


Science to Action:
Working Together to Build Resiliency at Lake Tahoe

Destination Stewardship

Panelists

- Dr. Bess Perry, Michigan State University
 - Devin Middlebrook, Tahoe Regional Planning Agency
 - Dr. Derek Kauneckis, Desert Research Institute
 - Dr. José J. Sánchez, Forest Service, Pacific Southwest Research Station
 - Daniel Cressy, USDA Forest Service, Lake Tahoe Basin Management Unit
 - Facilitator: Dr. Darcie Collins, League to Save Lake Tahoe
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Agenda

2:00 **Introduce Panel and Topic**

2:05 **Panel Presentations:**

- **Dr. Perry: What is Destination Stewardship?**
- **Devin Middlebrook: The Now-Tourism Impacts and Tahoe**
- **Dr. Kauneckis: Next Steps- The Data and Monitoring**
- **Dr. Sánchez: A So-Cal example shared challenges and lessons**
- **Daniel Cressy: Applications in Tahoe- Where do we go from here**

2:45 **Questions for Clarification**

2:55 **Small Group Discussion:** Priority topics for visitor impacts and management

3:20 **Reports:** Key themes from small groups

3:45 **Final observations** and adjourn

Destination Stewardship/Sustainable Recreation

Facilitated by Dr. Darcie Collins
CEO League to Save Lake Tahoe





 **KEEP
TAHOE**
RED, WHITE AND
BLUE
League to Save Lake Tahoe



Jeff Cowen

The background of the slide is a close-up photograph of blue water with gentle ripples and reflections of light, creating a textured and serene appearance.

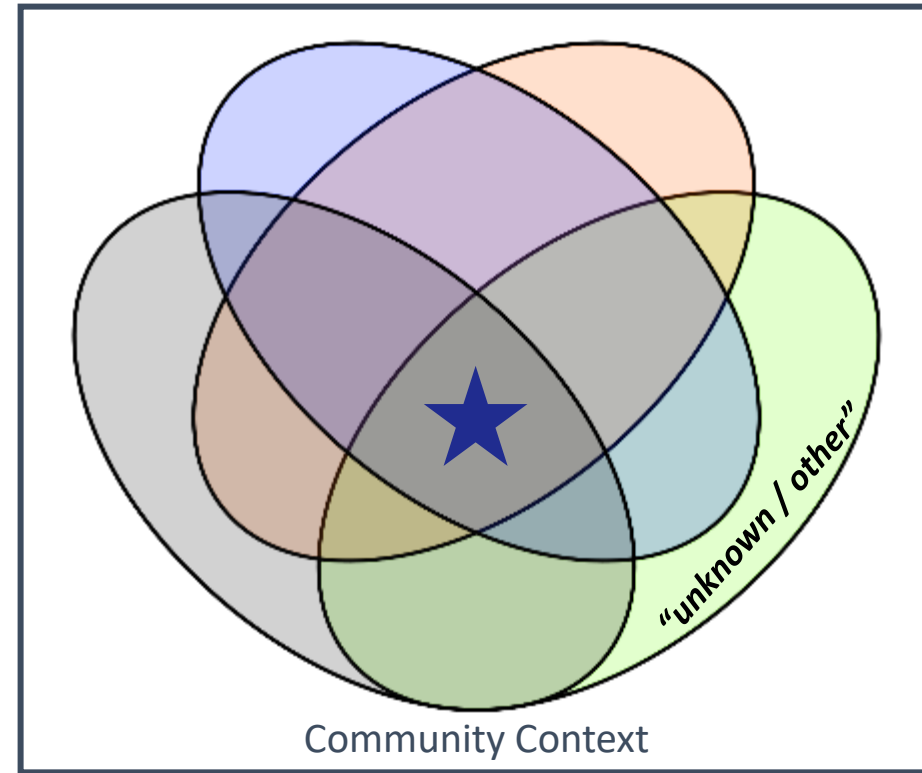
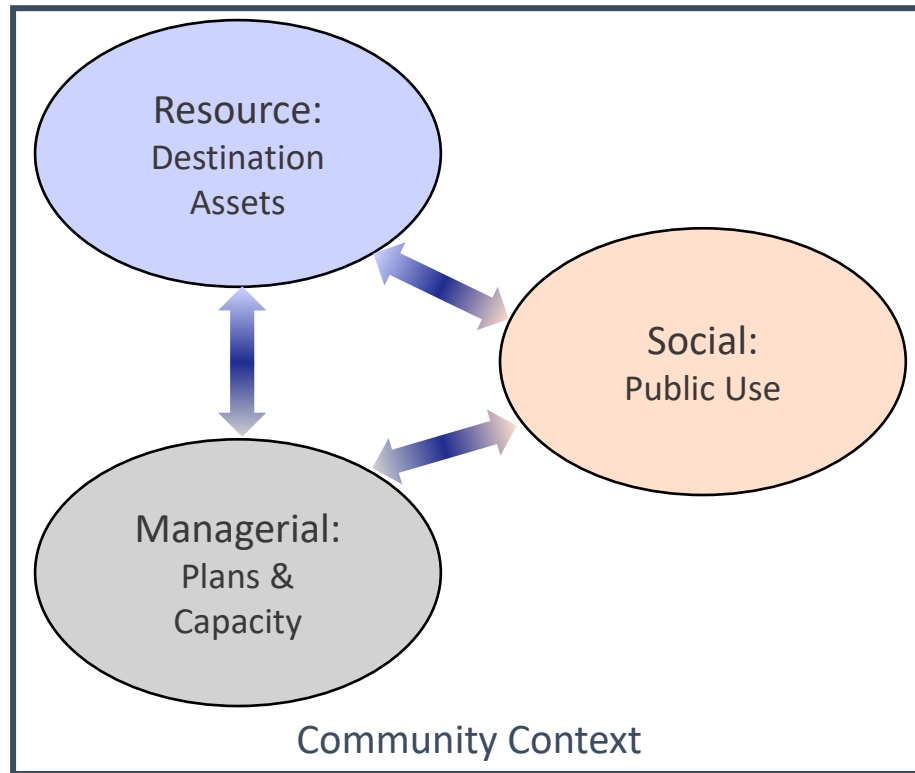
What is Destination Stewardship?

Dr. Bess Perry

General patterns: Five areas to spark discussion

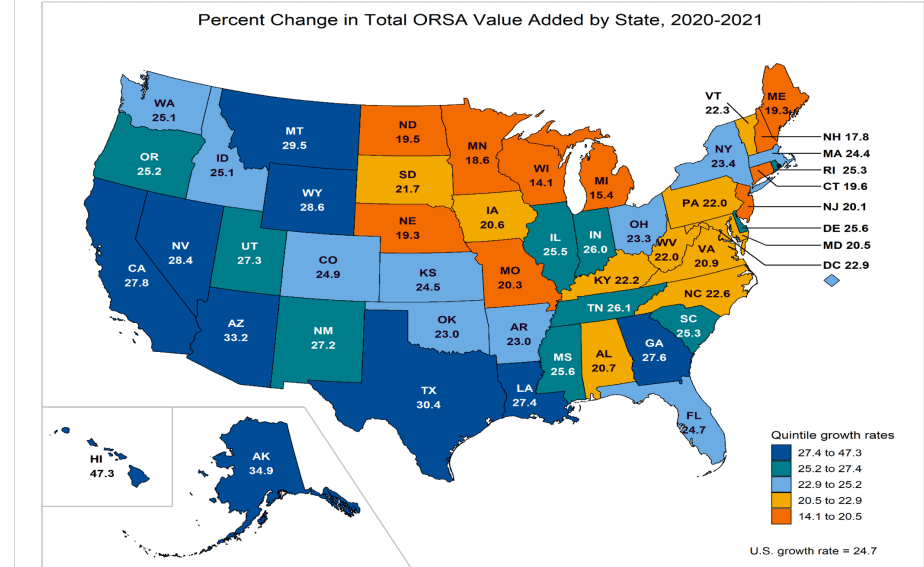
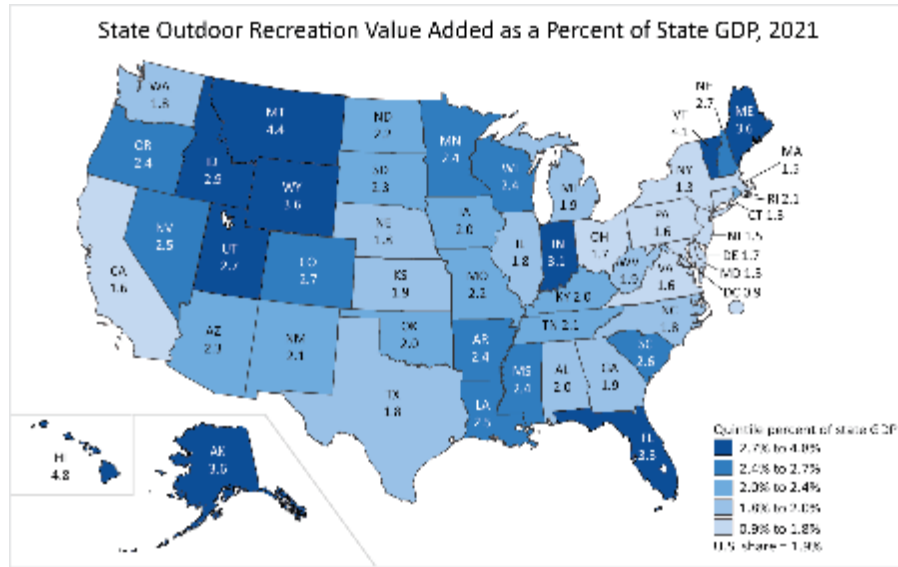
Present considerations of scaled thinking

Broader themes that may resonate on the Tahoe level & require nimble responses



 Sustainable, stewarded recreation destination management

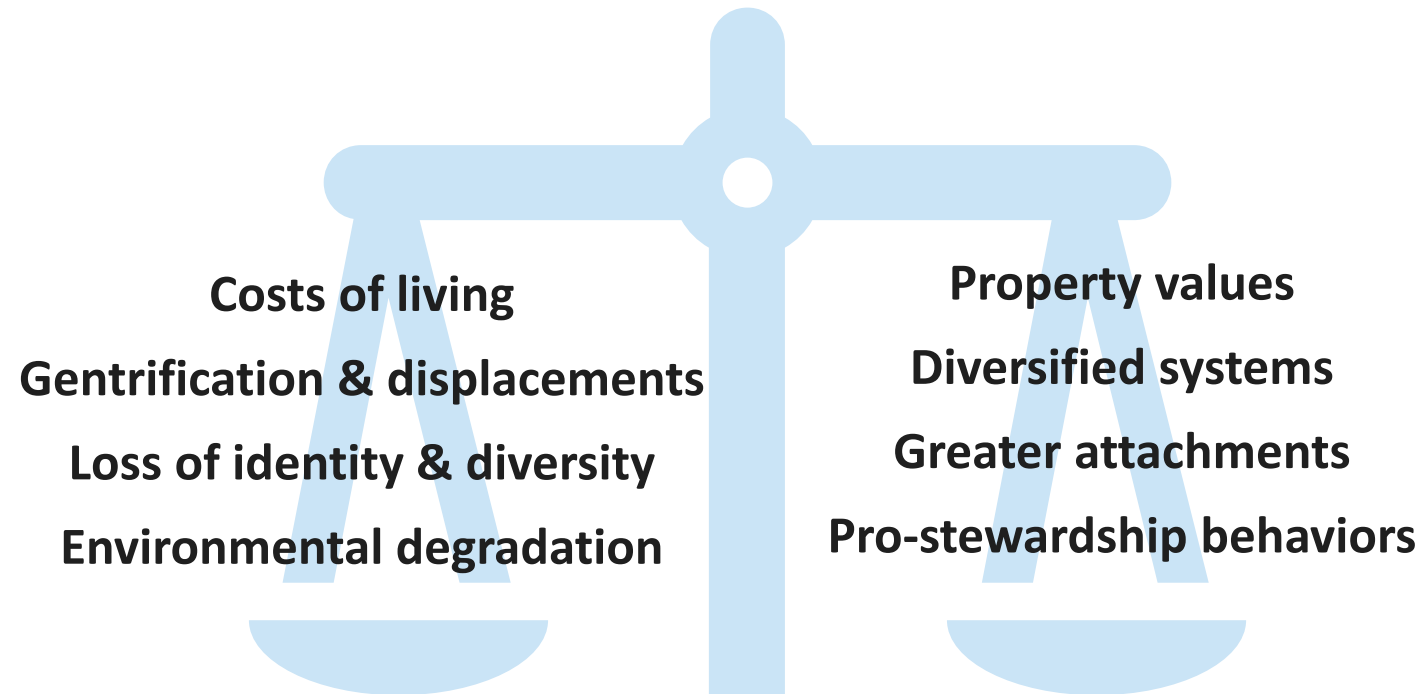
Renewed interest in the outdoor rec economy



BEA Outdoor Recreation Satellite Account: Measures the economic activity & sales generated by outdoor rec activities & each industry's production of goods & services



Elevated concerns about community intersections



Community vitality as a function of sustainable tourism

MTB as revitalization & diversification



Recreation & Tourism
 Management
 Carrying capacities
 Topical, spatial,
 & temporal impacts

Rural Communities & Econ Development
 Shared vision
 Implementation
 Concerns about livability



The Need
 Understanding impacts of rec in the context of rural econ dev'l

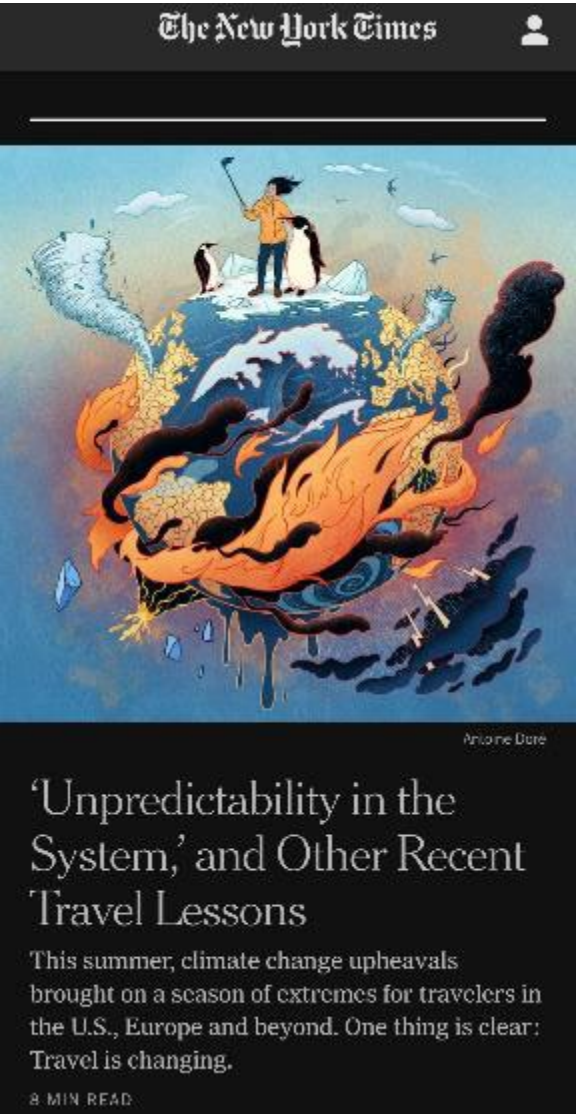
Acknowledged overtourism with persistent gaps

Yes, overtourism
Yes, underrepresentation

Influence pre-visit behavior



Greater unpredictability in resource conditions



Known patterns are no longer a given

Timing of visit may change (for those who are able)

Destination imagery & identity may shift

Marketing experiences as certain → possible

Climate action plans as a focus & complement

Four season & water-based rec destinations

Southeast Michigan residents:

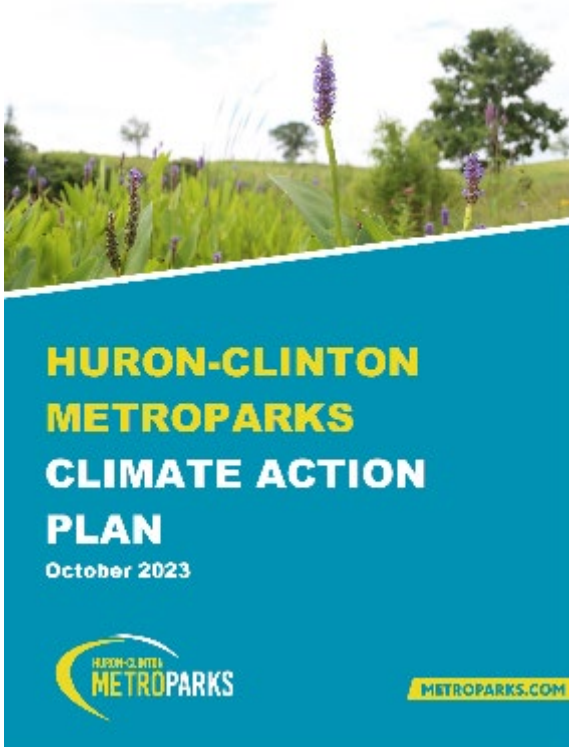
High place attachments

Many rec enthusiasts

Noticing & concerned about effects on recreation etc.

Pressure on water resources, recreation, & integrity

Regional planning efforts & dovetailing



Increased sensitivity to context & unknowns

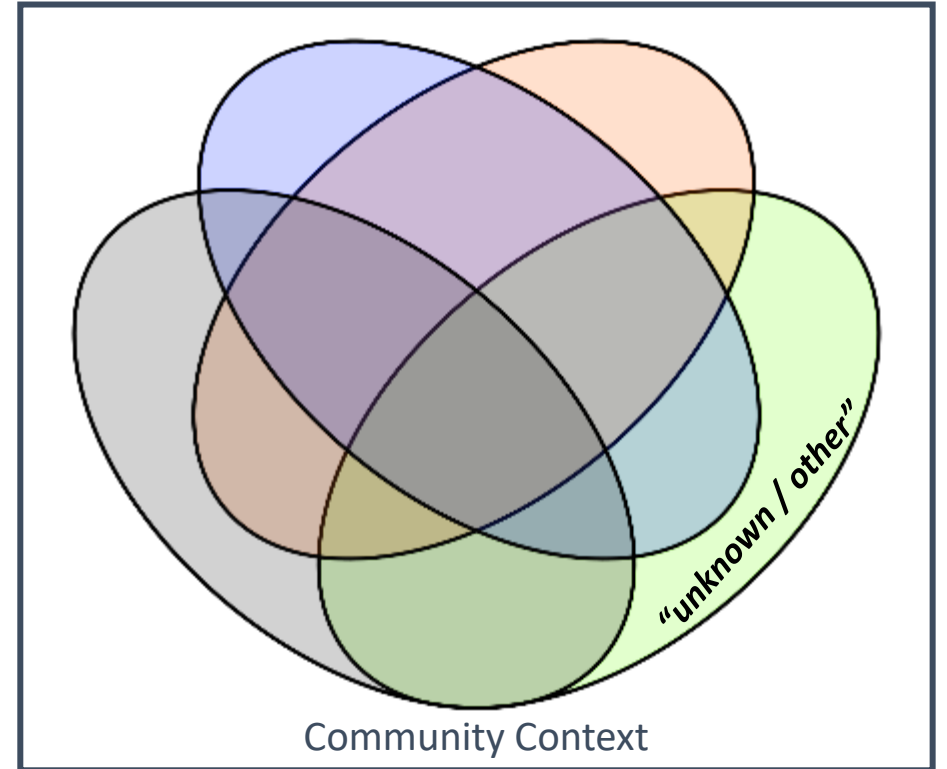
Increasing complexity in tourism systems

Emergent tourism types & technology

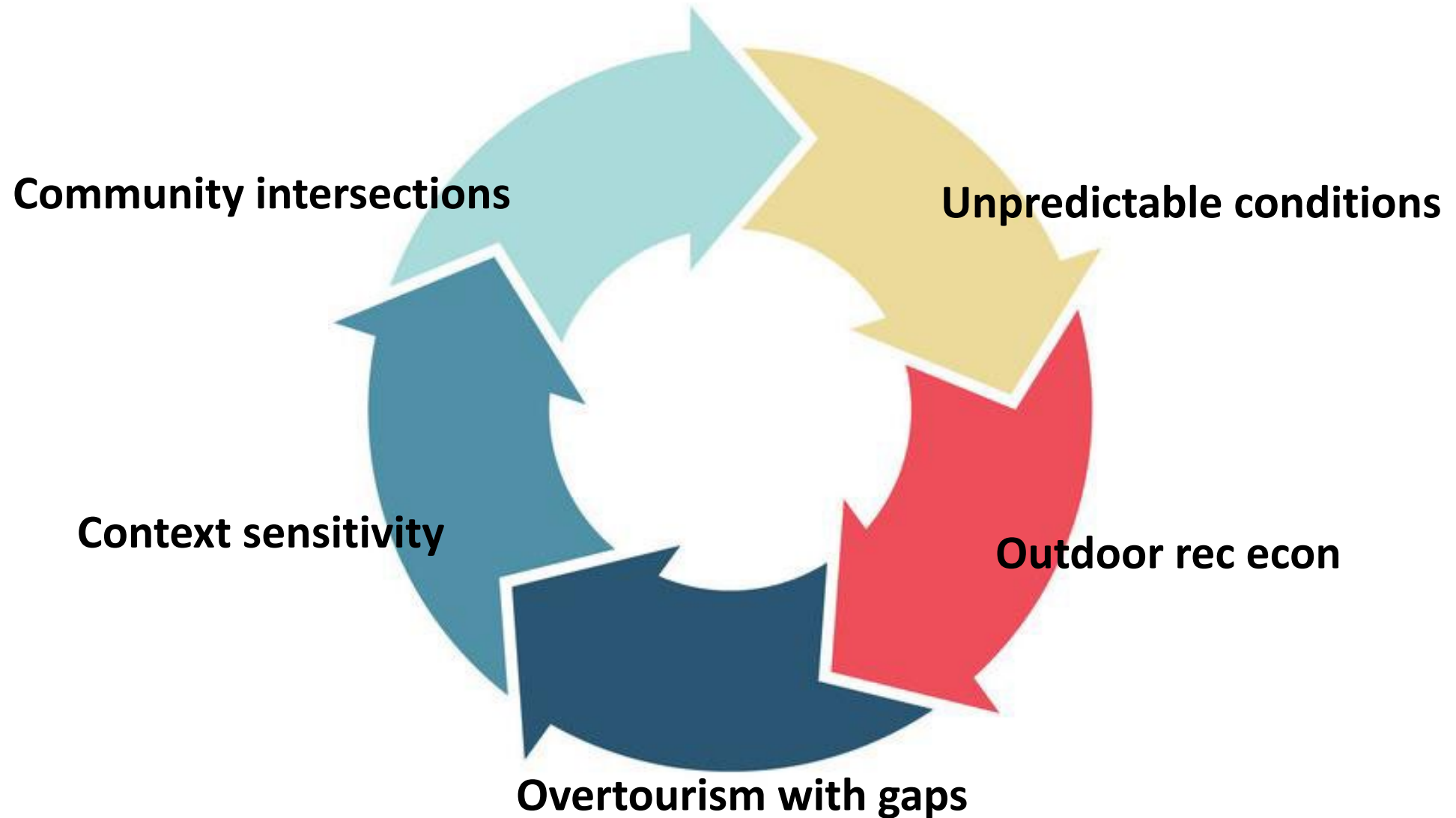
Data, analytics, & predictions

Real-time adjustments

Monitoring! Scenario planning!
Broad engagements!



Stewardship Summary



The Now: Tourism Impacts in Tahoe

Devin Middlebrook

Tahoe Trends

\$4.5 Billion

Direct Spending in 2022

>\$10 billion in total economic
impact

2 million

Unique Visitors Spent

17 million

Visitor Days in 2022

26-28% 

nearby urban population
growth over next 20 years

- **COVID caused a shift in remote working, increasing shortage of workforce housing.** This forced a lot of the workforce out of the Basin and into commuters filling roadways.

Lake Tahoe is one of 10 destinations that the Fodors travel experts are warning tourists away from in the coming year.

Over-tourism
In this month's Cover Story, editor Heather Good explains the recent phenomenon of "overtourism," its impact on Tahoe, and what experts are doing to control it.

Things are getting out of control in our pristine world with a tourism boom. As the city just won the right to change its name to Lake Tahoe, it's important to consider the impact of tourism on the environment. Lake Tahoe is a special place, and we need to protect it. The city of Incline Village is leading the way in this effort. They have implemented strict rules for tourists, including a ban on single-use plastics and a requirement to pick up after your pet. These measures are essential to keep Lake Tahoe beautiful and healthy for generations to come.



Lake Tahoe forest officials seeing increase in illegal campfires
NEWS | FOLLOW NEWS | July 23, 2020
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AT&T M-Cell 7:29 PM
Bruce Toy Jr. > Incline Village
6m · 🌐
Is this acceptable? We didn't think so. After a false alarm call at Secret Cove, the North Lake Tahoe Fire Dept, Engine and Medic 11 crews cleaned all of this up. We all can do better.



A New Process

An aerial photograph of a large, calm lake under a clear blue sky. In the foreground, a dense forest of evergreen trees stretches across the bottom half of the frame. The lake's surface is dotted with numerous small white sailboats. In the distance, a range of mountains is visible, with some peaks showing patches of snow. The overall scene is bright and serene.



Resident Survey

4.5 out of 5

Rated quality of life compared with other places in California and Nevada

3.7 out of 5

Agree that tourism and outdoor recreation are critically important to the region's health.

However, very few are seeing how tourism contributes to *their* quality of life.

- Only 21% of residents agree that tourism and recreation support quality of life and a strong sense of community.
- Only 29% of residents agree that the positive benefits of tourism and recreation in the Tahoe region outweigh the negative impacts.

Visitor Survey

88%

Indicated a destination's support of environmental stewardship is at least somewhat important to their choice of that destination.

82%

Say they do their part to keep a destination clean when they visit.

71%

Believe they are mindful and respectful of the natural environment.

42%

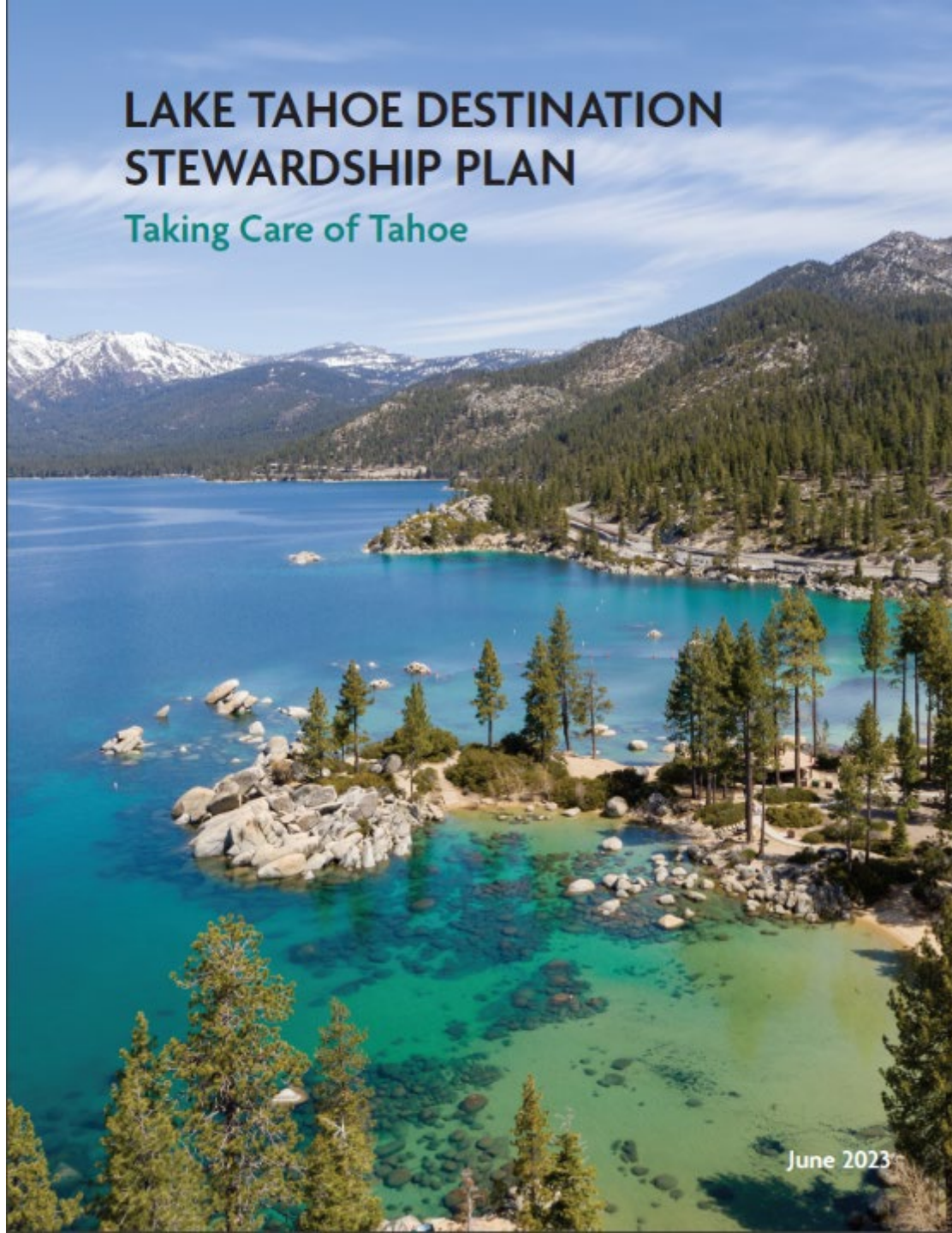
Said the Tahoe Region is doing an **excellent job of safeguarding its natural resources.**

Key Learnings

- Care for Tahoe's **environment is the top priority** for all stakeholders.
- **Tahoe's tourism economy must remain vibrant and strong.**
- Stakeholders are **seeking substantive actions** to address concerns.
- Imperative to **create consistent approaches across the region.**
- There is much support for a **Tahoe that is open, accessible and welcoming for all.**
- Many stakeholders see a **need for a stronger destination stewardship messaging campaign** to raise awareness of how everyone can take better care of Tahoe.

LAKE TAHOE DESTINATION STEWARDSHIP PLAN

Taking Care of Tahoe



June 2023

**FOSTER A TOURISM
ECONOMY THAT
GIVES BACK**

**TURN A SHARED
VISION INTO A
SHARED ACTION**

SHARED VISION

A cherished place,
welcoming to all, where
people, communities, and
nature benefit from a
thriving tourism and outdoor
recreation economy.

**IMPROVE THE
TAHOE EXPERIENCE
FOR ALL**

**ADVANCE A
CULTURE OF CARING
FOR TAHOE**

Pressing Unknowns

- Understanding visitor patterns
 - What are people doing, where, when, and how
- Creating a culture of Taking Care
 - How to change behavior of recreationists
- Impacts of Climate change

Next Steps: Monitoring Tourism and Recreation in Tahoe

Dr. Derek Kauneckis

Science in Support of the Development of Sustainable Recreation Monitoring and Evaluation

- Visitation and uses of Tahoe are changing
- **Data** to meaningfully measure outdoor recreation
- Monitoring system inclusive of change for adaptive management



Metrics



Users and their experience

- Who, what, & where
- Tracking experiences
- Overall 'Lake Tahoe experience'



Recreational impacts

- Environmental
- Infrastructure
- Community



Equitable access

- Open to all
- Benefits accessible
- Allocation fair



How?

- Evaluate methods for measuring users, activities, behavior, and values
- Iterative process of where, what & how to collect data
- Inclusion of emerging data sciences (mobility data, smart sensors, AI)
- Meet needs of broadest set outdoor recreation service providers

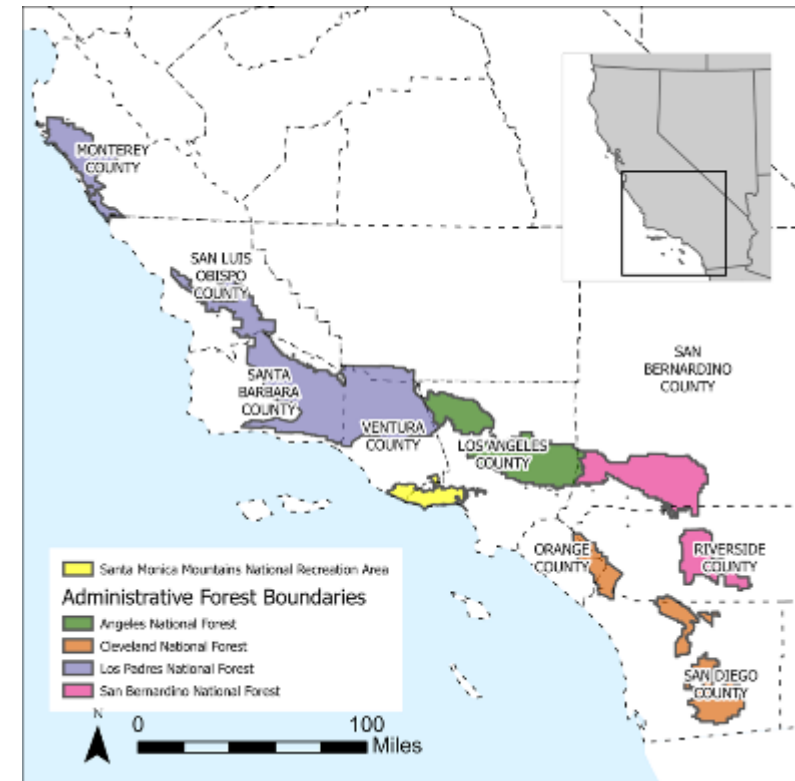


Lessons From Southern California

Dr. José Sánchez

The Future of Outdoor Recreation in Southern CA

- overall population size
- increased urbanization
- proportion of population from communities of color
- shifts in age cohorts
- economic shifts
- the pandemic
- climate change

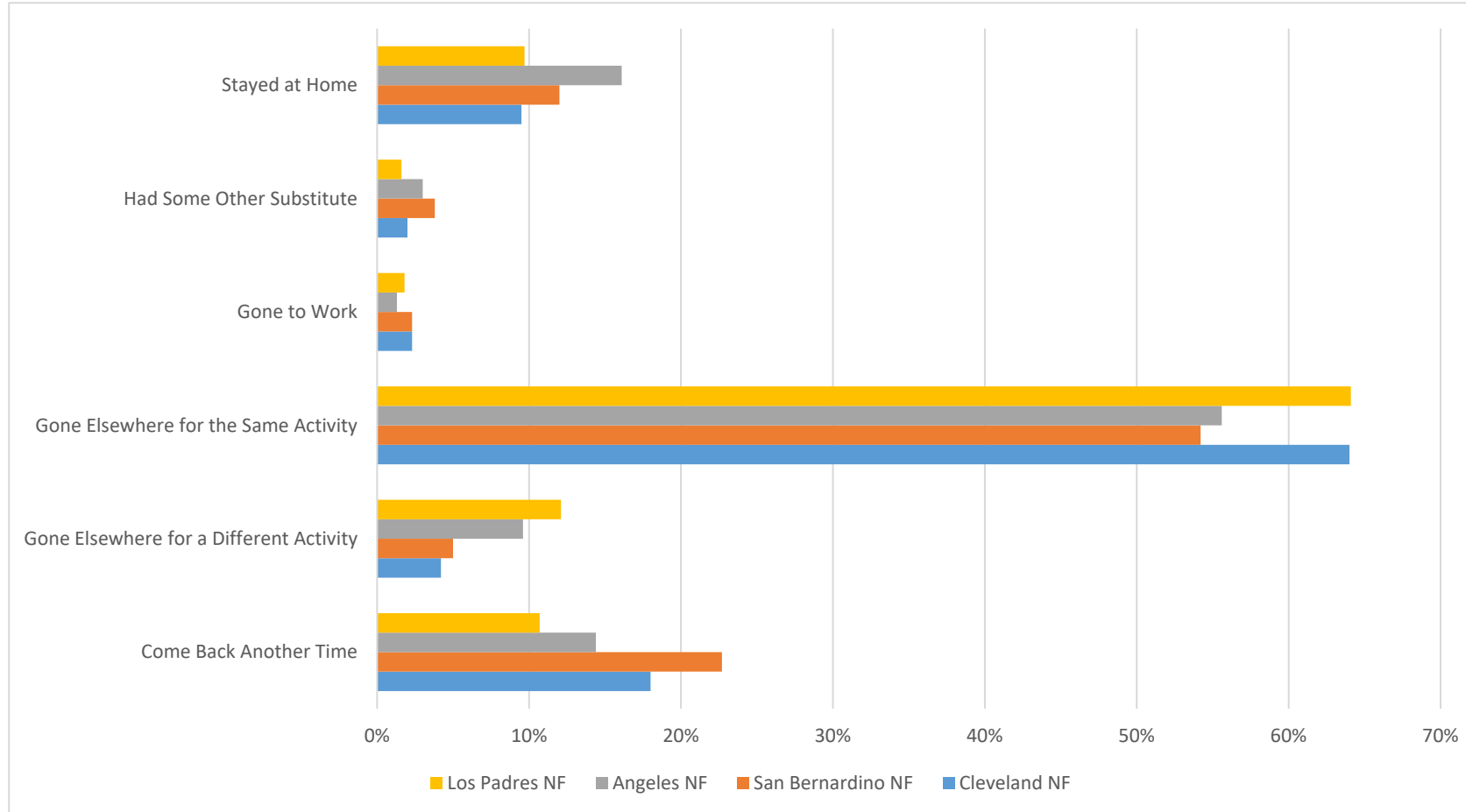


Outdoor recreation displacement

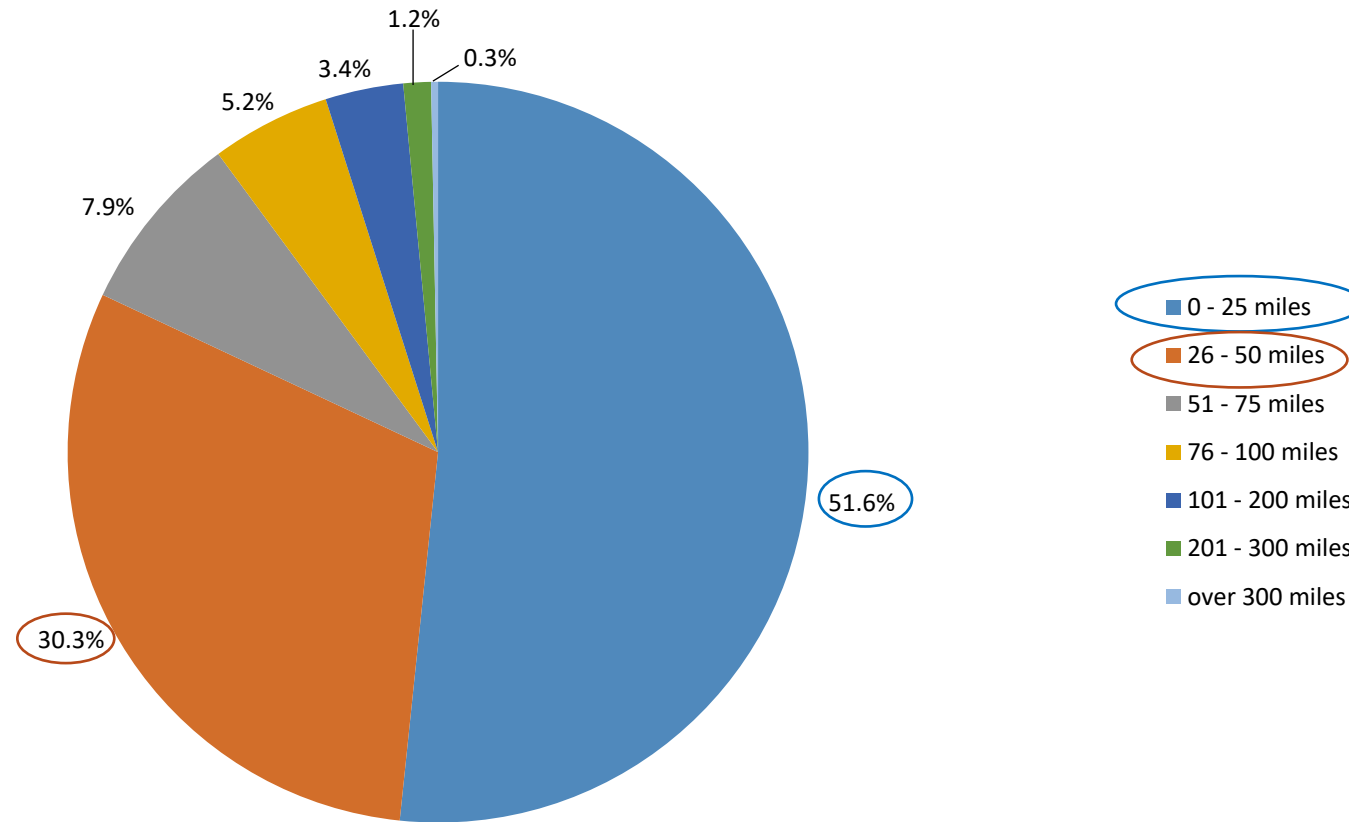
- Displacement happens when a recreationist:
 - encounters undesirable conditions,
 - those that do not meet their standards of a quality experience,
 - the chosen location is not available
- Multiple types:
 - Recreating at a different site, at a different time, via a different activity, or not at all



Visitor Substitution – National Visitor Use Monitoring Survey



Distance Travelled in Visitor Substitution – National Visitor Use Monitoring Survey



Mitigation & Adaptation Strategies

- Recreation management/infrastructure for reduced footprint
 - Shuttle
- Forest and community-based social strategies
 - Carless California initiatives
- Partnerships, volunteers, citizen science to support monitoring needs
 - Gabrielino Trail
- Resource sharing/coordination
 - Staffing
- Engaging science



Photo credit: Keila Vizcarra

Applications for Tahoe: Where Do We Go

From here

Daniel Cressy

“Can’t we all just get along?!”

- Lots of people enjoying Tahoe
- Limited, sensitive area
- Increasing demand to enjoy Tahoe
- Community feeling “squeeze”

- Values at Risk!



A group of four skiers is gathered on a snowy mountain slope. In the foreground, a person in a dark blue jacket and black pants stands with their back to the camera. To their left, another person in a green jacket and black pants is partially visible. In the middle ground, a person in a blue jacket and black pants is standing on skis, holding poles. To the right, a person in a green jacket and black pants is standing on skis, gesturing towards the background. The background features a large, calm lake reflecting the sky, surrounded by snow-capped mountains under a clear blue sky. The overall scene is bright and sunny, with long shadows cast on the snow.

Behavior as limiting factor...

- Recreation Use
 - Part of problem or solution?
- Hosted Experiences
 - How to leverage “points of contact”?
- Visitors & Residents
 - Beyond “blaming the other”
- Demographic Changes

Litter as Impact & Symptom...

- What leads to litter-generating behavior?
- What is missing to prevent litter-generating behavior?



Recreation as Participatory Experience...

- Recreation cannot be “consumer experience”
- Shared Stewardship is Everyone
- “Tahoe Way” User Ethic?

- Outdoor Recreation has opportunity to Transform Lives!



How do we positively affect behavior?!

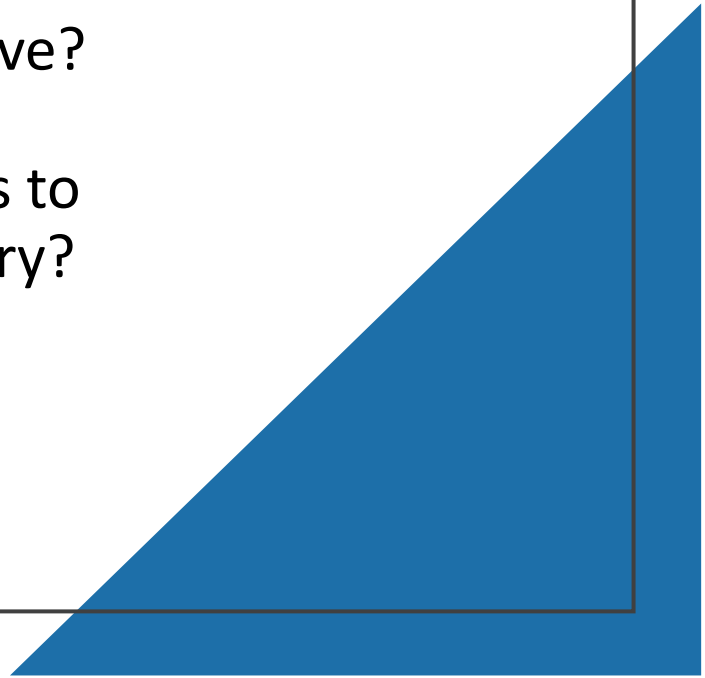
- Engineering, Education, Enforcement...
- Identify shared values & norms?
- Cognitive dissonance?
- Leverage “Tahoe identity” to influence behavior?

- *What don't we know or understand.....?*
- *What changes to Management Approaches are needed?*



Small Group Questions

- What are the problems we are trying to solve?
- What data don't we have?
- What are opportunities to advance science delivery?





THANK YOU!

Please join us Friday to synthesize key themes and discuss how the Science Council can advance science delivery for healthy Tahoe systems!
