

2024

LAKE TAHOE LITTER SUMMIT

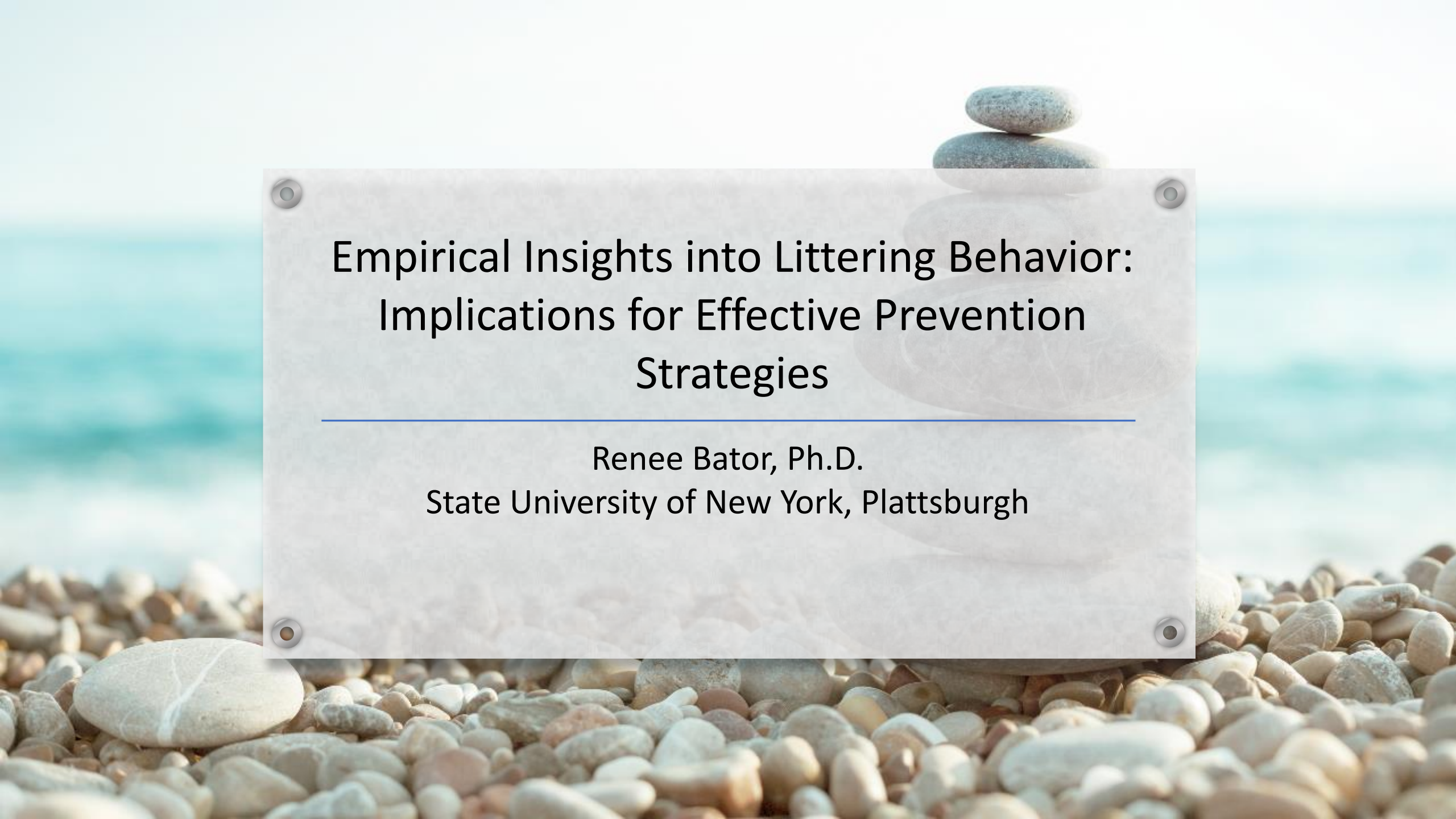
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Empirical Insights into Littering Behavior: Implications for Effective Prevention Strategies

Renee Bator, Ph.D.
State University of New York, Plattsburgh



Predictors of Littering



Absence of easily
accessible receptacles

Orange beach, Alabama



Orange beach, Alabama

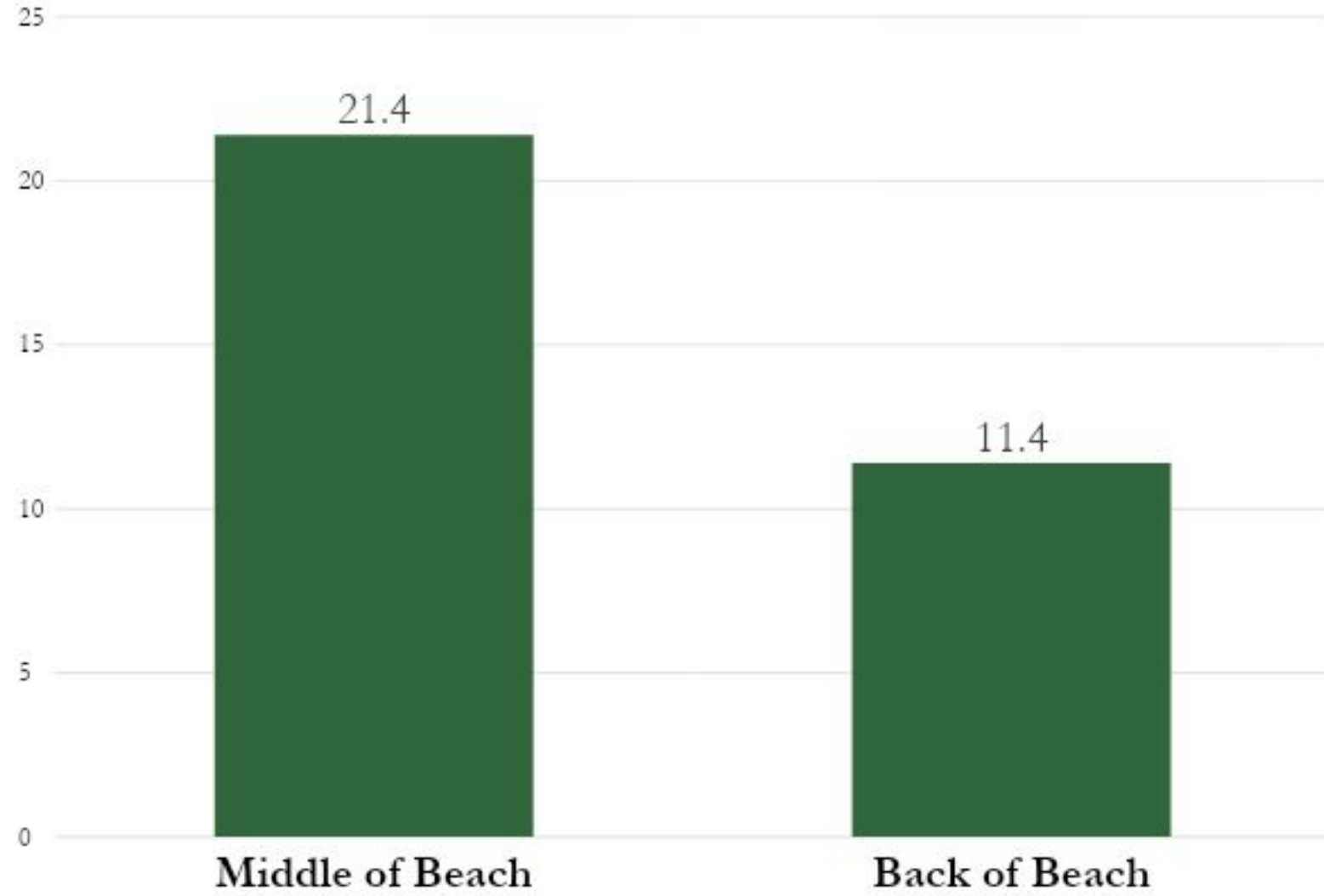


Back



Middle

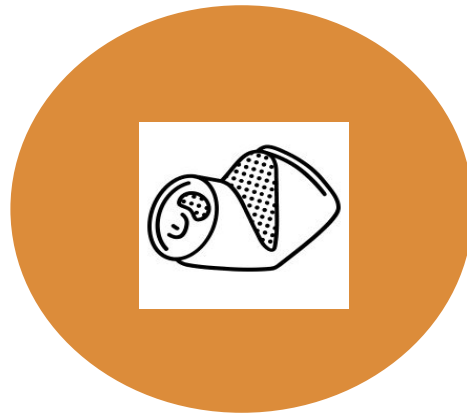
Trash Collected (lbs)



Predictors of Littering



Absence of easily
accessible receptacles



Presence of Litter

The Influence of Social Norms

- Descriptive Norms

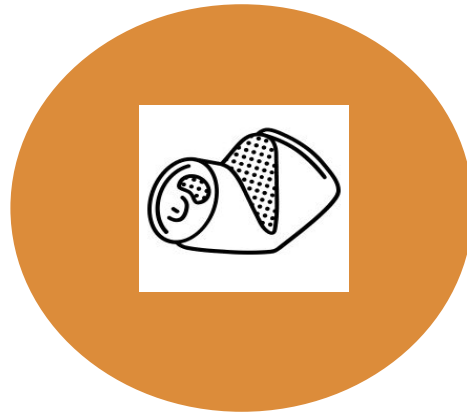
How do most people behave at Lake Tahoe?



Predictors of Littering



Absence of easily
accessible receptacles



Presence of Litter



Lack of concern about
repercussions

The influence of social norms

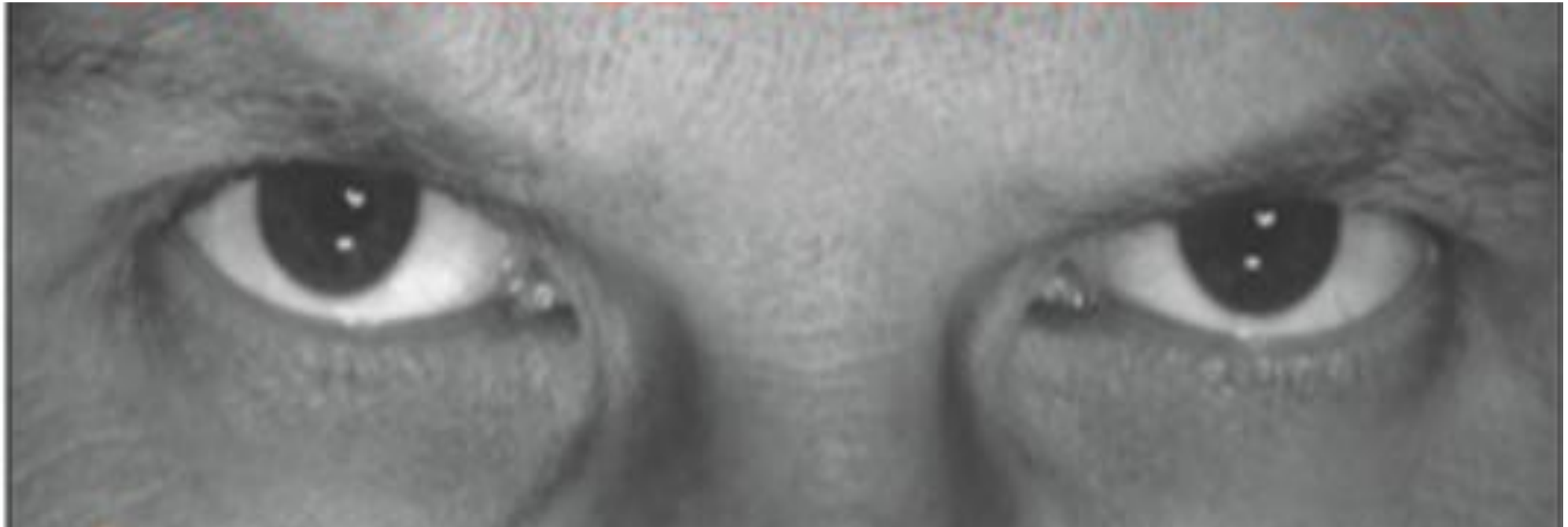
- Injunctive Norms

What do others think
if I litter at Lake Tahoe?



Messaging to Prevent Litter

Messaging to Prevent Litter





Beware of bike thieves



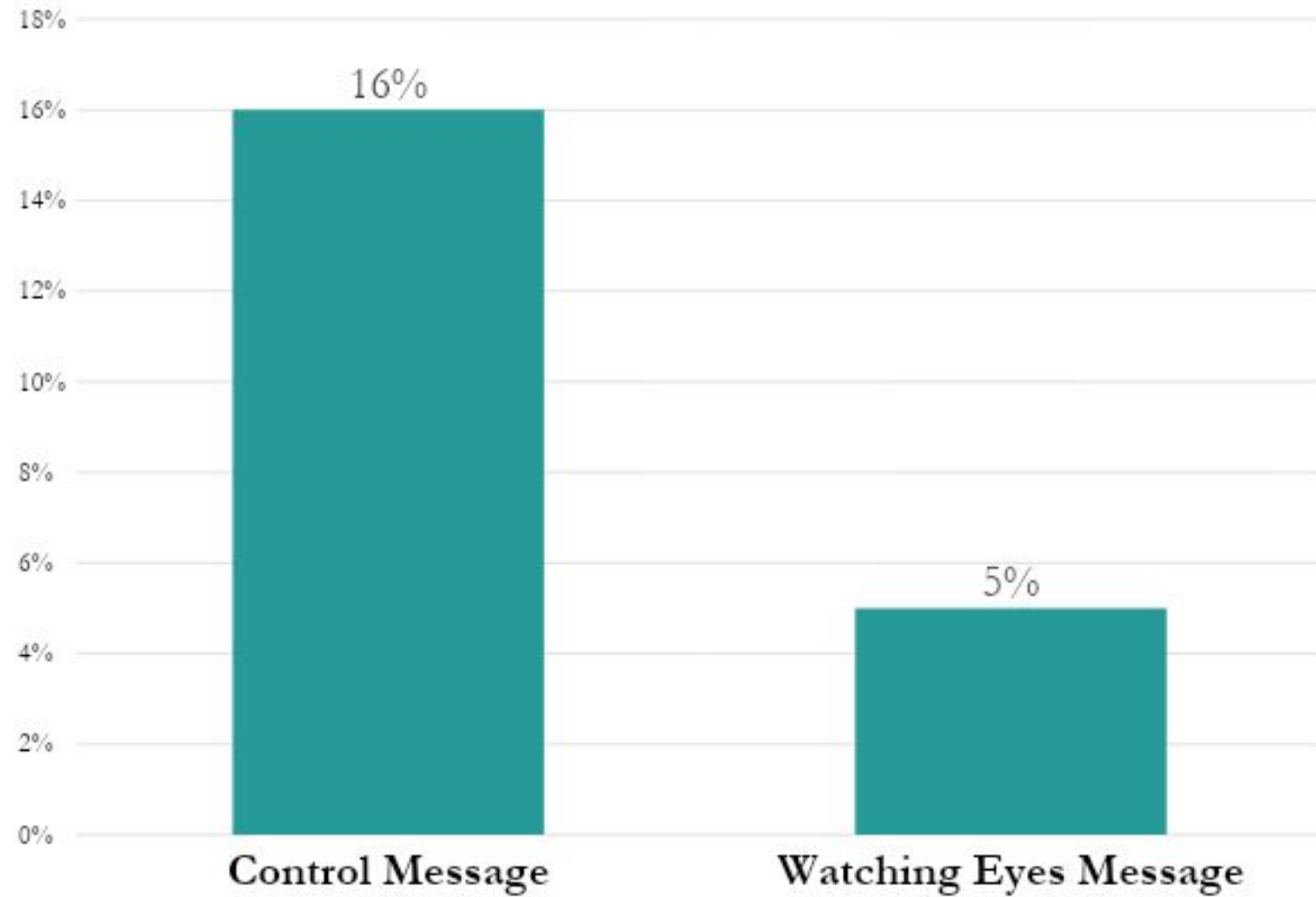
Lock your bike

Beware of bike thieves



Lock your bike

Littering Rates



Do 'watching eyes' influence antisocial behavior? A systematic review & meta-analysis



Keith Dear*, Kevin Dutton, Elaine Fox

Department of Experimental Psychology, University of Oxford, United Kingdom

2019

ARTICLE INFO

Keywords:

Watching eyes

Eye cues

Eye images

Surveillance cues

Eye primes

Implicit social cues

ABSTRACT

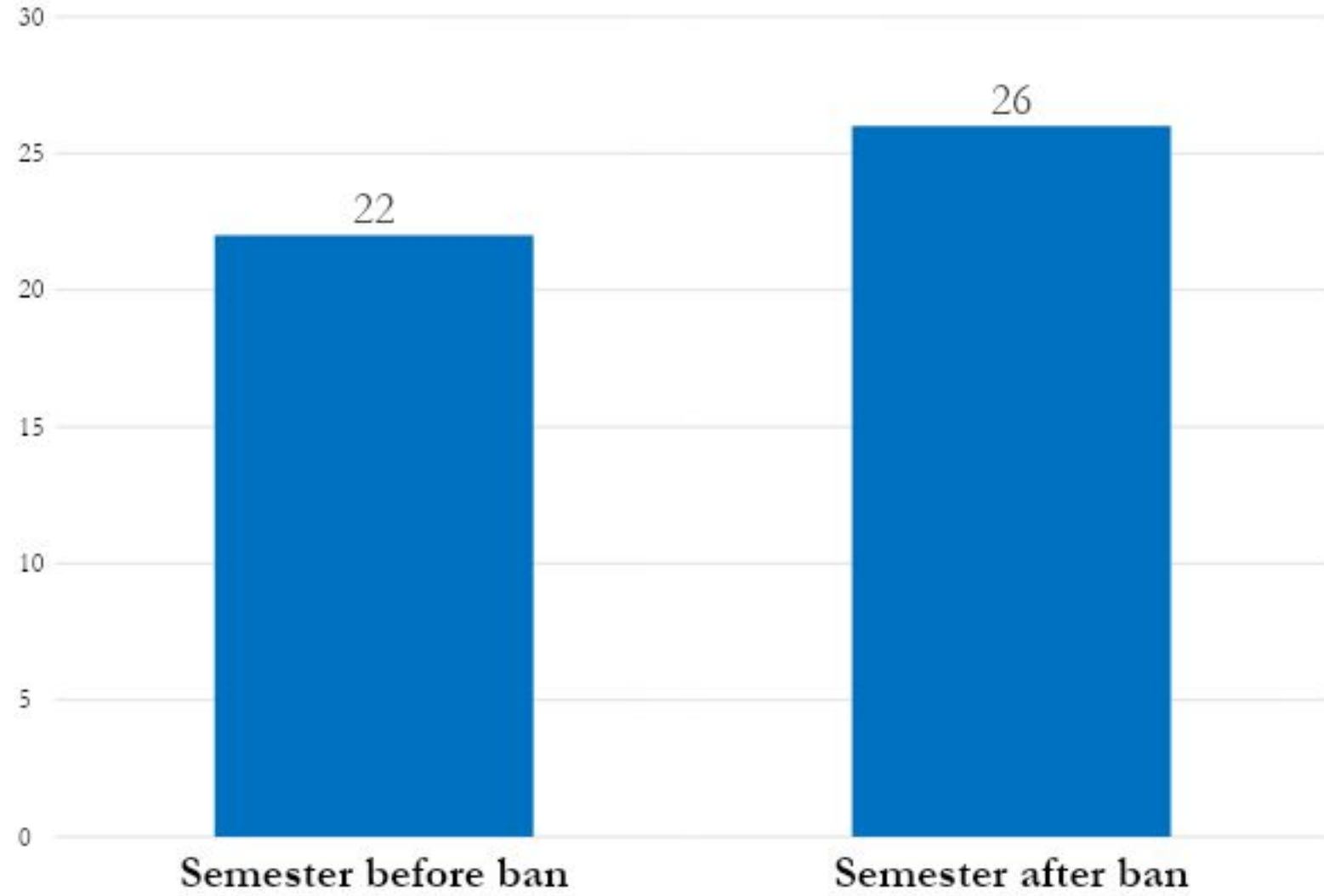
Eye cues have been shown to stimulate rapid, reflexive, unconscious processing and in many experimental settings to cue increased prosocial and decreased antisocial behaviour. Eye cues are being widely applied in public policy to reduce crime and antisocial behaviour. Recently, failed replication attempts and two meta-analyses examining the eye cue effect on generosity have raised doubts regarding earlier findings. Much of the wider evidence on eye cues has still not been systematically reviewed, notably that which is most relevant to its practical application: the effect of eye cues on antisocial behaviour. Given the evidence of humans' heightened sensitivity to threat and negative information, we hypothesized that the watching eyes effect would be more consistent in studies examining antisocial behaviour. In our meta-analysis of 15 experiments from 13 research papers we report a reduction in the risk of antisocial behaviour of 35% when eye cues are present. By contrast, systematic reviews have suggested CCTV cameras reduce crime by only 16%. We conclude that there is sufficient evidence of a watching eyes effect on antisocial behaviour to justify their use in the very low-cost and potentially

Public significance statement: Our meta-analysis of 15 experiments involving 2035 participants shows that photographs and/or stylized images of eyes reduced antisocial behaviour by 35%. Our findings support public policy initiatives employing pictures of 'watching eyes' to reduce crime. Furthermore, in an age when we are watched more than at any time in modern history – both online and on the street – our findings highlight an urgent need to fully understand the effect that perceived surveillance, feeling watched, has on our decisions and actions.

Proposed Strategies to Increase Support for the Ban on Single-Use Plastic Water Bottles

- Be aware of reactance

Single Use Plastic Water Bottles per Student



The influence of social norms

- Descriptive Norms

How do most people behave at Lake Tahoe?



The influence of social norms

- Injunctive Norms

What do others think
if I have a single-use bottle of
water at Lake Tahoe?



Tahoe Tap

Few of us get these views.

Few of us get to drink this water.



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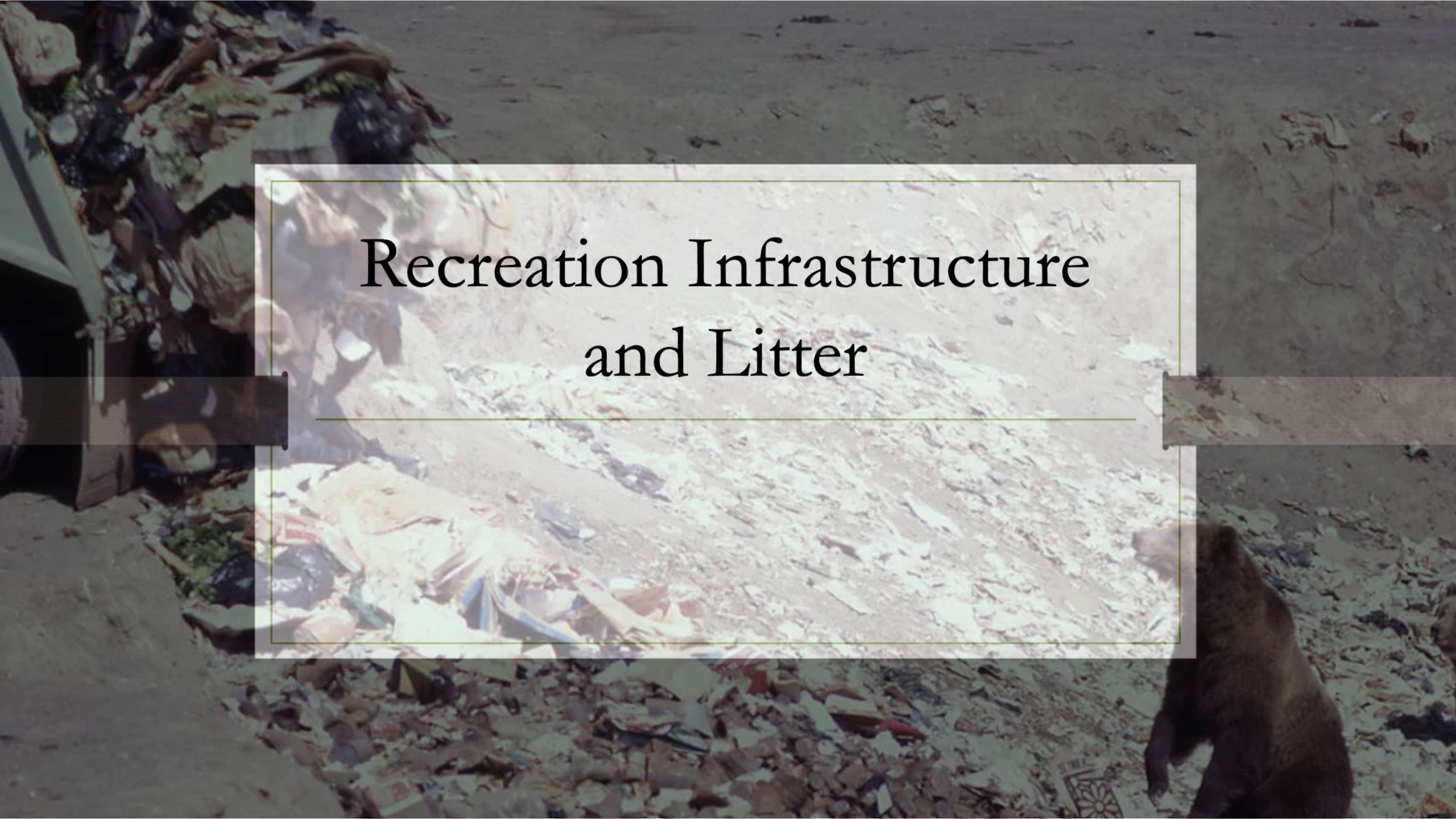
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Recreation Infrastructure and Litter

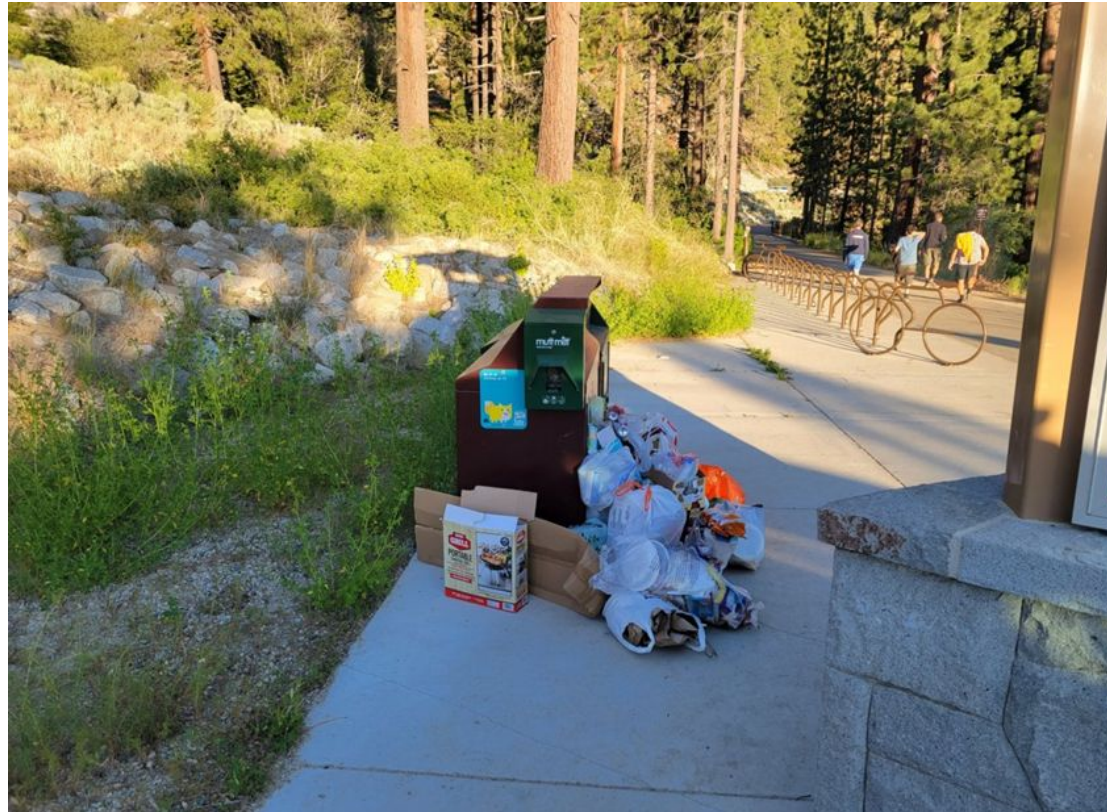
Recreation Site Design

Litter Management is typically designed into the recreation site.

For example, a dispersed or primitive recreation site is designed with pack it in / pack it out.

A developed recreation site incorporates litter management through the site.





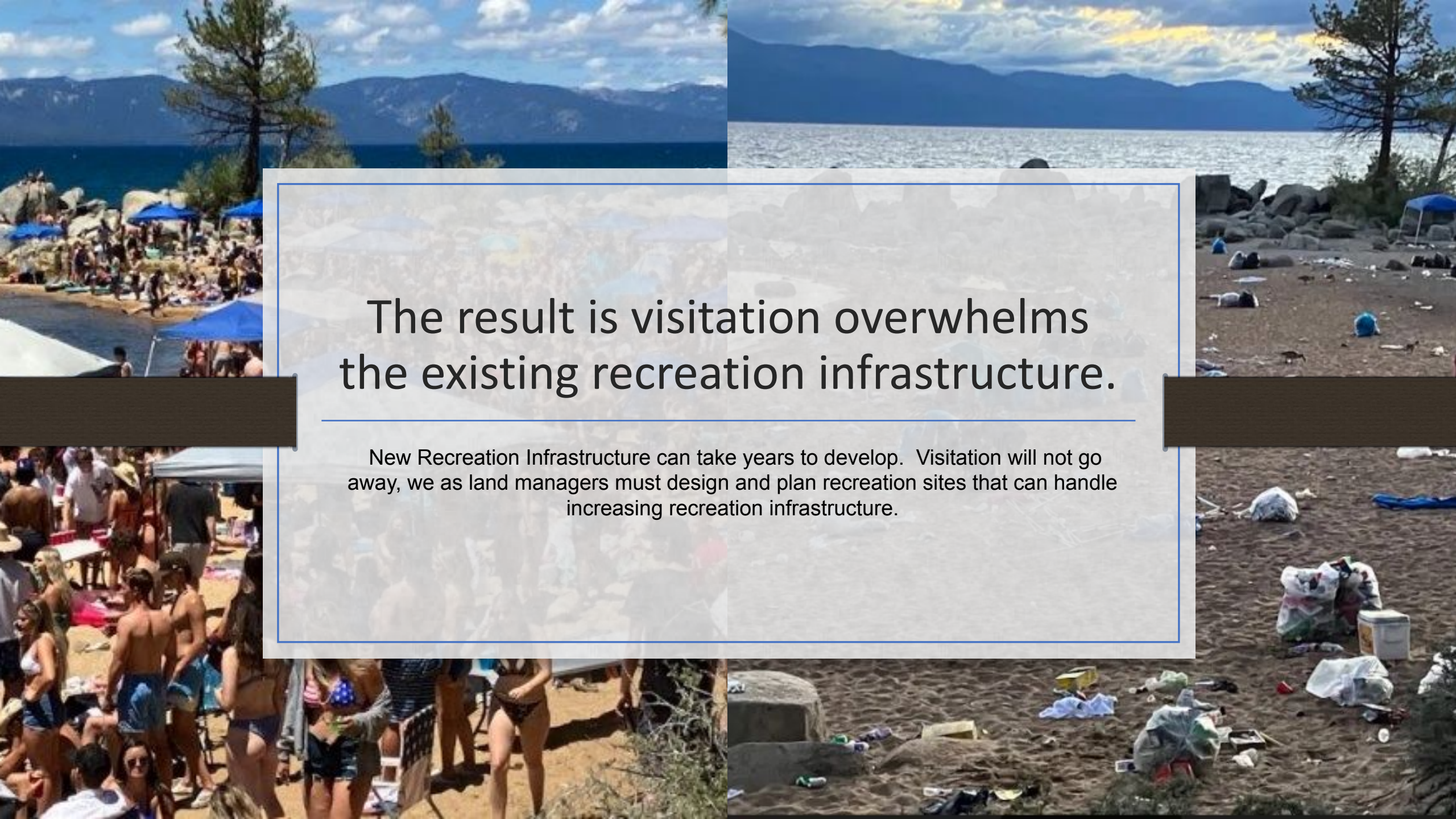
Consider Hidden Beach

- Originally a dispersed recreation site.
- Was partially upgraded in 2019 with the East Shore Trail.
- Today visitation can exceed the designed capacity of the site.

When sites exceed their designed capacity human impacts to the environment can quickly cause resource damage.

Litter, Human Waste, User Created Trails are all examples of resource damage created by visitation that exceeds the site design.





The result is visitation overwhelms the existing recreation infrastructure.

New Recreation Infrastructure can take years to develop. Visitation will not go away, we as land managers must design and plan recreation sites that can handle increasing recreation infrastructure.



Questions

- Kevin Fromherz
- kfromherz@lands.nv.gov

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Keep Truckee Green

Waste Reduction Initiatives



AGENDA

- Background
- Single-Use Foodware Reduction Ordinance
- Single-Use Water Bottle Ordinance



COMMUNITY PRIORITIES

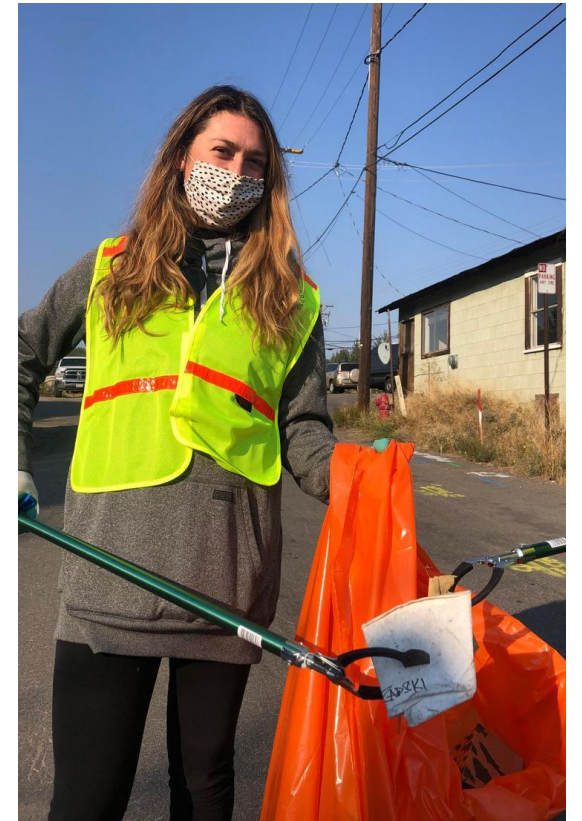
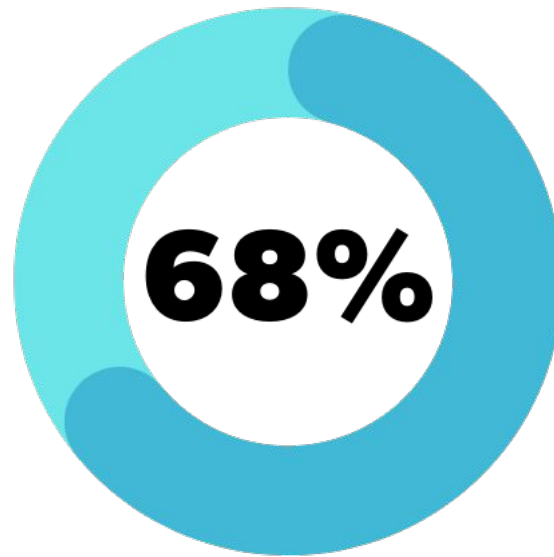
- Sustainability & waste reduction
- Litter reduction
- Reduce lifecycle impacts



LITTER ANALYSIS

Food & beverage packaging makes up:

- 25% of waste produced in California (CalRecycle)
- 67% of street litter (Clean Water Fund)
- 68% of litter in Truckee (Truckee Litter Corps)



RECYCLE & COMPOST LIMITATIONS

What goes in your food waste container?

FOOD WASTE ONLY



NO

Place these items in the trash, not food waste:



RECYCLING

RECICLAJE

clean & empty
limpio y vacío



Plastics / Plásticos  & 

Paper / Papel



Cardboard / Cartón

Glass / Vidrio



Cans / Latas

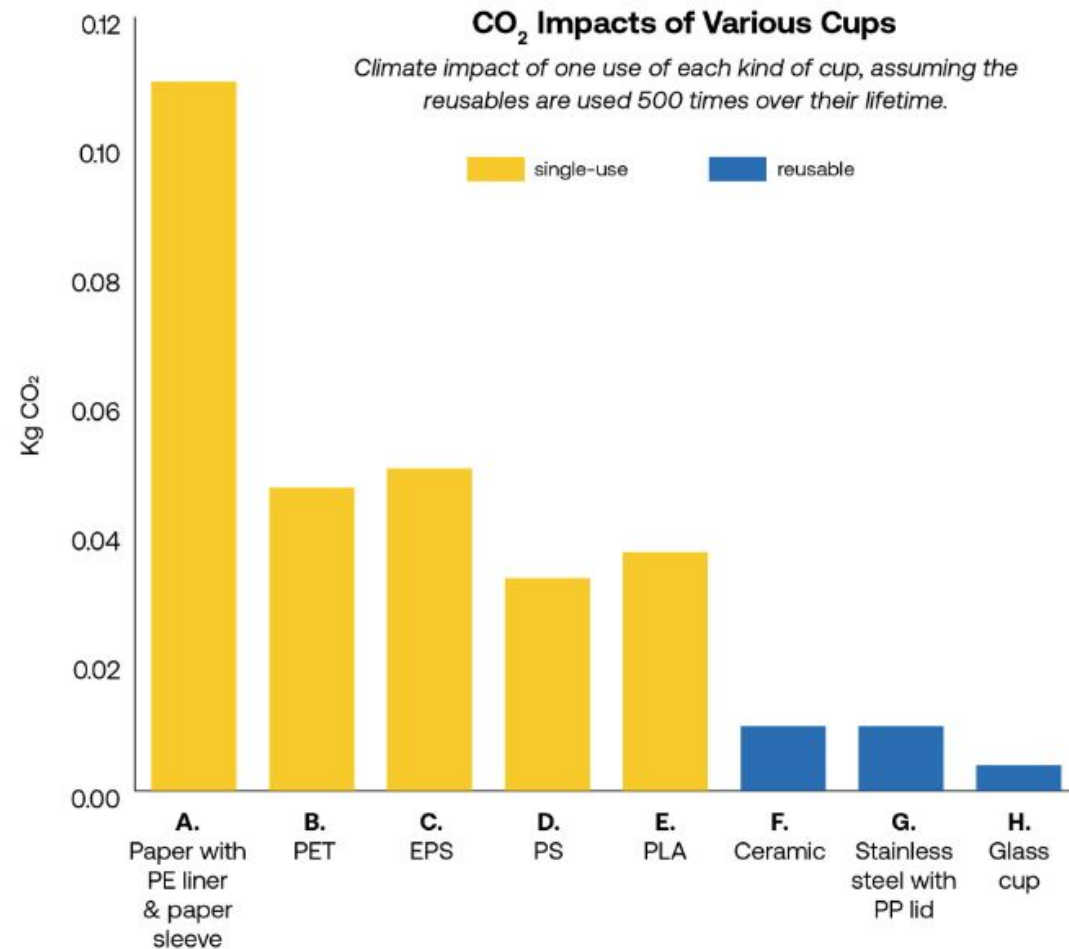
For more information visit:
KeepTruckeeGreen.org

LIFECYCLE IMPACTS

Greenhouse gas emissions throughout the lifecycle of a compostable takeout container.



There is no "best" single-use option.

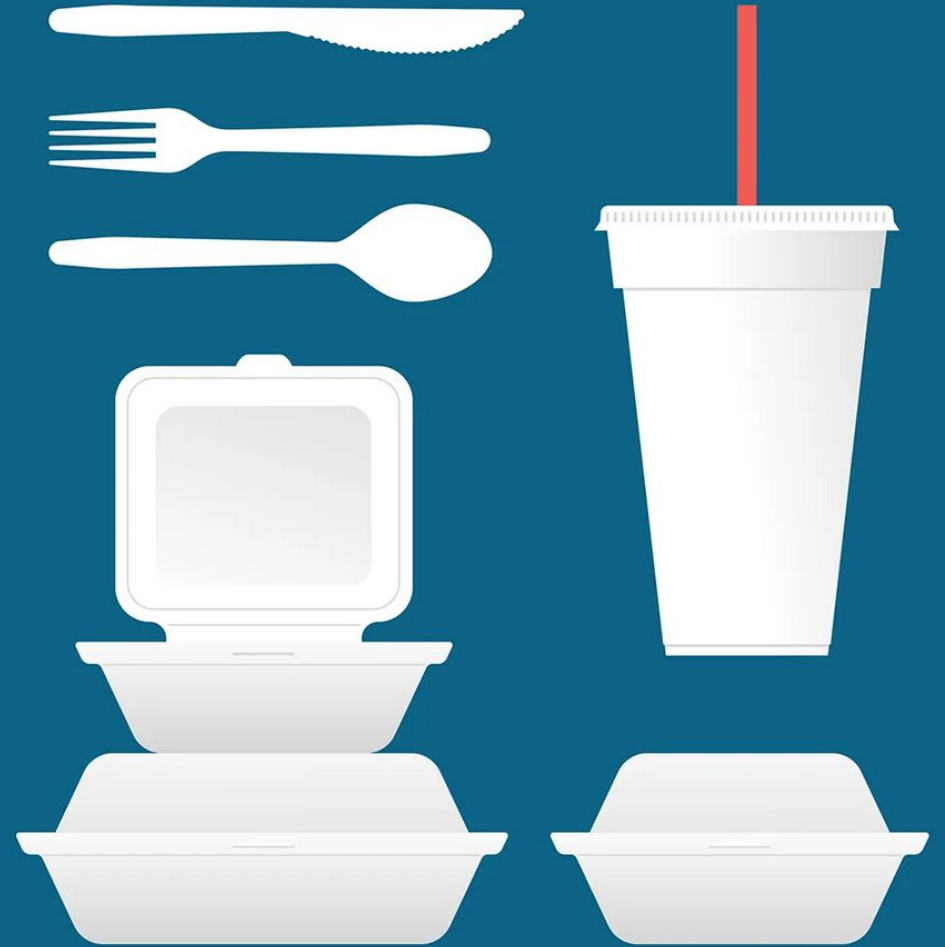


WASTE REDUCTION PRIORITIES



1. REDUCE THE USE OF SINGLE-USE
2. SWITCH TO REUSABLE

SINGLE-USE FOODWARE REDUCTION ORDINANCE



1. Accessory foodware items provided upon request -- effective January 1, 2024

- Utensils, condiment cups and packets, napkins, straws, stirrers, splash sticks, cocktail sticks
- No bundling of single-use accessories
- Par with CA's AB 1826
- "Skip the Stuff" campaign



2. Ban the sale and distribution of expanded polystyrene (EPS) -- effective April 1, 2023

BACKGROUND

- Polystyrene foam is difficult to recover as litter
- 128 CA local EPS restrictions, 5 statewide bans
- City of SF saw 36% reduction in EPS litter after banning EPS foodware



Grant Program

\$300 grants available to support the transition to alternative foodware



2. Ban the sale and distribution of expanded polystyrene (EPS) -- effective April 1, 2023



3. Require reusable foodware items for in-house dining -- effective January 1, 2024

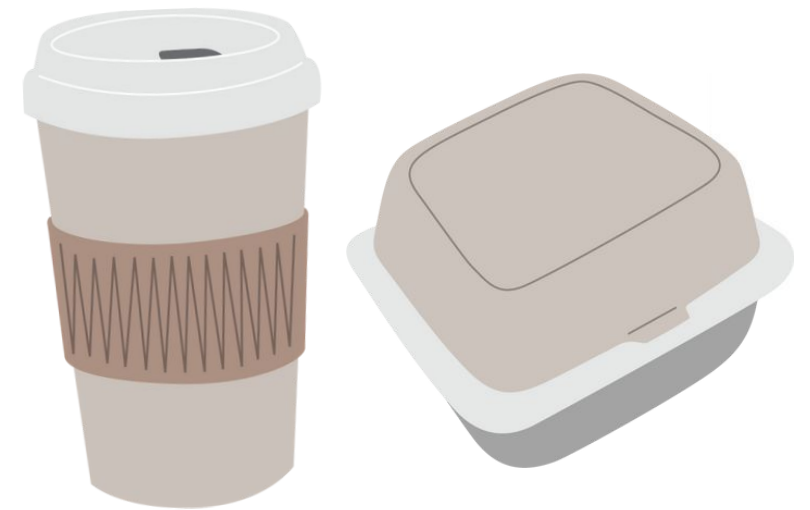
- Grant program funded 14 restaurants to purchase reusable foodware and dishwashing equipment
- Estimated to save 130,000 lbs of waste each year
- Estimated to save limited-service restaurants an average of \$4,468 per year



3. \$0.25 customer fee for each disposable cup and takeout container provided -- effective January 1, 2024

BACKGROUND

- Encourages customer to bring reusable
- Fees have larger impact on behavior change than a discount
- Businesses keep fee revenue; must be itemized on receipt
- \$0.25 amount comes from consumer research on amount that will most incentivize behavior change, plus the actual



3. \$0.25 customer fee for each disposable cup and takeout container provided -- effective January 1, 2024



Exemptions

- WIC, EBT, or Medi-Cal participants are exempt from fee
- Ask your cashier for the “Community Support Exemption” to avoid the charge. Customers are not required to show benefit cards



3. \$0.25 customer fee for each disposable cup and takeout container provided -- effective January 1, 2024



GREEN BOX PROGRAM



HOW IT WORKS

- 1 Pay \$5 for your first green box when you order takeout.
- 2 Rinse your green box before returning.
- 3 Bring your box back to trade for a new one with your next order.

ACCEPTED AT ANY PARTICIPATING RESTAURANT!



REUSABLE TAKEOUT CONTAINER PROGRAM EXPANSION

Okapi Reusables



Buoy Reusables



SINGLE-USE WATER BOTTLE REDUCTION ORDINANCE



Town of Truckee Ordinance

- Effective April 22, 2025 (Earth Day)
- Prohibits the sale and commercial distribution of unflavored, non-carbonated water in single-use plastic bottles and paper cartons under a 1 gallon in size
- Exemptions for emergencies, social services, health care settings



Why?

- Single-use plastic bottles are among top five types of litter in Tahoe Basin
- Staff litter audit - over half of littered single-use plastic bottles were water bottles
- Microplastics - harm people and the environment
- High quality tap water



Similar Ordinances



Ban adopted October 2022:

- prohibits sale of single-use plastic water bottles under a gallon
- city ban effective April 2023
- commercial ban effective April 2024



Ban adopted January 2024:

- prohibits sale of plastic water bottles 500ml or less
- effective on Jan. 1, 2026

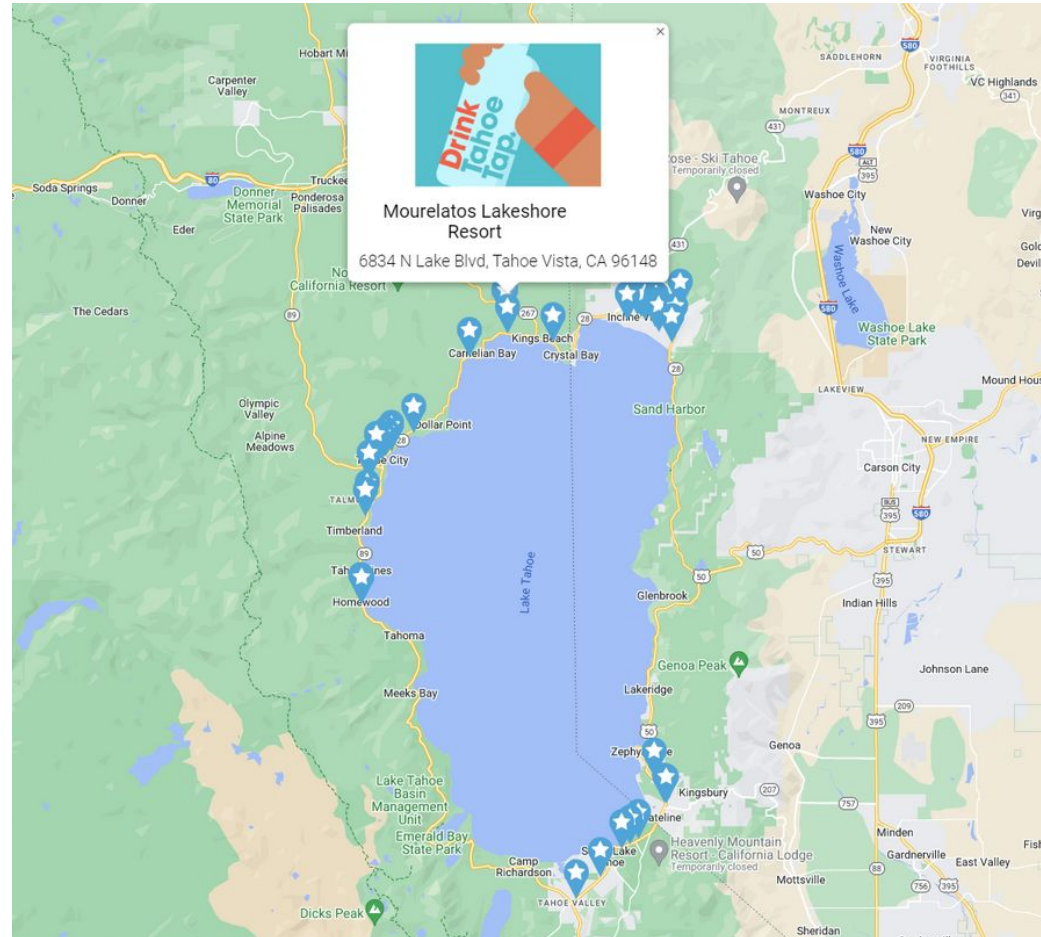
Water Refill Station Grant

- 50% of cost of bottle filling station is reimbursable
- Up to \$2,500 per unit available
- Open to large and small businesses, non-profits, and

public agencies within Town of
[KeepTruckeeGreen.org/Bottles](https://www.KeepTruckeeGreen.org/Bottles)
Truckee



Regional Filling Station Map



THANK YOU!

mconti@townoftruckee.com

KeepTruckeeGreen.org



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How We Banned Single-Use Plastic Water Bottles in South Lake Tahoe

Presenter: Sara Letton, Sustainability Coordinator

April 25, 2023



Agenda

- Setting the stage
- Bringing it to council
- Challenges
- Implementation
- Next steps





Photo courtesy of inkknife 2000

“Polystyrene and
Plastic Food
Packaging
Regulations” City
Code Chapter 4.175



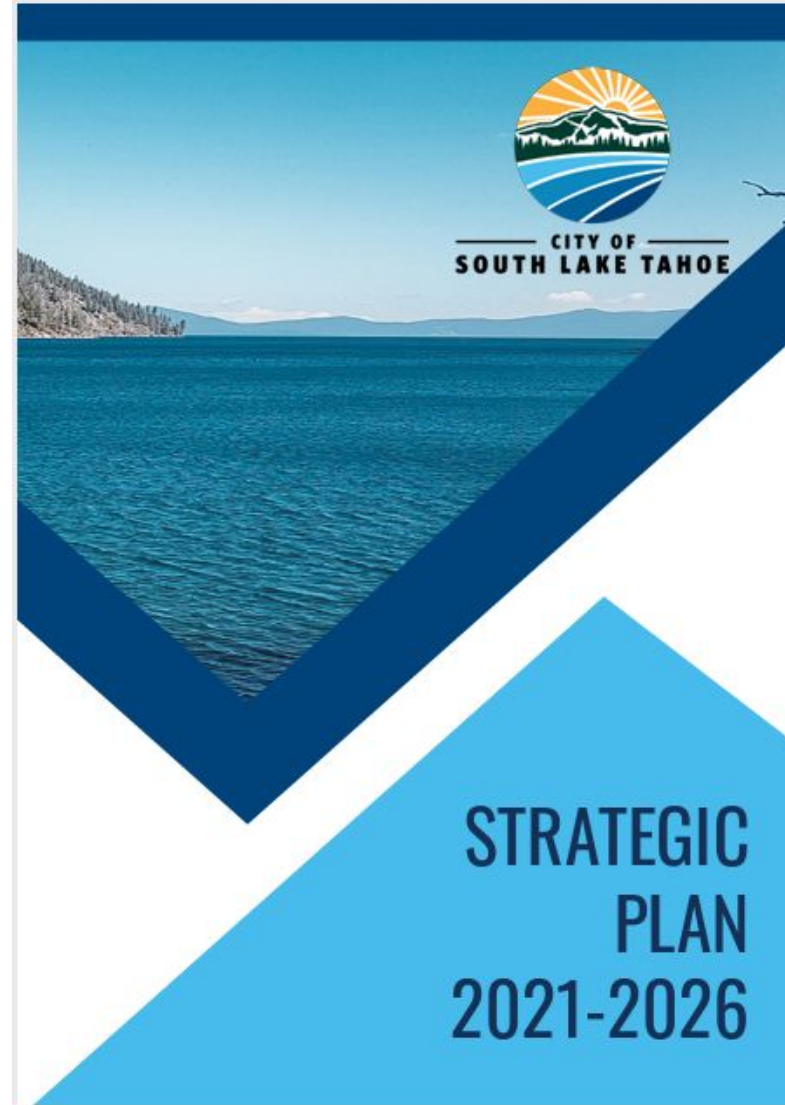
— CITY OF —
SOUTH LAKE TAHOE

Setting the Stage

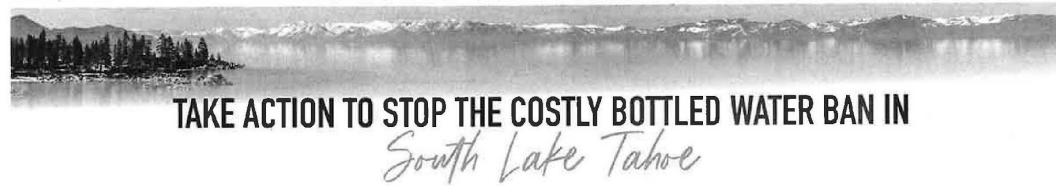
- Beach clean ups
- Microplastics research
- “Drink Tahoe Tap”© Campaign
- Easy, cheap alternative
- Community outreach partners
- Community sentiment



Bringing it to council



Challenges



TAKE ACTION TO STOP THE COSTLY BOTTLED WATER BAN IN *South Lake Tahoe*

The South Lake Tahoe City Council is considering a **city-wide ban on the sale of all bottled water**. We all want to do our part to reduce plastic waste, but a ban that prevents us from selling bottled water does little to curb litter in South Lake Tahoe and will hurt our local businesses.

According to the CDC:

“Unopened commercially bottled water is the safest and most reliable source of water in an emergency.”¹

- Banning the sale of bottled water in South Lake Tahoe does not prevent people from buying bottled water elsewhere and bringing it into the town. It only punishes local businesses.
- Bottled water is a popular hydration option for residents and visitors because of its convenience and portability and can be handled in a sustainable way.
- Plastic water bottles are designed to be 100% recyclable, and we are proud to support efforts that help make it easier for people to recycle at home, at work and in public places.
- California has one of the the highest plastic bottle recycling rates in the country.

The following South Lake Tahoe businesses **OPPOSE** a ban on the sale of bottled water:

- | | |
|------------------------------|-------------------------------|
| • Mexico Grill | • El Sazon de mi Tierra |
| • American Gas | • Port of Subs #63 |
| • Salas Los Portales Jalisco | • Yellow Submarine Sandwiches |
| • Izzys Burger Spa | • Ace High Saloon Smokehouse |
| • La Mexicana Tahoe Market | • Poke Rok |
| • Kings Beverage Company | • Taco Taqueria |
| • American Gasoline | • A Cup of Cherries |
| • My Thai Cuisine | • Tahoe Bottle Shop |
| • Sanchez Burger Lounge | • Tahoe Bear Tea House |
| • Apline Market | • Sugar Pine Bakery |
| • TV Donuts | • Glazed and Confused |
| • Chicos Burgers | • Shangrila Himalayan |
| • A&J Oriental Market | |

¹. https://bit.ly/EmergencyWater_CDC



Challenges

SLT City Council is voting to ban all bottled water sales in SLT on Tues. Residents can't buy water even during emergencies. It's reckless & dangerous. Agree?



CITY OF
SOUTH LAKE TAHOE

Challenges

“Not only did they sell our home in record time but at a price well above market averages.”

Passionate. Experienced. Proven.

Thinking of selling your home? We know the value of Tahoe Neighborhoods.



CHASE INTERNATIONAL LUXURY LEADER

LakeTahoeCommunities.com

CA DRE 01198009, NV 0190368 & CA DRE 01996683, NV 180833

YOUR AD HERE »

South Lake Tahoe should promote recycling, not banning plastic water bottles (Opinion)

News [FOLLOW NEWS](#) | Oct 1, 2022

Letters: Plastic ban hurts businesses; Solving problems without complaining (Opinion)

News [FOLLOW NEWS](#) | Sep 28, 2022



est column

ld be doing more to recycle plastic bottles, a concerning Lake Tahoe. Rather than encouraging more recycling action with convenient recycling bins and redemption ban the sale of water in plastic bottles of less than a

Plastic water bottle ban only eliminates revenue for local businesses

To the Editor:

Community Support

LTVA Supports South Lake Tahoe's Single-Use Water Bottle Ban

With the single-use plastic water bottle ban going into effect on Earth Day, April 22, we are pleased to announce that we have purchased a number of highly durable, aluminum, USA-made reusable water bottles which we will begin distributing later this month to lodging properties. This is a huge stride for South Lake Tahoe and we are happy to be able to support the city's initiative. We will send a dedicated e-blast later this month with instructions for how to request bottles for your property.

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'Plastics are not the Tahoe way'

Putting Tahoe's best foot forward with Earth Day water bottle ban

News FOLLOW NEWS | Apr 19, 2024



Katelyn Welsh FOLLOW
kwelsh@tahoedailytribune.com



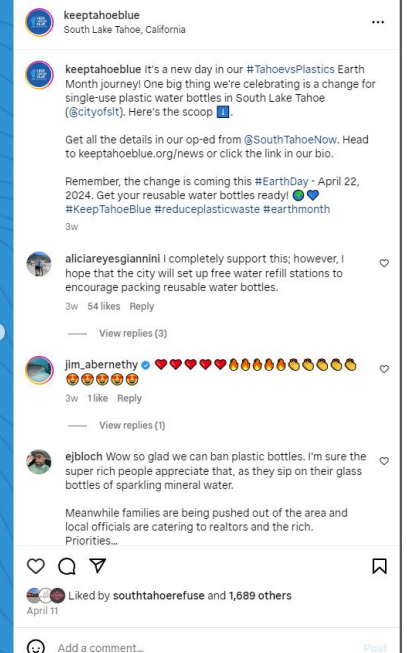
SOUTH LAKE TAHOE, Calif. – The City of South Lake Tahoe's single-use water bottle ban goes into effect for commercial vendors on Earth Day, April 22.

The League to Save Lake Tahoe, known for its slogan, Keep Tahoe Blue, has supported the ordinance and hopes the change inspires sustainable thinking.

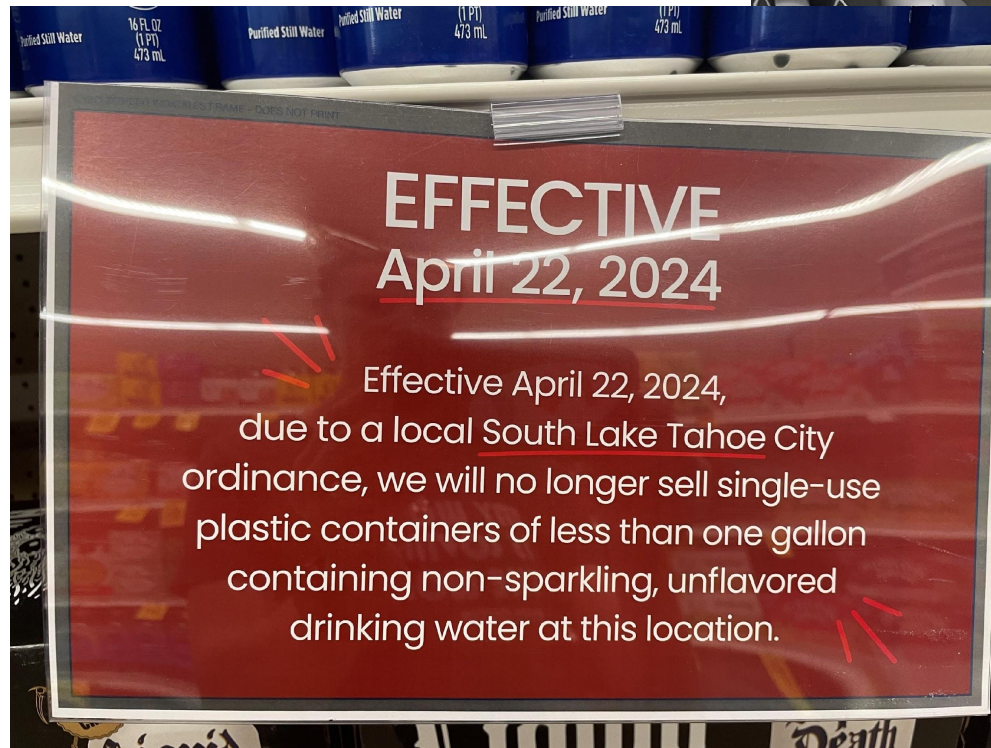


What does the City of South Lake Tahoe's single-use plastic water bottle ban mean for you?

KEEP TAHOE BLUE



Implementation



Next Steps

- More water bottle refill stations
- Business outreach and education with help from outreach partner, League to Save Lake Tahoe
- Enforcement
- Calls to action



Thank you! Questions?

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LAKE TAHOE DESTINATION STEWARDSHIP PLAN

Lake Tahoe Litter Summit

May 15, 2024



Examples of Destination Stewardship



How do we change behaviors?





The Vision and Plan Updates

LAKE TAHOE DESTINATION STEWARDSHIP PLAN

Taking Care of Tahoe

June 2023



Images: Tahoe Regional Planning Agency

Turning a Shared Vision into Action - Governance

- Establish a Destination Stewardship Council
- Build Destination Stewardship Council Capacity
- Secure Funding and Other Resources
- Establish Action Teams and Work Plans
- Develop and Deploy a Communication Strategy

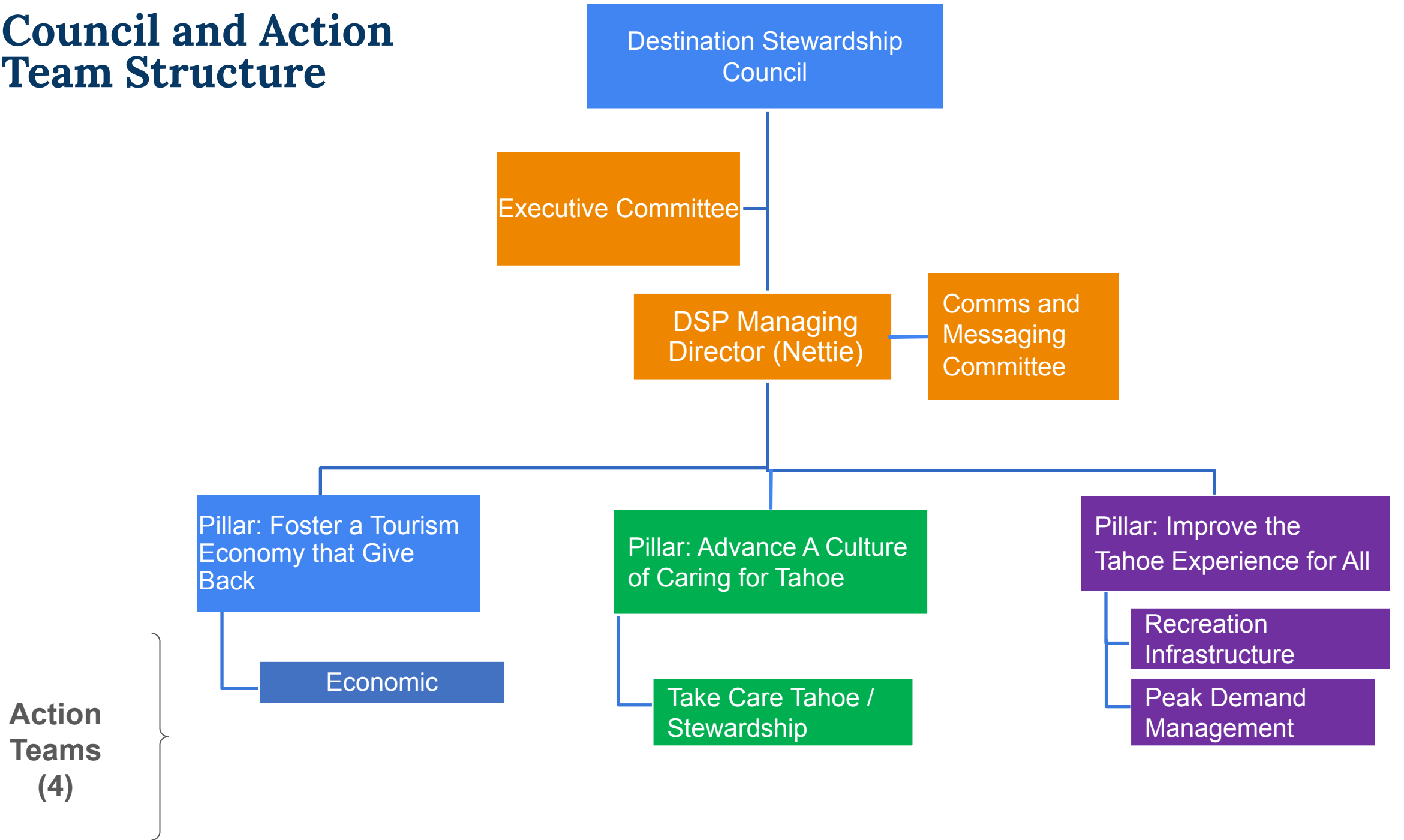




Newly Added Council
Members



Council and Action Team Structure





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