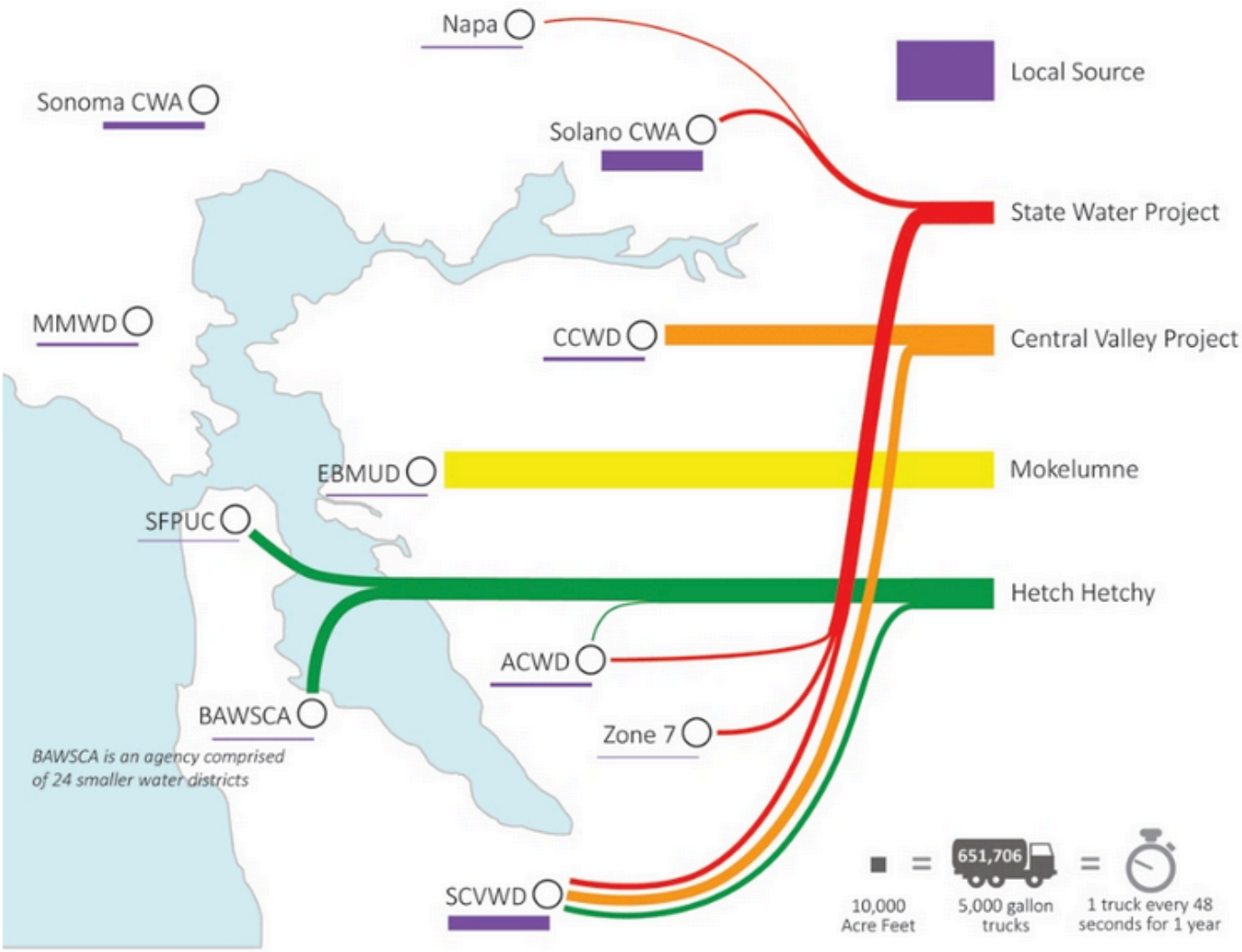
Rising Sea Level Working Group

Infrastructure Interdependencies

Water System Source Portfolio (Eleven Largest Bay Area Water Districts) & Annual Normal Supply

ASSOCIATION OF BAY AREA GOVERNMENTS
RESILIENCE PROGRAM



Data Source: 2010 Urban Water Management Plans

Airports, Freeways and Earthquakes

- San Andreas and Hayward scenario events, SFO, OAK and SJC will simultaneously experience strong to violent shaking, both SFO and OAK will experience a few inches of runway settlement
- In a San Andreas event I-280: violent shaking; US 101: liquefaction. In a Hayward event. I-580 zig-zags over the Hayward fault three times, I-880 passes through very-high liquefaction hazard zones
- It is possible for the network to be brought to a standstill, if the redundant pairs are damaged simultaneously.

Streets
Download
Share Map
Zoom to: State or Territory
San Bruno
San Francisco
San Mateo
Millbrae
Green Hills Country Club
500 m
2000 ft
NOAA Digital Coast

View of public promenade and pier from estuary showing South elevation of Phoenix Commons building

October 10,2012

Zimmerman + Associates
Sausalito
100 Gate 6 Road
Sausalito, CA 94965
Tel 415.289.0660
Sonoma
1707 Denmark St.
Sonoma, CA 94965
Tel 415.289.0660

PHOENIXCOMMONS_BCDC Review Package

Senior Co-Housing Proposal
340 29th Avenue Oakland, CA

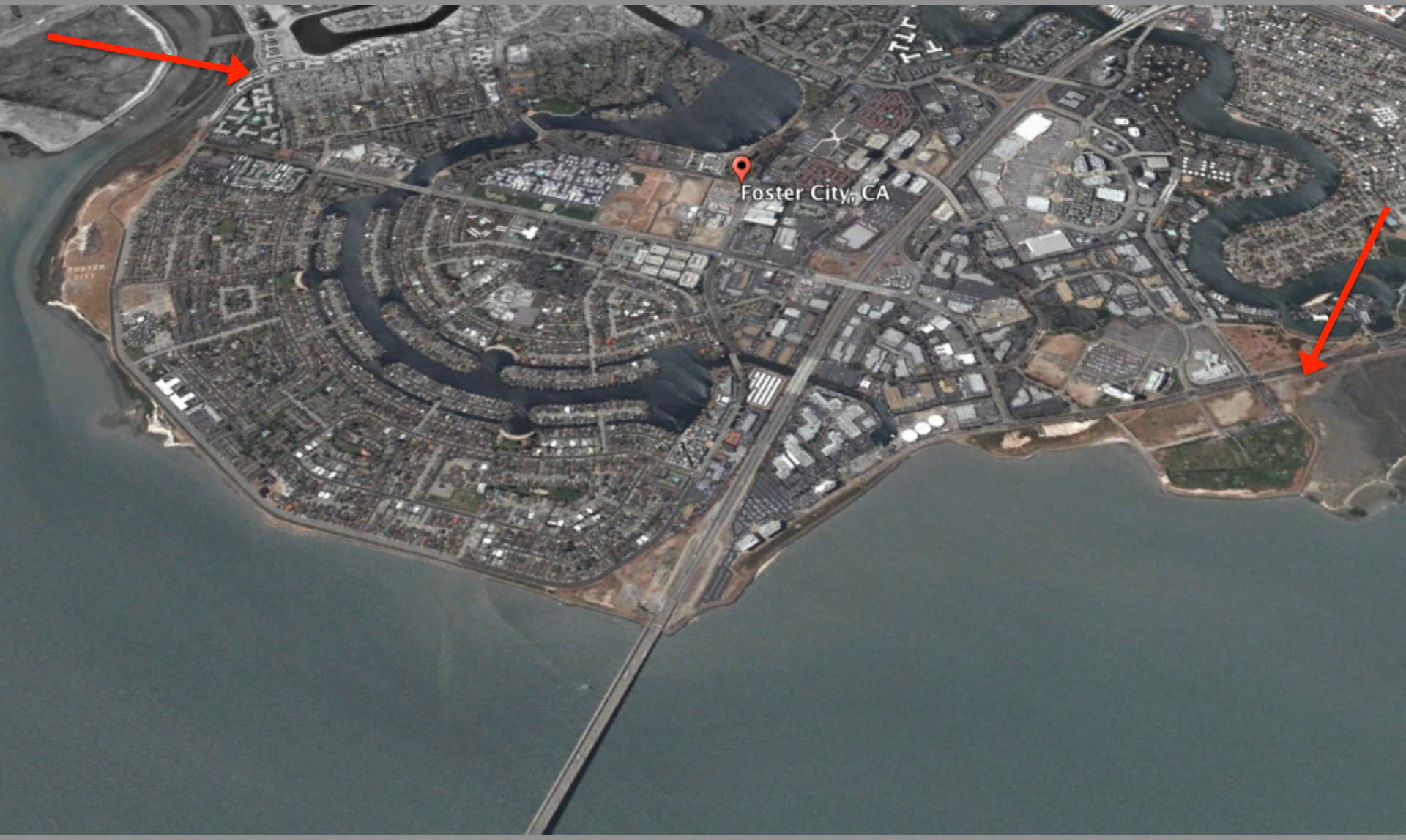
Callander Associates Landscape Architecture
311 Seventh Ave
San Mateo, CA 94401
T 650.375.1515

RWC Harbor Communities, LLC
12031 BCDC Public Access 2014 10-23.indd

EXHIBIT B - PROPOSED PUBLIC ACCESS AREA
PETE'S HARBOR RESIDENTIAL COMMUNITY
Redwood City, California

N.T.S.

revised October 23, 2014


Foster City, CA

Shoreline Protection Policy

- New shoreline protection projects and the maintenance or reconstruction of existing projects and uses should be authorized if: (a) the project is necessary to provide flood or erosion protection for (i) existing development, use or infrastructure, or (ii) proposed development, use or infrastructure that is consistent with other Bay Plan policies; (b) the type of the protective structure is appropriate for the project site, the uses to be protected, and the erosion and flooding conditions at the site; (c) the project is properly engineered to provide erosion control and flood protection for the expected life of the project based on a 100-year flood event that takes future sea level rise into account; (d) the project is properly designed and constructed to prevent significant impediments to physical and visual public access; and (e) the protection is integrated with current or planned adjacent shoreline protection measures. Professionals knowledgeable of the Commission's concerns, such as civil engineers experienced in coastal processes, should participate in the design.

Rising Sea Level Working Group

Institutional Arrangements

ART Project & Governance

- Uncertainty
- Complexity
- Resource Constraints

Uncertainty

- The timing, severity, and degree of impacts are uncertain and communities have imperfect information.

- Possibility of other events, such as earthquakes, wildfires, and floods) will affect capacity to adapt to climate change in potentially unknown ways.

- Planning must address longer time horizons.

Ways to address uncertainty

- The precautionary principle; weigh risk of action against maladaptation
- Adaptive management
- Scenario Planning

Complexity

- A network of institutions and organizations will often be necessary.
- Most laws, and plans address observed, rather than anticipated, problems.
- Complex institutional arrangements, can create barriers ,especially if timely action is required.

Complexity

- SR 92: Work along the SR 92 corridor requires coordination with a number of regulatory agencies including BCDC, CADFW, RWQCB, and USACE because of its location between tidal marshes and managed ponds. The amount of coordination necessary can delay necessary maintenance or improvements to address future storm events and sea level rise impacts

Addressing Complexity

- *Synchronize adaptation policies*
- *Coordinating local, regional, state, and federal efforts*
- *Launching experiments and pilot projects*
- *Fostering relationships that bridge institutional divides*

Resource Constraints:

- May delay, limit, or impede vulnerability assessments and the development and implementation of adaptation responses.
- Approval from taxpayers or elected officials, may be difficult
- Appropriate mechanism to receive funding may not be in place.
- A “scale mismatch ” between the necessary adaptation response and the institution or organization responsible for developing and implementing the response may impede adaptation.

Resource Constraints: Parks

- Addressing the effects of climate change on parks and recreation areas is likely to require costly maintenance and repairs. This may exacerbate budget shortfalls that have hit the cities, agencies, and non-profit organizations that operate parks, facilities, and recreational services. With less funding, maintenance and long-term planning is more likely to be deferred, and programs, services, and operating hours are more likely to be cut.

Overcoming Resource Constraints

- *Proactive planning*.
- *Incorporate adaptation measures into existing practices*.
- *Redistribute costs among multiple institutions* -- sharing.
- *New governance structures* can be created.
- *All involved in governance have a role to play*, including citizens and community groups.