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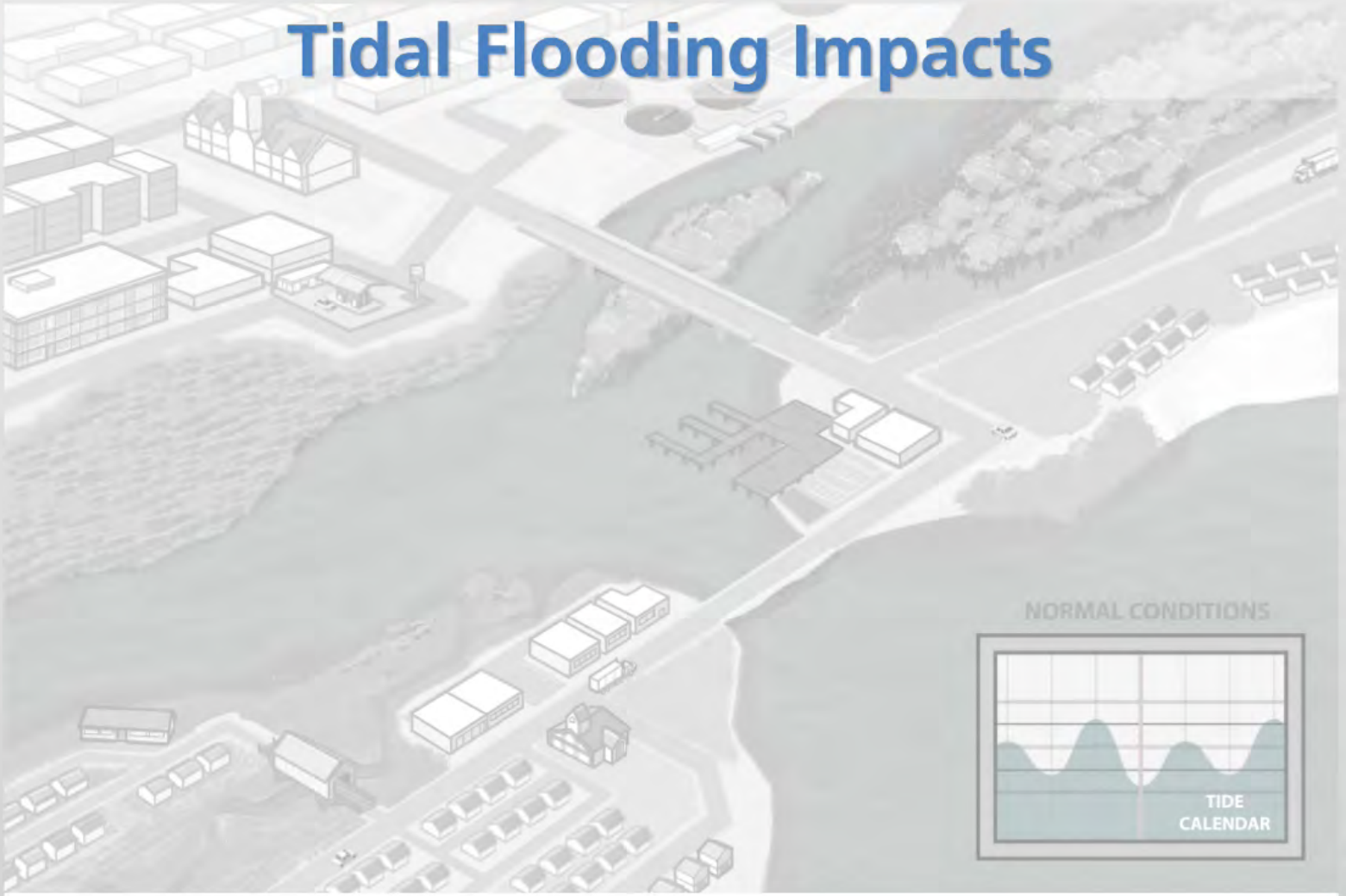
Tidal Flooding Impacts



NEXT ›

The

Adapting to Rising Tides

Program

Oakland/Alameda Resilience Study

San Francisco Bay Conservation
and Development Commission

Meeting Objectives

1) Visit vulnerable assets in the Coliseum area and learn about their geographic and functional relationships

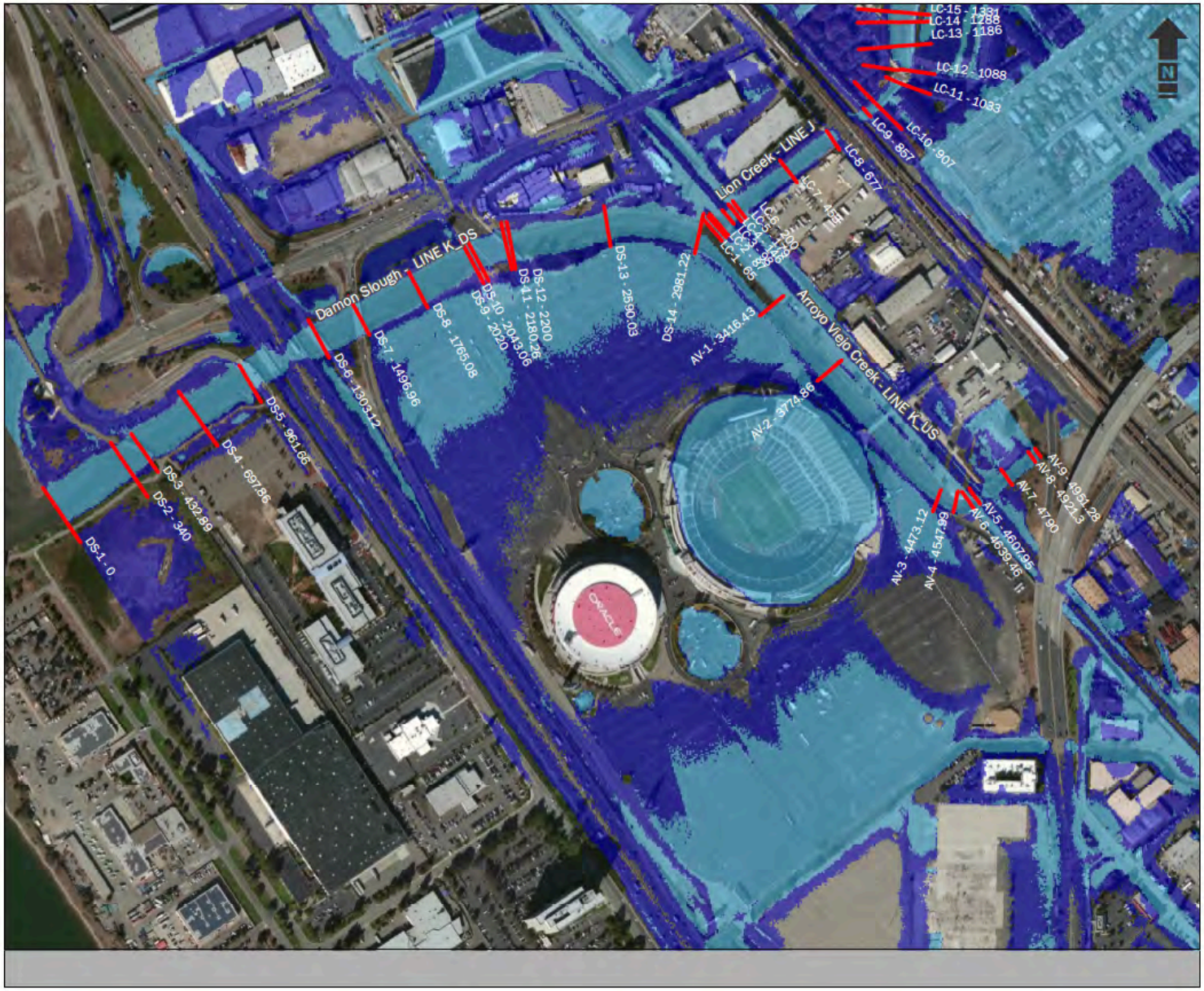
2) Explore possible adaptation actions for the Coliseum Key Planning Issue

3) Develop potential adaptation responses (suites of actions) for the Coliseum area

Where are we in Oakland/Alameda?

Coliseum Area Key Planning Issue

The Oakland Coliseum facilities, transportation assets, and neighborhood are vulnerable to both current and future flooding due to at-capacity flood control channels and rising Bay water levels.



MTC CLIMATE ADAPTATION
Damon Slough Focus Area
Alameda County

FLOODING EXTENTS

10-YR Extreme Tide + 10-YR Peak Flow

10-YR Extreme Tide (24" SLR) + 10-YR Peak Flow

HEC-RAS XS

0 250 500 1,000 Feet

North American Vertical Datum 1988

NAD 1983 StatePlane California III FIPS 0403 Feet

AECOM

4/20/2014

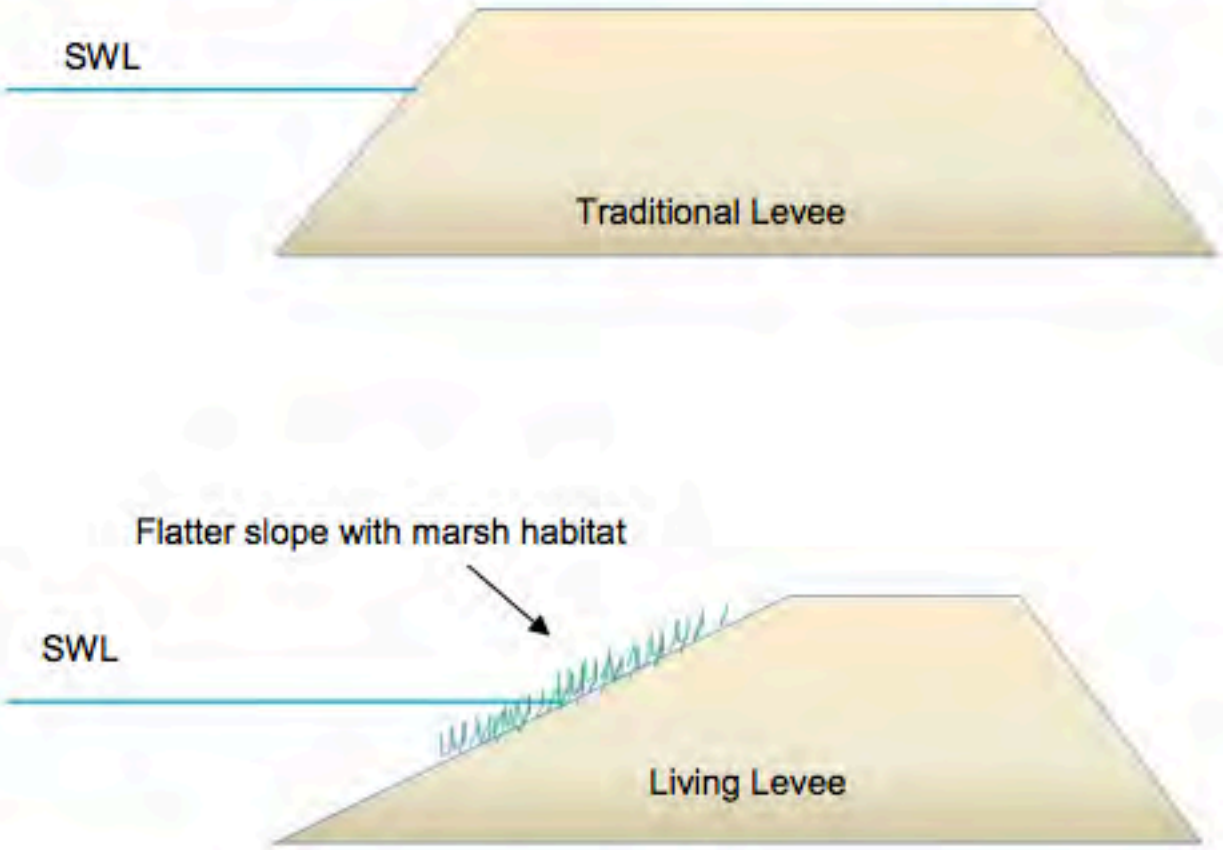
FIGURE 2

Dam

Figure 6-5: The layout and footprint of the living levee (brown) and the section where seawall might be necessary due to space limitations

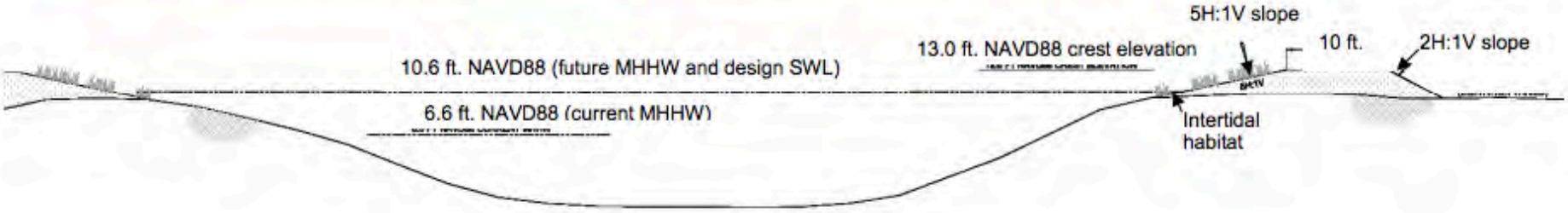
Dam

Figure 6-4: Conceptual diagrams of a traditional levee (top) and living levee (bottom)



Damon Slough Flooding

Figure 6-6: A conceptual cross-section of the Damon Slough living levee. The living levee is designed to protect against flooding and inundation associated with water levels up to 13 ft. NAVD88 and provide intertidal and upland habitat zones



Damon Slough Flooding

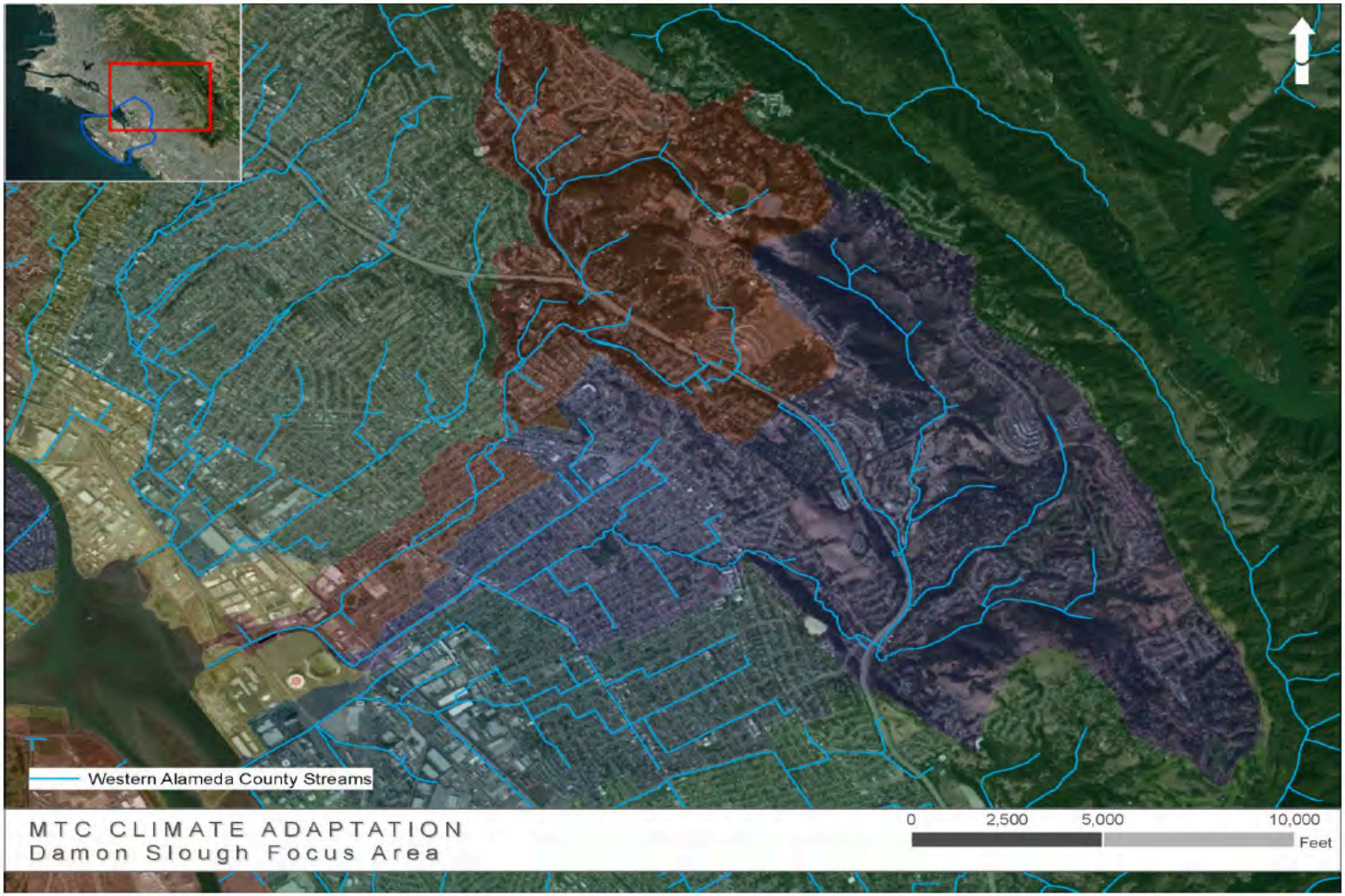


Figure 2 – Watershed Map for Oakland Coliseum Focus Area[3]

Coliseum Area Specific Plan

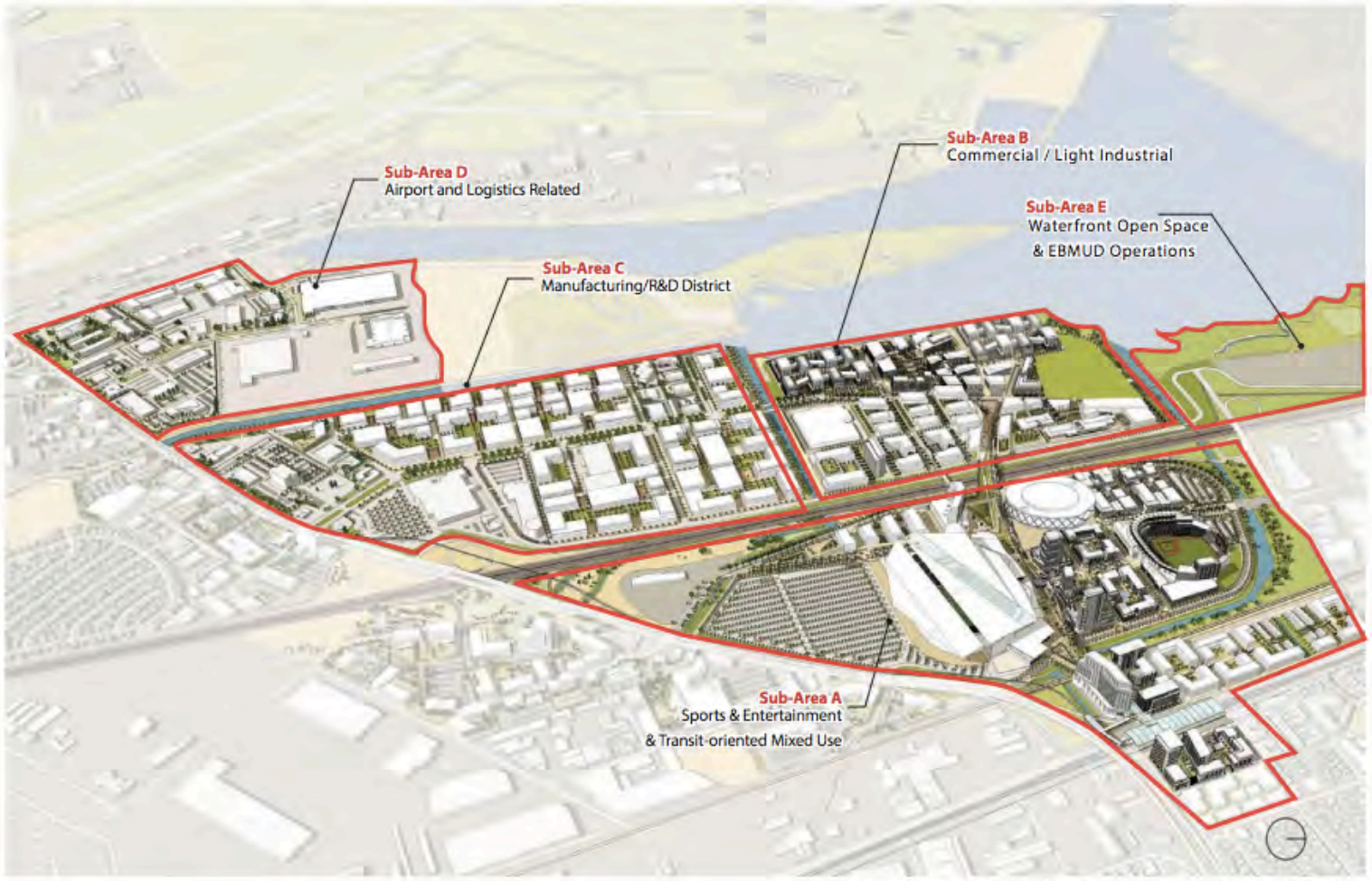


Figure 1.2: Coliseum Area Specific Plan Conceptual Buildout
Source: JRDV / City of Oakland

Coliseum Area Specific Plan

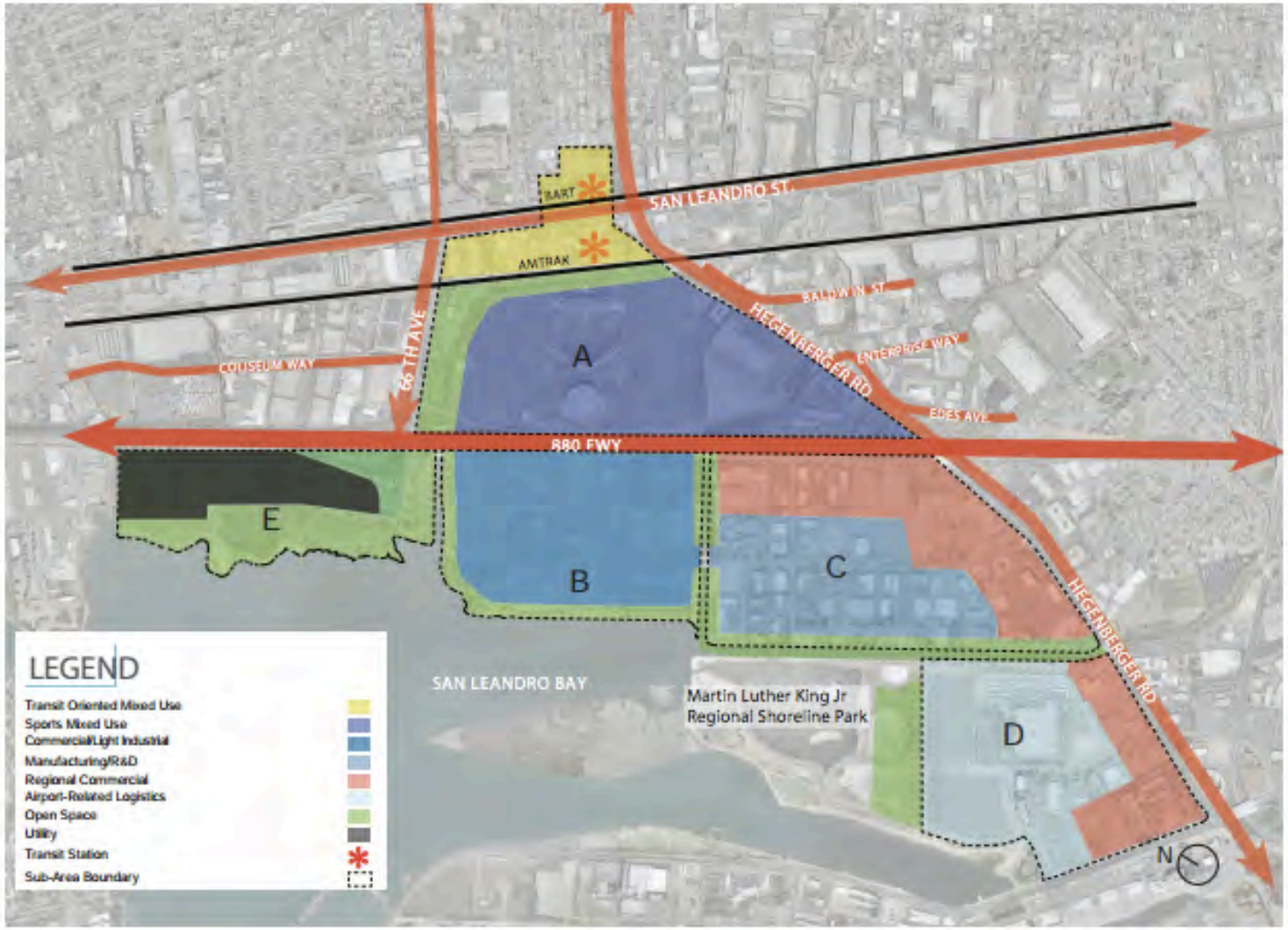
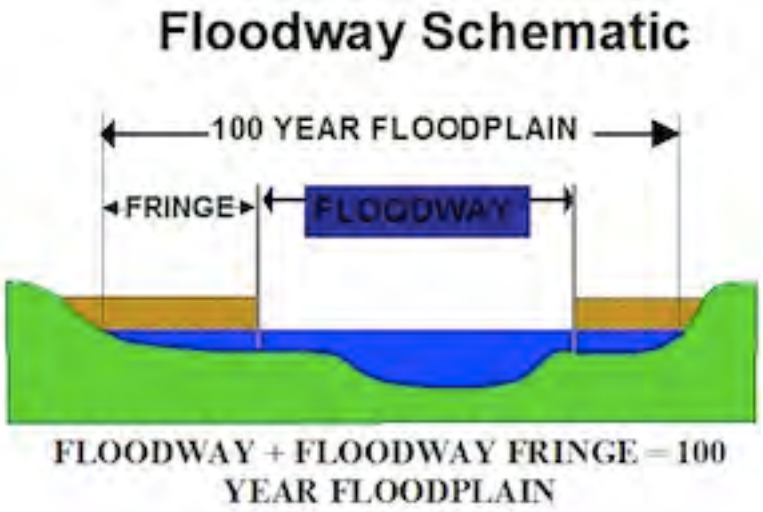


Figure 1.3: Conceptual Land Use Plan

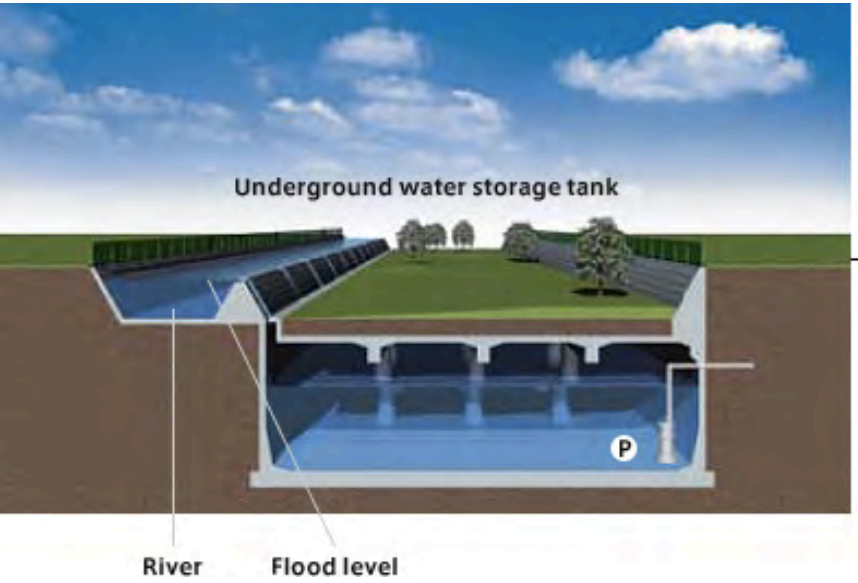
Floodways



What would be allowed in the floodway fringe?

Ground level parking, play areas, lawn & garden areas, golf courses, tennis courts, agricultural activities and other private recreational activity that does not impact the ability of the floodway fringe to store water during a flood event.

Flood Storage



Floodable Development

Flood Storage

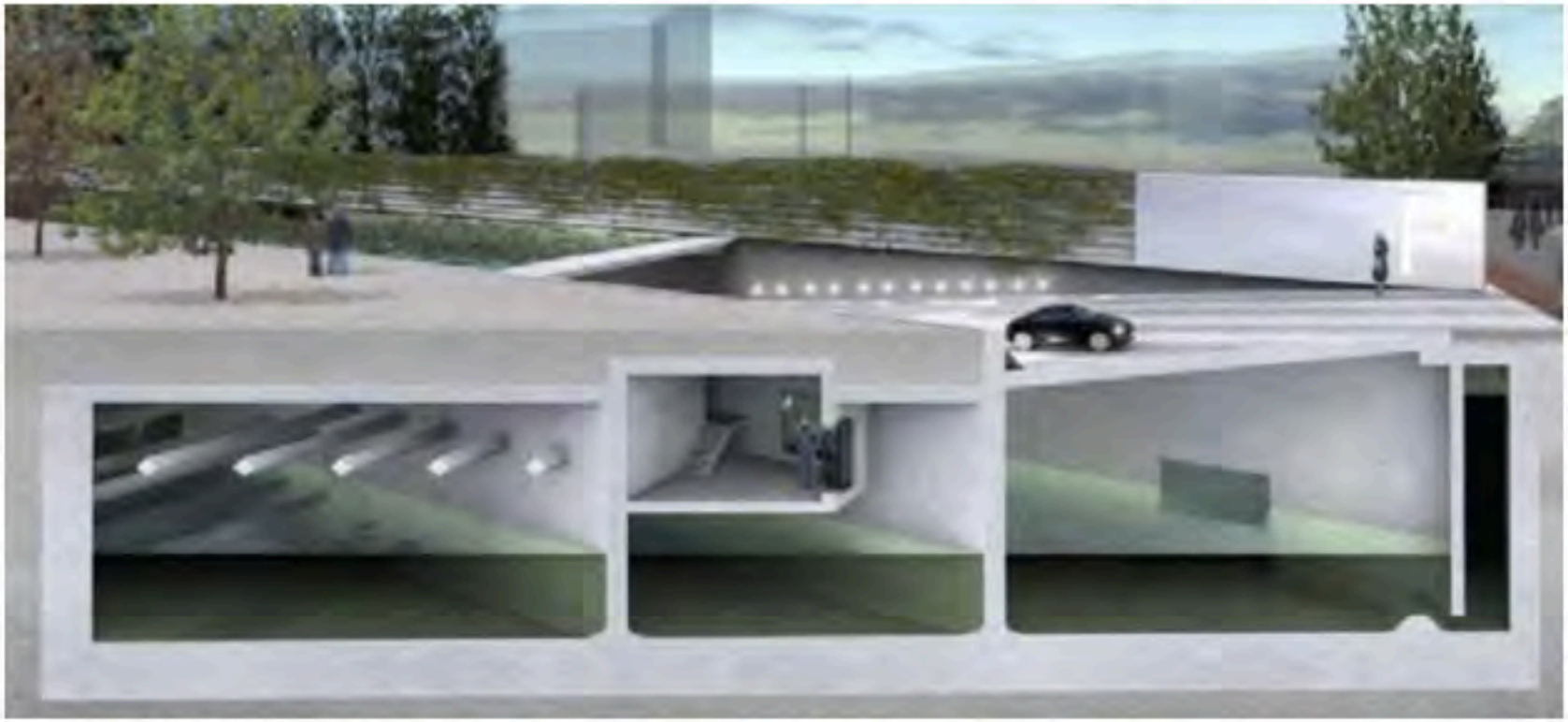
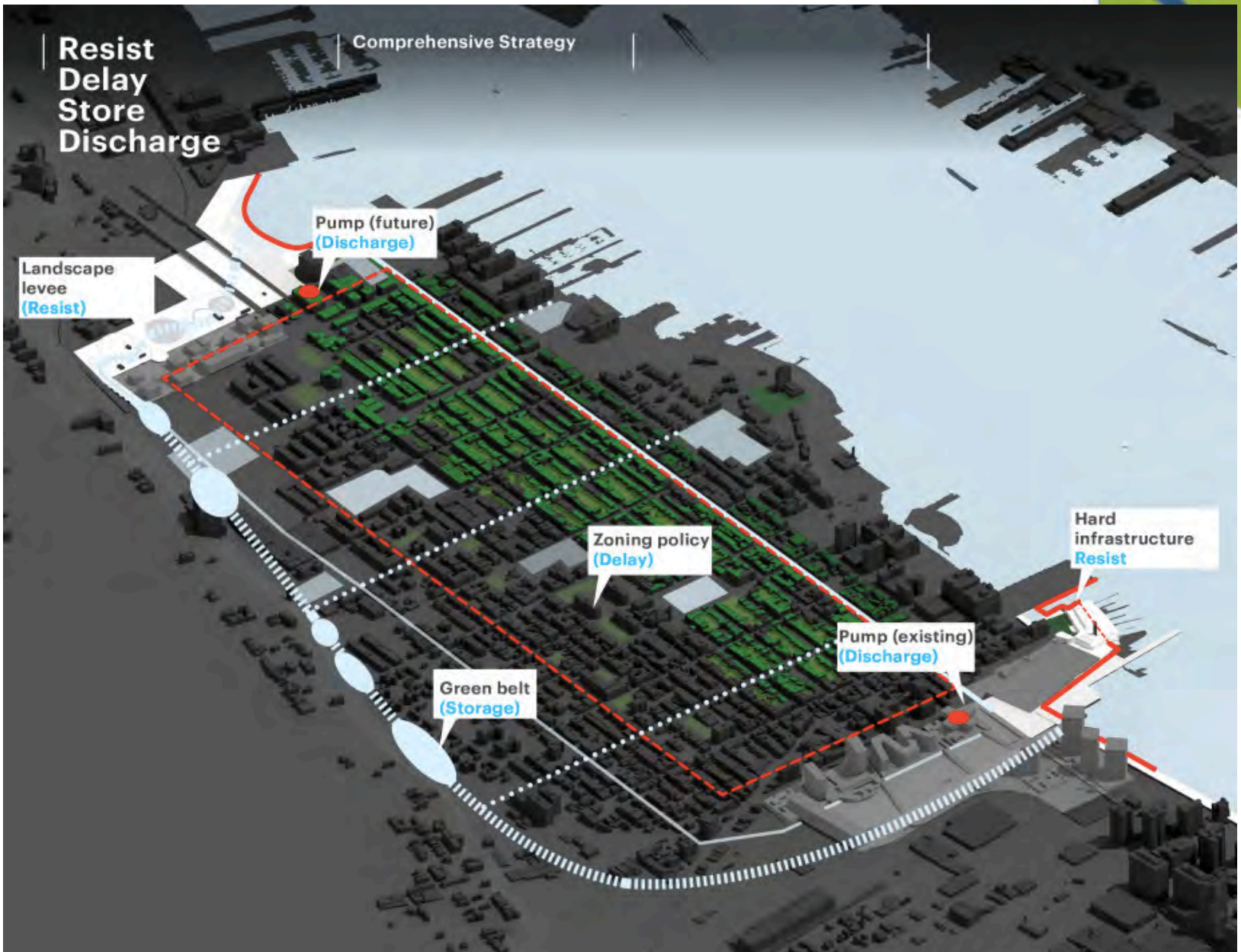


Figure 4. Multi-functional underground parking garage used as a reservoir for floodwaters and storm waters (Aerts et al., 2009).

Rebuild by Design



Rebuild by Design

JERSEY CITY/HOBOKEN TYPOLOGIES

stormwater parks + fortified edge