



CLIMATE VULNERABILITY ASSESSMENT OF ALVISO

IN COLLABORATION WITH CLIMATE RESILIENT COMMUNITIES AND ALVISO IN ACTION

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INTRODUCTION

Alviso, a low-income community located on subsided wetlands along the southern San Francisco Bay, faces significant flood risk and long-standing environmental inequities. Following its controversial 1967 annexation by San José, which occurred without meaningful resident participation, the neighborhood has experienced unmet infrastructure commitments that continue to shape present-day vulnerability. Historic flooding events, including the major 1983 flood, highlight the community's long-standing exposure to environmental hazards.

This project develops a community-led Climate Vulnerability Assessment in partnership with Climate Resilient Communities and Alviso in Action. Using a participatory, co-produced approach, we combine environmental data with residents' lived experiences to ensure the assessment reflects local priorities, such as health, mobility, and infrastructure access. By centering community voices, this work aims to support informed decision-making and advance restorative climate justice in Alviso.

THE FLOOD OF 1983



Figure 1. Major flooding event in Alviso in 1983. Photo sourced from San Jose Mercury.

“There’s a law that said if their homes were abandoned for more than 10 days, the city could take them... They were like, What do we have to lose? And just walked out.”

“The community got together and they put everybody in a chain and pushed their way through the police line.”

Source Focus Group Interviews, 2/1-2/12/2026

RESEARCH QUESTIONS

- How do perceptions of environmental risks and community resilience in Alviso reflect its geographic and historical context, and what do these perceptions reveal about distributional environmental justice in the area?
- How does Alviso’s history influence residents’ trust in local government and their sense of participation in environmental governance and planning?
- What types of adaptations are desired by the Alviso community to address environmental vulnerabilities?

METHODS

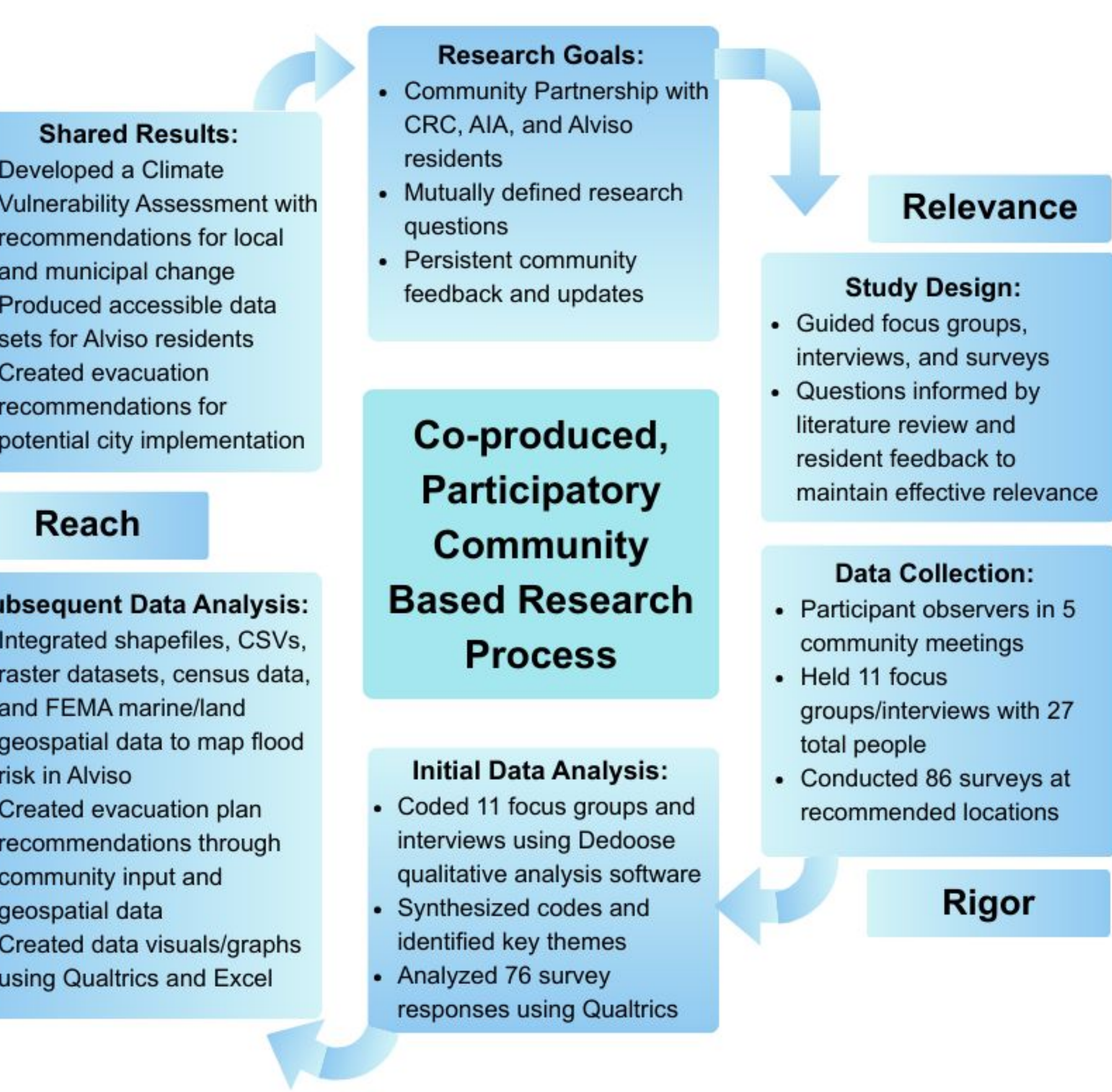


Figure 2. Diagram of research approach. Each iteration of our research was done in close collaboration with the the Alviso community, CRC, and AIA which enhanced the reach, relevance and rigor of our project.

FINDINGS

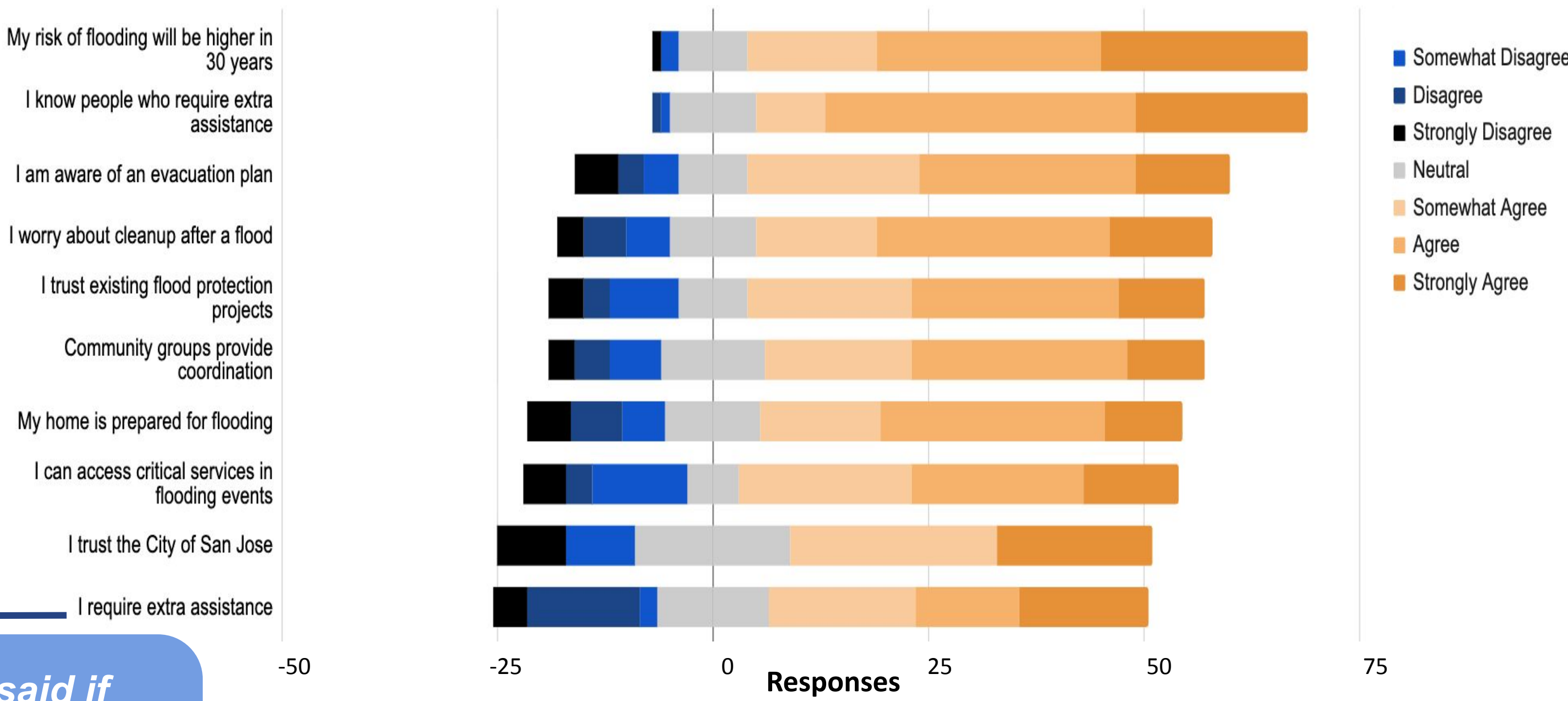


Figure 3. Community perceptions of flood risk, preparedness, and trust among Alviso residents (n=76). Responses are displayed on a diverging stacked bar chart ranging from Strongly Disagree to Strongly Agree. Warmer colors indicate agreement while cooler colors indicate disagreement. Majority of residents strongly agree that the risk of flooding will be higher in 30 years.

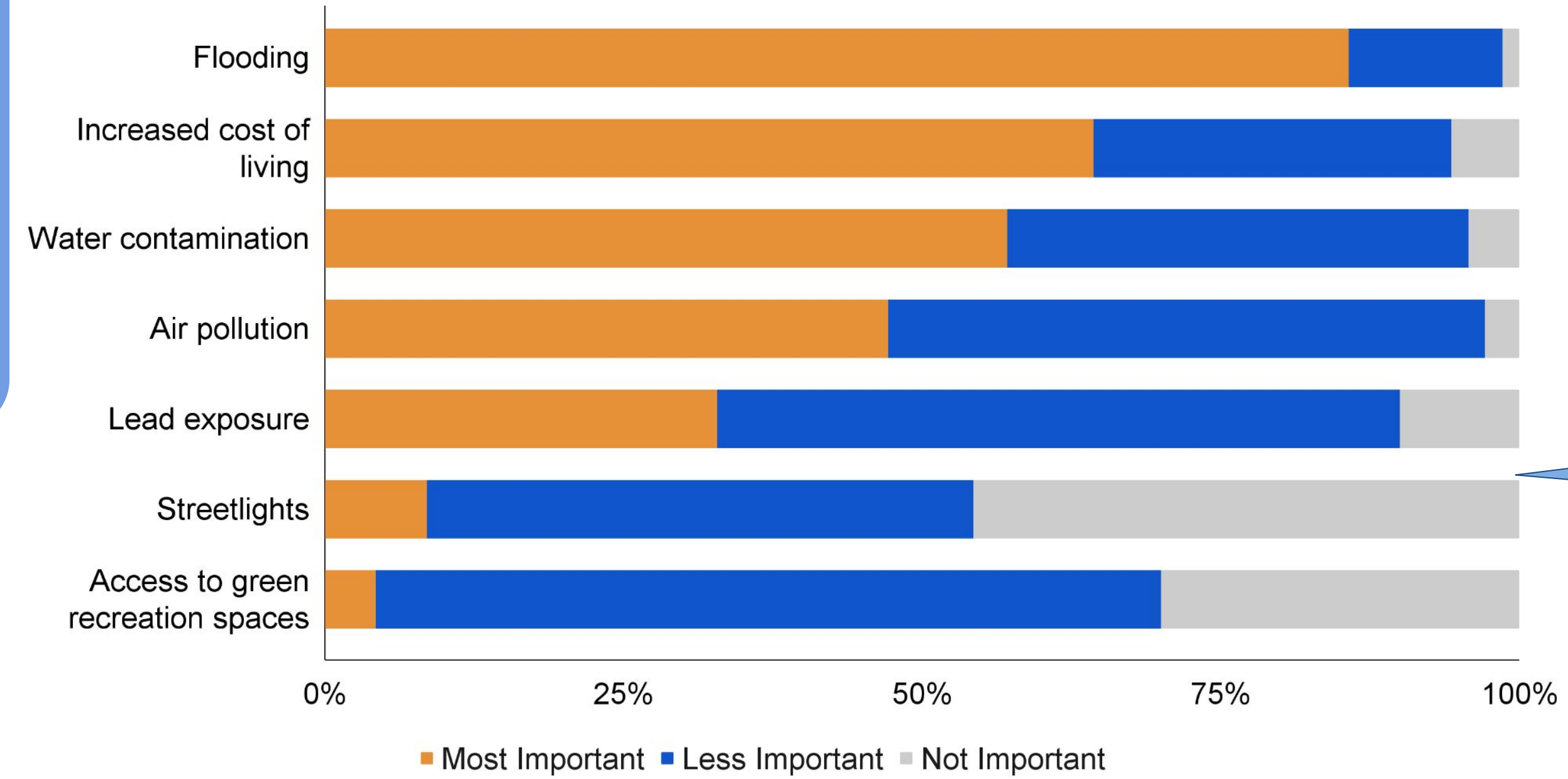


Figure 4. Distribution of resident rankings for key environmental and social hazards in Alviso. Stacked bars display the proportion of respondents identifying the importance of each issue. Flooding emerged as the highest-priority concern, street lighting and access to green space were more commonly ranked as less or not important, n=76

Table 1. Community-Identified flood adaptation priorities in Alviso.

Key Flood Risk Adaptations	Resident’s Description	Illustrative Quotes
Flood Evacuation Plan	- Clear evacuation routes out of Alviso - Designated safe gathering locations outside flood zone	“I would just be scared of getting stuck trying to move.” “Have the exit blocked so that there's no incoming traffic so that we could use both ends and out sides of the street to get out.” “Is there an evacuation plan for Alviso? No, there isn’t.”
Early Warning System	- Restore formal flood alert system - Residents currently rely on informal community knowledge	“If the roads flood, we are out of luck right?” “Depending on what the flood comes from... we’re pretty much trapped here.”
Evacuation Assistance	- Support for elderly and mobility-limited residents - Suggested neighborhood evacuation registry	“I know there's a lot of people that are not able to walk, I hate to think that somebody was left behind.” “It’s very difficult for me because I take care of my 97 year old mother, it’s hard to get her down the stairs.”
Equitable Flood insurance	- High insurance costs for residents - Claims historically denied after 1983 flood	“Unless I pay my house off, and then I don't have the option to not pay.” “Do you have lower insurance rates because you're high above the water? No, it's the same as everybody else.” “They claimed that the flood was natural, so they didn't pay up.”

Source Focus Group Interviews, 2/1-2/12/2026

FLOOD RISK MAP

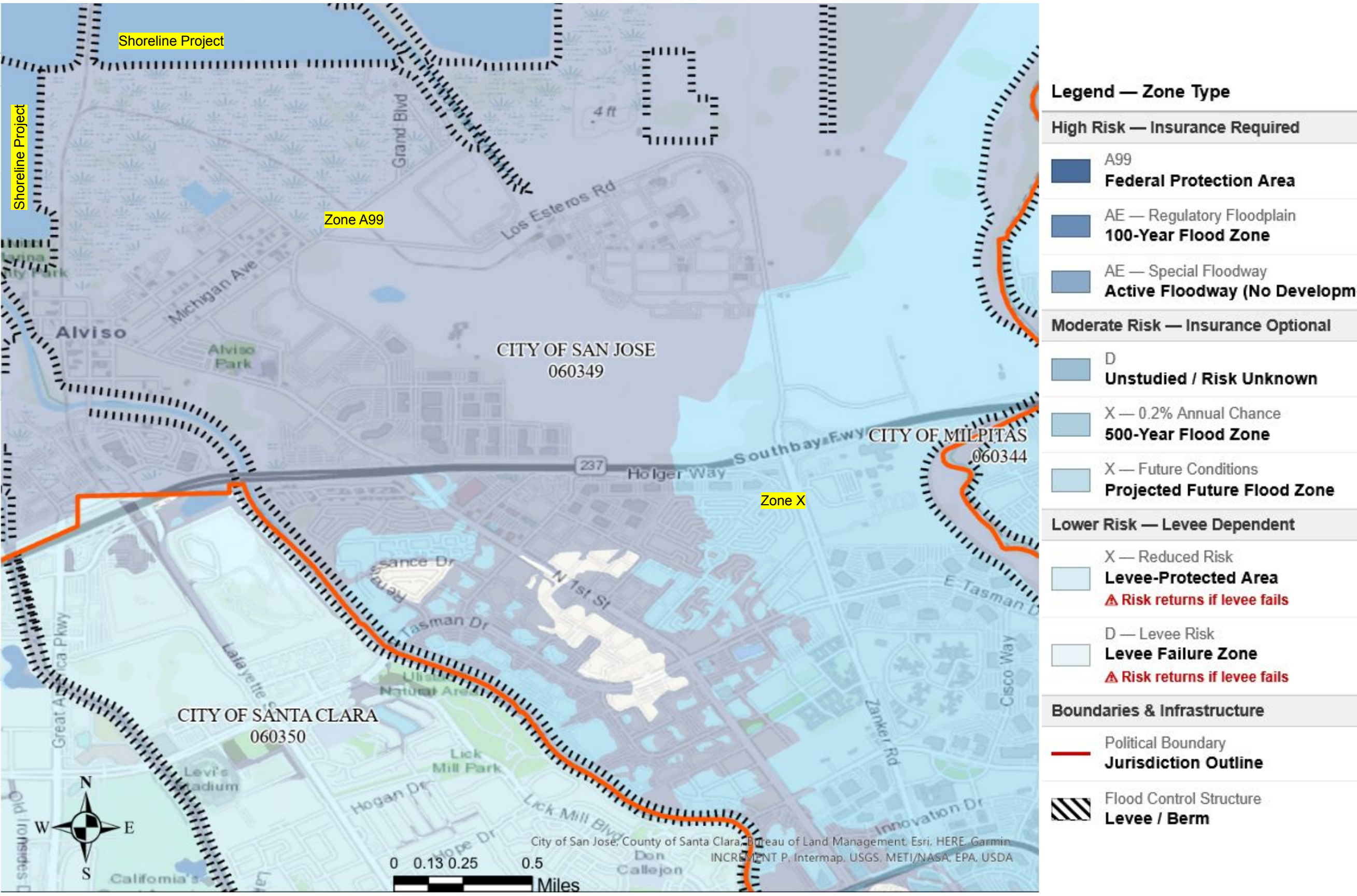


Figure 5. FEMA Flood Insurance Rate Map (FIRM) and Localized Map Revision (LOMR) showing 100-year and 500-year flood hazard zones in the Alviso Historic District and surrounding jurisdictions, illustrating the extent of current flood exposure. Updated Shoreline Levee construction progress (2024-present) not included but positioned along wetland coastal region. Most recent FEMA data revisions are from 2019. Data: FEMA; cartography by Addie Chappelle.

“When I was little, my way of knowing when to come home was with streetlights.”

“The people that live here don’t have an opportunity for us to go ahead and enjoy the park or anything because it’s always occupied by other people.”

Source Focus Group Interviews, 2/1-2/12/2026

CONCLUSIONS

- Alviso's history of flooding has resulted in a community that is highly aware and worried about environmental risks, but wary of institutional support and preparedness. Alviso's strong community networks contribute to its resilience; however, concerns about assistance needs, recovery burdens, and trust in government highlight ongoing environmental justice challenges related to equitable protection and disaster planning.
- Alviso has been historically underrepresented and underserved by the city of San Jose from lack of participation in decision making to lack of support from the city during flood events. This has resulted in low levels of trust by Alvisans in the city of San Jose.
- Flooding is the hazard of most importance to Alviso residents. A flood evacuation plan, early warning system, evacuation assistance, and post-flood clean-up procedure are adaptations strongly desired by Alviso residents.

RECOMMENDATIONS



Figure 6. Critical Implementation for Alviso Historic District. As identified by focus groups, surveys, participation observation, and literature review

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