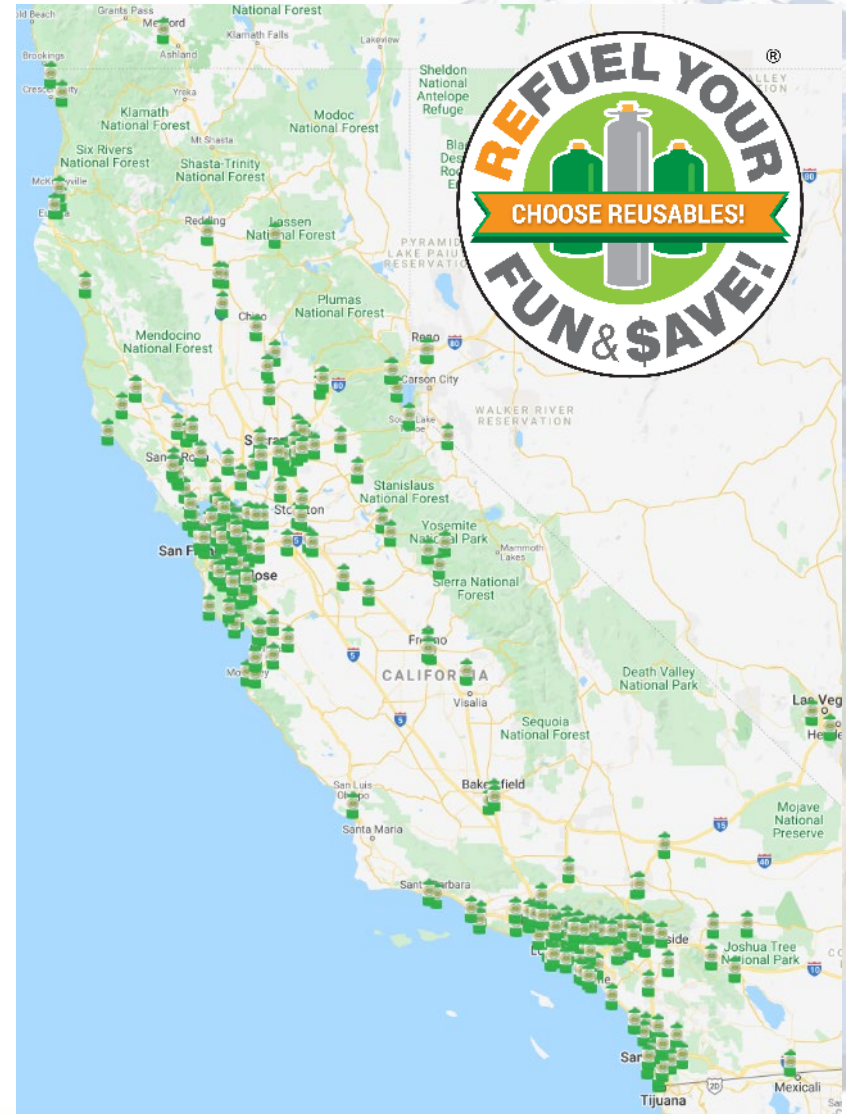
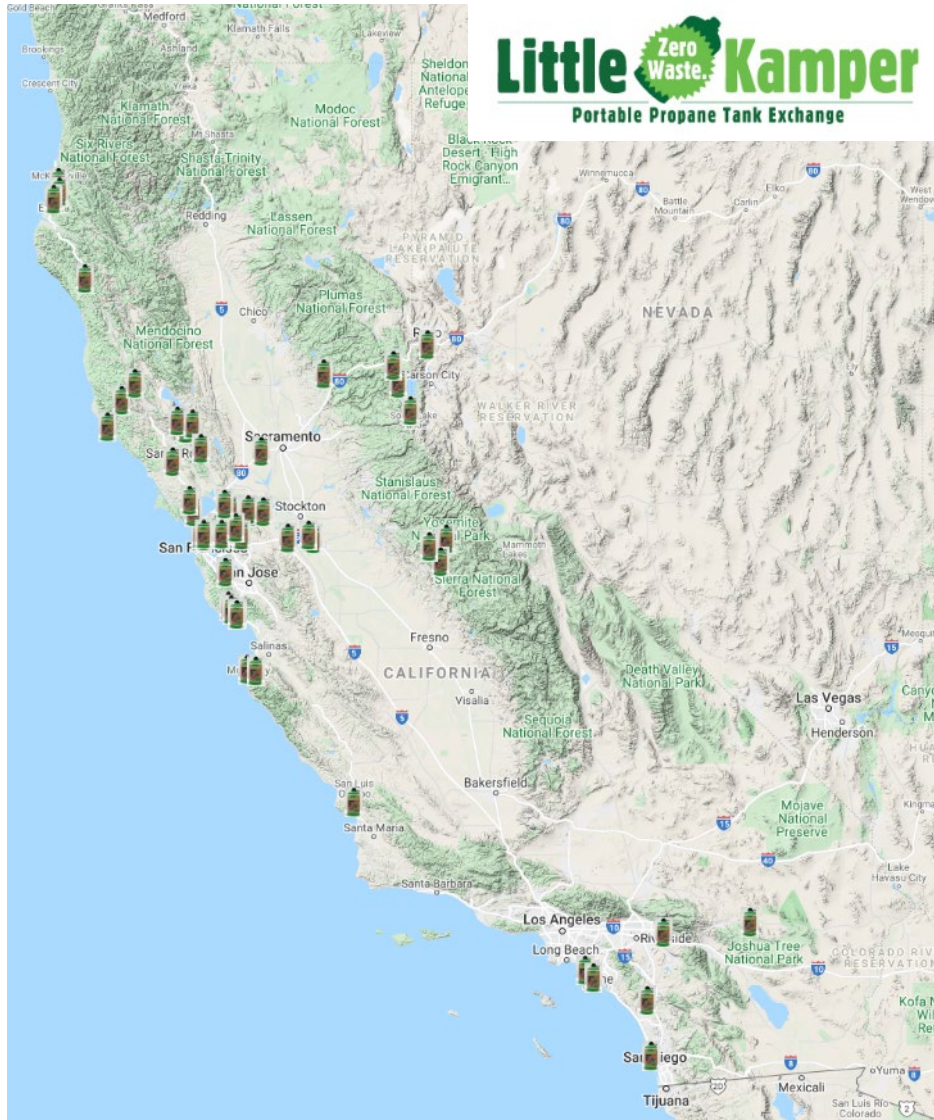
Propane
Camping
Gas



More locations! More options!



More locations! More options! (Cont'd)



Goal: Get Reusables into the Public's Hands



CPSC
California Product Stewardship Council.



REUSABLE 1 LB. PROPANE PLEDGE



Create less waste and save money with reusable 1 lb. propane cylinders. Reusables pay for themselves after about 4 refills.

In receipt of my reusable 1lb. propane cylinder, I pledge to:

Learn: Understand why it is important to switch from using single-use 1 lb. propane cylinders to reusable 1 lb. cylinders for all applicable propane needs.

Act: Choose to use my reusable 1 lb. propane cylinder(s) for all applicable propane needs. Share information on reusables within my local community and through social media.

Yolo County residents can dispose of 1 lb. propane cylinders at your local household hazardous waste facility: Yolo County Central Landfill, 44090 County Road 28H, Woodland. (530) 666-8856



Funded By
CalRecycle

ReFuelYourFun.or



COMPROMISO DE PROPANO REUTILIZABLE DE 1lb



Crea menos residuos y ahorra dinero con cilindros reutilizables de 1 lb. de propano. ¡Transición a cilindros reutilizables de 1 lb. de propano!



Al recibir mi cilindro reutilizable de 1lb. de propano, me comprometo a:

Aprender: Comprender por qué es importante cambiar de cilindros de propano de 1 lb. de un

Actuar: Elegir usar mi(s) cilindro(s) reutilizable(s) de 1 lb. de propano para todas las necesidades que apliquen. Compartir información sobre productos reutilizables dentro de mi comunidad local y en redes sociales.

Program designed & implemented by:



Financiado Por
CalRecycle



YOLO COUNTY RESIDENTS
Get a FREE
Reusable
1 lb. Propane
Cylinder*

*SIGN A PLEDGE TO NO LONGER USE SINGLE-USE CYLINDERS WHILE SUPPLIES LAST AT THE YOLO COUNTY LANDFILL OFFICE 44090 CO RD 28H, WOODLAND, CA 95776



Funded By
CalRecycle

Goal: Educate the Public

COMING SOON
Propane Adventure Video



Funded By
CalRecycle



CPSC
California Product Stewardship Council.

Join us for the Virtual Premiere
Propane Adventure Video



Funded By
CalRecycle

Program designed & implemented by:
CPSC
California Product Stewardship Council.

Goal: Expand Distribution



CPSC
California Product
Stewardship Council



Case Study: Yosemite National Park



Case Study: Yosemite National Park, Continued



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California 1lb Propane Tank Legislation

2021/2022 Session

[SB 1256 – Wieckowski – Recycling: batteries and battery-embedded products](#) (Co-sponsored by CPSC) – This bill would, on and after January 1, 2028, prohibit the sale of disposable propane cylinders, as defined, and would make the violation of this provision subject to specified civil penalties. The bill would authorize a city attorney or county counsel to impose these civil penalties, as provided.. **Introduced February 17, 2022. Heard 3/28 at Senate EQ; referred to Judicial and hearing set for 4/19.**





Questions?

Connect with CPSC!



info@calpsc.org

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www.CalPSC.org

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