# Science in Action:
## How Local Groundwater Rise Research Sparked Community Action, Cross-Disciplinary Partnerships, and Policy Change

State of the Estuary Conference | October 29, 2025

Sarah Atkinson | Hazard Resilience Sr. Policy Manager @ SPUR


## SPUR's Mission

Through research, education and advocacy, SPUR works to create an equitable, sustainable and prosperous region in which all people thrive.

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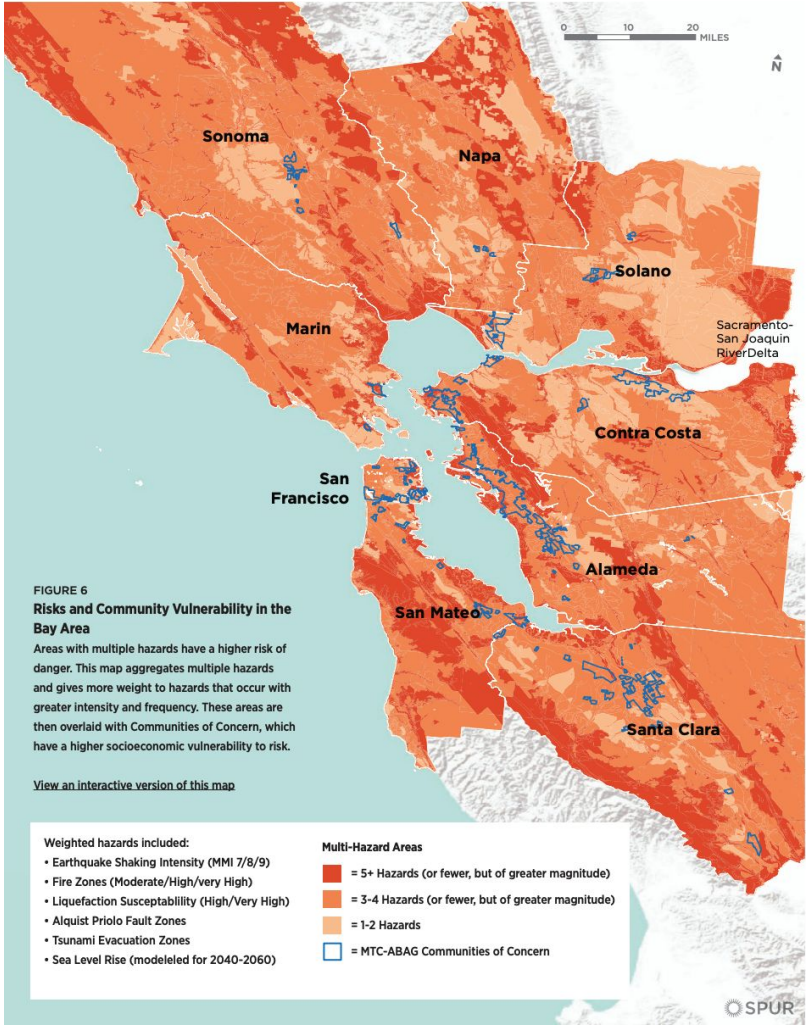


SPUR works at the intersection of **housing, transportation, planning, good governance,** & **sustainability & resilience** to create a better future for the Bay Area.

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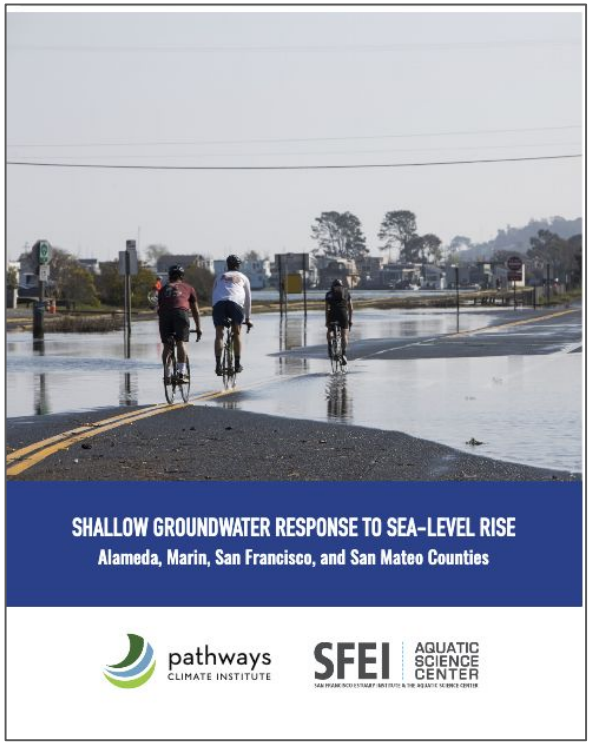
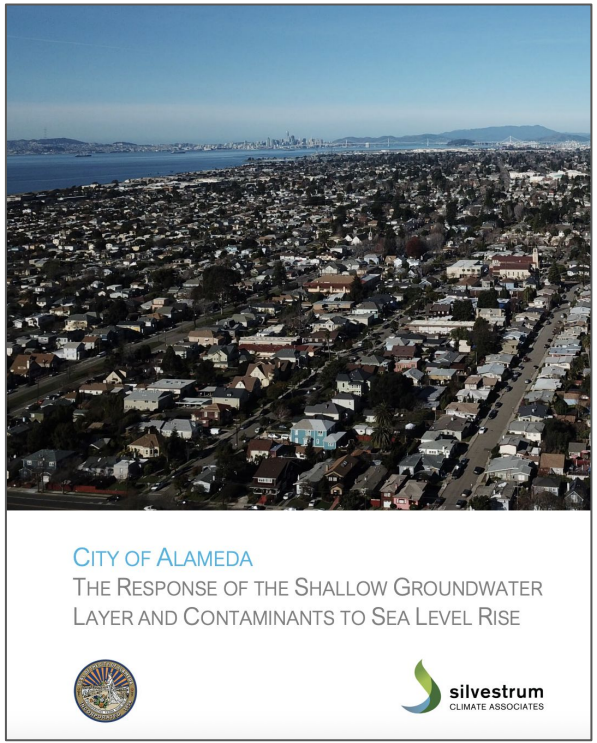
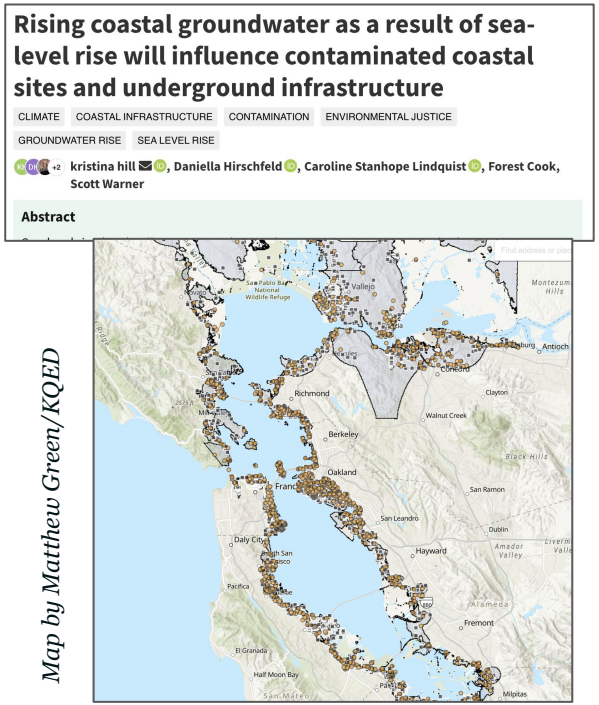
# Understanding Groundwater Rise & Impacts on Shoreline Adaptation

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# Public Education on Groundwater Rise

## New Findings on Shallow Groundwater Rise Highlight a Climate Risk Not Addressed by Policy

**By Sarah Atkinson, Earthquake Resilience Policy Manager, and Sarah Harper, Sustainability and Resilience Policy Associate**

April 13, 2023

Photo by Sergio Ruiz

Sea level rise is a well-known risk of climate change. Historical rates of sea level rise have doubled since 2006 to 3–4 millimeters a year. That increase has led to a lesser-known climate risk for Bayshore cities and neighborhoods: shallow groundwater rise. As the sea level rises, salt water pushes groundwater up through the soil, leading to higher groundwater tables. Potential consequences range from increased flooding to the movement of contaminants in the soil. If groundwater rise is not considered, current and future seawall, levee, and cutoff wall projects could trap water inland and cause disruptive flooding or prompt further costly investments in groundwater pumping. So the question is, do existing coastal adaptation strategies address the impacts of rising groundwater or exacerbate risks? If the latter, a new paradigm of coastal adaptation may be necessary.

## Groundwater Rise Adaptation: Insights from Miami and San Rafael

**Digital Discourse**

12:30 to 1:30 p.m. | Tuesday, April 25, 2023

*Sergio Ruiz for SPUR.*

Sea level rise has increased the urgency of adapting to groundwater rise. As the Bay Area experiences higher and higher water tables, it must contend with a greater frequency of flooding, potentially compromised underground infrastructure and structural foundations, increasing liquefaction risk during earthquakes, and movement of soil contaminants. Join us for a discussion with representatives from San Rafael, California, and Miami, Florida, which has grappled with high water tables for decades, to discuss strategies for living with groundwater and sea level rise.

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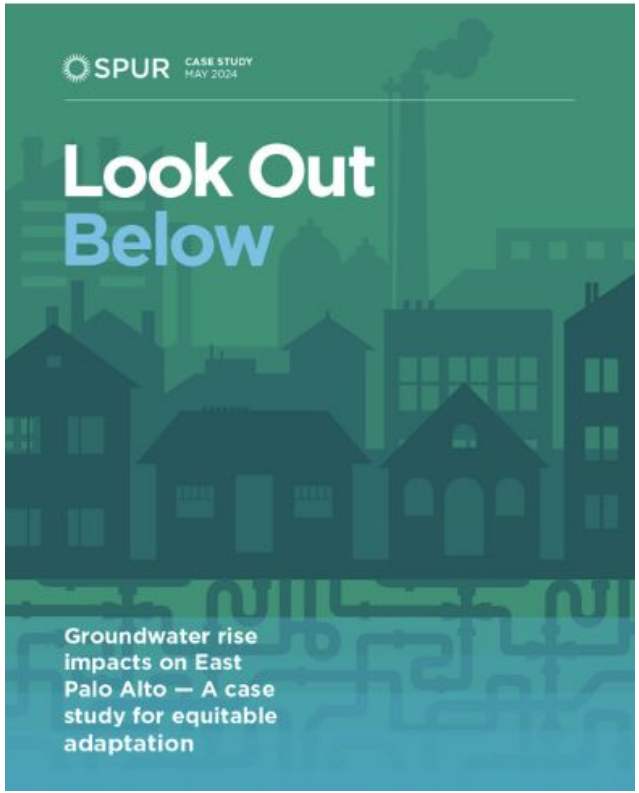
# Partnership with Nuestra Casa on Groundwater Rise




Nuestra Casa

- Collaboration on Look Out Below Report research & recommendations. *Report funded by RLF.*
- Launched the Peninsula Accountability for Contamination Team (PACT)
- Hosted community and public outreach events
- Continuing to advance local and state policy advocacy around groundwater rise, coastal flooding, and contaminated site clean up

*Advisory support from:* pathways CLIMATE INSTITUTE

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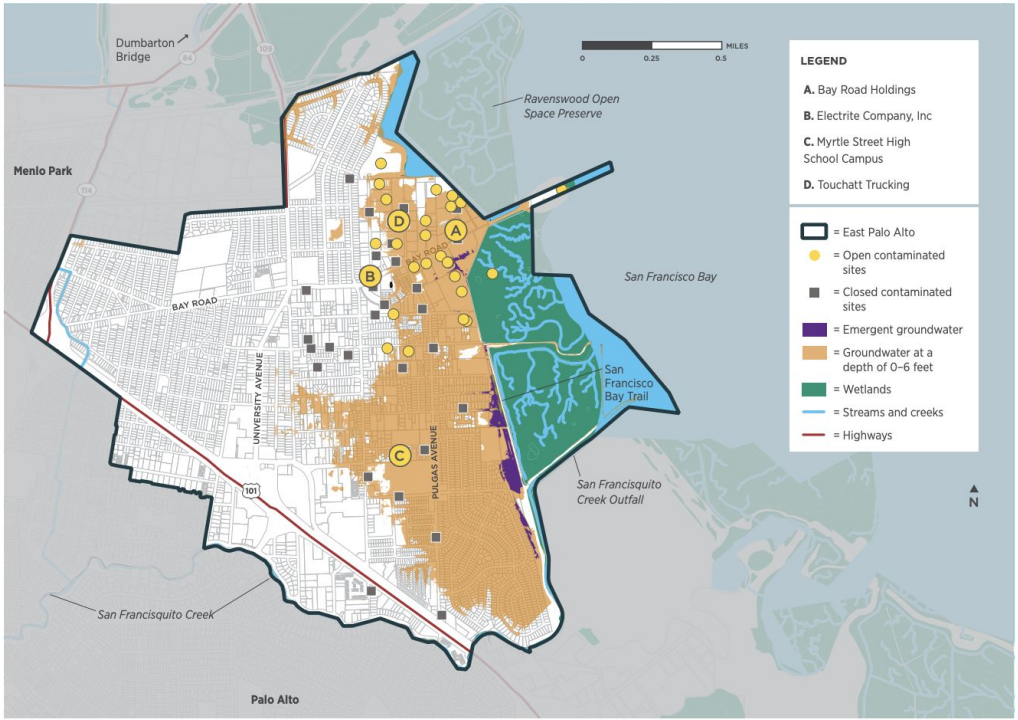
# Partnership with PACT on Toxic Site Remediation

EXHIBIT 12

**About 60% of East Palo Alto's contaminated sites are already impacted by high groundwater levels.**

**Source:** SPUR based on groundwater-level data sourced from Pathways Climate Institute and contaminated sites data sourced from K. Hill, D. Hirschfeld, C. S. Lindquist, F. Cook, and S. Warner, *Rising Coastal Groundwater as a Result of Sea-Level Rise Will Influence Contaminated Coastal Sites and Underground Infrastructure*, https://www.researchgate.net/publication/371068344_Rising_coastal_groundwater_as_a_result_of_sea-level_rise_will_influence_contaminated_coastal_sites_and_underground_infrastructure




Nuestra Casa

- 38 of 50 contaminated sites are already impacted by shallow groundwater
- More than half of these 38 sites are "open" sites
- Romic/Bay Road Holdings site is only site with VOCs as "contaminant of concern"

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# Partnership with PACT on Toxic Site Remediation


Nuestra Casa

Reviewed toxic sites vulnerable to SLR and groundwater rise along the Peninsula (Redwood City, Menlo Park, East Palo Alto) with data from Envirostor & Geotracker, gathered by Dr. Kristina Hill (2023)

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# PACT Actions since launch in January 2024

- **PACT** meets monthly to share org updates and plan advocacy efforts.
- **Nuestra Casa** organizes PACT meetings, cultivates funders for this work, and supports projects
- **SPUR** supports meeting agendas, and helps inform and forward advocacy efforts through research & relationship building
- **YUCA** has hosted community town halls to inform residents about remediation at EPA Romic site

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- **CRC**, in partnership with Arcadis, has created a community-informed toxic site clean-up prioritization matrix to help inform the work of DTSC, the Water Board, and BCDC
- **Belle Haven Empowered & BH CDF** launched a community health survey to identify any disproportionate health impacts in the Peninsula

| Category | Factor Name |
|---|---|
| Site Conditions | Cleanup Status |
| | Multiple Sites Nearby |
| | Contaminant Type |
| Environmental Justice or Social Vulnerability | Social Vulnerability Index (SVI) |
| | Site Near School |
| | Site Near Residences |
| Potential Opportunities for Future Development | Site Near Green Spaces |
| | Site Near Opportunity Zone |
| | Community Importance |
| Flood Hazard | Coastal Flooding Risk |
| | Stormwater Flooding Risk |
| | Potential Groundwater Impact |

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# SPUR's Role:

*Supporting Community-driven local, regional, and state advocacy*

**Overall:** Build relationships with researchers, policymakers, city leaders, and advocates**.** Coordinate advocacy letters to inform policy and planning processes, support PACT projects:

- **Local:** Meet with County Supervisors, East Palo Alto City Council members, comment on development plans (e.g. Ravenswood Business District), etc.
- **Regional:** Participated in the development of the Regional Shoreline Adaptation Plan & PACT comments
- **State:** Advocate for state policy change. In 2025, PACT supported AB 1102
- **Federal:** Shared Look Out Below Report with U.S. Rep. Kevin Mullin, who represents parts of San Mateo County including East Palo Alto. A year later, Mullin introduced the **Groundwater Rise & Infrastructure Preparedness Act**

SAVE THE BAY

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# Session Speakers:

SPUR

**Science in Action:**
How Local Groundwater Rise Research Sparked Community Action, Cross-Disciplinary Partnerships, and Policy Change

**Dr. Kristina Hill**
UC Berkeley

**Skylar Sacoolas**
GreenAction

**Osvaldo Macias**
Nuestra Casa

**Nathan Dadap**
U.S. Congressman Kevin Mullin's Office

# Shout out


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OneShoreline
Building Solutions for a Changing Climate


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