



Integrating Climate Risks into Local Planning in Alameda County

Integrating climate change considerations into local planning processes can be a daunting task. Climate data is complex, fragmented, and comes in a format and at a scale that does not necessarily speak to planners and GIS analysts. More importantly, interpreting climate projections and integrating it into planning and policy processes requires a nuanced understanding of climate models as well as local governments' inner workings.

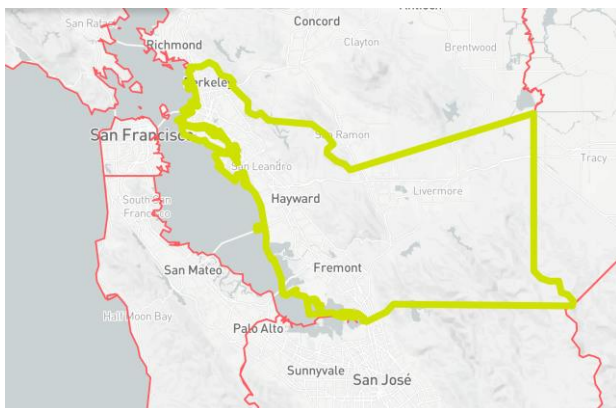
Four Twenty Seven has developed a streamlined process to support local governments in their efforts to integrate climate risk into key planning efforts: local hazard mitigation plans, general plans, climate action plans, etc. Our services blend modeling and data integration with policy analysis to help cities and counties develop adaptation strategies that address their most critical risks and leverage local strengths and community needs.

This case study presents Four Twenty Seven's work for six cities in Alameda County, funded by the Alameda County waste authority StopWaste, to respond to California's *Senate Bill No. 379 Land Use: General Plan: Safety Element (Jackson)* (SB 379). SB 379 requires cities in California to incorporate adaptation and resilience strategies into General Plan Safety Elements and Local Hazard Mitigation Plans starting in 2017. For each city, Four Twenty Seven developed a chapter that responds to these requirements by providing a climate hazard exposure analysis and proposing a set of adaptation options to help each city plan for future conditions.

PROJECT OBJECTIVES

- Support participating cities meet the requirements of:
 - Relevant state legislation
 - Federal Emergency Management Agency guidance
 - Voluntary Commitments (Global Covenant of Mayors for Climate and Energy)
- Facilitate linking of climate change components of relevant planning processes
- Promote a consistent approach to integrating climate hazards into diverse local planning processes
- Empower cities to use the climate change chapter to meet specific needs
- Position cities for federal funding

Project Background



Alameda County is located in the east San Francisco Bay, stretching from the shoreline of the Bay east across the Berkeley and Oakland hills. Due to its location, **the county is exposed to a variety of climate hazards including sea level rise, inland flooding, temperature and precipitation changes, wildfire, and rainfall-induced landslides.** While some cities in the County have robust plans for climate adaptation, others lack the targeted information to consider climate in a tangible, actionable way in their City planning.



Hazard Assessment

For the hazard exposure assessments, Four Twenty Seven leveraged our partner Vizonomy’s platform to overlay regional climate hazard data with asset location data from public sources and the cities themselves. **The overlay of hazard layers and asset location informed an identification of how sea level rise, flooding, fire and landslide might affect specific assets and/or the city overall.** Four Twenty Seven also modeled city-specific projections of future temperature and precipitation changes using downscaled climate data, and our partner, Cadmus, conducted a review for compliance with FEMA requirements.

Adaptation Actions

Four Twenty Seven used the results of these assessments, together with a review of existing city plans and the draft SB 379 guidelines from the California Governor’s Office of Planning and Research, to develop a set of adaptation actions that cities may use to inform relevant plans addressing these hazards.

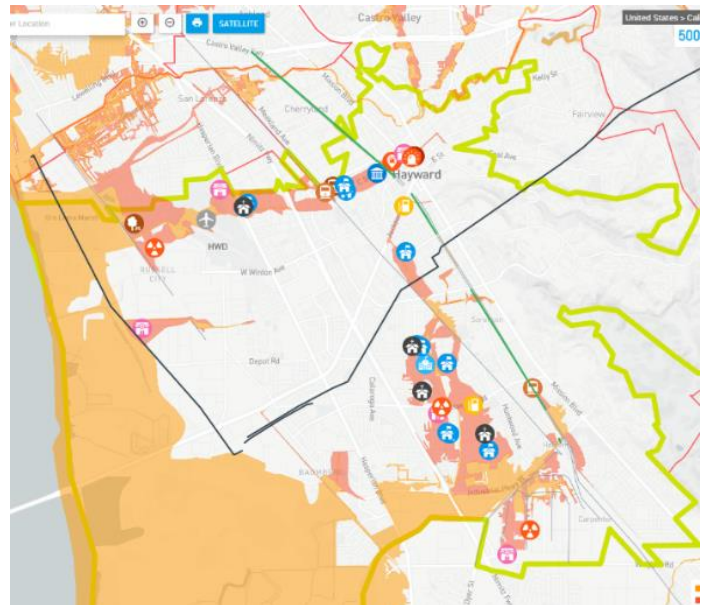


Figure 1. Exposed assets in the 500-year floodplain (red) in Hayward, California. Source: Vizonomy, Four Twenty Seven



The actions identify adaptive policies and projects and provide information on potential implementation partners, potential funding sources, timeframe, ease of implementation, co-benefits, and equity considerations.

Streamlining Adaptation Planning

Our process supports cities and counties in integrating climate change risks and adaptation into current planning processes to align goals, promote efficiency, and leverage resources. Understanding that each city or county operates in a unique context, we work closely with relevant stakeholders to provide services that meet relevant policy requirements as well as address local needs and circumstances.

We can help you identify and prioritize actions to improve resilience in your community.

Contact: Yoon Kim, PhD., Director of Advisory Services – ykim@427mt.com – 415.890.9090