Upper Islais Creek Watershed Approach

Spring / Summer 2022 Community Conversations

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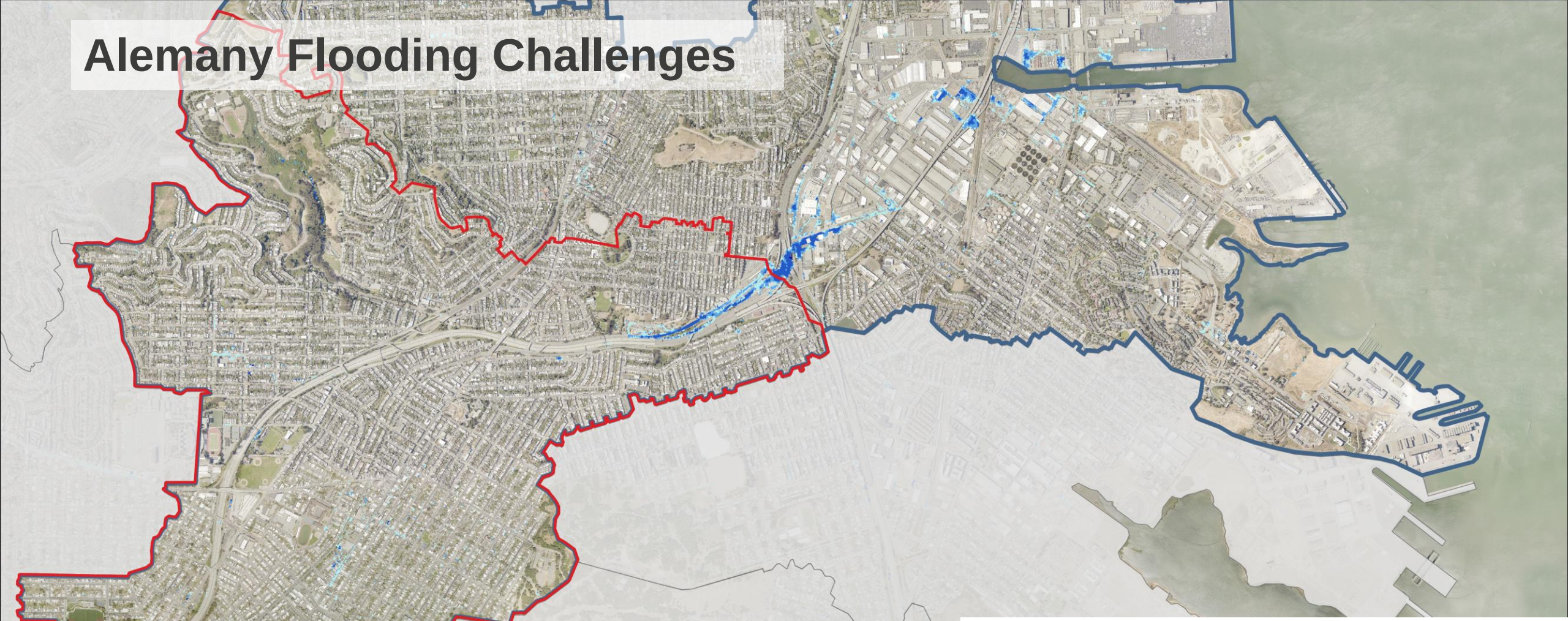
Agenda

1. Alemany Flooding Challenges
2. Watershed Approach
3. Community Engagement
4. Preliminary Findings
5. Questions & Discussion

Alemany Flooding Challenges



Flood Extent 5-yr 3-hr

Legend

- Islais Creek Watershed Boundary
- County Line
- Project Area

Flood Depth

- 2”-6”
- 6”-12”
- 12”-36”
- > 36”

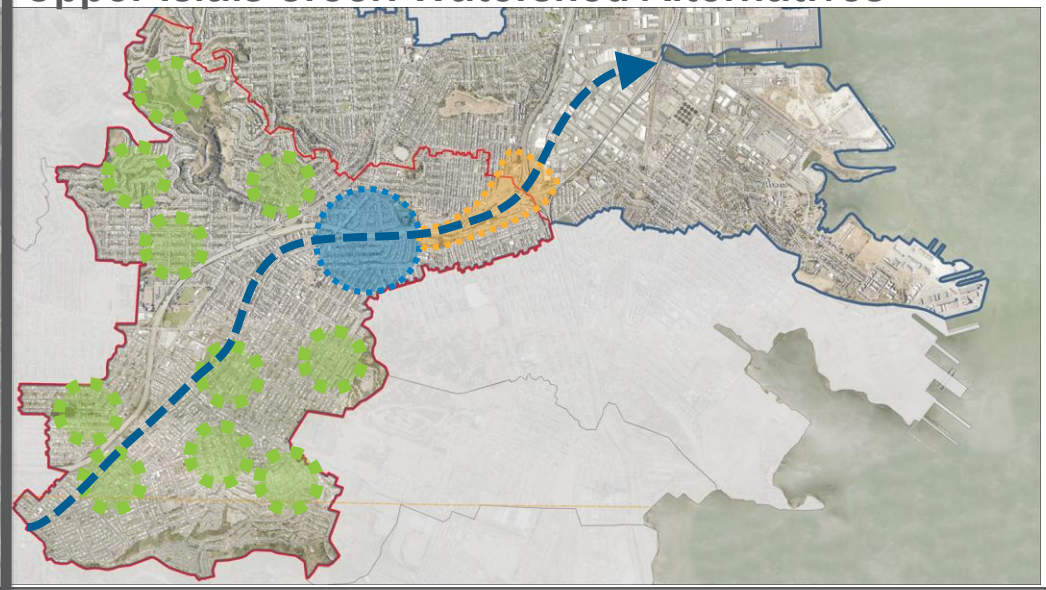
SFPUC Commission Feedback

- **Think big**
- **Be creative, all ideas on the table**
- **Play the long game**
- **Learn from the past, think about the future, change course if it makes sense**
- **Create policy framework to guide planning & design on the surface**
- **This alternative analysis should take a public policy lens and pose the question:**

  As this is a large investment, can we deliver more long-term flood resilience, and more ancillary benefits to more San Franciscans?

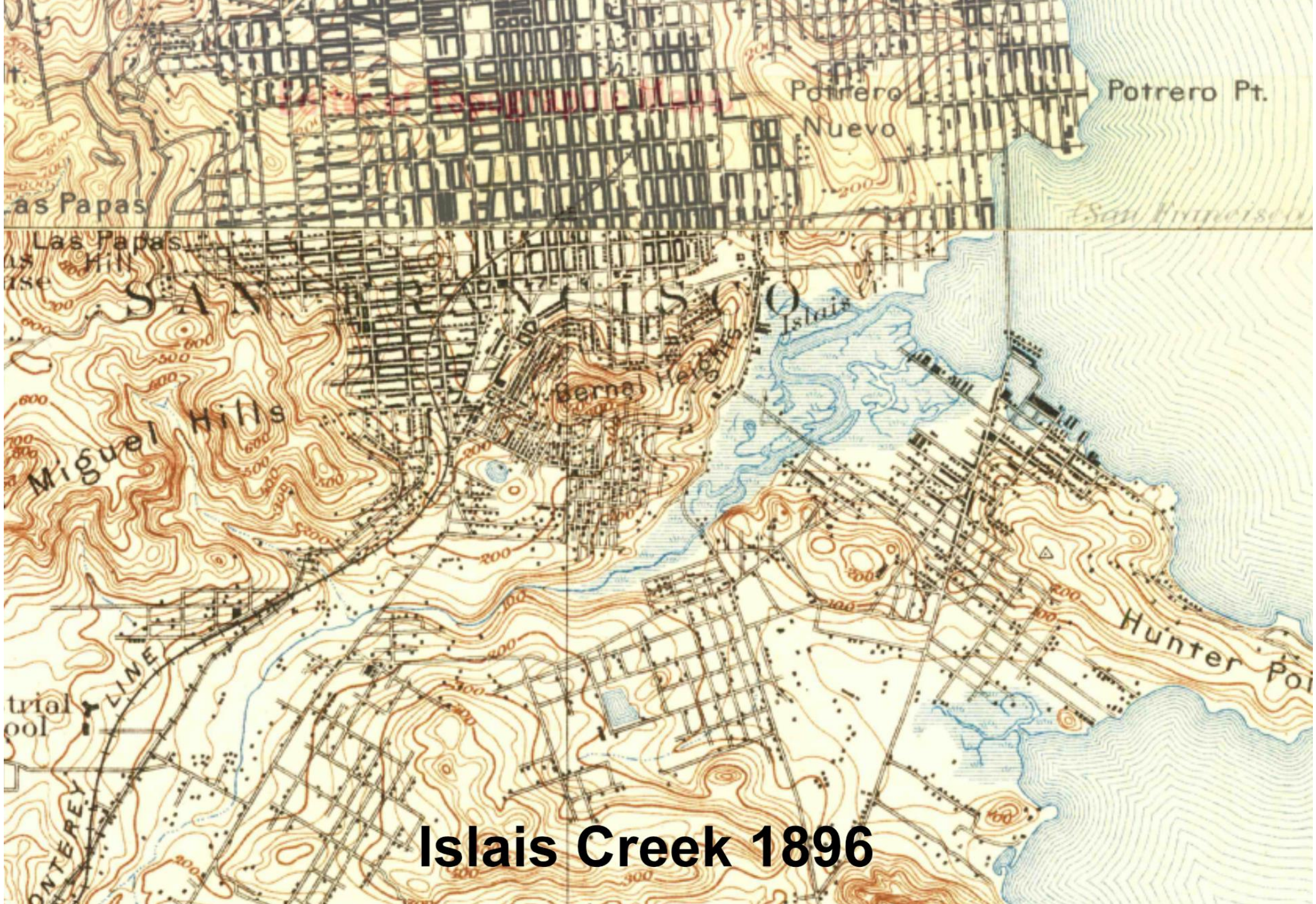
5-Year Storm Flood Extent – Land Use Analysis

SFPUC Stormwater Management Approaches

	Lower Alemany Area Stormwater Improvement Project	Upper Islais Creek Watershed Alternatives
		
Approach	Capture and convey stormwater in a pipe	Use distributed, multi-benefit green infrastructure and urban design projects to manage stormwater
Project Stage	Conceptual engineering (refinement of alignment, 10% design, easements, environmental, traffic, geotechnical)	Watershed planning, alternatives development & evaluation, feasibility, costing, community engagement, advanced capital planning

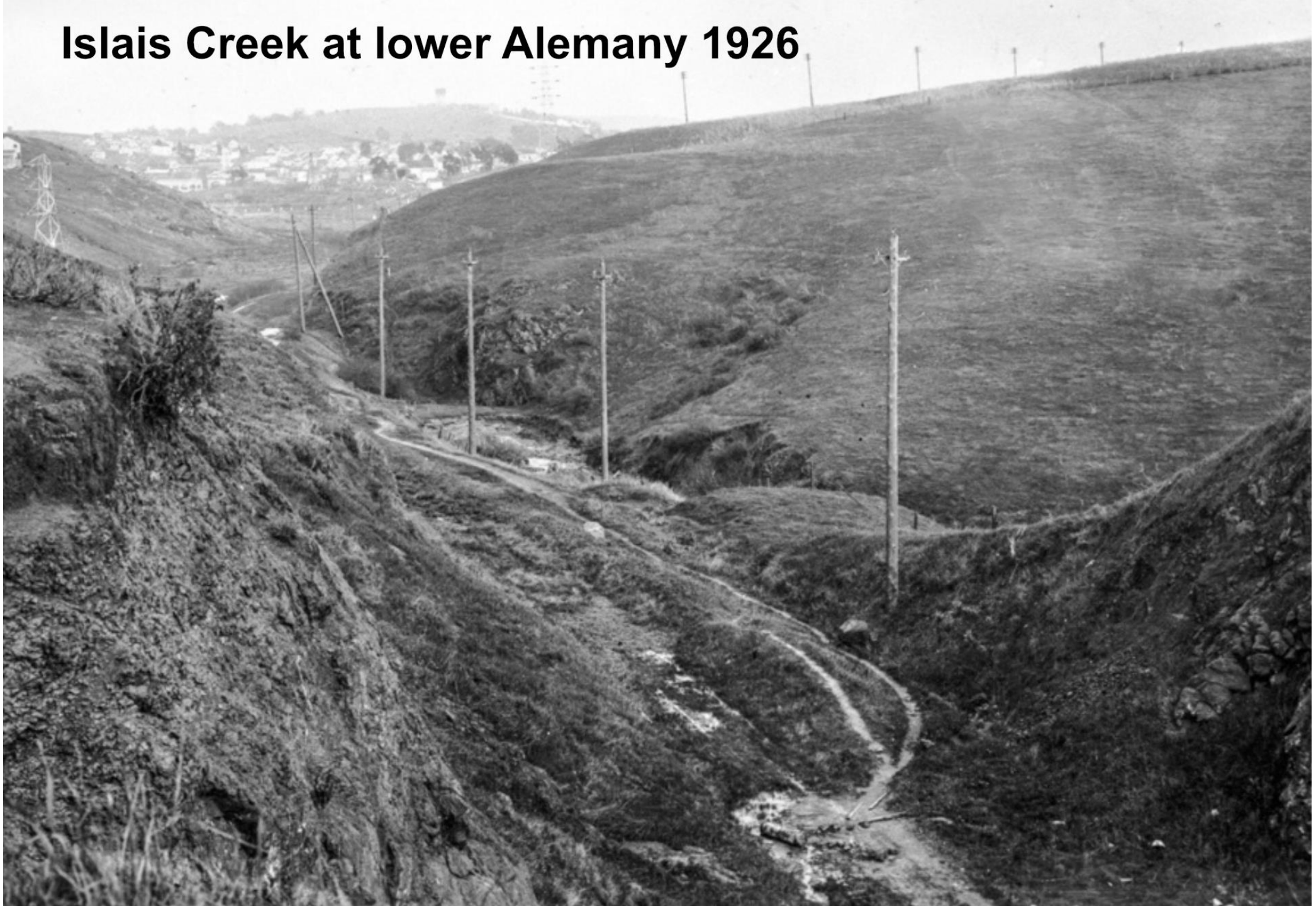
Why a Watershed Approach?

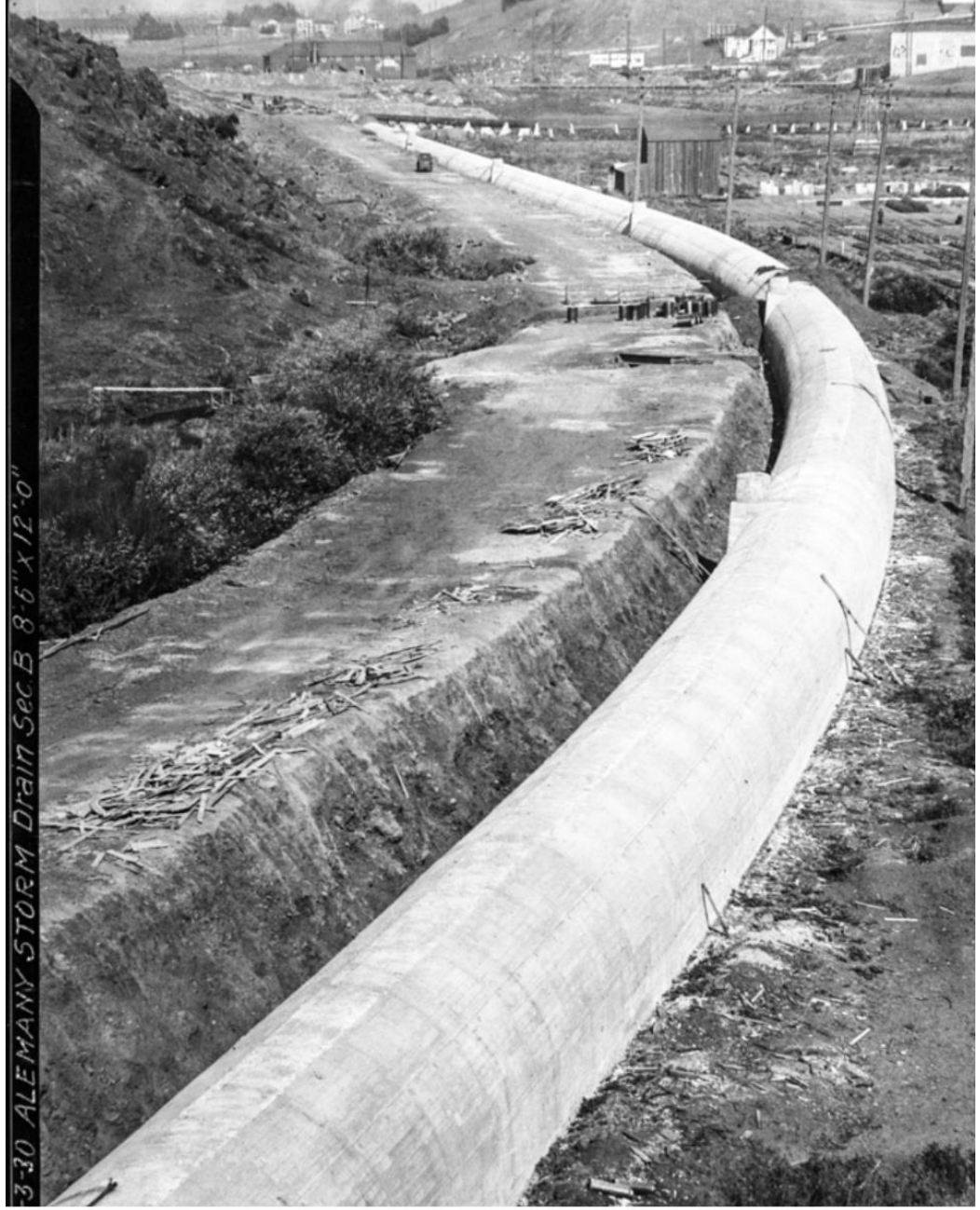
Sensitive



Islais Creek 1896

Islais Creek at lower Alemany 1926





Alemany boulevard in 1926 before (left) and during (right) construction of the sewer tunnel. source: OpenSFHistory / wnp36.03318 (left), wnp36.03956 (right), wnp36.03320 (reverse)

Transform the Storm

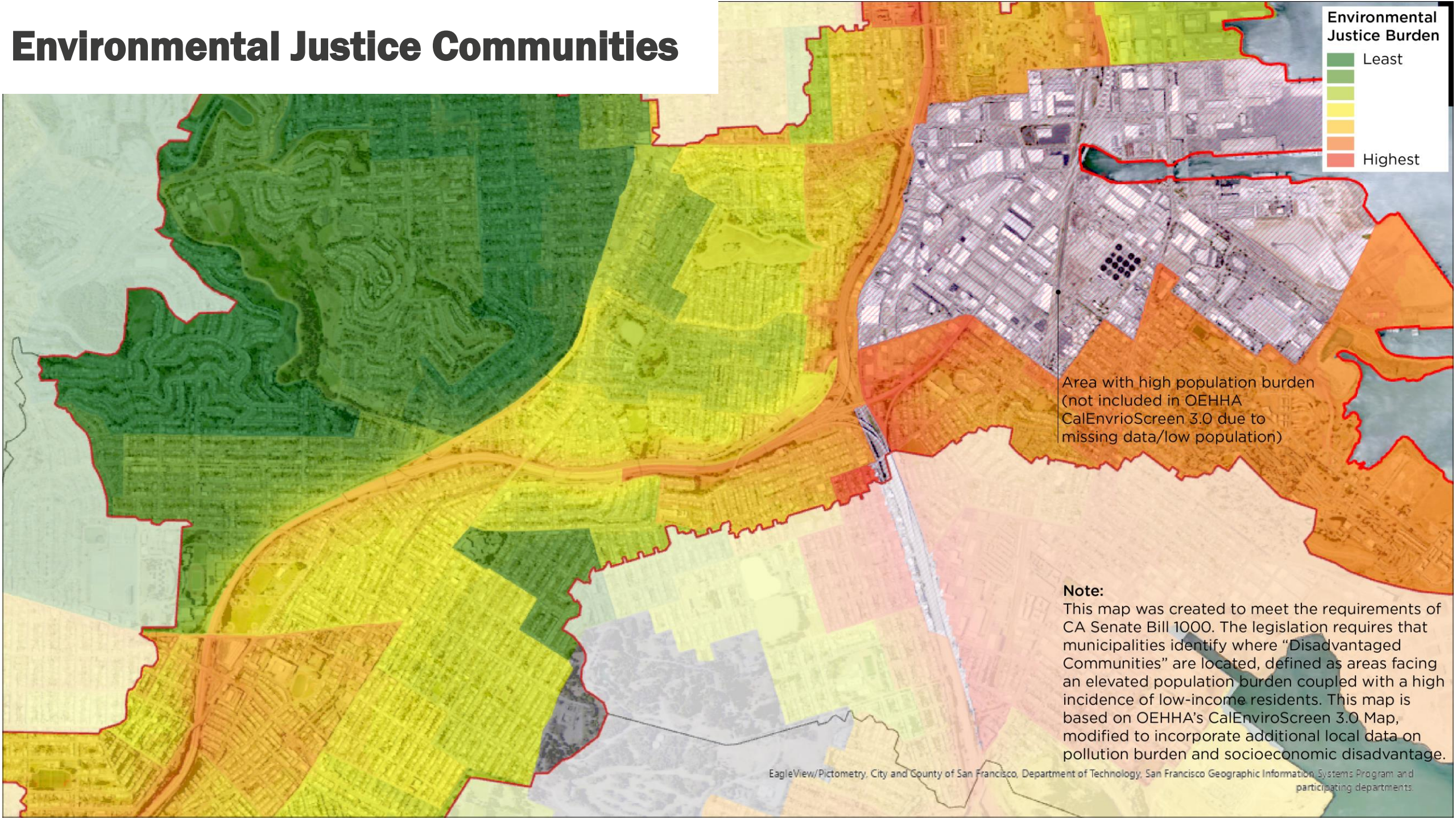
Construction activity on St Mary's Park (above), view toward Alemany Blvd from St Mary's Park (reverse)
source: OpenSFHistory / wnp14.2793 (above), wnp36.03380 (reverse)

Sensitive


Farmer's
market
Cortland Avenue
Mission Street
Alemany
farm
1956


1965
Farmer's
market
Cortland Avenue
Mission Street
Alemany
farm

Environmental Justice Communities



Note:
This map was created to meet the requirements of CA Senate Bill 1000. The legislation requires that municipalities identify where "Disadvantaged Communities" are located, defined as areas facing an elevated population burden coupled with a high incidence of low-income residents. This map is based on OEHHA's CalEnviroScreen 3.0 Map, modified to incorporate additional local data on pollution burden and socioeconomic disadvantage.

Why a Watershed Approach?

- Transforming the surface of our city to be more flood resilient can deliver multiple benefits to more San Franciscans.
- Green infrastructure and flood resilient streets and buildings are better suited to adapting to a changing climate.
- A watershed planning process can engage neighborhood residents in finding solutions that solve problems that matter to them.

Community Engagement

Community Survey (initial phase Nov 21-Mar 22)

- Invited **Lower Alemany residents, property owners, and businesses** to participate in the community survey.
- Conducted **door-to-door targeted survey and interviews**.
- Interviews and informational sessions with local **community partners.**

Reporting back on Community Survey

- **Newsletter #1** March 03, 2022
- **Community appreciation** March 18, 2022

Community Conversations & Survey

- Spring-Summer 2022, extending engagement to key CBOs in the watershed.
- Continued community survey.
- **Newsletter #2** Summer 2022

Appreciation event

Community Survey Highlights (prelim.)

Transform the Storm

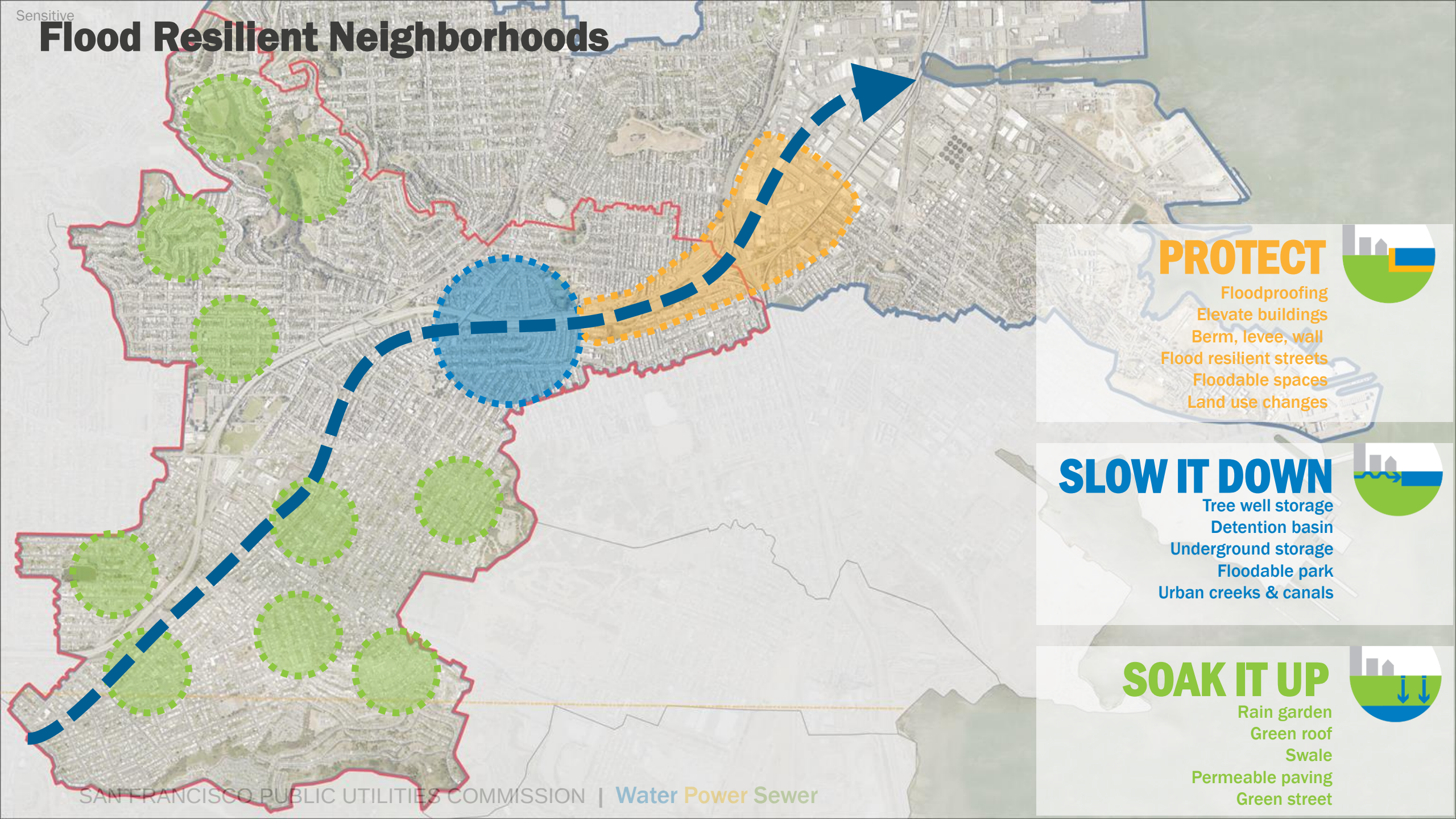
Top 5 quality-of-life priorities

1. Storm flooding
2. Air quality
3. Pedestrian and bike safety and access to fresh food, shops and services
4. Noise
5. Other (top 3): Traffic safety and street use; street drainage, cleanliness and maintenance, safety and crime

Top 6 actions to improve Lower Alemany neighborhoods:

1. Street cleanliness, repairs and maintenance
2. Traffic safety/ pedestrian, bicyclist and children safety
3. Safety and crime prevention
4. Fix storm flooding issues
5. Improve access to public transit
6. Invest in community development and social programs

Flood Resilient Neighborhoods



PROTECT

- Floodproofing
- Elevate buildings
- Berm, levee, wall
- Flood resilient streets
- Floodable spaces
- Land use changes

SLOW IT DOWN

- Tree well storage
- Detention basin
- Underground storage
- Floodable park
- Urban creeks & canals

SOAK IT UP

- Rain garden
- Green roof
- Swale
- Permeable paving
- Green street

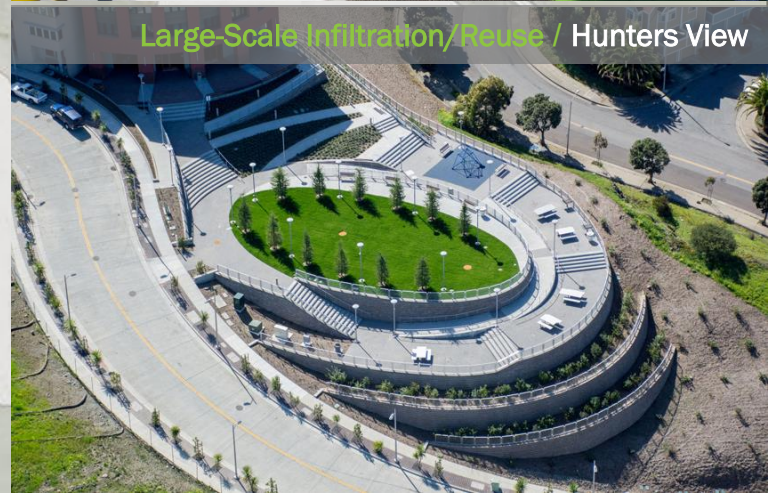
SOAK IT UP Preliminary Findings

SOAK IT UP

- Manage 200 acres using green infrastructure
- Retrofit 14 schools, 9 parks, large parcels, ~100 blocks of green streets
- **20% reduction in flood volume**

Parcel Retrofits / Lafayette Elementary

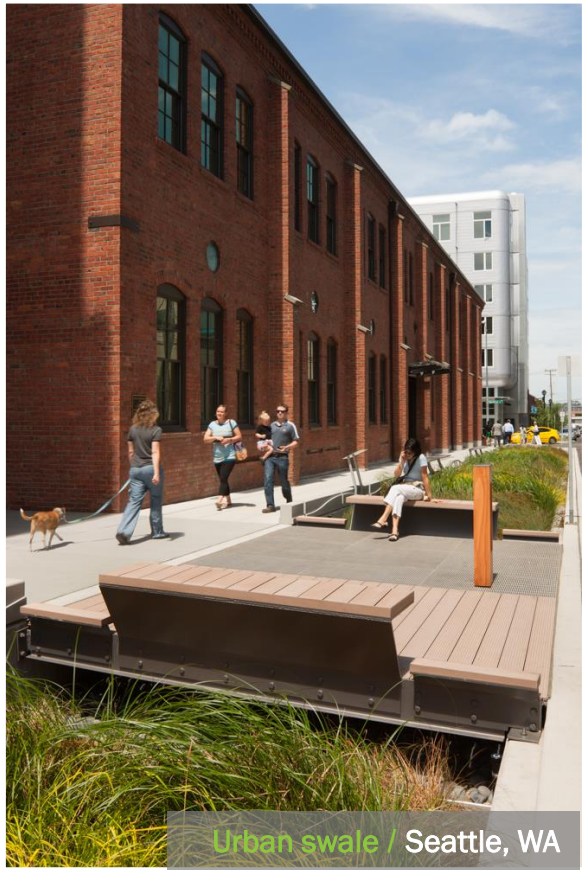
Green Streets / Mission-Valencia Green Gateway



Large-Scale Infiltration/Reuse / Hunters View

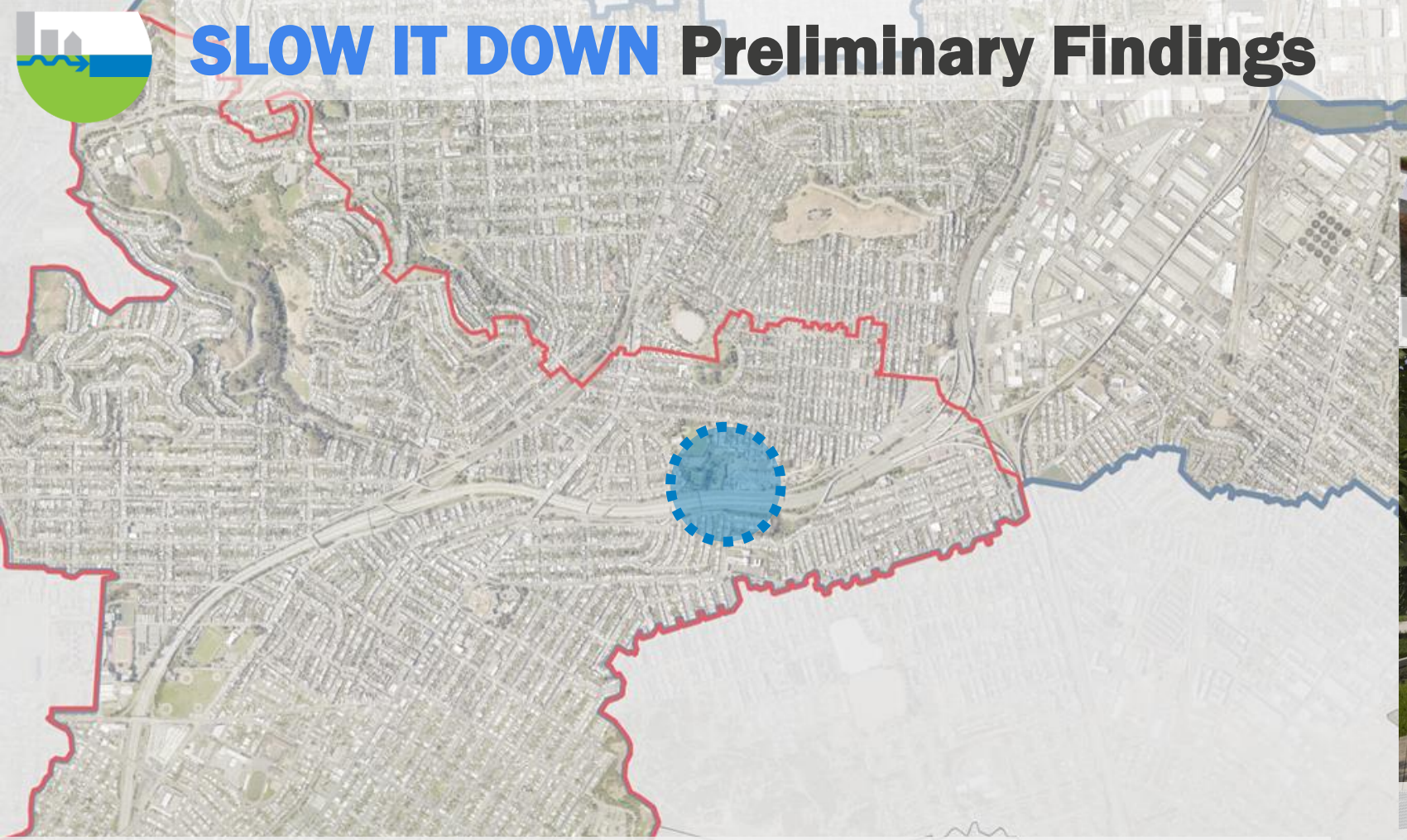
SOAK IT UP Preliminary Findings

Bulb-out crossings / California Street, San Francisco


Urban swale / Seattle, WA


Green Streets / Grey to Green, Sheffield, UK

SLOW IT DOWN Preliminary Findings



Subsurface Storage / example rendering

Multi-Purpose Surface Detention / Manassas Park, VA

Surface Conveyance / Roombeek, Netherlands

SLOW IT DOWN

- Optimal location just upstream of flooding
- Five suitable sites with good performance identified
- Example scenario of 4M gallons of storage **reduces floodwater by 60%**

PROTECT Preliminary Findings

Signage on floodwall
Marlborough Primary School, UK

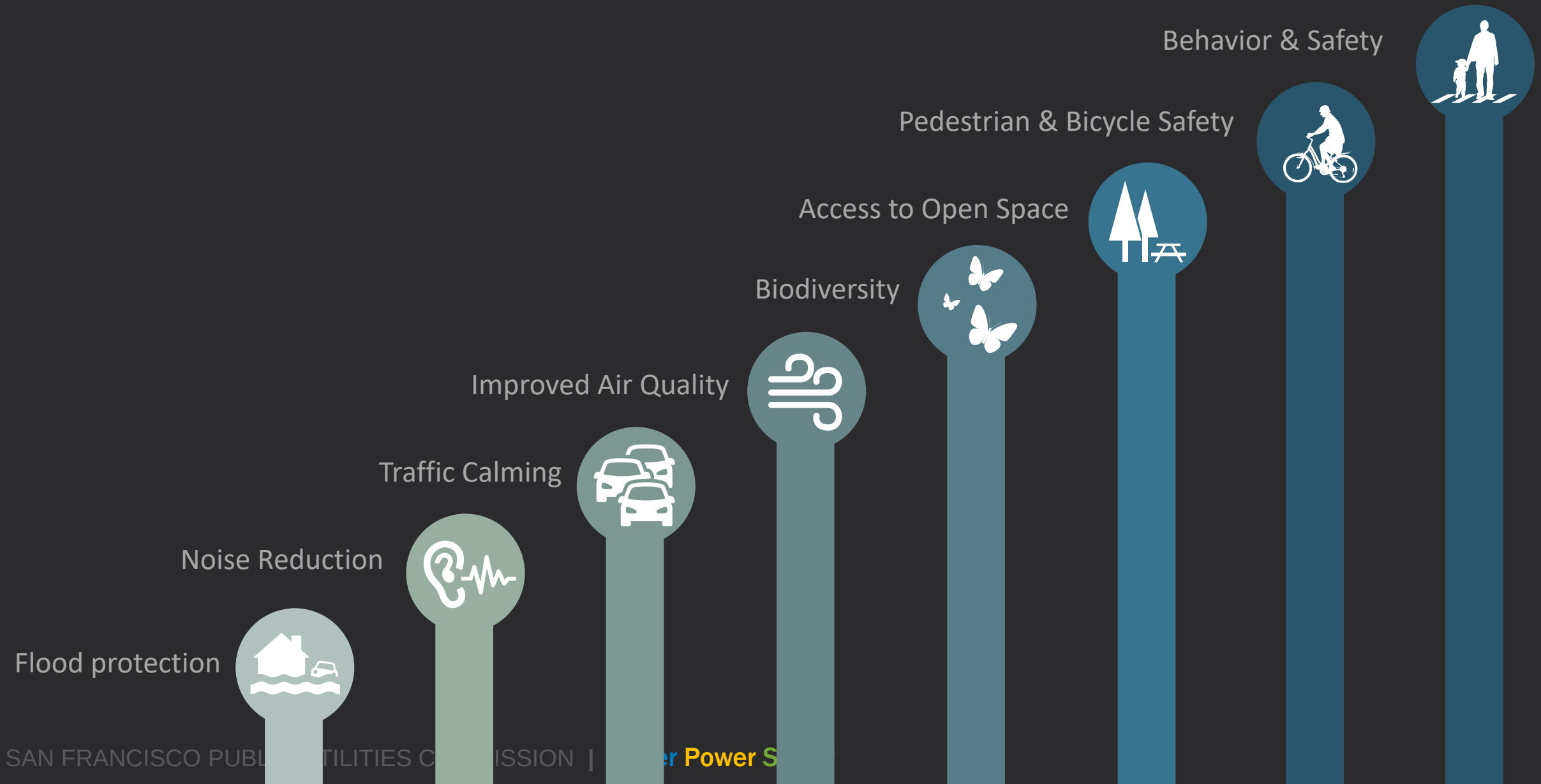
Floodwall with seating
Longsdale Street Danenong, Australia

Pocket patio, possible floodwall
823 Congress, Austin

PROTECT

- Street re-design keeps **remaining 20%** of flows away from properties, sidewalks, & neighborhood streets while integrating measures that address community traffic speed, noise, & safety concerns.
- Building floodproofing provides additional protection.

QUALITY OF LIFE MULTIPLE BENEFITS



Discussion/ Q&A

- *What are your initial thoughts on the Upper Islais Creek Watershed Approach?*
- *Are there any synergies with community-based efforts that we should consider?*
- *Are there additional benefits that this approach could bring?*
- *How would you like to remain engaged/ involved?*
- *Your guidance is welcome!*

Next Steps

June – July 2022

- Community Conversations
- **Take/ share the community survey!**
  We want to hear from **residents**, **property owners** and **businesses** in the watershed.
  https://forms.office.com/r/0yeHvrSdn7

August 2022

- Refined multi-benefit alternatives
- Feasibility & costing
- Preliminary alignment with City partners
- Additional community outreach and engagement
  - Newsletter #2

October 2022

- SFPUC evaluation of watershed approach


Thank You!