

An aerial photograph of a coastal town, likely Petaluma, California, showing a large bay, residential areas, and hills in the background. The image is used as a background for the conference title slide.

RESILIENT

BAY AREA CHALLENGE

BY

DESIGN

Resilient by Design
North Bay Watershed Association
Conference
Petaluma, CA

Allison Brooks
Executive Director
Bay Area Regional Collaborative
April, 5 2018

Bay Area Challenge



Resilient by Design – Who We Are

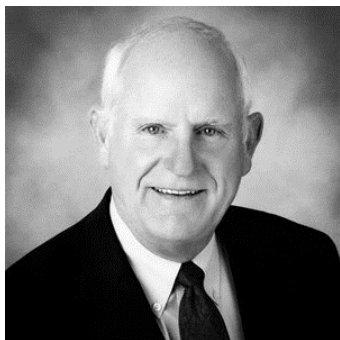
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BAY AREA CHALLENGE BY
DESIGN



Executive Board



ALLISON BROOKS
BAY AREA REGIONAL
COLLABORATIVE



TOM BUTT,
MAYOR OF
RICHMOND



AMY CHESTER,
REBUILD BY
DESIGN



ADRIAN COVERT,
BAY AREA
COUNCIL



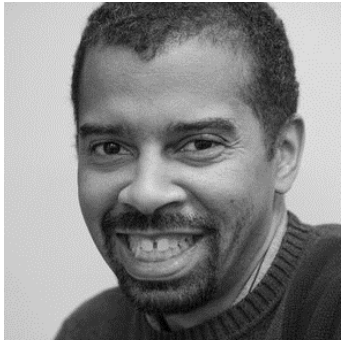
AMY HUTZEL,
COASTAL
CONSERVANCY



KIRAN JAIN,
NEIGHBORLY



**ASHWINI
KANTAK, CITY OF
SAN JOSE**



DWAYNE MARSH,
GOVERNMENT
ALLIANCE ON
RACE AND EQUITY



**JOHN RAHAIM, CITY
OF SAN FRANCISCO**



LAURA TAM,
SPUR



FRANCESCA VIETOR,
SFPUC

Jury



**DR. LAUREN
ALEXANDER
AUGUSTINE**



**SARAH MINEKO
ICHIOKA**



**ROBERTO
MORIS**



**LIZ
OBGU**



HENK OVINK



**SHELLEY
POTICHA**



**DENISE
REED**



**JERRY
SCHUBEL**



CYNTHIA SMITH



HELLE SØHOLT



DAVID WAGGONER

Research Advisory Committee



RATNA AMIN



KIT BATTEN



JOSH BRADT



DANA BRECHWALD



ELLIE COHEN



TIAN FENG



JOHN GIBBS



LETITIA GRENIER



NAHAL GHOGHAIE



JESUS HERNANDEZ



JEFFREY KOSEFF



DAVID LEWIS



ROGER LIN



LINDY LOWE



BRUCE RIORDAN



RUPAL SANGHVI



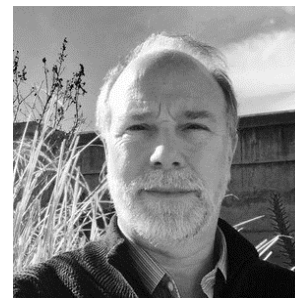
PARIN SHAH



CATHY SIMON



MARK STACEY



RICK THOMASSER



ELIZABETH
WAMPLER



CORINNE WINTER

Research Advisory Committee

■ Academic

- Stanford Woods Center for the Environment
- UC Berkeley Department of Engineering

■ Government

- ABAG Resilience Team
- Bay Area Flood Protection Association
- BART
- BCDC

■ Private Sector

- PG&E
- Winter Consulting

■ Regional Planning

- SPUR Transportation Policy
- Great Communities Collaborative
- Climate Readiness Institute

■ Environmental advocacy and expertise

- Save the Bay
- SF Estuary Partnership
- San Francisco Estuary Institute
- Point Blue Conservation

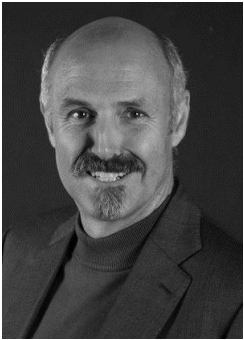
■ Environmental Justice and Health

- Resilient Communities Initiative
- APEN
- Center for Race, Poverty and the Environment
- JCH Advisors
- HealthxDesign

■ Design

- WRT
- AIA Fellow

Finance Advisory Team



**MARK NORTHCROSS,
NHA ADVISORS**



**BOB SPENCER,
URBAN
ECONOMICS**



**SHALINI VAJJHALA,
RE:FOCUS
PARTNERS**



**BRIAN BENN,
ENVIRONMENTAL
RISK AND FINANCE
SOLUTIONS**



**MICHAEL PAPARIAN,
STATE FINANCE
EXPERT**



**KATHY SCHAEFER,
UC DAVIS**

Youth Engagement

Universities

- 12 graduate level classes participated in Resilient by Design in the Fall from:
 - California College of the Arts
 - UC Berkeley
 - UC Davis
 - Stanford

Schools

- K-12 students participating throughout the challenge through our partnership with Y-Plan



Funding Partners



Marin
Community
Foundation



Resilient by Design – Process

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BAY AREA CHALLENGE BY
DESIGN





An Open Call

San Francisco Chronicle

Design teams compete for best solution to sea-level conundrum

An ambitious design competition that seeks to make the Bay Area a model for how to prepare for sea-level rise kicks off this week.

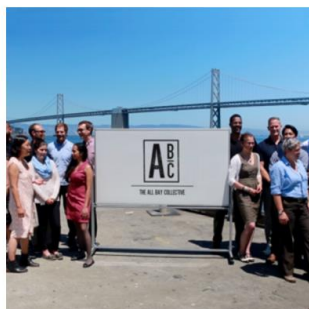


Design Team Applications



- 51 teams applied
- 10 teams selected
- 215 team members
- 92 firms represented
- 6 countries represented

Design Teams



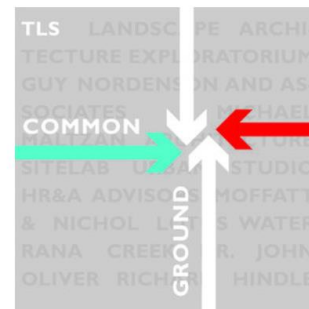
THE ALL BAY COLLECTIVE
AECOM



BIG + ONE + SHERWOOD
BIG



BIONICTEAM
Bionic



COMMON GROUND
TLS



THE FIELD OPERATIONS TEAM
Field Operations



HASSELL+ HASSELL



THE HOME TEAM
Mithun

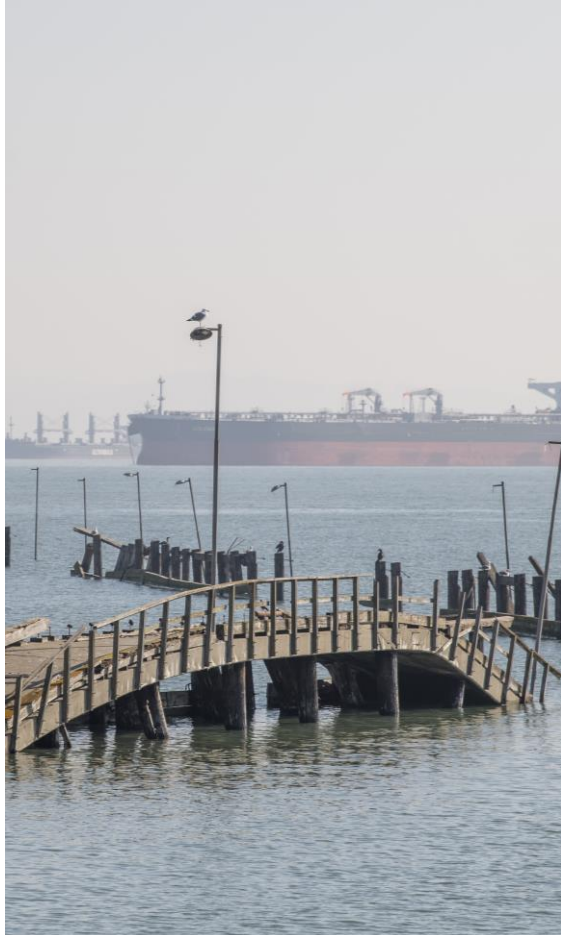


PERMACULTURE + SOCIAL EQUITY TEAM (P+SET)
Base Landscape



PUBLIC SEDIMENT
SCAPE

Open Call for Site Ideas



- What would make this site a good fit for the design challenge?
- What are the potential vulnerabilities that threaten the site?
- Do you know who owns or controls this land?
- What's threatened at this site (i.e. homes, highways, public transportation, wildlife habitat, recreational areas)?
- What local partners would need to be involved for it to be successful; what has their involvement been to date?
- What local plans exist or are underway in this area?

Site Idea Engagement



Creating a region-wide constituency

- Over 10,000 stakeholders reached via in-person meetings and partner outreach
- 803,000 impressions via social media
- 102 site ideas submitted

Collaborative Research Phase

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URBAN AREA CHALLENGE

BY

DESIGN



Stakeholder Engagement on Tours



- 9 counties
- 26 cities
- 126 city officials
- 49 community organizations
- Over 2,000 members of the public at community events

Digital Engagement

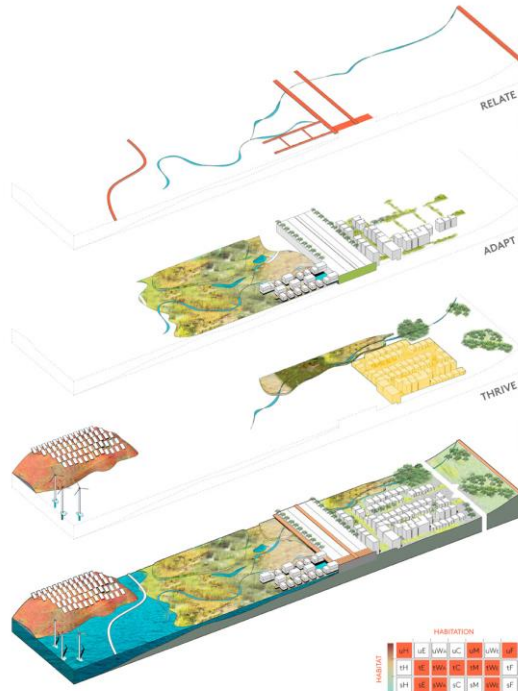


- 1,106 Instagram followers
- 7,873 likes
- 48,500 website visitors
- 332,095 Twitter impressions

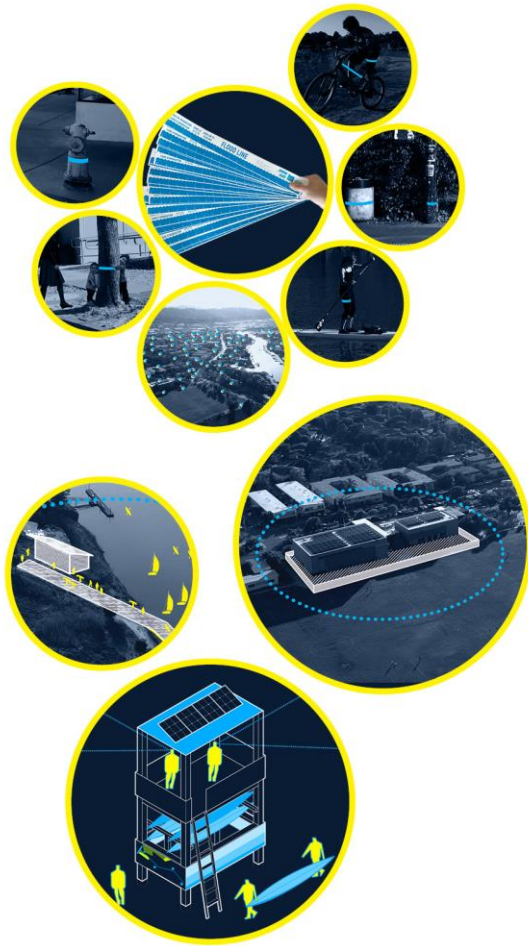
Building Knowledge



- Briefing Book
- Research findings by teams
- Finance Guide



Listening to the Region



DESIGN OPPORTUNITIES FEEDBACK

- 1,976 watched presentations online
- 450 people attended open house
- 5 locations hosted design boards
- 5,666 people viewed designs through a tool designed Neighborland
- 520 comments received from the public

Matching Design Teams to Design Opportunities

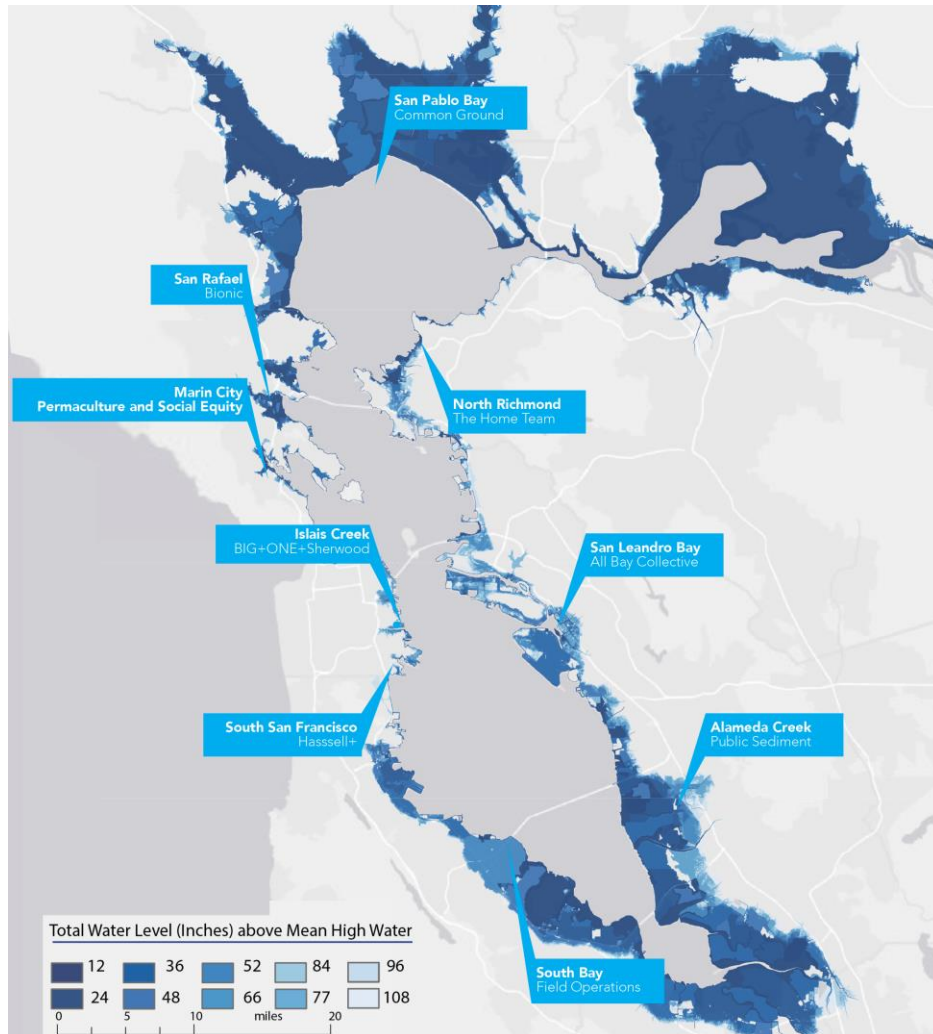
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Design Opportunity Sites

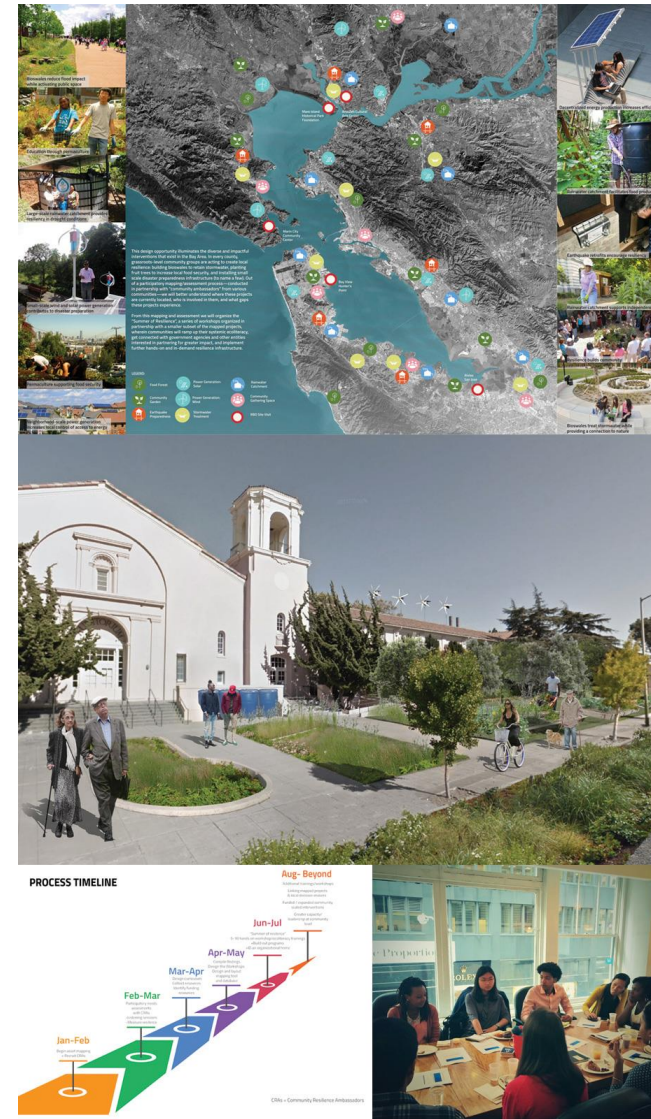


- **All Bay Collective** | Oakland and Alameda, San Leandro Bay
- **BIG+ONE+Sherwood** | San Francisco, Islais Creek
- **Bionic Team** | San Rafael
- **The Home Team** | North Richmond
- **HASSELL+** | San Mateo County, South San Francisco
- **The Field Operations Team** | East Palo Alto to Sunnyvale
- **Public Sediment** | Alameda Creek
- **Common Ground** | San Pablo Bay
- **P+SET** | Regional Resilience

P + SET

Regional Resilience

- Community resilience curriculum building off of permaculture principles and ethics and coastal adaptation strategies
- Key outcomes include training of Community Resilience Ambassadors
- Pilot in Marin City



MARIN CITY



PARTNERS

P+SET
RESILIENT
PLANNING & DESIGN

UAB
LAB

**SHORE UP
MARIN**

UPISF

WHAT'S NEXT - DELIVERABLES

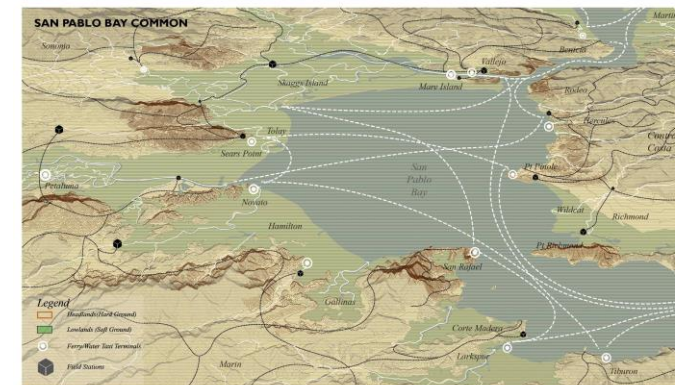
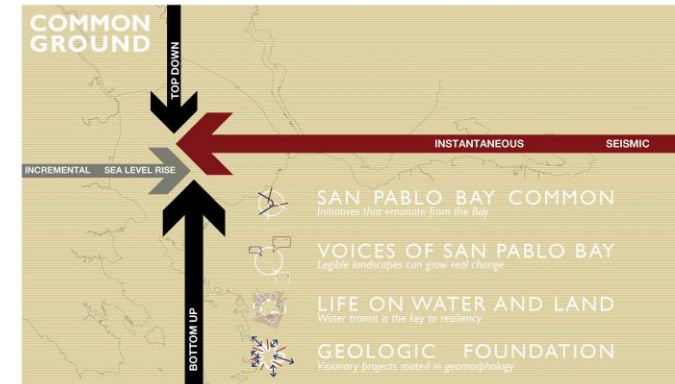
- 1. CPP Process Document**
CPP overview and plan to implement in other communities
- 2. Community Capacity Building Training**
- 3. Preliminary People's Plan for Marin City**
Living Document base map with particular strategies sited 1-2 detailed small solution projects that the community can take action on as early as this summer
- 4. Video Documentation**
Our process and community interaction



Common Ground

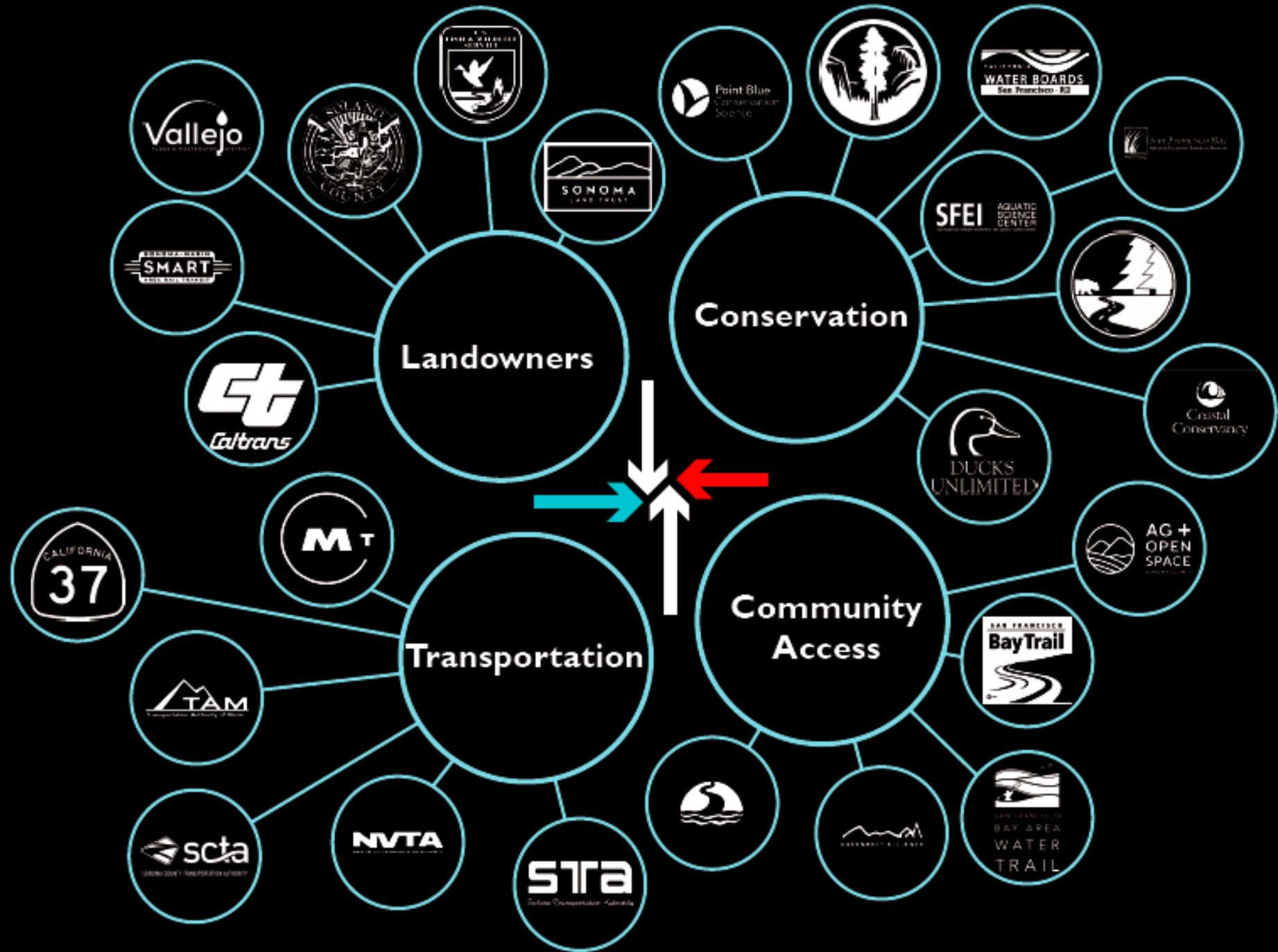
San Pablo Bay

- Creating an identity for San Pablo Bay as a destination for Bay Area
- Addressing key challenges of Hwy 37, in the Sonoma County stretch in particular
- Restoration, recreation and transportation focus



Common Ground

Partners & Stakeholders



WORKING GROUP PROCESS

STAKEHOLDER GOALS

How can our work address stakeholder goals and add value to ongoing efforts?

SEDIMENTATION AND HYDROLOGY

Strategies to harness hydrological dynamics and prioritize use of our “sediment budget.”

MOBILITY AND ACCESS

Highway alignments, potential rail resurgence, and equitable access.

COMMUNITY FEEDBACK, SITE IDENTITY, PROGRAMMING

Incorporating community feedback into our proposal.



FRAMEWORK

REGIONAL IDENTITY



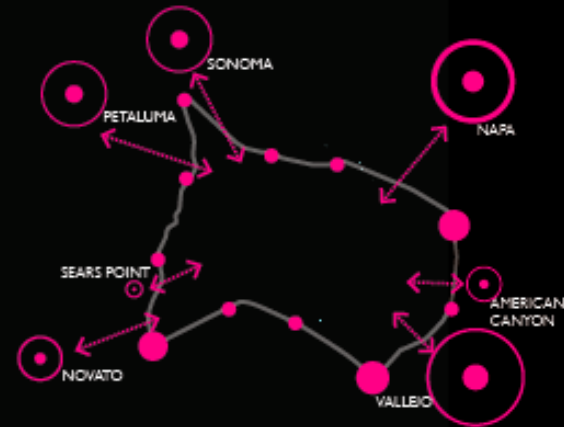
BAY AREA

MOBILITY LOOP



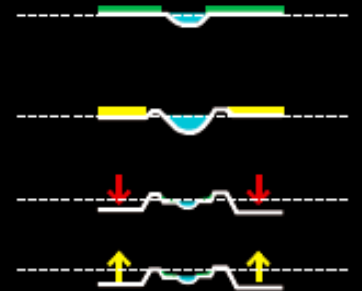
SAN PABLO
BAY

EQUITABLE ACCESS



SITE

ADAPTING GROUND

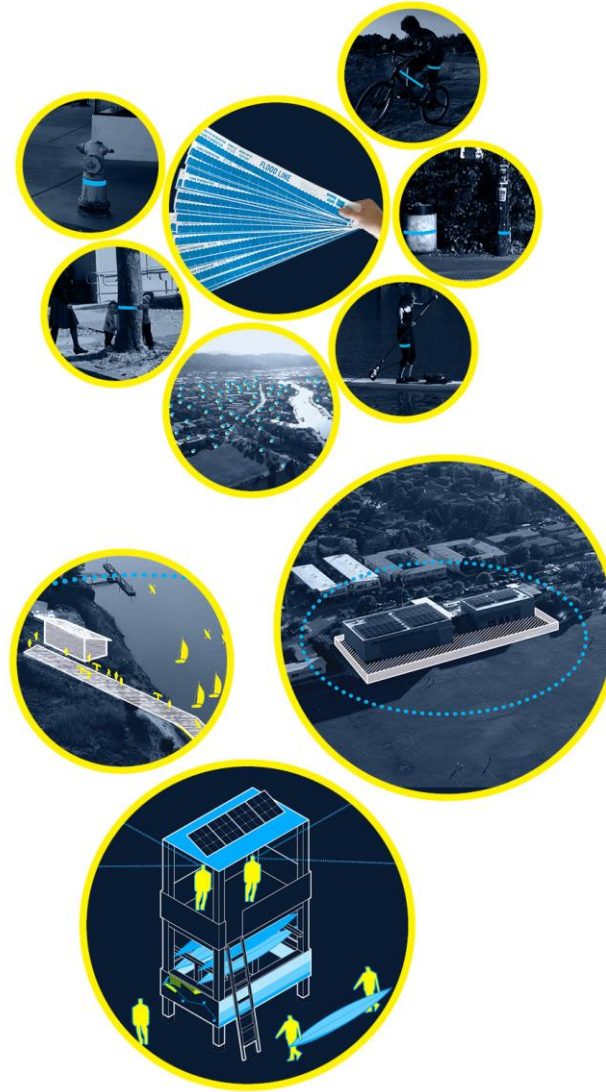


EDGES

Bionic Team

San Rafael

- Protect in-place while densifying at higher ground.
- Moveable shoreline – phased protections
- Water management strategies – flooding, pumping, restoration, etc.



FLOOD FAIR 1



FLOODS AFFECT EVERYTHING
LAS INUNDACIONES AFECTAN TODOS

Yep, that's pretty
much everything...

HOMES & APARTMENTS
CASAS Y APARTAMENTOS

SCHOOLS
ESCUELAS

GROCERY STORES
TIENDAS DE COMESTIBLES

PHARMACIES
FARMACIAS

POST OFFICES
OFICINAS DE CORREO

GAS STATIONS
CASQUINERAS

BUSINESSES
NEGOCIOS

RESTAURANTS
RESTAURANTES

INFRASTRUCTURE
INFRAESTRUCTURA

SAN RAFAEL FLOOD MOBILE

The cool stick figure kids
are using these tags
La figura genial de stick kids usa estas etiquetas

bionic
Landscape Architecture
Urban Design
Planning

@bioniclandscape
#FloodMobile
#ResilientByDesign

PROTECTION LINE

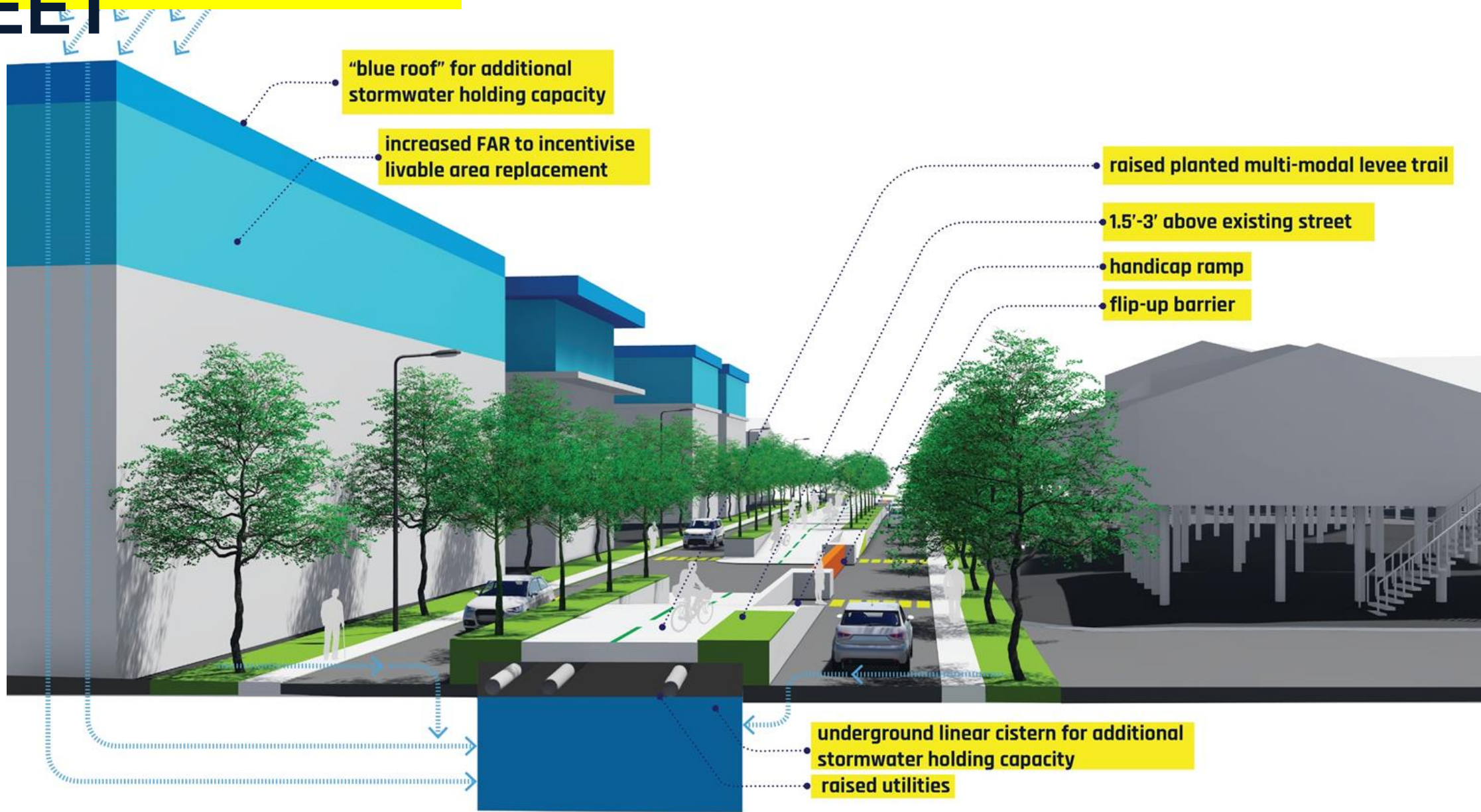
3rd line - 2100

2nd line - 2040

1st line - NOW



RAISE CANAL STREET



DESIGNING OUR FUTURE

THE RESILIENT BAY SUMMIT

MAY 17 - 18, 2018

Photo: Karl Nielsen

MAY 17th

Watch the Design
Team presentations
via livestream

MAY 18th

Reflections and lessons
from the Bay Area
Challenge, followed by a
community celebration

Toward Implementation

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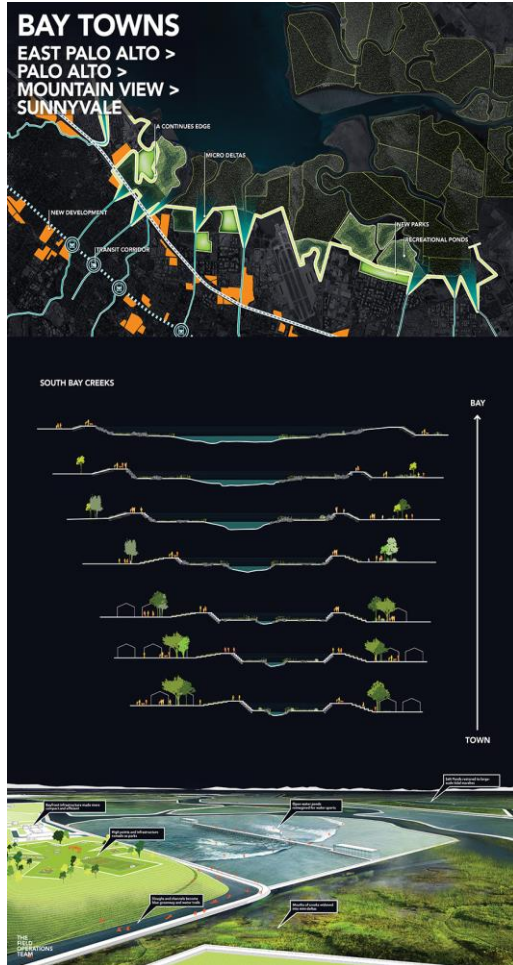
DESIGN



Pivot to Implementation

Key Strategies:

- Solidifying funding base
- Advancing regional policy objectives
 - Streamlining regulatory environment
- Building Projects - Champions, Financing
 - Measure AA, Regional Measure 3
- Sustaining local/regional coalitions as advocates
- Strengthening the Field of Practice



To stay updated, sign up at resilientbayarea.org