### **Adapting to Rising Tides**

Bay Area

# Regional Working Group Meeting #4 SFEI Offices June 19, 2018













### Working Group Ground Rules

- 1. Everyone's input is equally valued
- 2. Respect differences, and appreciate other points of view
- 3. Ask genuine questions
- 4. Stay engaged
- 5. Everyone contributes to our success
- 6. Expect and accept that this work is ongoing

| 9:00 | <b>Presentation:</b> | hackground | l and vul  | nerability | assessment    |
|------|----------------------|------------|------------|------------|---------------|
| 3.00 | riesentation.        | Dackground | i allu vui | Herability | assessillelli |

9:20 Presentation: OLUs

9:35 Presentation: vulnerability assessment results

#### 15 min stretch break

10:05 Exercise: Identifying shared vulnerabilities + report out

11:05 Presentation: Natural Capital Project analysis

11:20 Presentation: RISER SF Bay

11:45 Wrap-up and Next Steps

- Agency staff
  - Caltrans (funder, along with BATA)
  - MTC (grant recipient)
  - BARC (project manager)
  - BCDC ART team
- Consultant team
  - AECOM
  - Natural Capital
- Stakeholders
  - Regional Working Group
  - Public







### Focus Areas

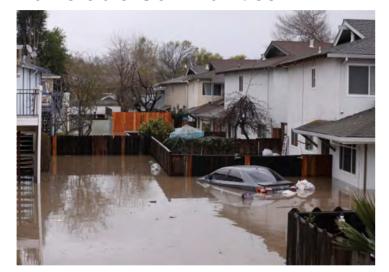


ART Bay Area

#### Transportation infrastructure



**Vulnerable Communities** 



Priority Development Areas (PDAs)



Priority Conservation Areas (PCAs)





#### ART Bay Area

#### Leverage completed/ongoing projects

- Previous ART projects
- Stronger Housing, Safer Communities
- Marin BayWAVE
- Sea Change San Mateo
- San Francisco SLR Action Plan
- Silicon Valley 2.0
- Coastal Conservancy's Climate Programs
- Baylands Ecosystem Habitat Goals Update
- And many more!









Local Hazard

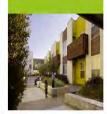
Mitigation and

Climate Adaptation



Regional Resilience

Partnerships



Resilience Study

Stronger Housing,

Safer Communities





Bay Area







Contra Costa County

**ART Project** 









Resilience Study







East Bay Regional Park District



### Project Goals

- Complete comprehensive regionalscale vulnerability assessment
- Establish framework for ongoing regional-scale adaptation planning
- Increase public participation and local capacity to engage in planning and implementation over long term
- Coordinate with partners to apply project results to related efforts, such as MTC's Horizon effort and the 2021 update of Plan Bay Area







### Project Timeline









RWG 3

RWG 4

Fall 2017 -Summer 2018

#### **Conduct Assessments**

Sub-regional meetings to review draft findings with Regional Working Group



Transition to Adaptation



Winter/Spring 2019

Finalize Indicators and Framework

Project Initiation and Scoping

Fall/Winter 2017





RWG 1 RWG 2

Determine Assessment Outcomes and Draft Indicators



Develop Adaptation Responses



Evaluate and Prioritize Adaptation Responses and Identify Opportunities for Implementation



### Project Timeline – Assessments



#### **Conduct Assessments**

Sub-regional meetings to review draft findings with Regional Working Group



#### Basic Vulnerability Assessment method:

- Select individual assets to assess
- Complete vulnerability assessment questionnaires
- Interview asset managers and other experts
- Synthesize outcomes
- Use framework to rank the most critical vulnerabilities to address in adaptation planning phase



#### **Conduct Assessments**

Sub-regional meetings to review draft findings with Regional Working Group

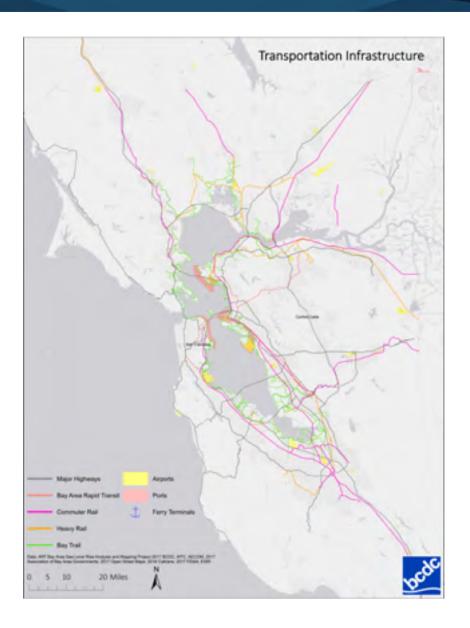


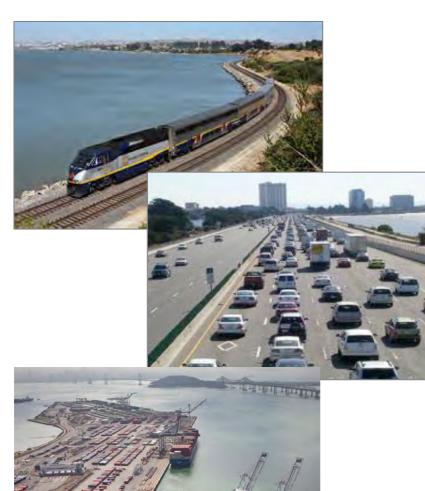
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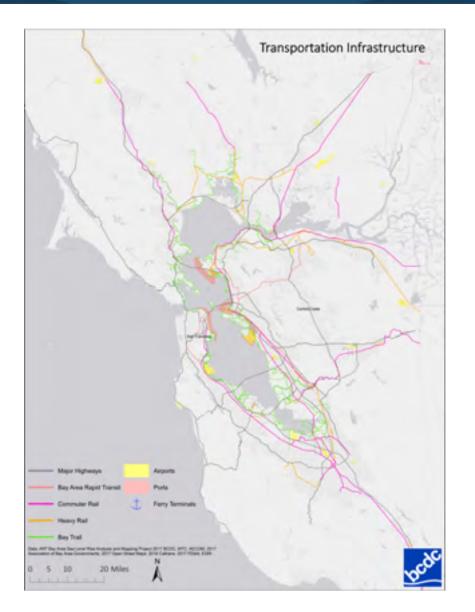
### Transportation







### Transportation



- Covering major categories of transportation infrastructure
- Focusing on disruptions to the region that can occur from flood impacts
- Coordinating with related efforts, e.g., Caltrans District 4, MTC ABAG Travel model, Mark Stacey's work

# Priority Conservation Areas (PCA)









## Priority Conservation Areas (PCA)

- Answering regional questions about PCA program goals
- Coordinating with PCA Program staff
- Researching a representative subset of PCAs
- Partnering with NatCap



# Priority Development Areas (PDA)









### Priority Development Areas (PDA)

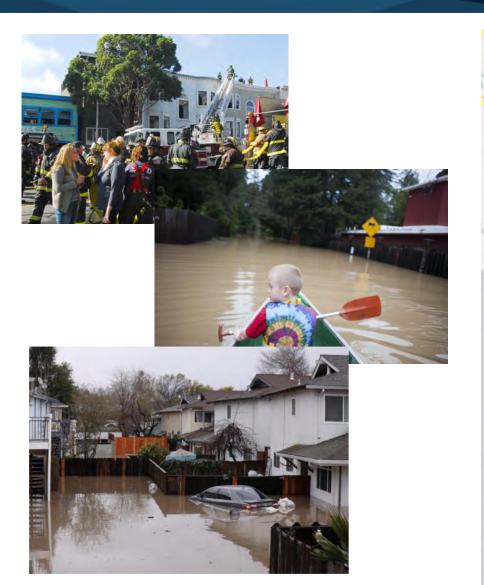


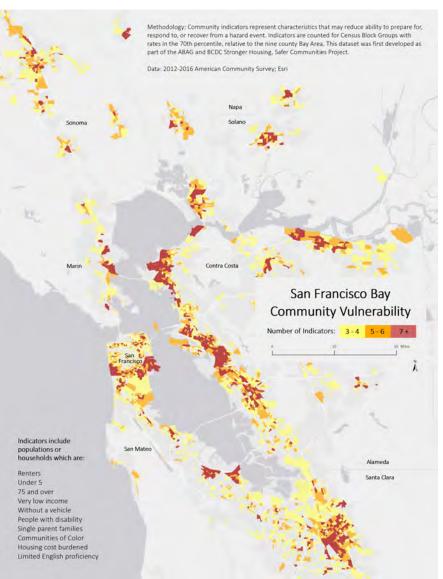
- Coordinating closely with MTC Horizon effort
- Researching subset
   of PDAs that score
   highly in MTC's
   analysis against PDA
   program goals

### **Vulnerable Communities**

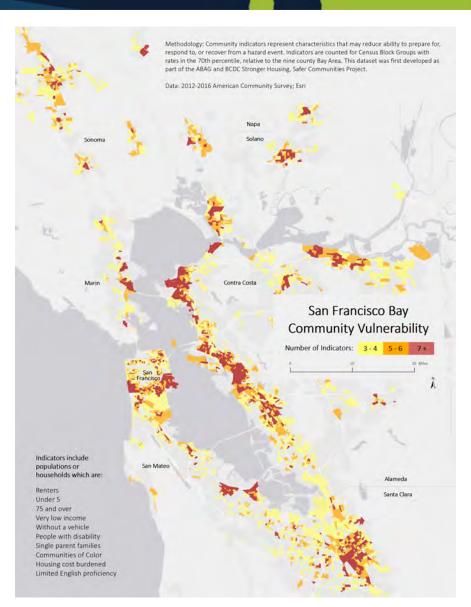


#### ART Bay Area





- Selected communities with characteristics that reduce ability to prepare for and respond to flooding
  - Social vulnerability indicators
  - Highest land contamination score
  - Overlap with complementary community vulnerability screening tools





### ART Bay Area

Case studies on transportation, PCAs, PDAs, and communities

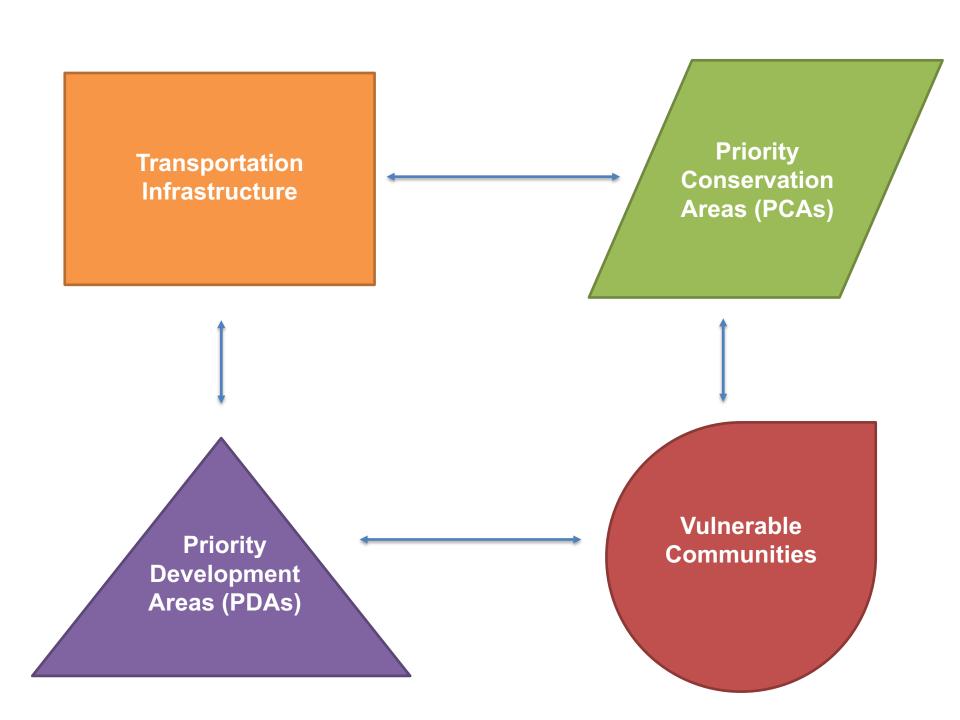
Transportation Assets

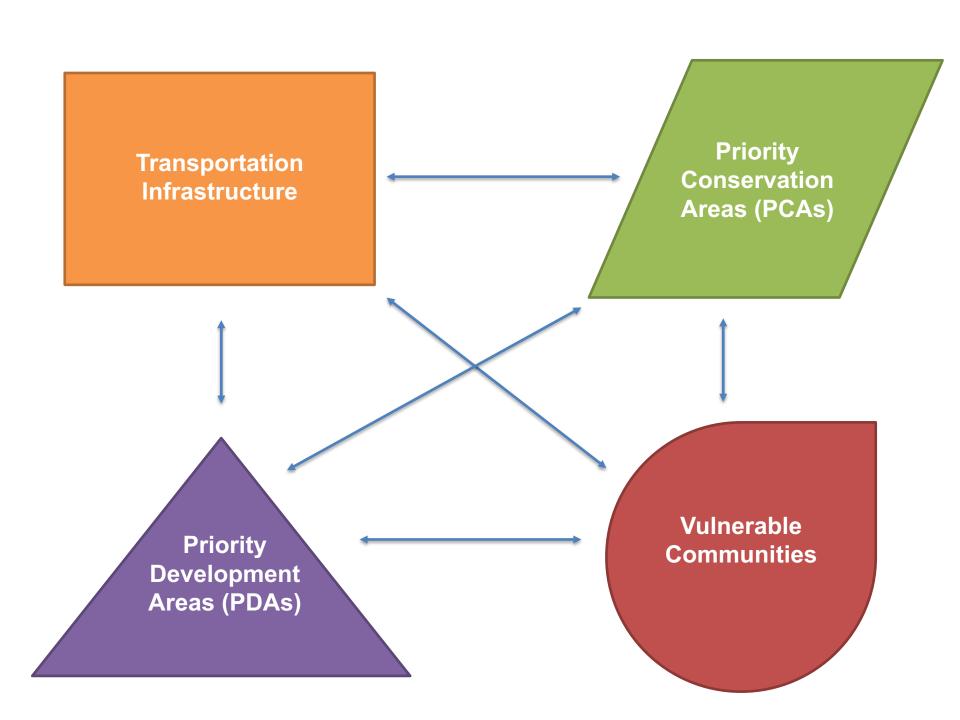
= PDA Assets





Vulnerable Communities Assets





How can we best organize our results to best illustrate the interconnected nature of assets, and the significance of potential flood impacts to the region?



### ART Bay Area

Case studies on transportation, PCAs, PDAs, and communities

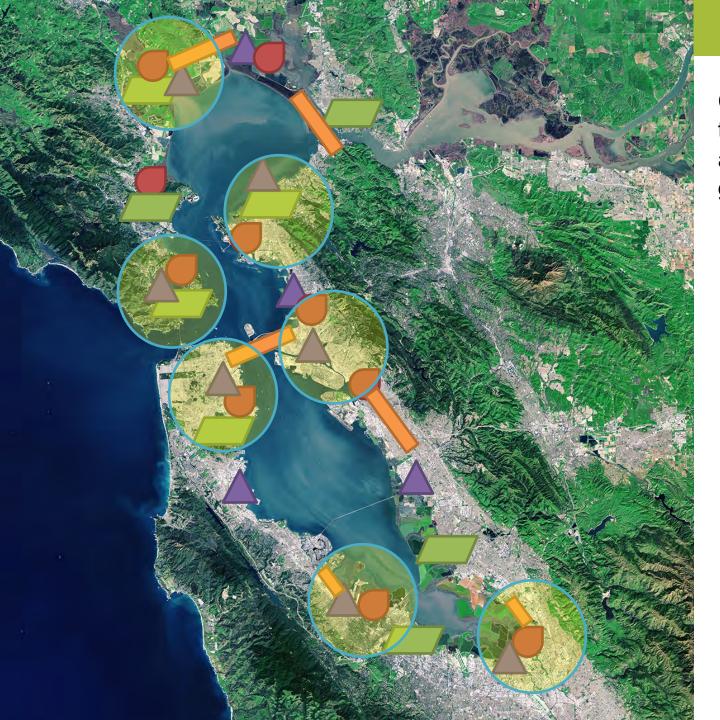
Transportation Assets

= PDA Assets



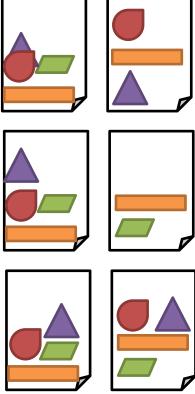


Vulnerable Communities Assets



### ART Bay Area

Case studies on the interrelated assets within a geographic unit



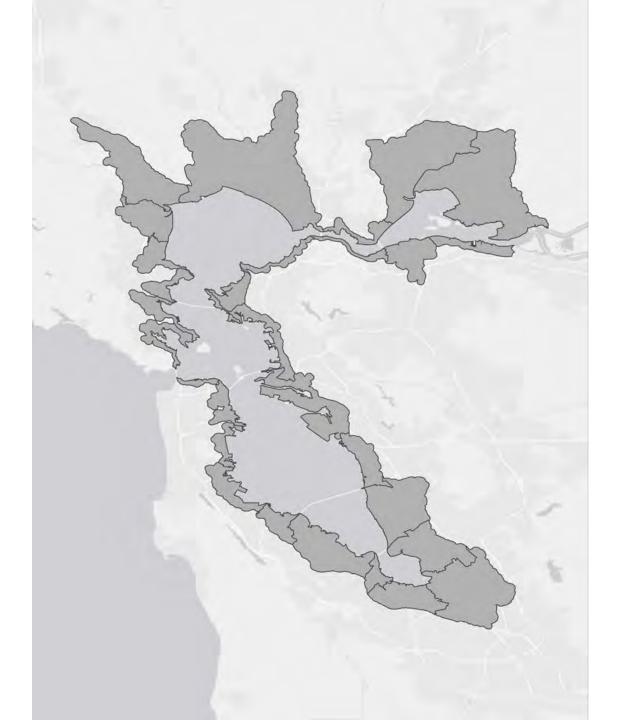
### Reorganizing the assessment

# Organizing vulnerability assessment results by geographic units:

- Allows us to highlight connections between assets
- Avoids talking about assets in silos
- Illustrates the various parties that could come together to implement solutions
- Allows us to examine more than just our 4 asset categories
- Sets us up to identify sets of problems that can be solved by single adaptation solutions
- Suits the goal of this project to identify regionally significant adaptation strategies







Can we aggregate information by OLU?

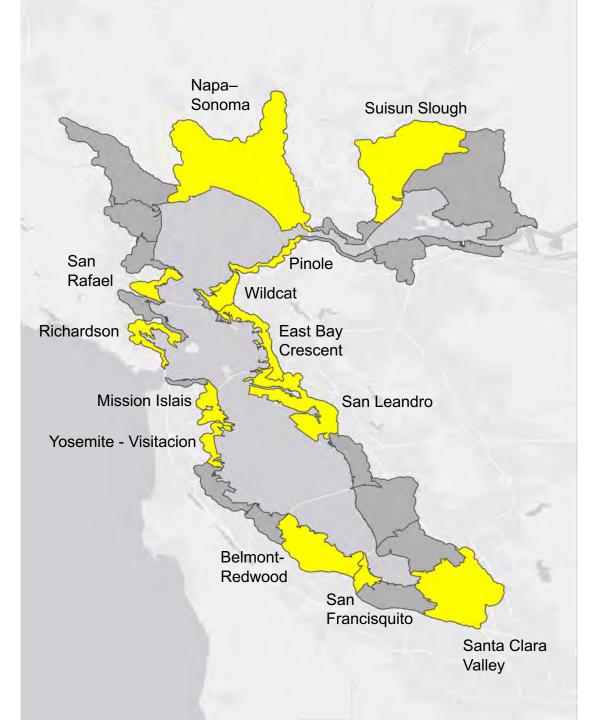
OLU = areas with shared geophysical and land use characteristics suited for particular sets of adaptation strategies areas

### OLUs as an organizing principle

#### OLUs provide:

- Convenient geographic unit to start grouping vulnerability assessment results
- Geographic units with shared physical and land use characteristics that lend themselves to certain sets of adaptation strategies
- A geographic framework being used in other projects regionwide, such as work in San Mateo and Marin, and work by Mark Stacey
- A way to reorganize our research rather than substantively changing it





We will start by synthesizing vulnerability assessment results for

- 13 OLUs
- With all four asset categories (transportation, PCAs, PDAs and vulnerable communities)
- And geographic spread