Integrating Land Use Strategies Into Wildfire Recovery Planning in the Western United States

PI: Tasnim Isaba,

PhD Candidate (ABD), University of Utah And

Incoming Postdoctoral Research Associate
Landscape Architecture & Urban Planning
Texas A&M

July 16, 8:30 AM



Co-Pls:

Divya Chandrasekhar

Chair, City & Metropolitan Planning Department University of Utah

N. Emel Ganapati

Professor, Public Policy and Administration Florida International University

Suraksha Bhandari

City & Metropolitan Planning Department University of Utah

50th Annual Natural Hazards Research and Applications Workshop July 13-16, 2025 | Broomfield, CO

Land Use Planning in Recovery

- Recovery creates a unique "window of opportunity" for implementing land use changes that would face resistance under normal circumstances.
- Wildfire Recovery is uniquely complex
 - Multi-jurisdictional governance
 - No unified recovery framework
 - Intersection with forest management
- Land use planning as a recovery tool

The Challenge

Traditional wildfire management overemphasizes immediate actions while overlooking the potential of land use strategies during recovery.

Reality of Wildfire Recovery Planning

Most wildfire recovery happens without formal planning

- Document review of recovery plans:
 Only 15 of 45 communities (33%) had formal recovery plans
- Interviews with 22 practitioners reveal recovery happens through "working around the system"
- Gap between formal planning frameworks and actual recovery practice.

The Reality of Wildfire Recovery

Formal Recovery Plans

33% of communities

Documented strategies

Actual Recovery Work

Ad hoc processes
"Working around the system"
Practitioner innovations
Informal coordination
Community-driven solutions

Document Review

Land Use Integration in 15 Wildfire Recovery Plans

Distribution by Integration Level Across Five Strategy Categories

- 15 Recovery Plans Analyzed
- Four Western States (CA, CO, OR, HI)
- Major fires 2017-2023

Communities:

- Paradise, Malibu, CA
- Superior/Louisville, CO
- Phoenix/Talent, OR
- Maui, HI



Key Finding: Subdivision Regulations Lead, Preventative Strategies Lag

Subdivision: 67% high integration • Vegetation: 47% high • Preventative: 27% high Analysis of 15 recovery plans from CA, CO, OR, and HI (2017-2023)

Five Systematic Barriers to Implementation

1. Policy Constraints and Institutional Frameworks

"In California, building codes are separate from land use codes. Planners oversee land use and zoning, while building officials handle building codes. Vegetation management comes under fire code, which is different from both."

2. Financial Challenges and Economic Realities

"Insurance became a huge challenge post-fire. Many residents saw their policies canceled, or their premiums increased dramatically- from \$2,000 annually to as much as \$10,000. Even discounts for meeting fire safety standards were minimal, often just 1%."

3. Logistical and Practical Challenges

"One of the main differences that we're emphasizing is that this is a specialty. It's a technical expertise where professionals understand how to mitigate. Where homeowners might have to do the action, but a homeowner just reading a report or a checklist, they're going to do it wrong."

Five Systematic Barriers to Implementation

4. Community Perceptions and Political Sensitivity

"My impression is that no one wants to talk about it. It's too sensitive... Politicians don't want to address it because it's politically risky- you won't get re-elected if you talk about managed retreat."

5. Recovery as a Long-Term, Iterative Process

"A lot of resilience planning doesn't occur until the disaster happens... we don't invest enough in pre disaster planning. And the biggest catalyst for change seems to be the disaster itself.

"We're six years into what I expect to be a 20-year recovery, and it's going very well... It's important to set realistic expectations for residents- they need to understand that recovery isn't a 12-month process."

Wrap Up

Key Finding

Recovery as a discipline is still **maturing** - lacking the structure of mitigation/preparedness planning. Most wildfire recovery happens **invisibly** beyond formal documentation.

Call to Action:

Federal: Formalize Recovery Planning

- •Multi-year funding that matches 20year reality
- •Standards for recovery plan comprehensiveness

State: Systematize Recovery Frameworks

- Unified recovery authorities with clear protocols
- •Training programs for recovery planning expertise

Local: Institutionalize Informal Practices

- Document successful "working around" innovations
- •Build institutional memory of recovery processes

Contact/Follow-up: Tasnim Isaba

Email: u1299549@utah.edu

Please fill out the survey if you are interested in participating in my research!



Acknowledgements

We would like to express our sincere gratitude to the Natural Hazards Center for their generous support of this research through *the Weather Ready Research program*. We also extend our appreciation to the practitioners who shared their time and expertise through interviews, and to the communities who provided access to their recovery planning documents. Their insights have been invaluable in understanding the complexities of wildfire recovery planning.





50th Natural Hazards Research and Applications Workshop

July 13-16, 2025



50th Natural Hazards Research and Applications Workshop

July 13-16, 2025



