



Restoring the Urban Edge

Facilitated by:

Linda Tong, State Coastal Conservancy

Presenters:

1 - Shy Walker, Ninth Root

2 - Scott Stoller, East Bay Regional Parks District

2 - Susan Kuramoto Moffat, Future Histories Consulting

3 - Kae Jensen, Climate Resilient Communities

3 - Vera Cordova Mendoza, Fresh Approach

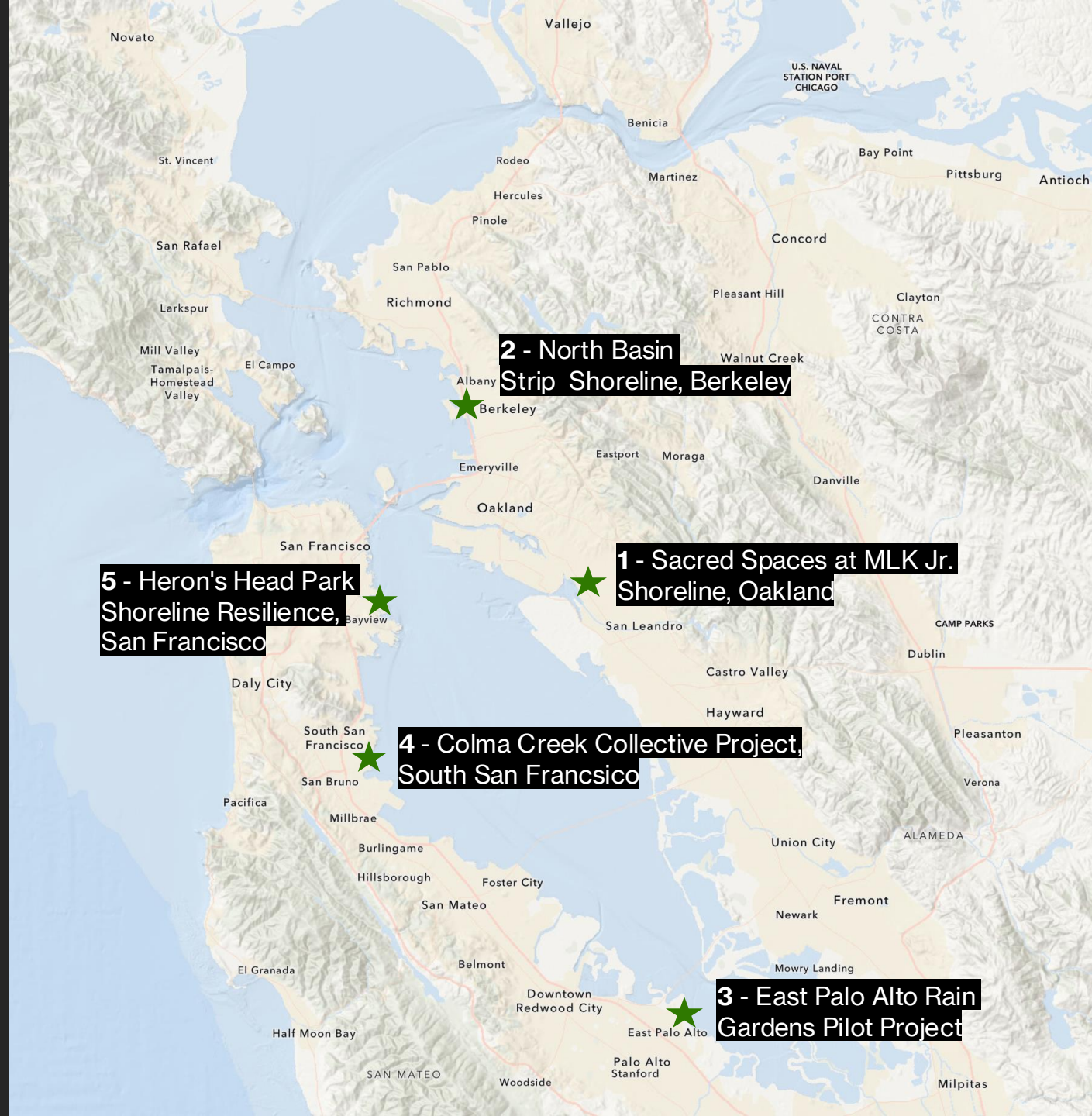
4 - Ariel Cherbowsky Corkidi, San Bruno Mountain Watch

4 - Julio Garcia, Rise South City

5 - Eddie Divita, ESA Consulting

5 - Nina Omomo, Literacy for Environmental Justice

State of the Estuary Conference 2025



Session Guide

Project and Shoreline Context ~60

Panel Discussion ~ 40

- + Unique challenge or something surprising
- + "Immeasurable" project benefit
- + Questions from the Audience
- + Wrap-up: One takeaway message or action for the audience

SACRED SPACES



SACRED SPACES



5. GATHER MOOD BOARD



4. REVITALIZE MOOD BOARD



1. WELCOME MOOD BOARD



2. GRATITUDE MOOD BOARD



3. HARMONIZE MOOD BOARD



Sacred Spaces



HEALING

Nature is a powerful healer, offering solace, tranquility, and renewal to those who seek its embrace.

THE MAGIC

CONNECTING

Immersing oneself in nature and community facilitates a deep connection to the divine, providing profound insights and spiritual awakening.

PRESERVING

Protecting our culture and natural landscapes, we ensure that future seekers of spiritual healing will have access to the same transformative experiences.

ENHANCING

Through thoughtful design and stewardship, we can create sacred spaces that invite reflection, contemplation, and renewal.



COLLECTIVE



TRANSFORMATION



COMMUNITY



STEWARDSHIP



CULTIVATION



CONVERSATION





CONTACT US

- **WEBSITE: NINTHROOT.ORG**
- **EMAIL: NINTHROOT510@GMAIL.COM**
- **SOCIAL MEDIA: [@NINTHROOT510](#)**



Creating a Cultural Ecotone at the North Basin Strip Shoreline

State of Estuary Conference – October 2025

Project Team



Scott Stoller
EBRPD

sstoller@ebparks.org

Susan Kuramoto Moffat
Future Histories Consulting
Moffat.susan@gmail.com



WRT – Landscape
Architect



ESA – Coastal Engineer

Respect
Legacy



Save the Bay Founders

Integrate
new
leadership



New Voices Partnerships
participants





TEEN REFUGE
Zip line ^{BABA} food natural pool ^{not there}
Skate park ^(boarding + roller skating) beach bonfires
bike station ^{Snack Shack that's also a container for the bikes & skates.} dirt work
repair + bmx xrellis shade
climb trees, rocks shade
outdoor gym ^{teach kids to play}
rocks in a circle
sit + talk at picnic tables
close but off to side
peopt watch

- Skate & biking
- Rec center that teaches free first aid classes & is there incase of an emergency

Brower Dellums Insti
Girls garage

(teen + young adults)





**WANTED:
Nature +
Social Spaces**





BERKELEY MEADOW

NORTH BASIN STRIP

REGIONAL SPORTS COMPLEX

BAY TRAIL

RACETRACK

GILMAN ST

I-80 / I-580

PROJECT SITE

NORTH



BERKELEY MEADOW

NORTH BASIN STRIP

REGIONAL SPORTS COMPLEX

CULTURAL ECOTONE



**BERKELEY
MEADOW**



NORTH BASIN STRIP



REGIONAL SPORTS COMPLEX



CULTURAL ECOTONE



Managed Retreat

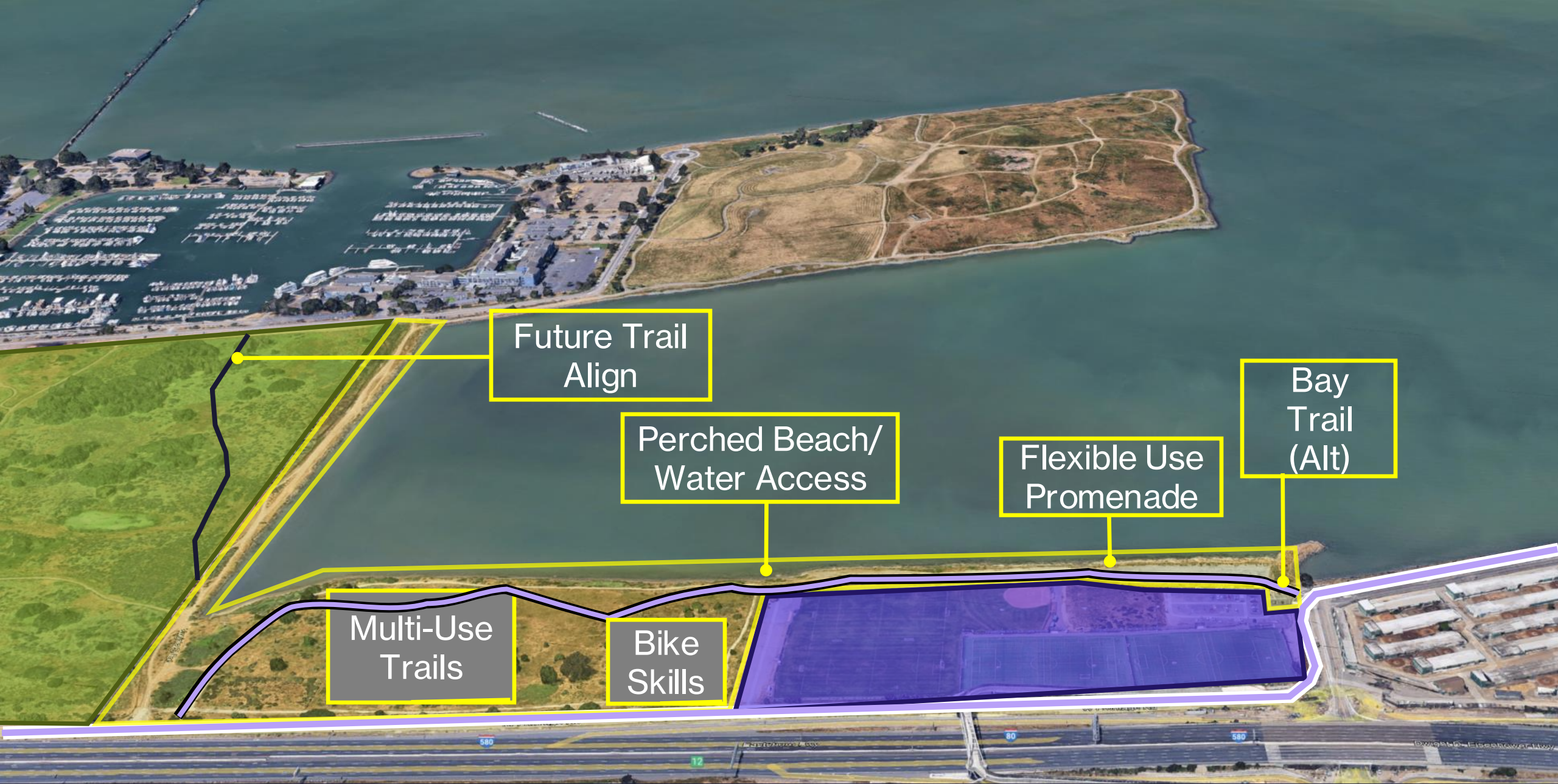
Pollinator Habitat

Habitat Stewardship

Nature-Based Shoreline

Tidal Ponds/Wetlands

PRELIMINARY DESIGN - Habitat



Future Trail
Align

Perched Beach/
Water Access

Flexible Use
Promenade

Bay
Trail
(Alt)

Multi-Use
Trails

Bike
Skills

PRELIMINARY DESIGN – Public Access



PRELIMINARY DESIGN - Rendering



Thank you!

RAIN GARDENS & WATER CISTERNS



*East Palo Alto
Rain Gardens:
a community's
nature-based
solution to
flooding.*



Kae Jensen
Adaptation Program Manager
Climate Resilient Communities

Vera Cordova
Community Garden Manager
Fresh Approach



RAIN GARDENS & WATER CISTERNS

Rain Gardens: a case study of Flooding Prevention in East Palo Alto.

Main takeaway: Rain Gardens are most effective as an Urban Greening Solution when installed at a bay-wide scale.



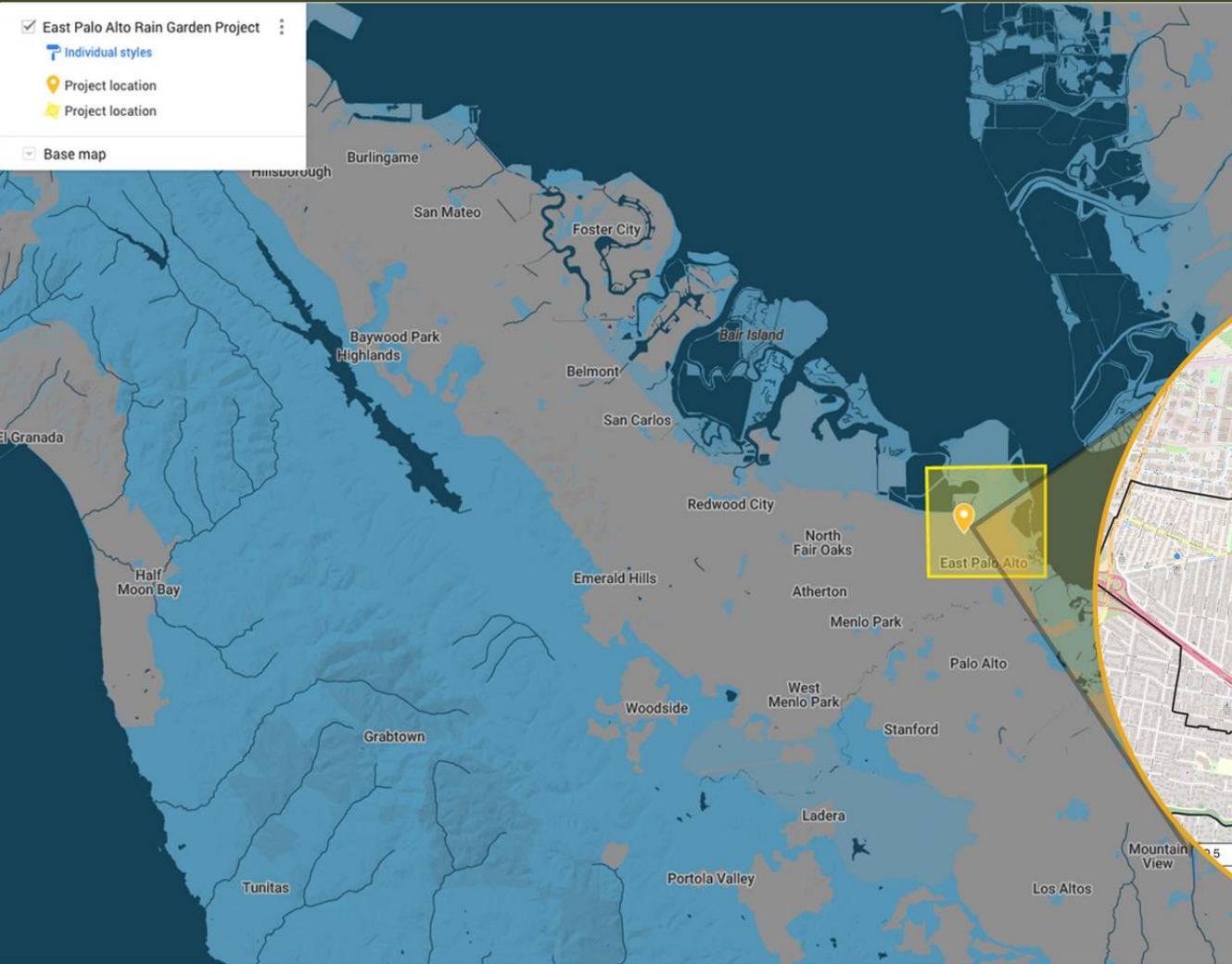
- *Rain Gardens*
 - Where on the Shoreline?
 - The Community
 - Project Goals & Impact
 - Main takeaway



Where on the shoreline?

East Palo Alto (EPA) shoreline:

- Exposed to coastal flooding from the Bay, as well as rainfall-induced (stormwater runoff) flooding and from San Francisquito Creek.
- In 1998, a deluge caused about \$40 million in property damage and impacted 1,700 homes across East Palo Alto, Palo Alto, and Menlo Park.



Why East Palo Alto?

Bordered by both the San Francisquito Creek and 2.2 miles of shoreline, East Palo Alto households face steep flooding costs; 51% of households face a high risk of displacement due to flooding, with this figure forecast to rise to 62% by 2060.



RAIN GARDENS & WATER CISTERNS

The Community and the Design Process:

Community Vulnerability Assessment

Emerged out of extensive community engagement (surveys, workshops, canvassing)

2023-2025 Pilot

Climate Resilient Communities, Fresh Approach and grassroots ecology pilot 25 Rain Gardens and Cisterns systems, with plans to scale into other flood exposed communities.

East Palo Alto Leadership

Led by the East Palo Alto Climate Change Community Team (CCCT), East Palo Alto Residents as paid Community Ambassadors, and homeowners themselves who helped design their gardens.

Mitigation & Education

Mitigation of displacement, flood risk; food and water security; and reduction in urban heat while providing education to over 500+ Residents



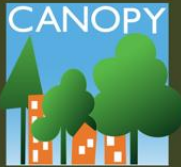
Project Goals & Impact



- Each installation was about **\$12,000 in value.**
- Each included a cistern system, gravity drip irrigation, and native California plants.



- **16 residents employed as community ambassadors**
- Each installation received **6 months of maintenance post installation.**



- Canopy maximized the **shade** and **food access** benefits through free **fruit trees.**



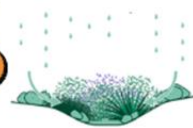
- Average water retention capacity: **207.55 gallons.**
- Analysis done with Hightide found **Rain Gardens are effective flood abatement when 1,000 or more are installed.**



- **The project had no income eligibility criteria-** our audience focused on homeowners in residence in EPA within or close to the FEMA flood zone.



1



Benefits to Homeowners:

- Collecting water saves money
- Reduce flood impacts on house
- Enhances landscape; reduces moisture

3



Benefits to East Palo Alto:

- Climate action that is at no cost to the homeowner
- Filters polluted runoff from streets

2



Benefits to the Environment:

- Improves local water quality & pollution
- Provides water & food sovereignty
- Eliminates standing water
- Recharges groundwater

4



What Can Be Planted:

- CA natives that thrive in moist soil
- Fruit trees
- Edibles that don't grow into or touch the ground

5

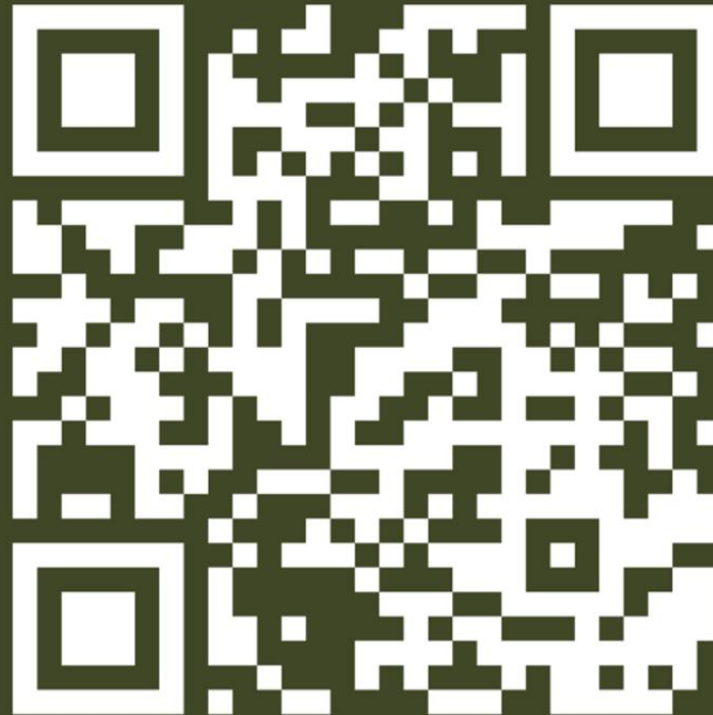


Impact At Scale:

- Climate Resilient Communities is working towards scaling our number of installations into the thousands

*Want to engage your
own community to
design a Rain
Garden installation
project?*

*Scan the QR code to
read and utilize our
project guide!*



**IN A TIME WHEN THE NEXT MAJOR FLOOD COULD BE
DEVASTATING,
RAIN GARDENS COULD MAKE THE DIFFERENCE BETWEEN
DISASTER AND RESILIENCE..**



RAIN GARDENS & WATER CISTERNS



Contact

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Adaptation Program Manager
Climate Resilient Communities

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Vera Cordova
Community Garden Manager
Fresh Approach

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[@fresh-approach-bay-area](https://www.instagram.com/fresh-approach-bay-area)

Thank You!

Colma Creek Collective

The **Colma Creek Collective** brings people together to care for the Colma Creek watershed in northern San Mateo County.

We focus on the **two most publicly accessible portions of the creek** – the **headwaters** at San Bruno Mountain State and County Park and the **shoreline** of Colma Creek along the San Francisco Bay Trail.

The Colma Creek Collective is a project partnership of **San Bruno Mountain Watch** and **Rise South City**.



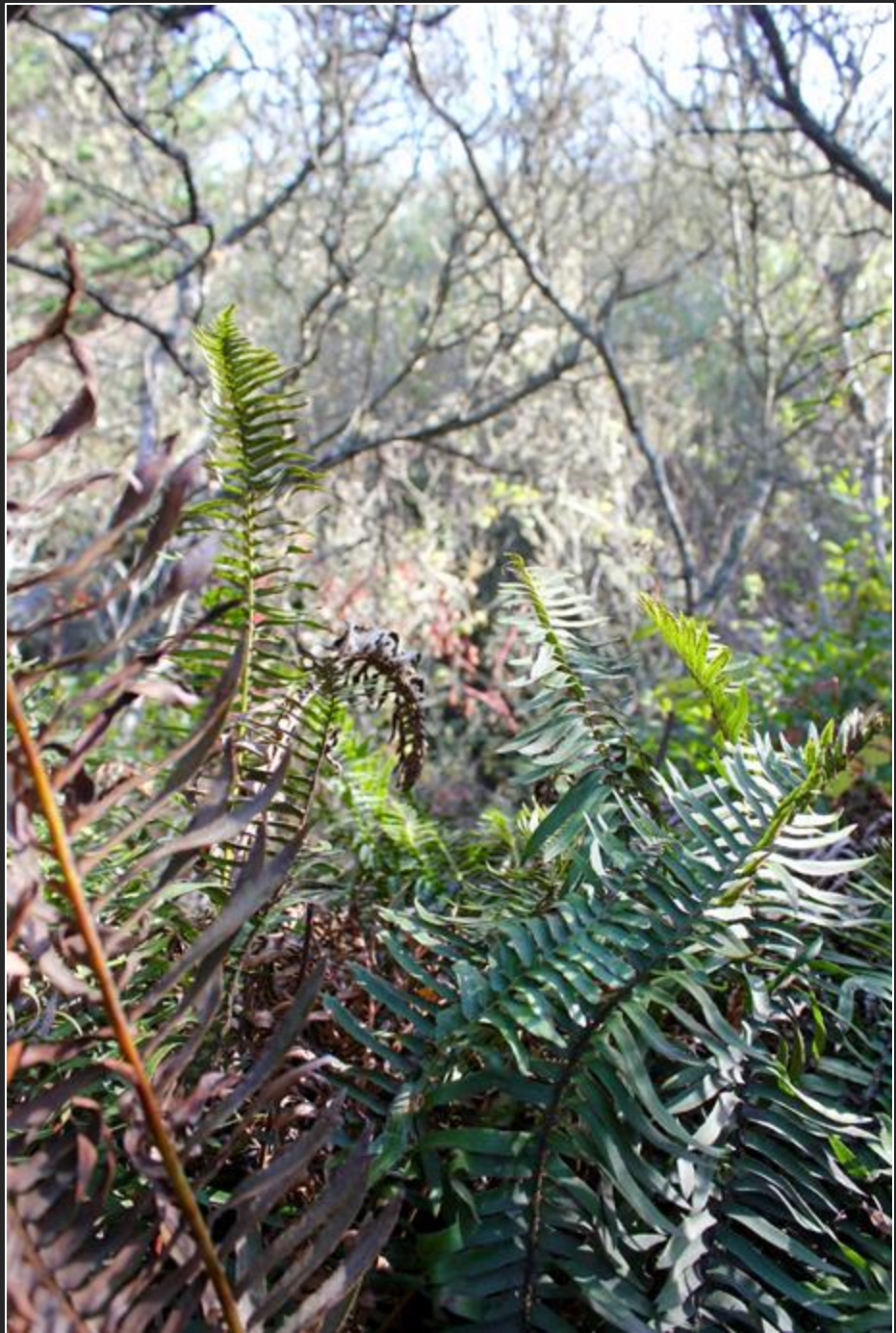
Ariel Cherbowsky Corkidi
Executive Director of San Bruno Mountain
Watch

Julio Garcia
Executive Director of Rise South City





















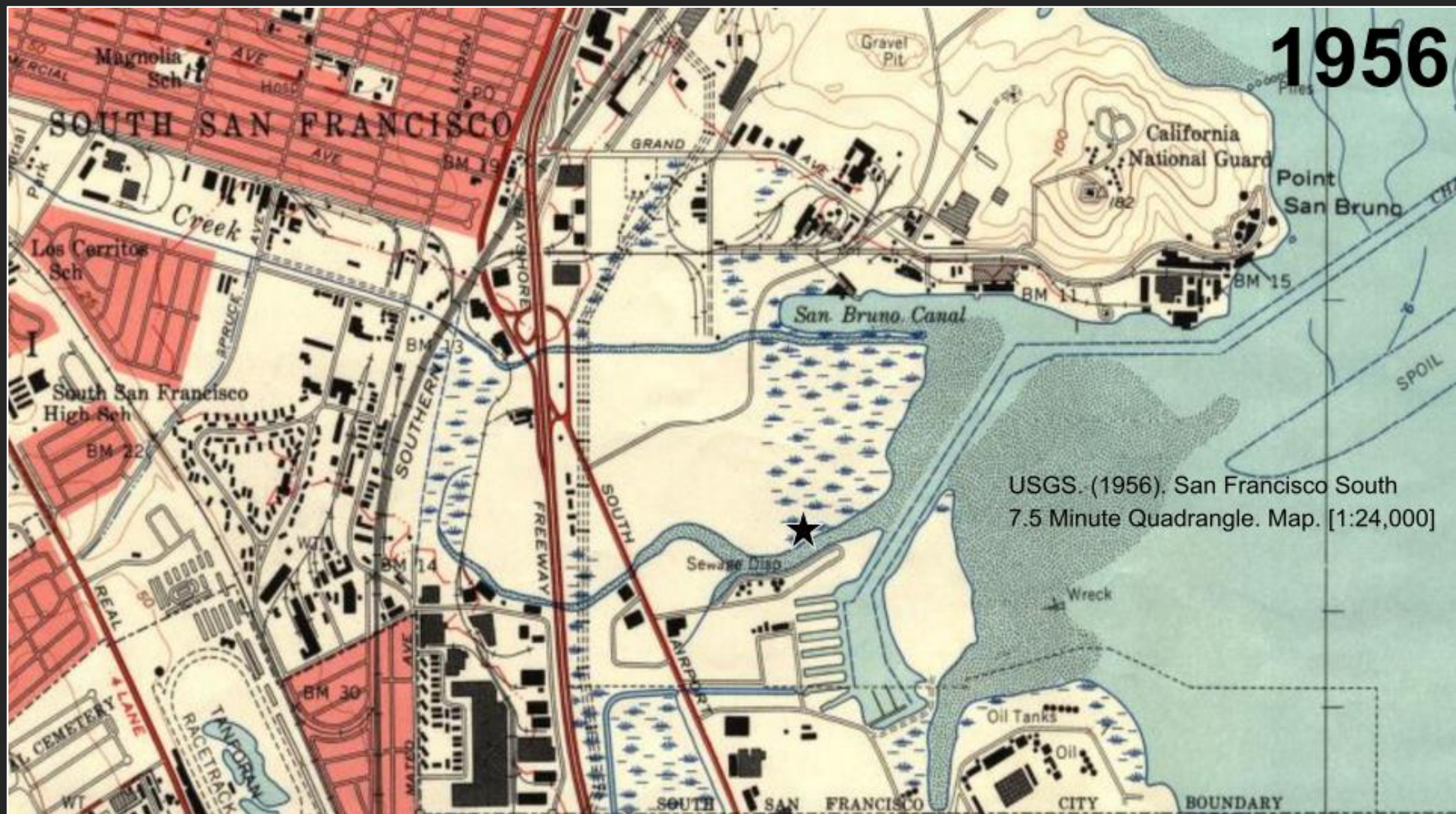


1947

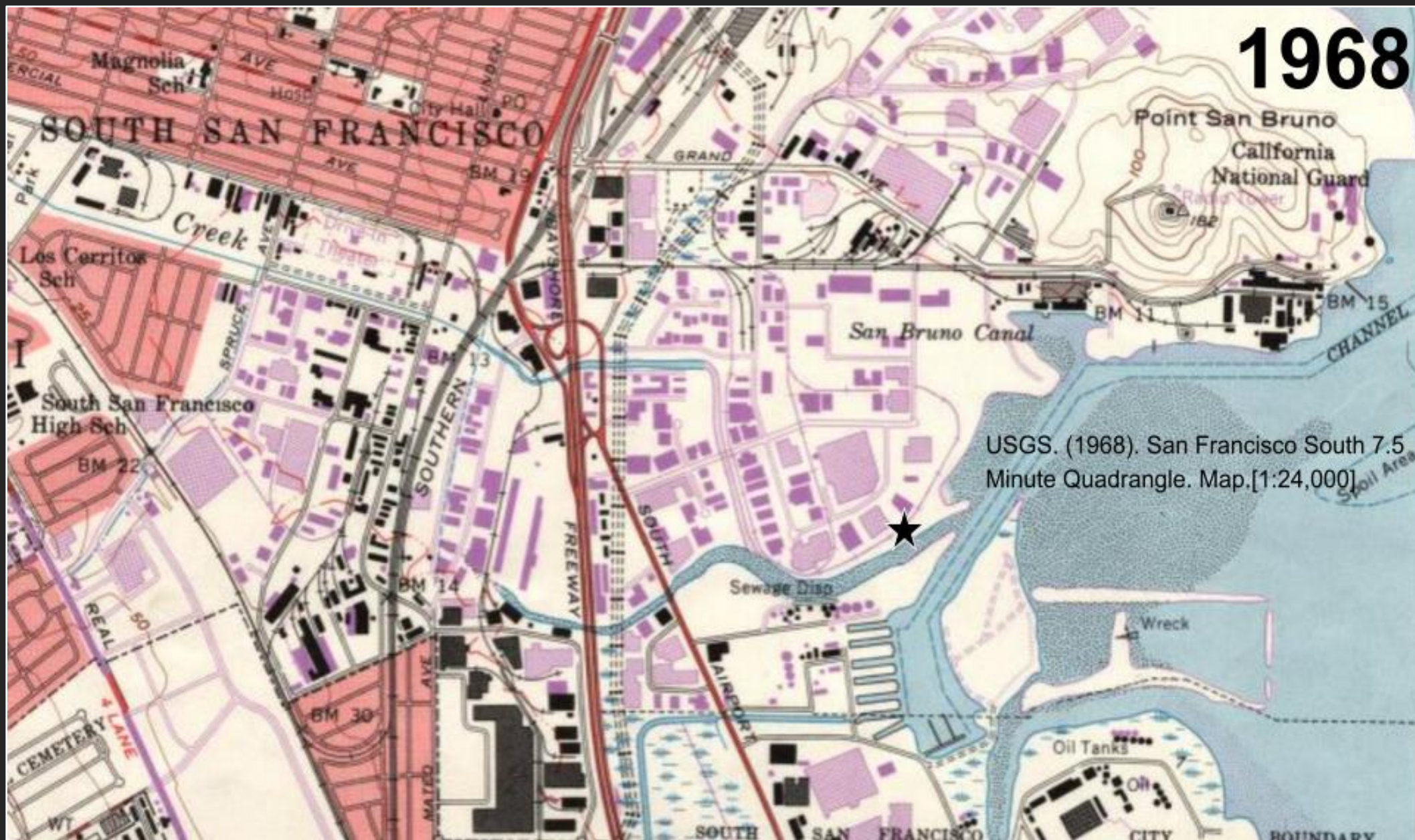


USGS. (1947). San Francisco South
7.5 Minute Quadrangle. Map. [1:24,000]

1956



1968



USGS. (1968). San Francisco South 7.5 Minute Quadrangle. Map.[1:24,000]

1980



USGS. (1980). San Francisco South
7.5 Minute Quadrangle. Map. [1:24,000]

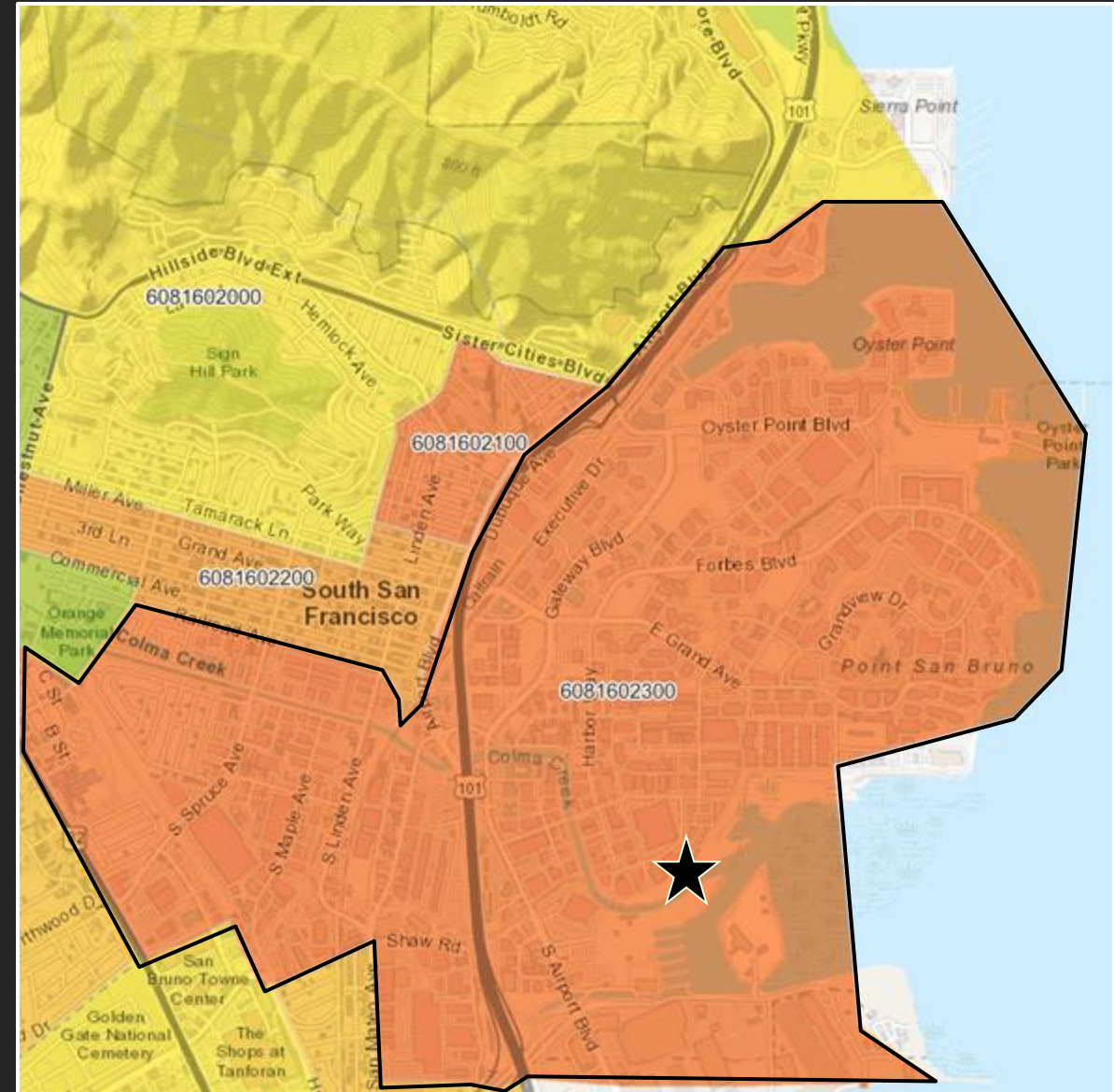
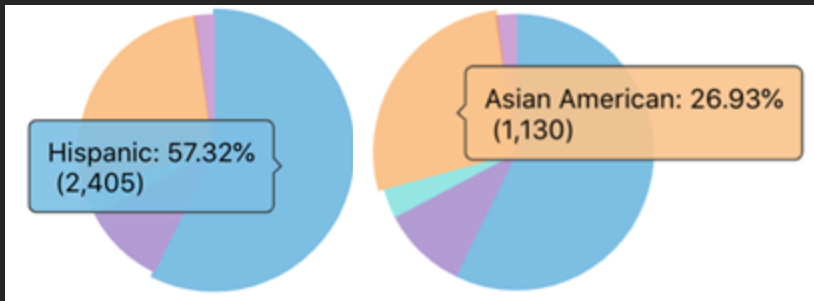
A Wounded Watershed

Colma Creek is on the California Water Board's 2018 **303(d) List of Impaired Water Bodies** for failing to meet water quality standards under the Clean Water Act

Census Tract: 6081602300

Pollution Burden: Percentile 95

This tract is more burdened with pollution than 95% of the other census tracts California.



A Wounded Watershed

Census Tract: 6081602300

Pollution Burden Percentile 95

It is exposed to:

- more **Diesel Particulate Matter** than 95% of other census tracts.
- more **Traffic** than 81% of other census tracts.

It has:

- more **Cleanup Sites** than 99% of other census tracts.
- more **Groundwater Threats** than 100% of other census tracts.
- more **Hazardous Waste** than 100% of other census tracts.
- more **Impaired Waters** than 87% of other census tracts.
- more **Solid Waste** than 97% of other census tracts.

Colma Creek Collective

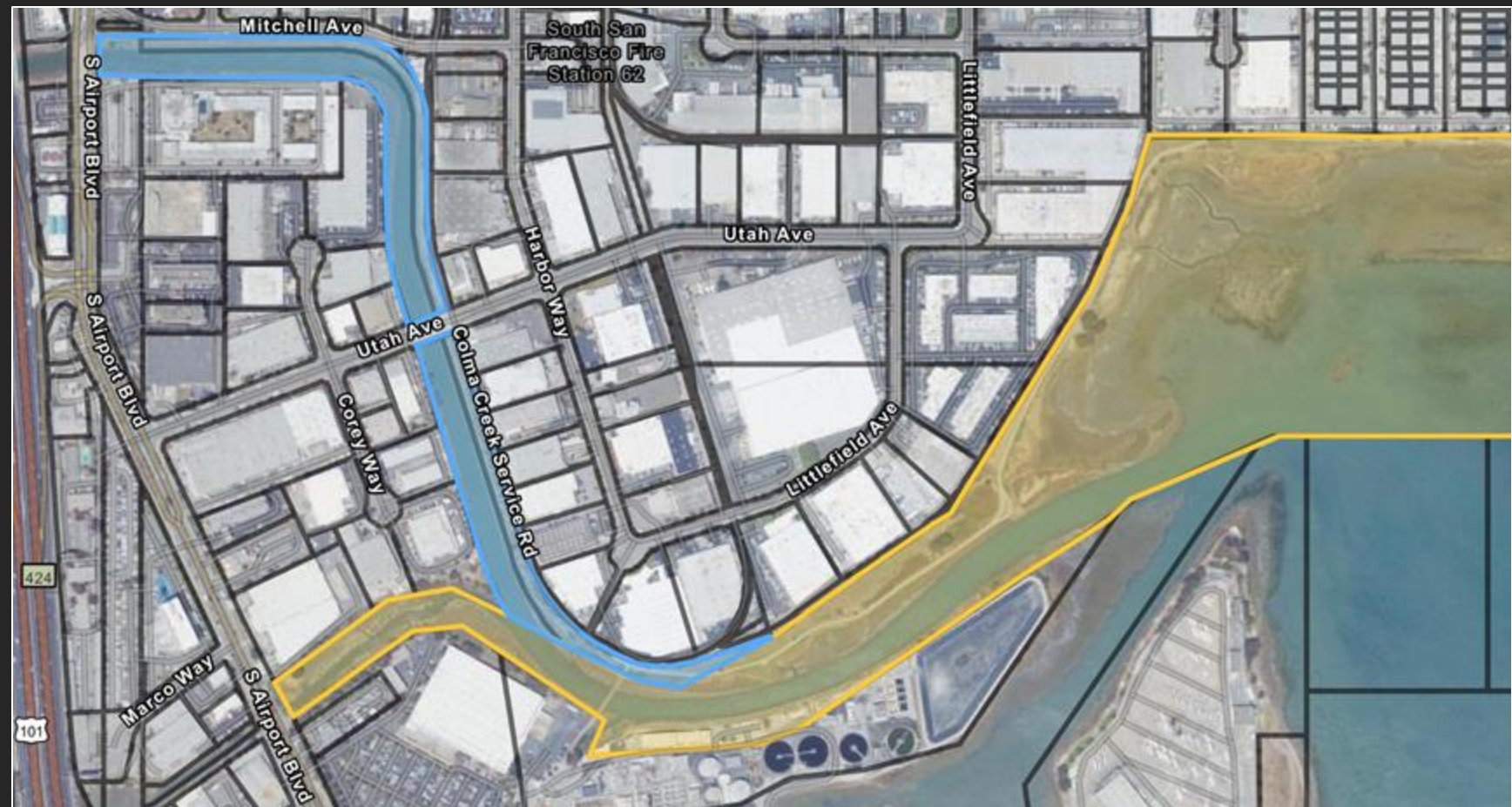
Expanding the project with the support of a Measure AA Community Grant

- Implement a paid **watershed stewardship training program** for youth and adults in SSF.
- Each year:
- **Remove** 1,250 square meters of **invasive plants** and 2000 pounds of **trash**
- **Propagate and plant** 2,500 **native plants** from salt marsh, transition zone, native grassland, coastal bluff, and coastal scrub plant communities.
- Digitize and develop a **public history collection** about **Colma Creek** as part of the San Bruno Mountain Archives.
- Develop and distribute an **interpretive booklet** on Colma Creek in English and Spanish.
- Develop and host **watershed field trips** for local schools, and **shoreline restoration events**.

Colma Creek Collective activities funded by Measure AA take place within parcels owned by the **City of South San Francisco** (in yellow).

Blue parcels are owned by **OneShoreline** (San Mateo County Flood and Sea Level Rise Resiliency District).

There has been a lot of recent and ongoing planning happening for Colma Creek!





Caring For The Creek



Removing
Trash & Weeds









Caring For The Creek



Community-Based
Native Seed Collection
Within the Watershed
From the Mountain to the Bay



Caring For The Creek



Participatory
Plant
Propagation
at SBMW's
Mission Blue
Nursery



Caring For The Creek



Planting the

**Salt Marsh
Transition
Zones**

Uplands

Bay Fill





Appreciating Creek Life



Daylighting Creek Stories

Colma Creek on Rampage Floods Rich Farm Area

**\$165,000 Canal Filled
With Silt, Rancher
May Sue**

1935

PROTEST AGAINST HOG NUISANCE

District Attorney Swart is in receipt of a petition signed by some thirty residents of Colma asking that action be taken to prevent the dumping of the filth from the hog ranches into what is known as the Colma creek. The waters of this stream have, by reason of such pollution, become offensive to the people in the neighborhood and dangerous to their health and to that of the animals that drink from the stream.

1912

Two Old Coffins Found in Creekbed

COLMA, Dec. 18.—Constable Silvio Landini of Colma today opened an investigation into the finding of two coffins, or portions of coffins, by workmen employed on the Colma creek project on the outskirts of Lawndale.

The coffins were found partially hidden in tules along the creek. One worker said he thought the coffins contained bones.

1933

Spotted two weeks ago City admits sewage leak wasn't fixed



The broken sewer main has under this pool formed on the parking lot in front of Budget Rent-A-Car on Mission St. just off August Blvd. It poured out as a small leak in middle of last week, but city officials decided against making an immediate action.

1977



COAST GUARD AIDS—Joseph Van Arkel, his wife and infant daughter fled this apartment after flash flood expelled Stairite Driveway Theater in South San Francisco early yesterday. Here Coast Guardsmen—in unique inland role—help save household goods. Van Arkel is manager of theater, Barking of pet dog around family.

1952



IT'S "ROLL OUT THE BARRELS" ON COLMA CREEK
Casks containing thinner are dislodged by heavy flood waters

—Express Photo

1972

San Bruno Mountain Archives
www.mountainwatch.org/archives

Thank you

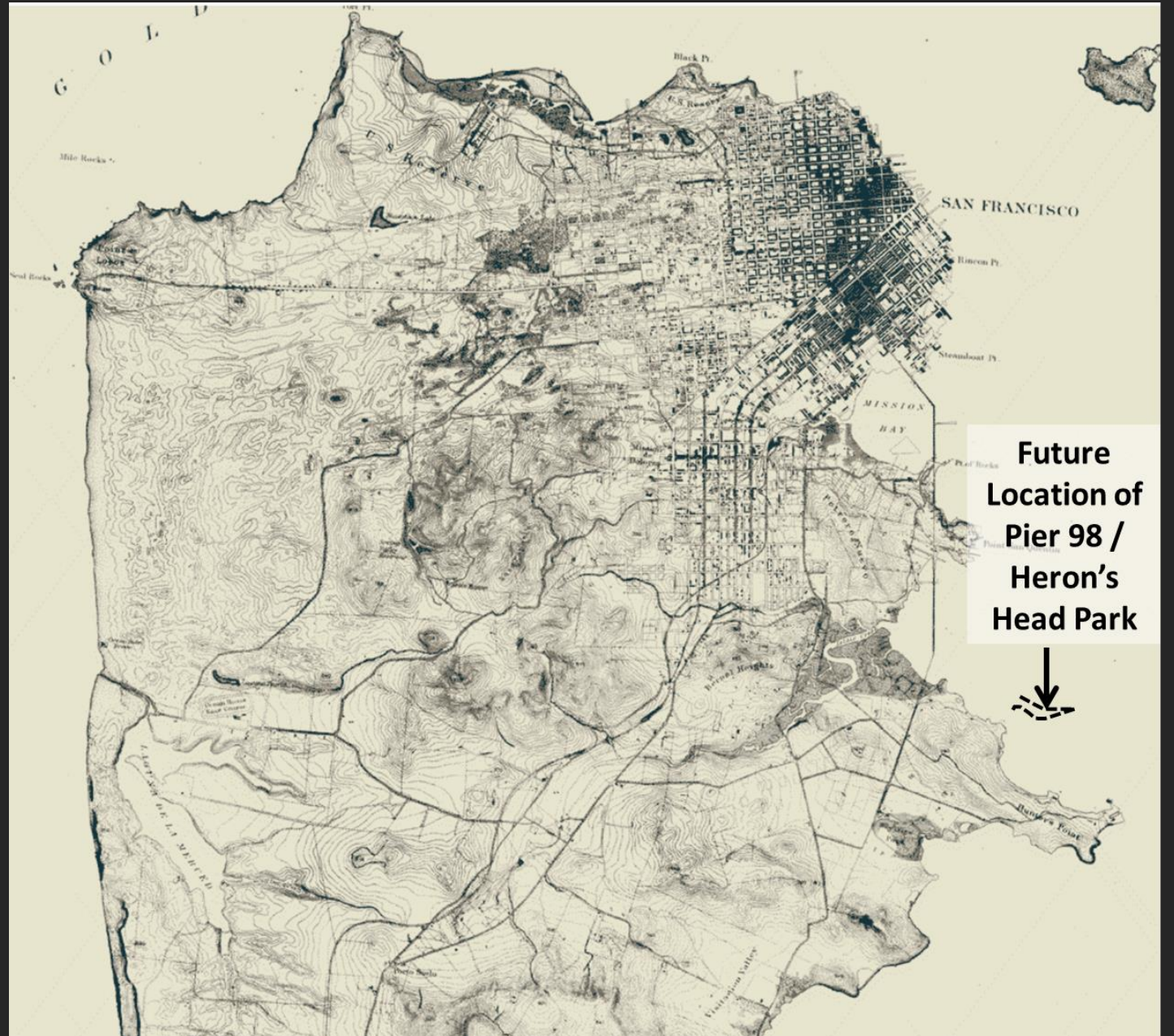


Heron's Head Park



1869

Map from Oakland
Museum of CA

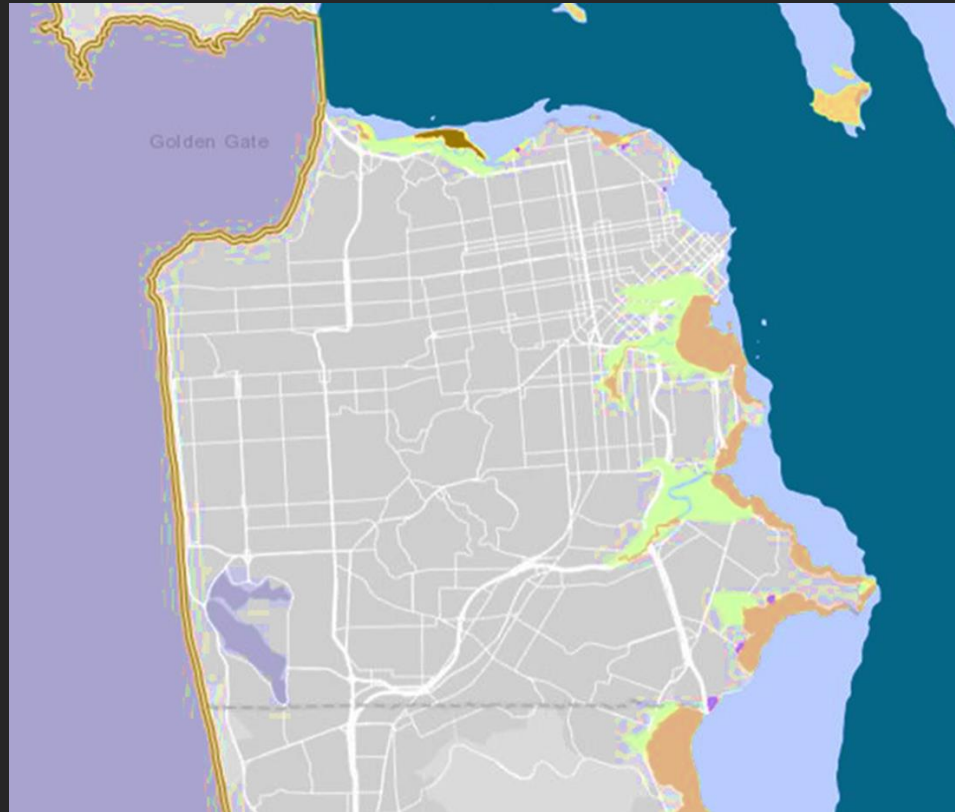


Community Context

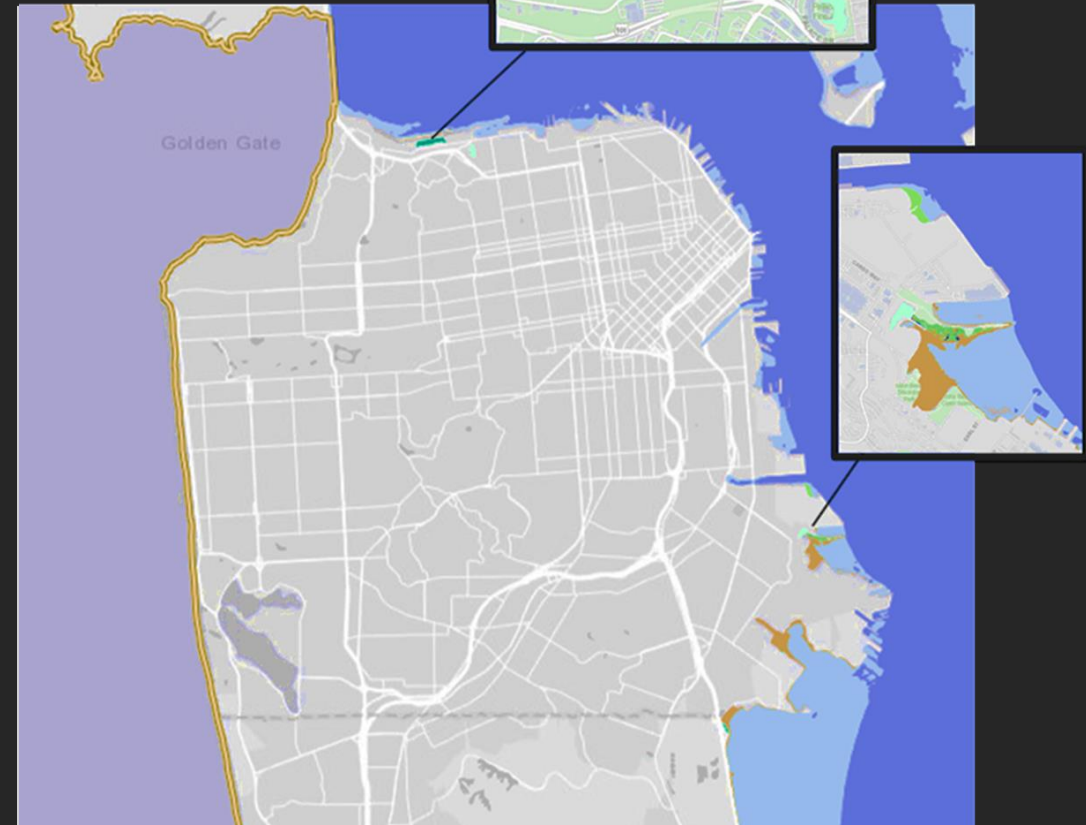
Bayview-Hunters Point is a neighborhood in southeast San Francisco. The early 1900s brought an economic boom due to its dry docks and eventually the US Navy in the late 1940s. In 1970, Bayview-Hunters Point's population was 97% African American. Now, it's only about 22%. Hunters Point also has the largest youth population, with 39% of its residents under the age of 18.



Tidal Habitat Loss along SF's Bay Shoreline



Historic (~1800s)
~1000 acres of Tidal Marsh



Present-Day
~30 acres of Tidal Marsh

Environmental Stressors

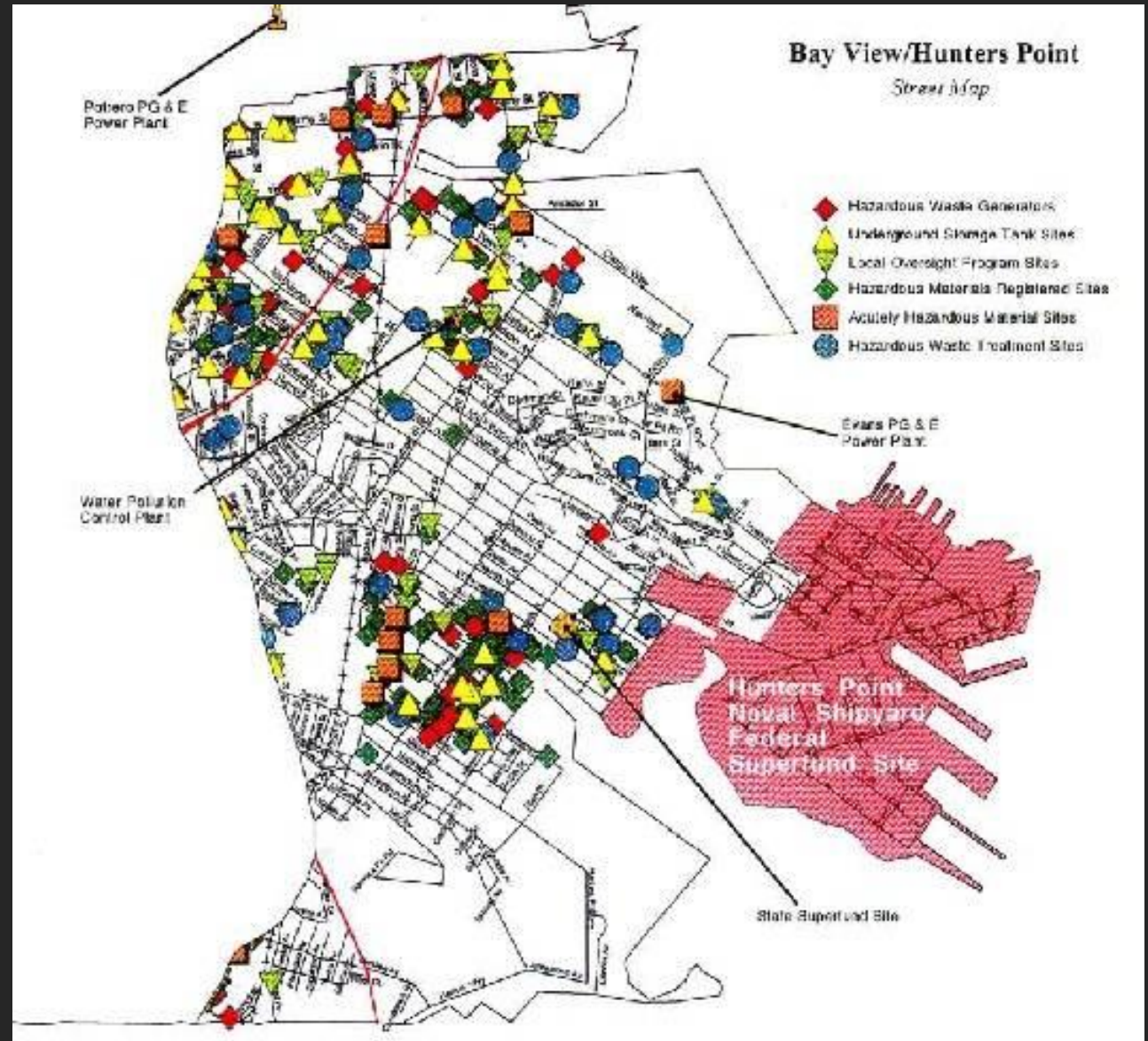
- Habitat loss due to shoreline industry and development
- Invasive plants
- Shoreline erosion
- Sea-level rise



Community Stressors

Bayview-Hunters Point has...

- 300+ toxic and hazardous sites
- The highest rate of asthma in SF, 96% percentile in CA, 99% percentile in the US
- One of the largest Superfund sites in the US (Naval Shipyard)
- A life expectancy 14 years shorter than neighborhoods like Russian Hill.



Literacy for Environmental Justice



LEJ is Rooted In Shoreline Advocacy



PG&E Power Plant and Cooling Pond



LEJ Youth Protesting PG&E Coal Power Plant

Project Elements:

- 1600 LF of Gravel Beach
- 5 rock groynes
- 60 oyster reef elements
- Native planting along beach crest and in marsh

Constructed in 2022

Now completing Year 3 of a 10-year post-construction monitoring effort

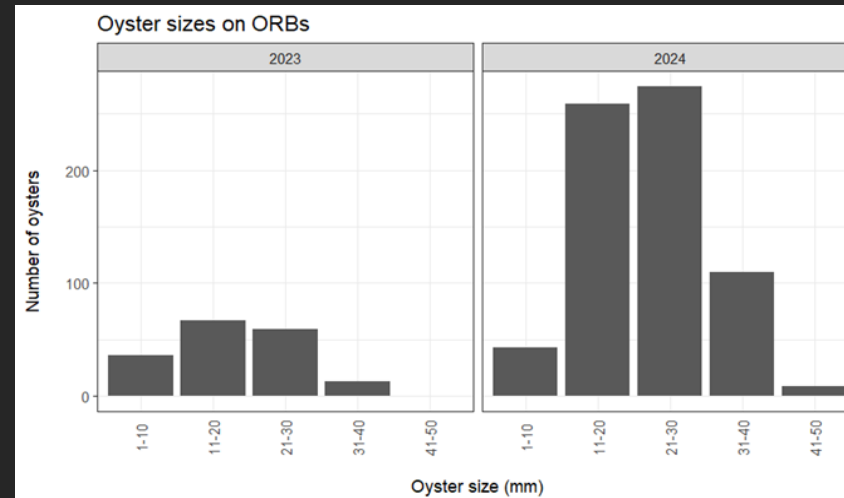
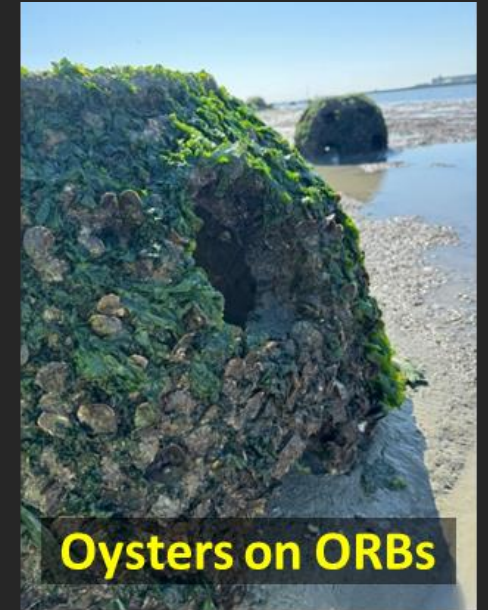
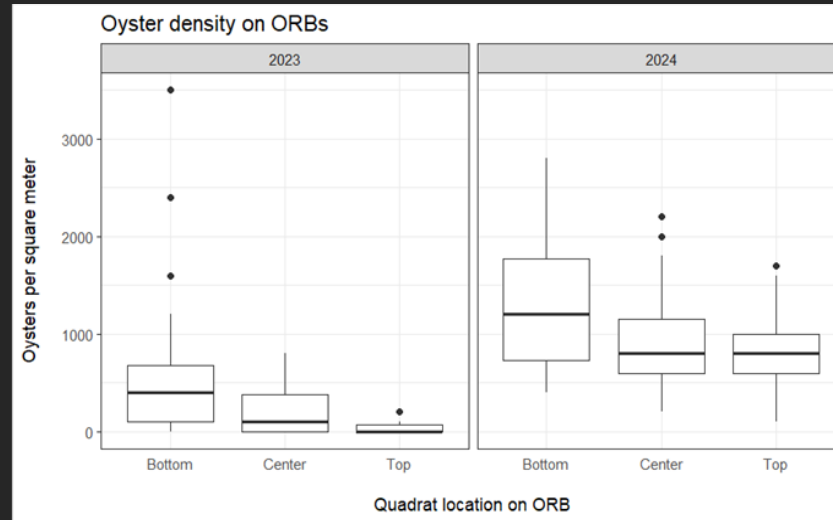


Native Oysters

60 Oyster Reef Balls (ORBs)

2024 oyster density was 3x
natural reference habitats

Substantial density and size
increase from Year 1 to
Year 2



Birdwatching Hotspot



ML641687959
Western Gull *Larus occidentalis* ★ Rate quality

[Share](#) [Embed](#) [Report](#)

francesca pastine
Media from this contributor | Profile

8 Sep 2025
[eBird checklist 5772132293](#)

| | |
|------------|---------------|
| Age | Not specified |
| Sex | Not specified |

| Technical information | |
|-----------------------|--------------------------|
| Model | NIKON Z 8 |
| Lens | NIKOR Z 400mm f/4.5 VR S |
| ISO | 2500 |
| Focal length | 400 mm |
| Flash | Flash did not fire |
| F-stop | 1/4.5 |
| Shutter speed | 1/1350 |

[eBird checklist 5772132293](#)

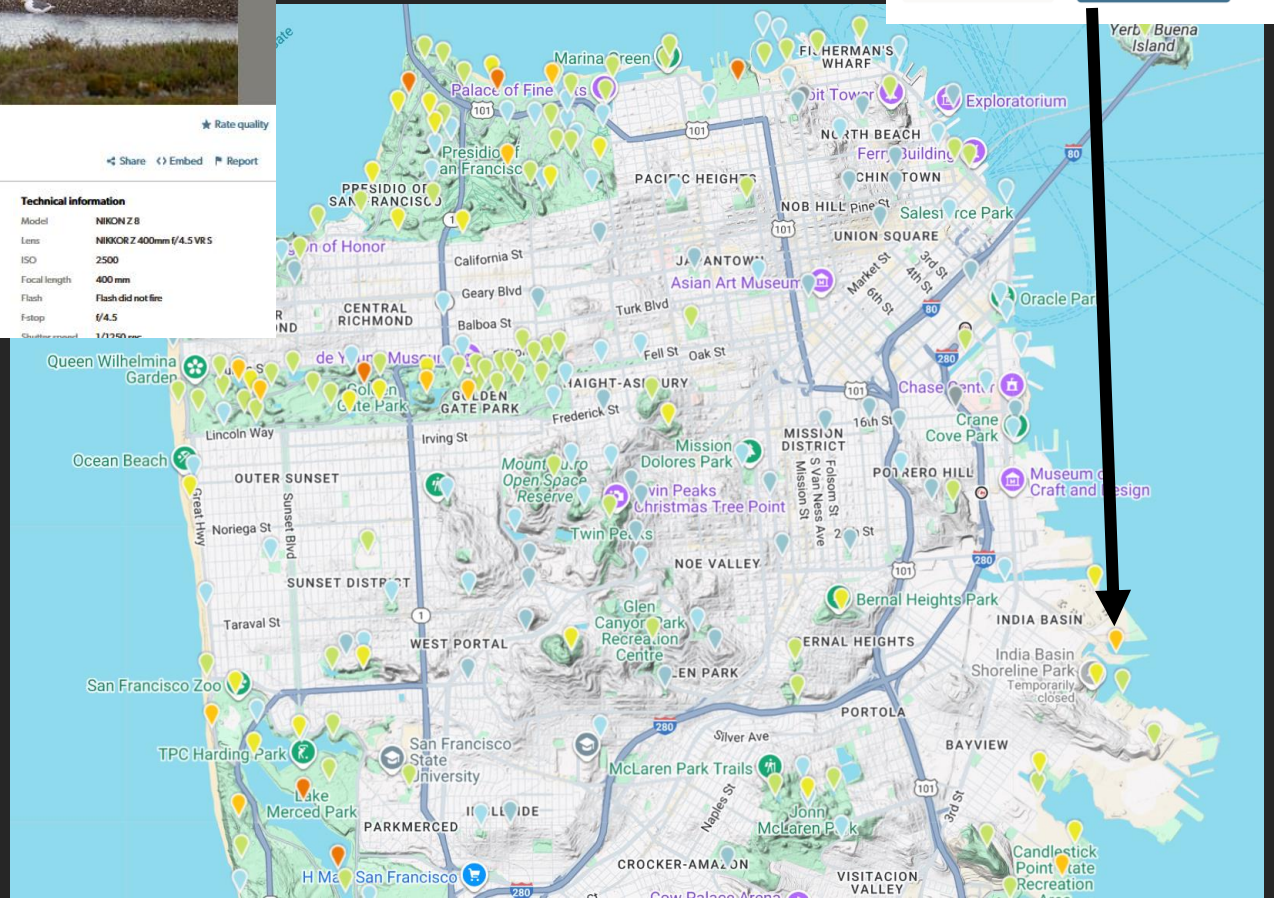


Least Tern *Sternula antillarum* ★ Rate quality

[Report](#)

Nico Stuurman
22 Jun 2025
Heron's Head Park, San Francisco, California, United States

[eBird checklist S253215819](#)
[Macaulay Library ML637942308](#)



Heron's Head Park

San Francisco, US-CA

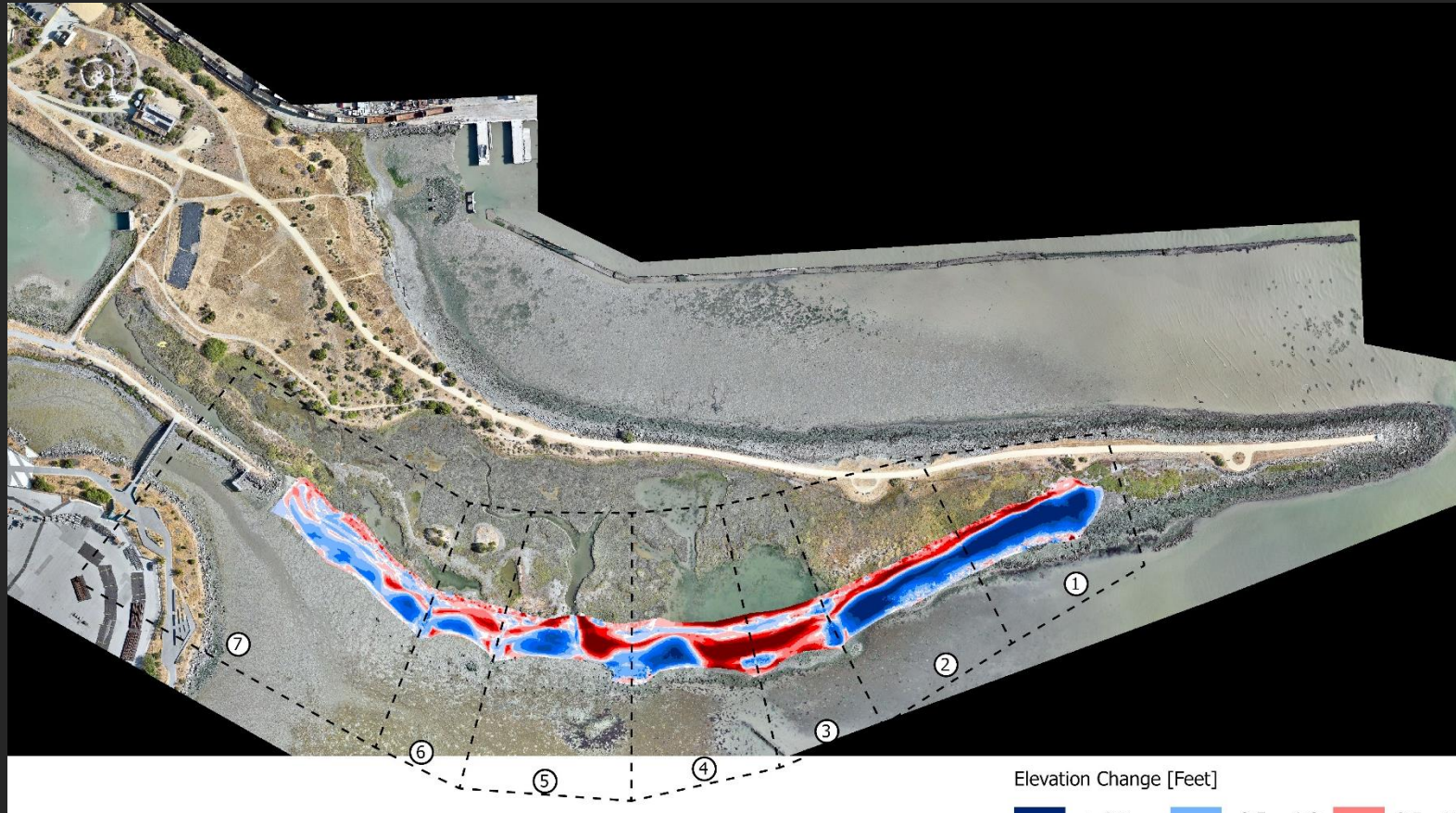
Year-round, All years

212 **7529**
Species Checklists

[Bar Charts](#) | [High counts](#) | [Directions](#)

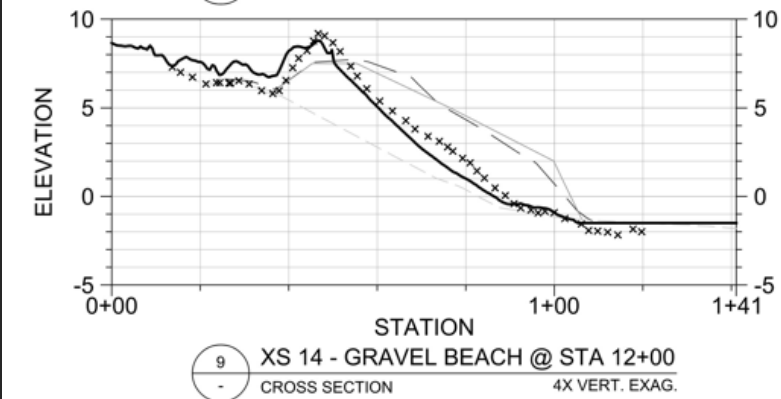
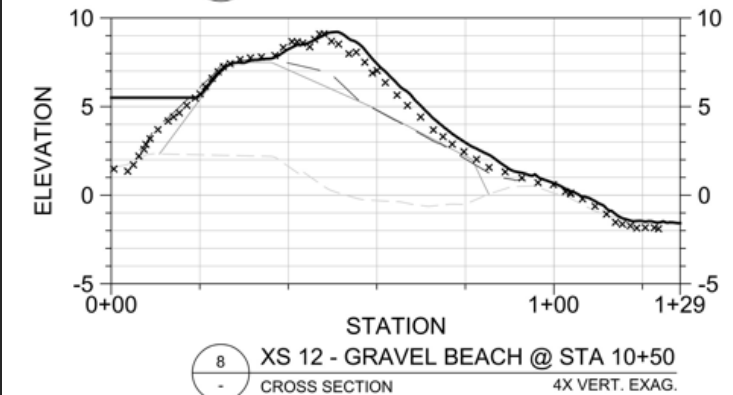
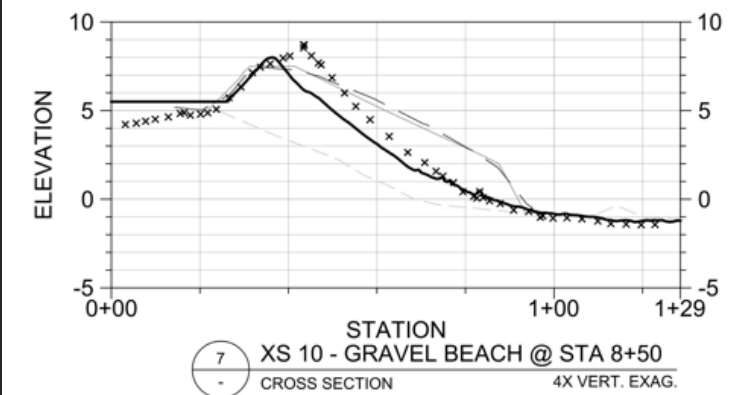
[Submit data](#) [View Details](#)

Geomorphorphic Monitoring



Drone-based topography surveys, and ground-based surveys for ORBs, rock structures and at reference cross-sections

Site covers gradient of wave exposure, large variation in sediment transport rates



--- PRE-CONSTRUCTION GRADE
— DESIGN GRADE
— AS-BUILT GRADE
x x x x x YR-2 SURVEY 05-01-2024
— YR-3 SURVEY 06-27-2025

An evolving, dynamic landscape

Gravel washed over "Feeder Beach"
Suaeda planting zone ☹️

Shorebirds and gulls using beach
crest as high-tide refugia! 😊

But Suaeda planted farther
west in "Central Beach:
survived 😊



December 5th, 2024

LEJ – Suaeda planting



December 14th, 2024

10-year Storm Surge



Marsh 13, 2025

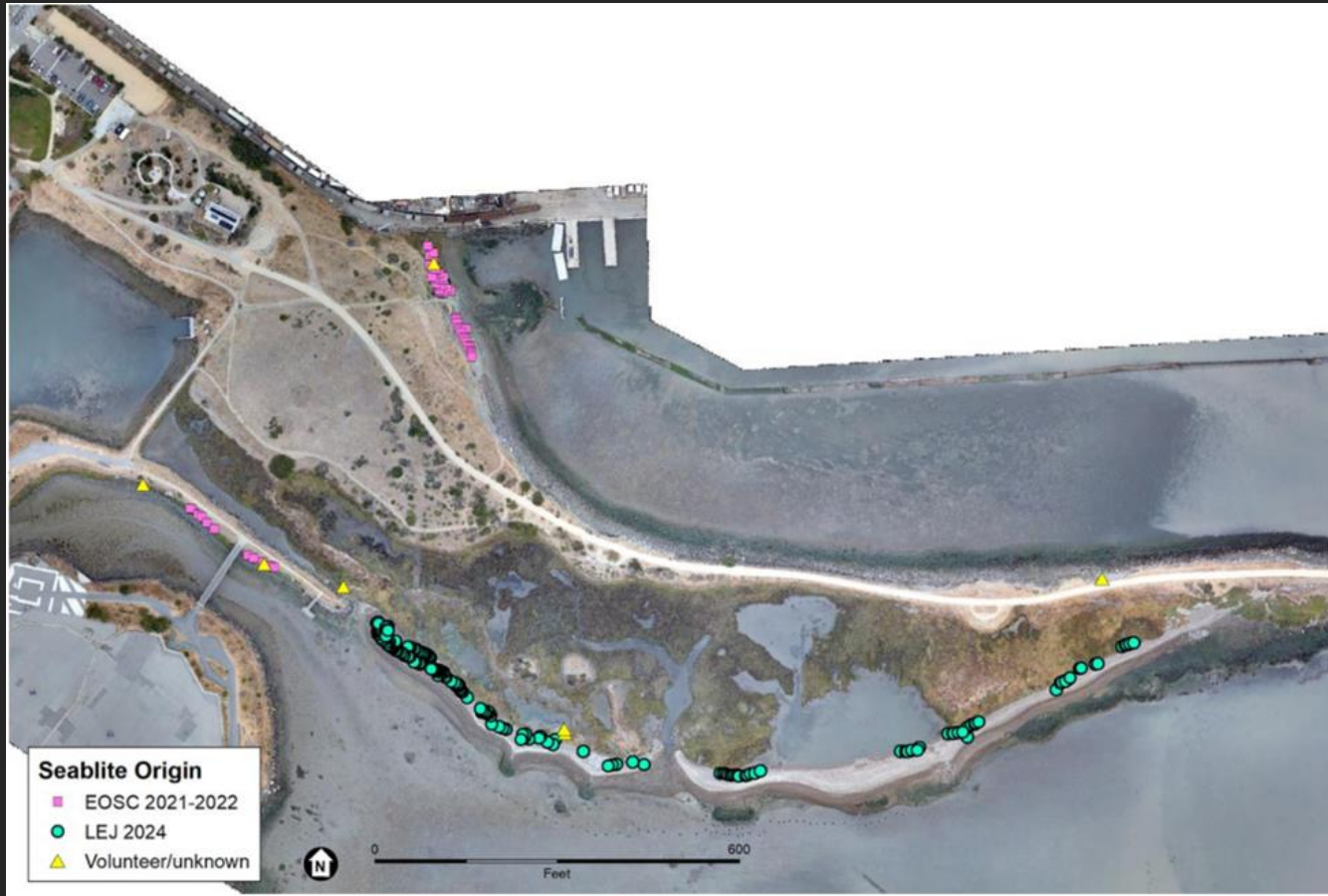
"Feeder Beach" plants displaced by
moving gravel

"Main Beach" plants thriving

10/27/2025

Suaeda Californica

Reintroduction of federally endangered/
extirpated plant, California Seablite





Year 1 (2023)

- Small pot sizes
- Less knowledge about soil stability
- Little to no hand watering
- All plots were “test plots”
- Anticipating shifts in berm



Year 3 (2025)

- Bigger pot size
- We know what areas of the berm have the best stabilizing silt underneath
- Best planting practices – hand watering schedules + fertilizers
- Avoid crest + southside in most areas



Oct. 2025 –
8 ft tide

Native Plant Berm Revegetation

- *Frankenia salina* (Alkali Heath)
- *Limonium californicum* (Marsh Rosemary)
- *Suaeda californica* (Sea Blite)
- *Jaumea carnosa*
- *Grindelia stricta* (Coast Gumplant)
- *Distichlis spicata* (Saltgrass)



December 2024



October 2025

Seablite (*Suaeda Californica*) Planting & Monitoring



Figure 16
California Seablite Assemblages

It's difficult to put numbers and data to everything...



- Exposure to the outdoors
- Community ownership over their own spaces
- Creating job opportunities for the community
- Improvement and increased access to greenspaces
- A pipeline to “green-collared” careers
- Environmental justice for all

Thank You!

Project Contacts

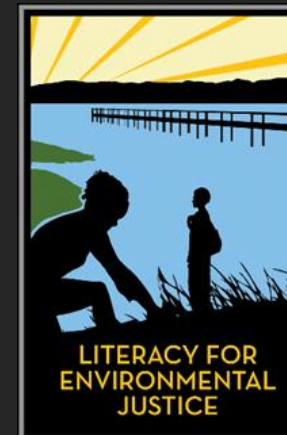
- **Port of SF:** Jessica Range (jessica.range@sfport.com)
- **LEJ:** Nina Omomo (nina.omomo@lejyouth.org)
- **ESA:** Eddie Divita (edivita@esassoc.com)

Project Websites

- <https://sfport.com/herons-head-park>
- www.lejyouth.org
- <https://esassoc.com/projects/herons-head-park-shoreline-resilience-project/>
- <http://sfbayrestore.org/projects/herons-head-park-shoreline-resilience-project-phase-1>

Design and monitoring reports available at:

- <https://www.ecoatlas.org/regions/ecoregion/bay-delta/projects/5560#info>



Panel Discussion 40 mins

- Unique challenge or something surprising
- "Immeasurable" project benefit
- Questions from the Audience
- Wrap-up: One takeaway message or action for the audience

