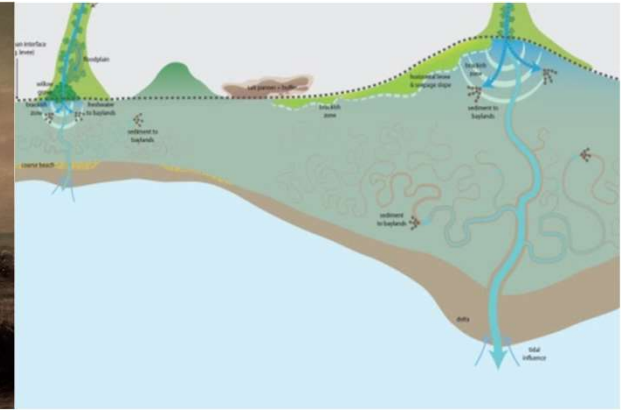
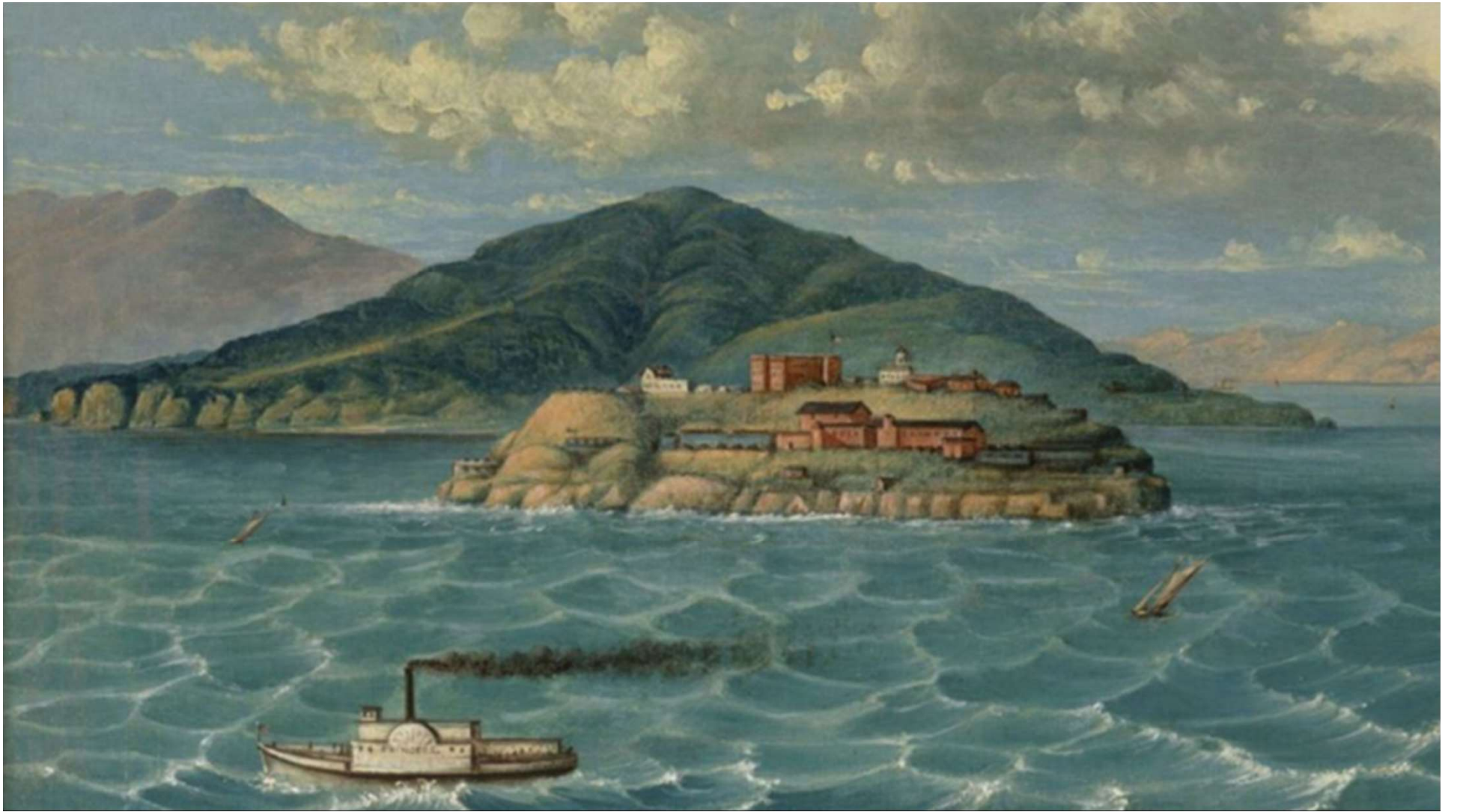


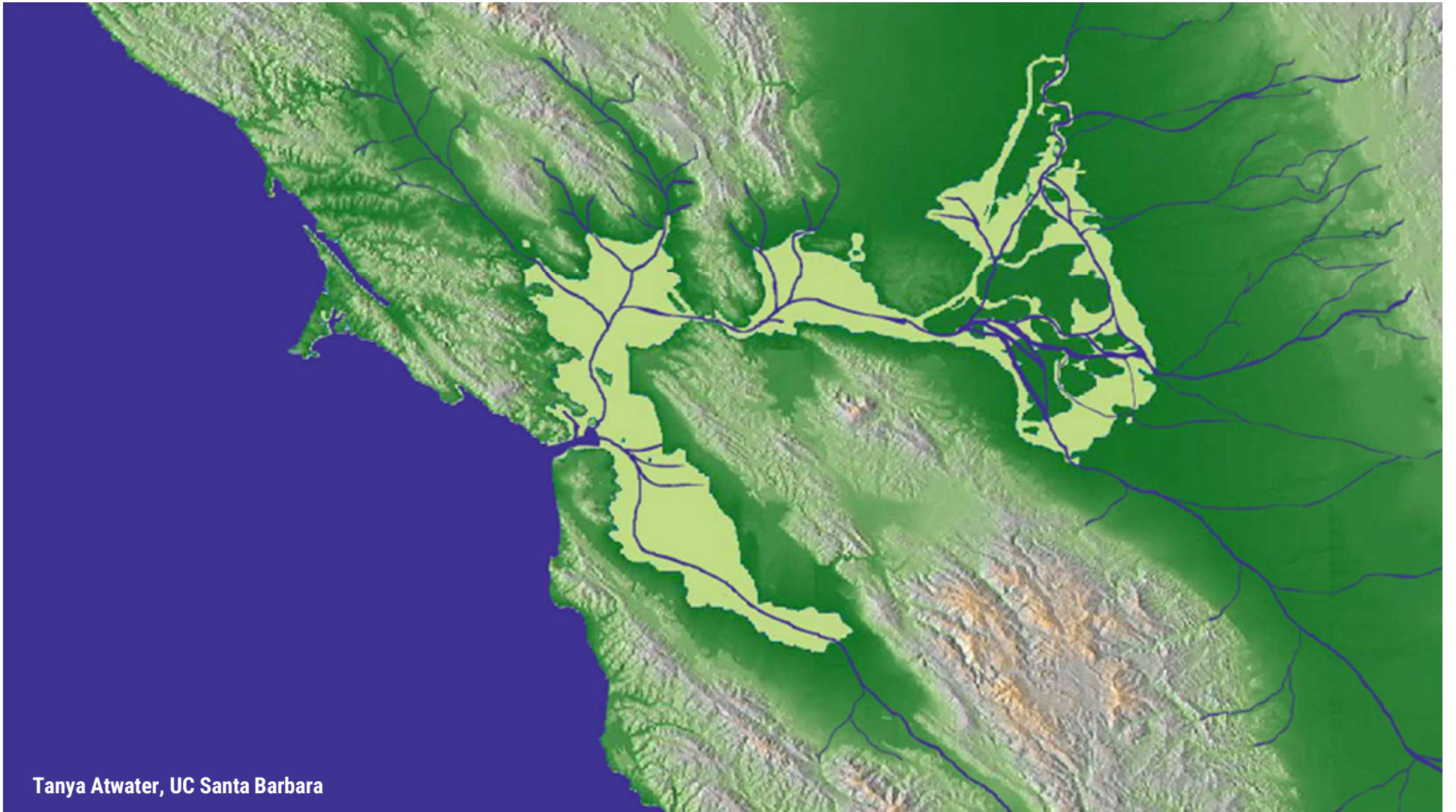
Ecology of the Bay • Past and Future



Robin Grossinger
San Francisco Estuary Institute
www.sfei.org

Sea-Level Rise:
Why We Need Nature-based Adaptation
Webinar Series
May 20, 2021

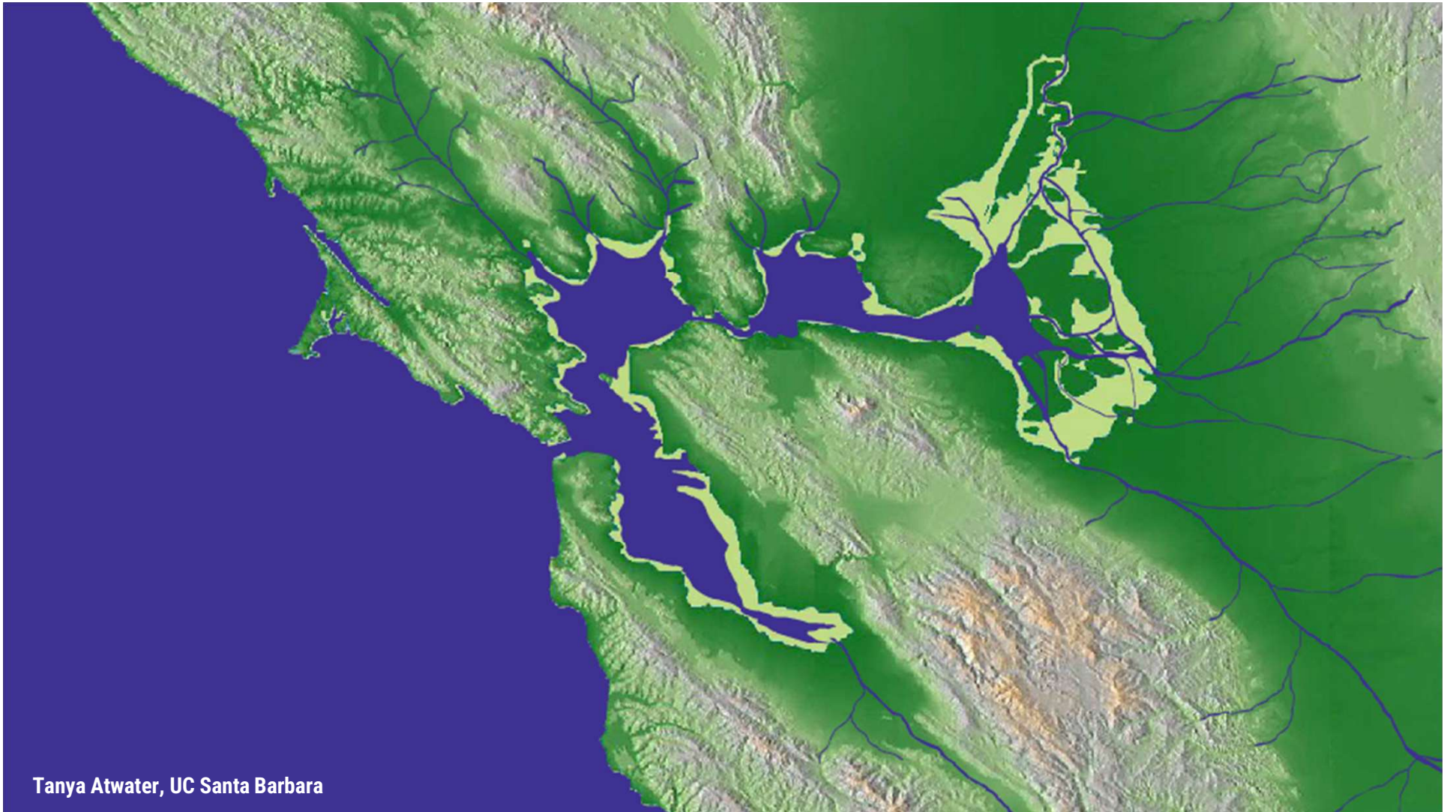




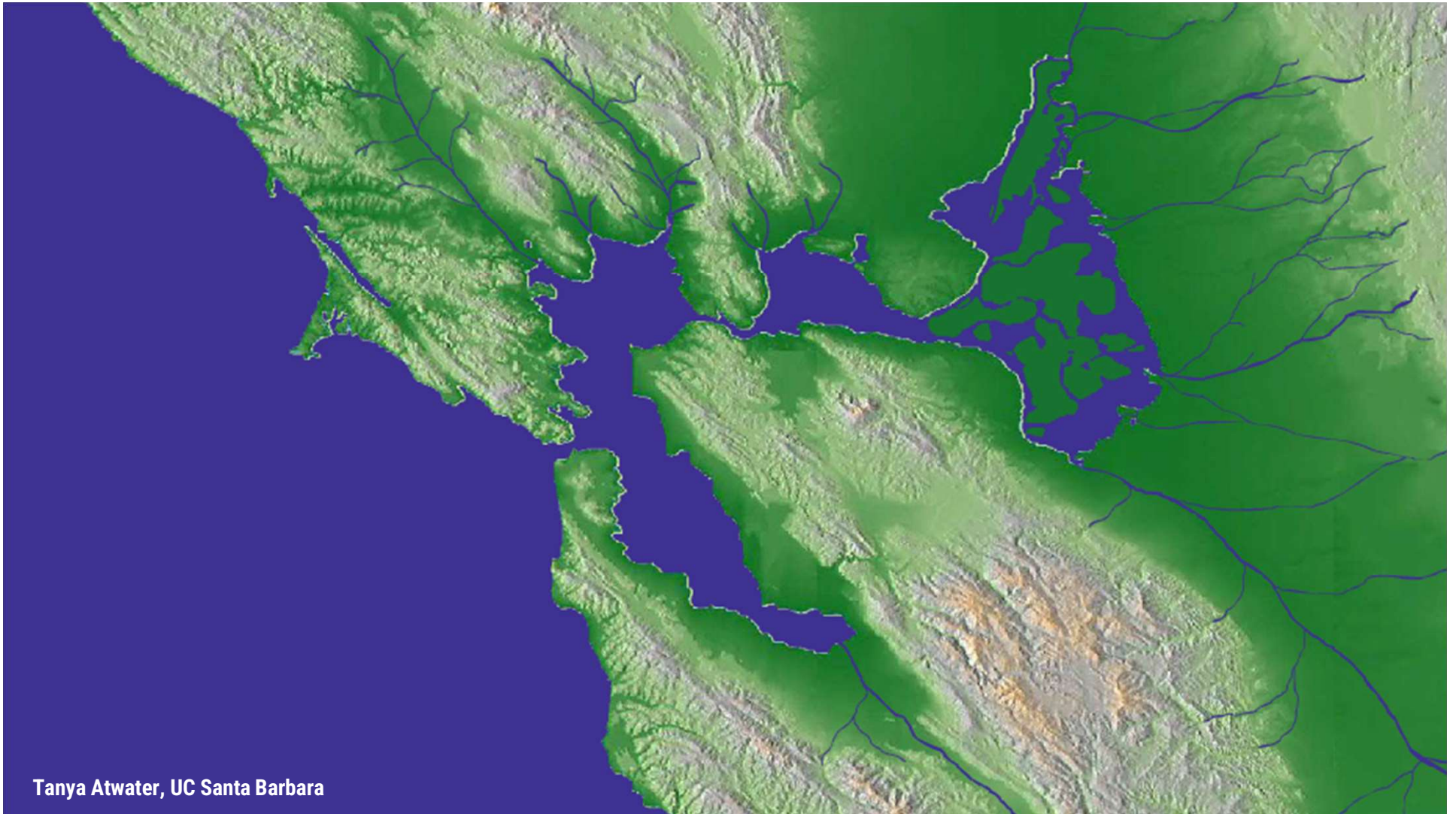
Tanya Atwater, UC Santa Barbara



Tanya Atwater, UC Santa Barbara



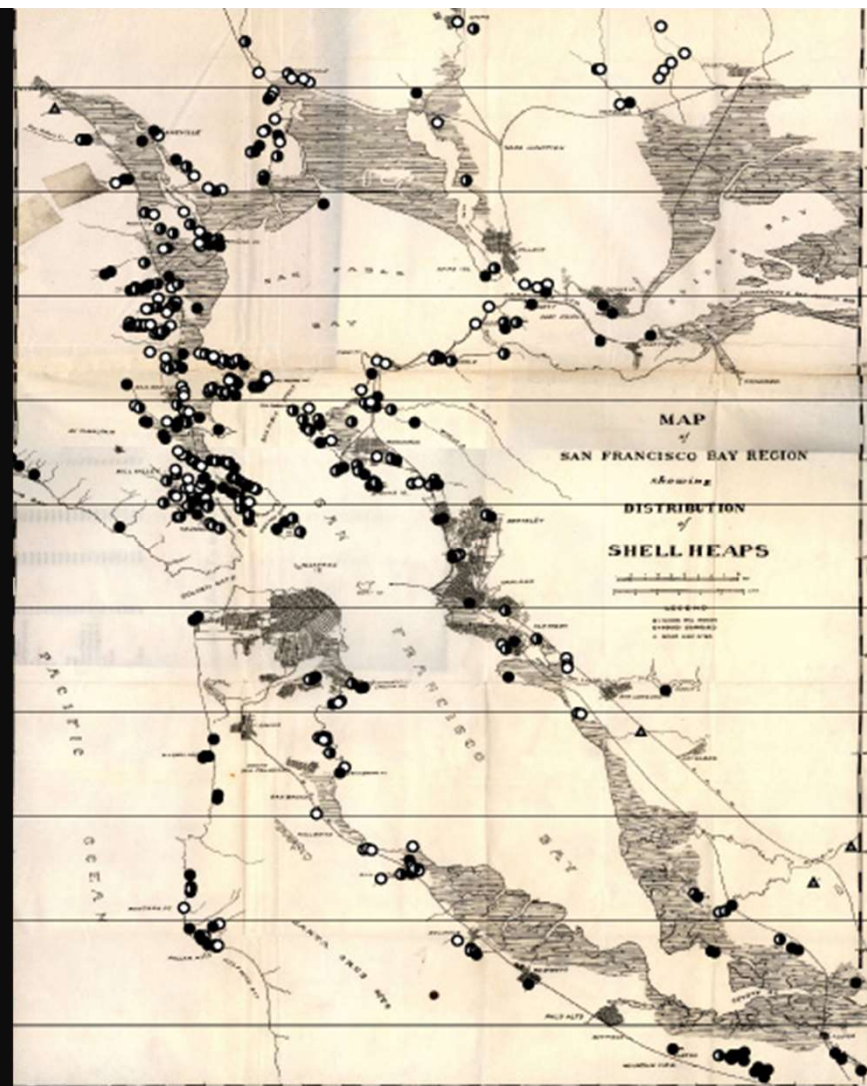
Tanya Atwater, UC Santa Barbara



Tanya Atwater, UC Santa Barbara

The Bay has always been rising

...and expanding.



People have always lived at the Bay shore

...they moved inland.

A topographic map of a region, likely a river valley, with a blue overlay. The blue area covers a large portion of the map, including a wide river channel and several smaller tributaries. The surrounding land is shown in shades of gray, indicating elevation. The word "historical" is written in white, bold, lowercase letters in the bottom-left corner of the blue area. The map is framed by black bars on the left and right sides.

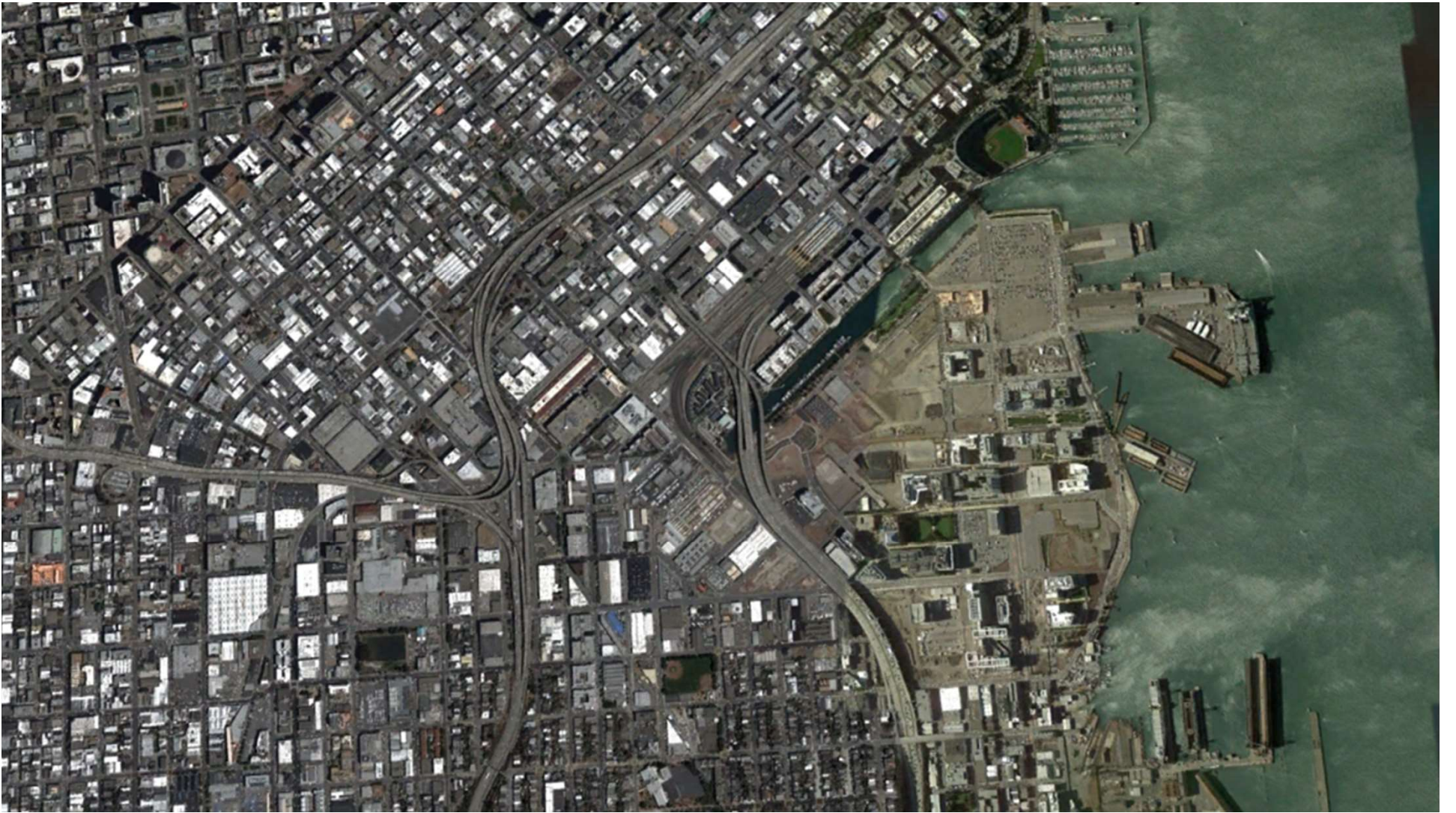
historical



modern

**During the past 150 years the size of the Bay
decreased by almost a third**

...despite sea level rise.





This constructed shoreline has seemed stable
...for a century or more.



© 1922
G.E. RUSSELL
48-3RD ST. 2011
S.F.



modern

A topographic map of a region, likely a coastal or mountainous area, with a blue overlay indicating a future scenario. The blue area covers a large portion of the central and left side of the map, including a large body of water and a significant landmass. The rest of the map is in grayscale, showing terrain features like hills and valleys. The word "future" is written in white on the blue area.

future

A topographic map of a region, likely a river basin, with a blue overlay. The blue area covers a significant portion of the map, including a large lake or reservoir in the upper left and a winding river system extending from the upper left towards the lower right. The terrain is shown in shades of gray, with darker areas indicating higher elevations. The word "historical" is written in white, bold, lowercase letters in the bottom left corner of the blue area.

historical

The shoreline is going to change

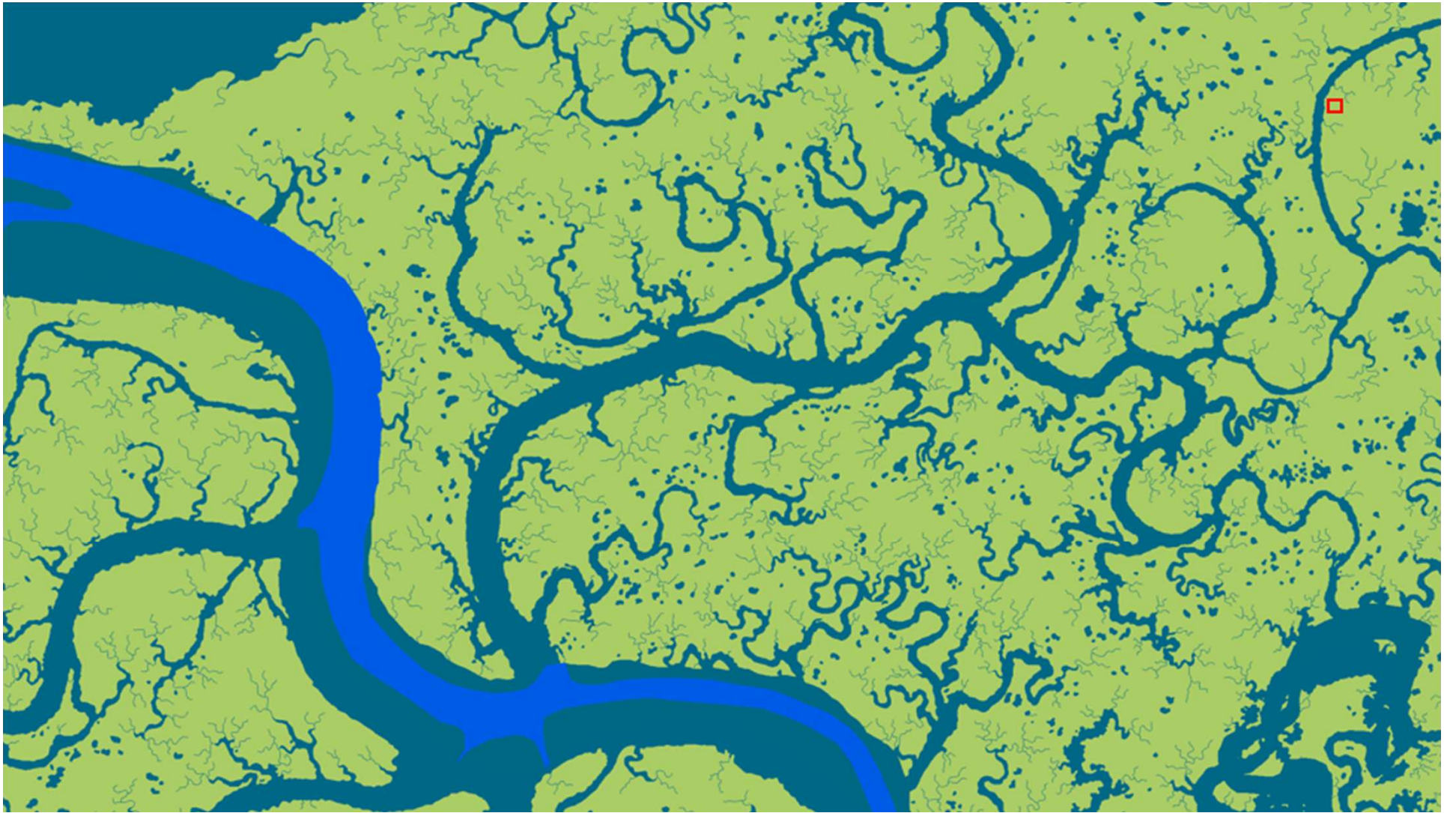
...once again.

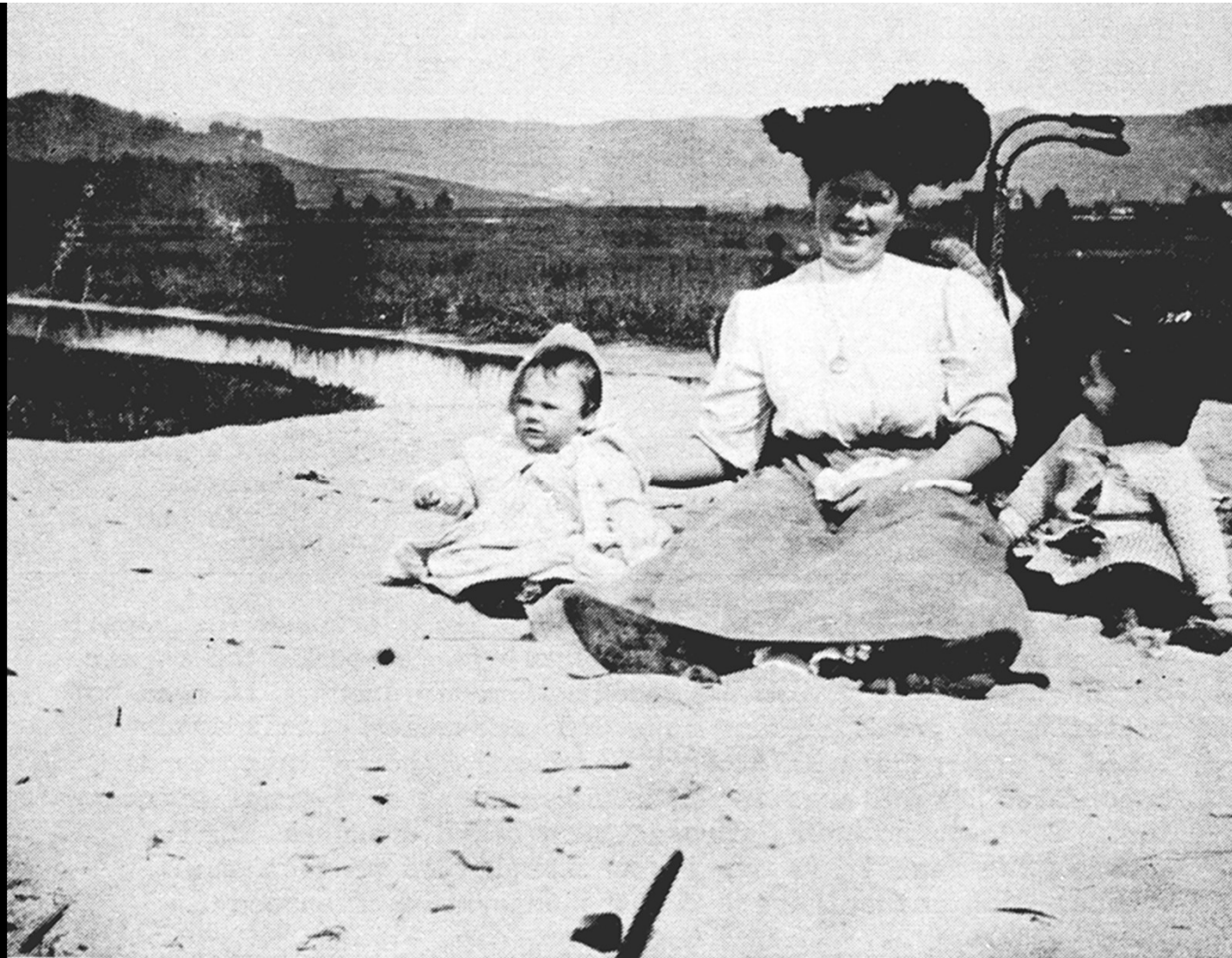


Low-lying areas were naturally protected

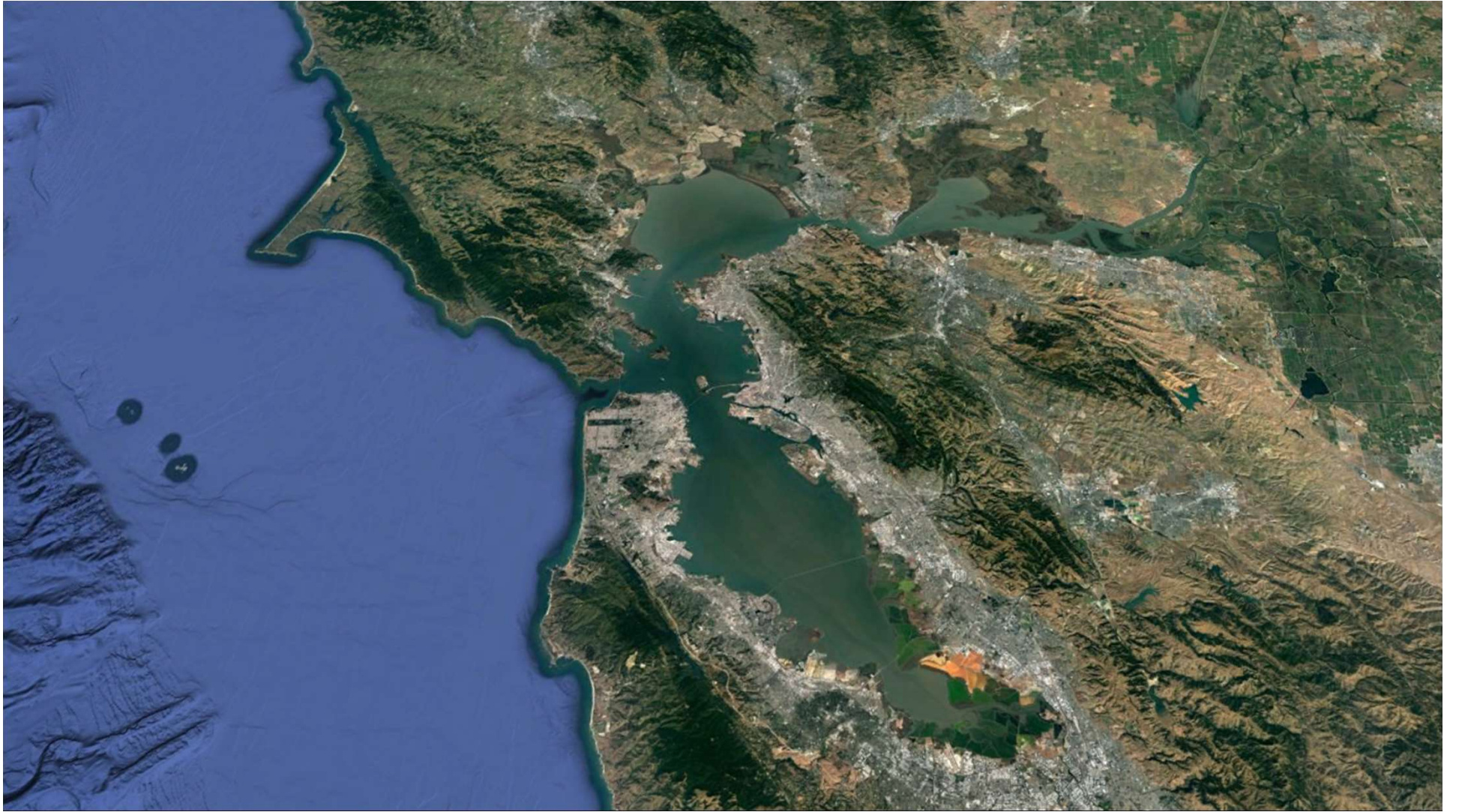
...by mudflats, beaches and marshes.











A second try.

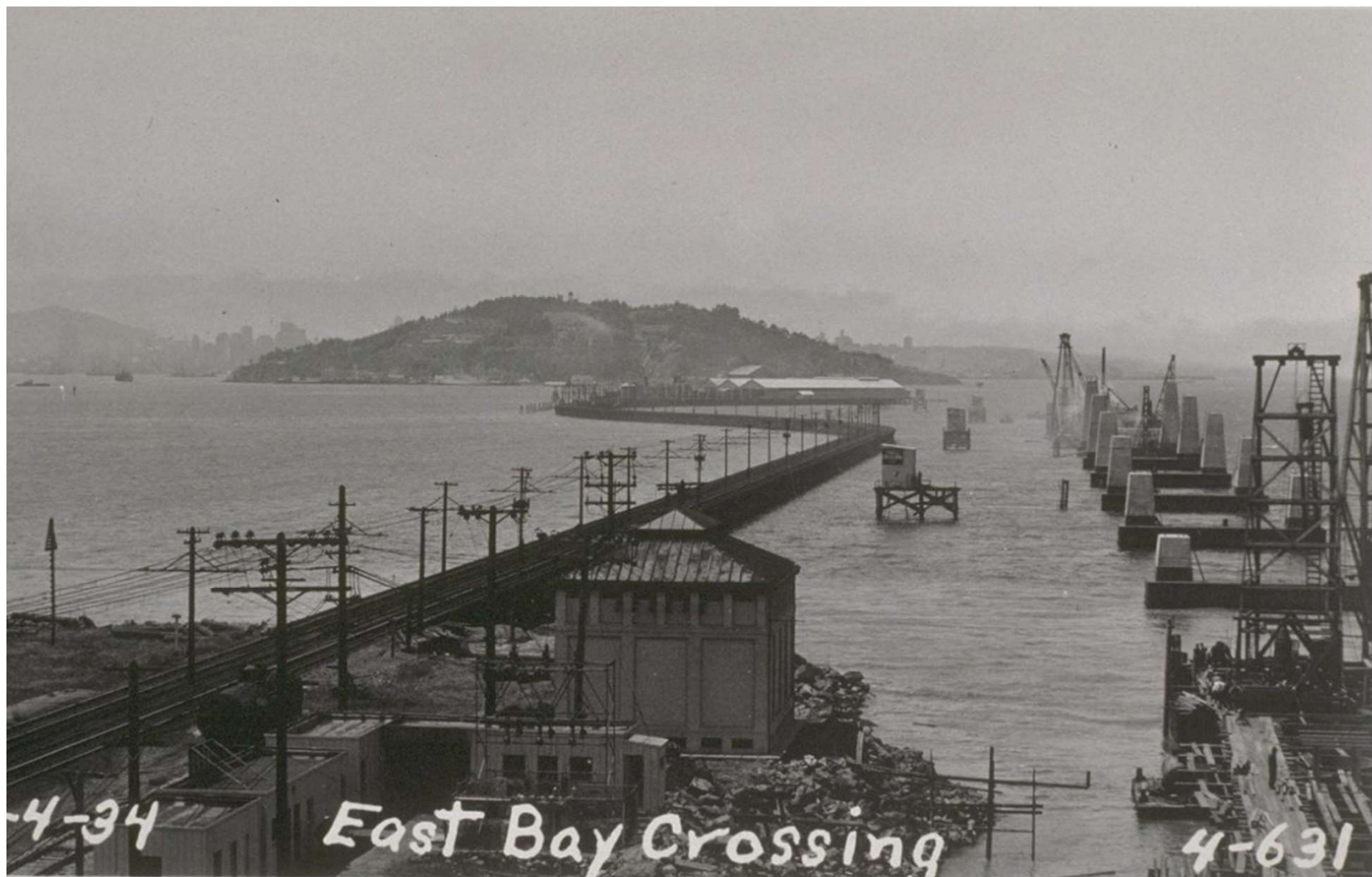
What will we build this time?



3-16-34

Piers E19-E22

4-513



4-34

East Bay Crossing

4-631

Thank You

robin@sfei.org

www.sfei.org

3-16-34

Piers E19-E22

4-513

