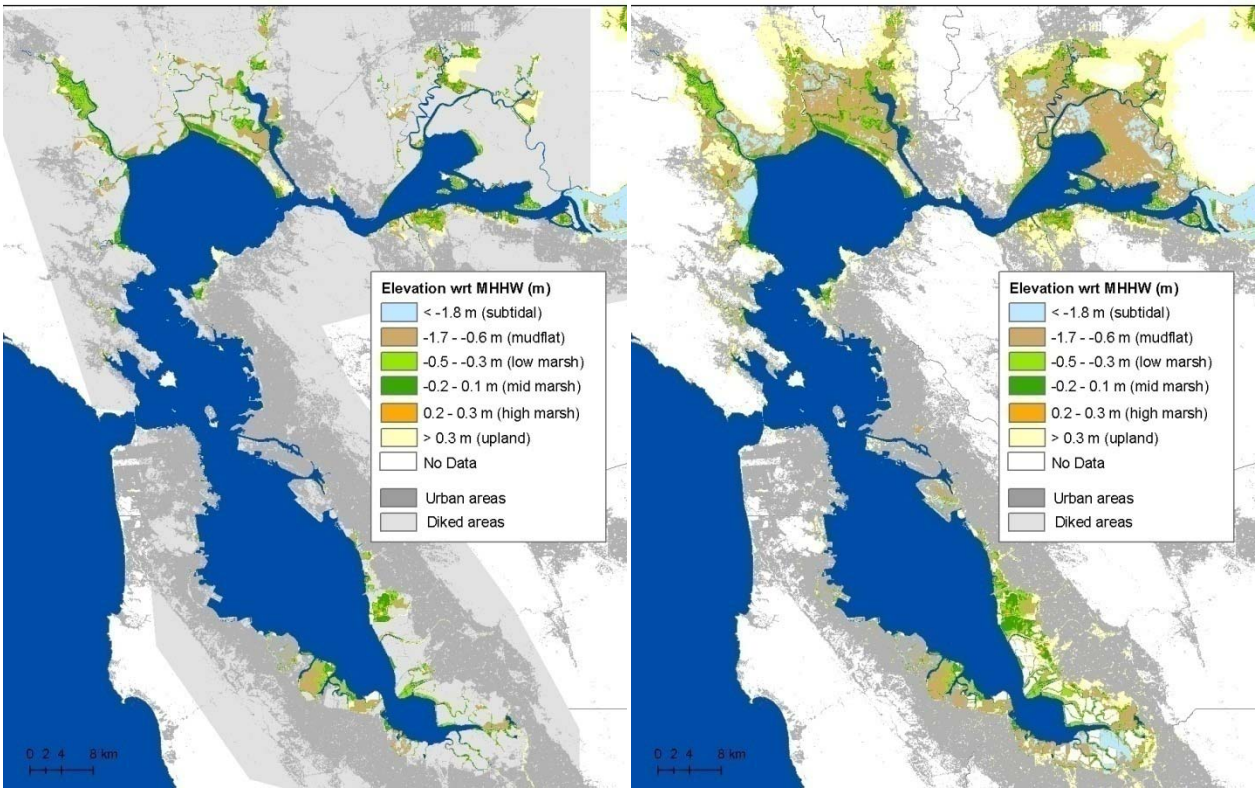

Figure 1. Existing (a) and potential (b) intertidal habitats in San Francisco Bay based on current elevations.

Exhibit 2. Results of Preliminary Wetland Modeling Efforts

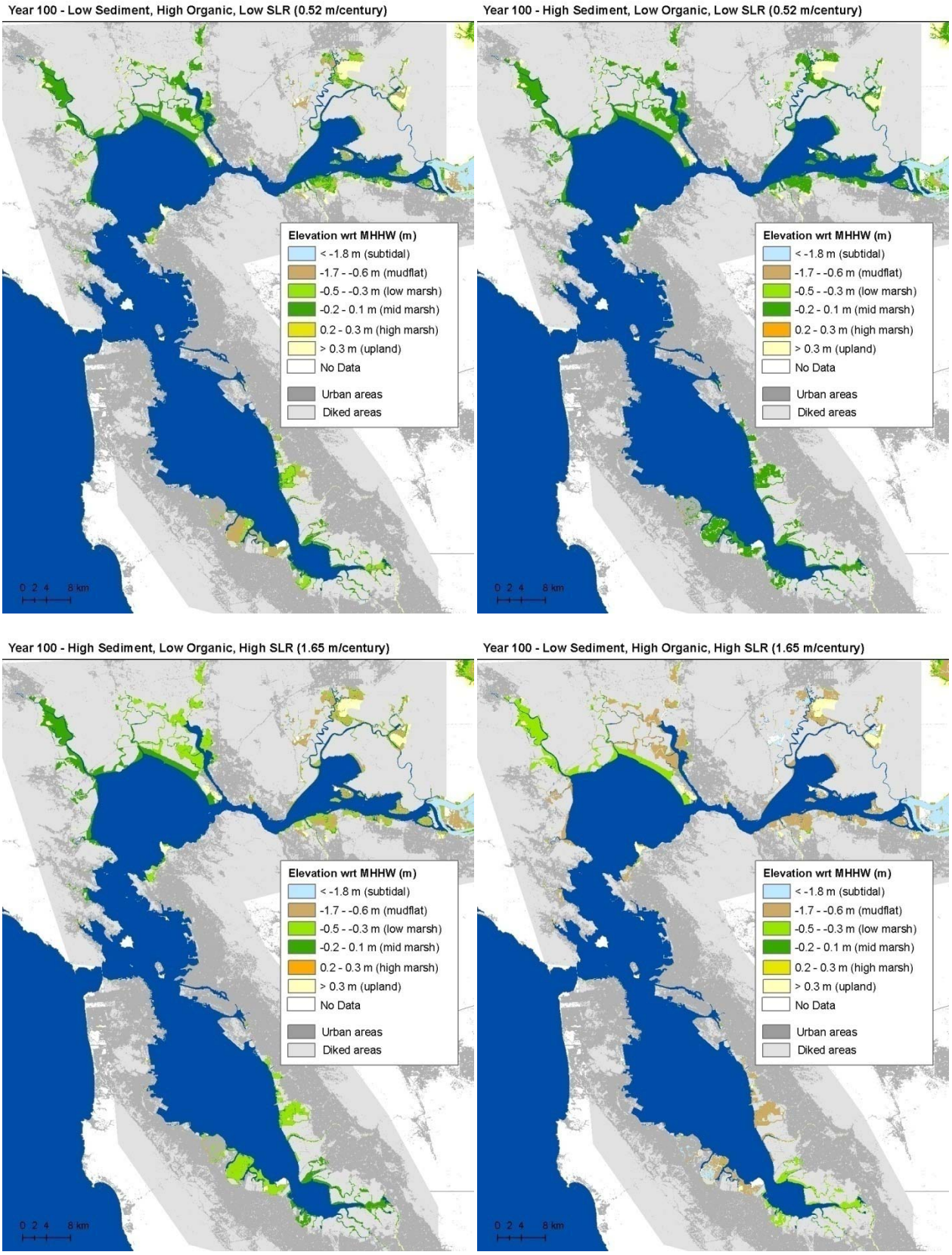

Figure 2. Potential 2110 intertidal habitats under different sea-level rise (SLR) and sediment availability assumptions with no removal of levees or other barriers to tidal inundation (A) high sediment / low SLR; (B) low sediment / low SLR; (C) high sediment / high SLR; (D) low sediment / high SLR. All scenarios shown assume low organic accumulation rates.

Exhibit 2. Results of Preliminary Wetland Modeling Efforts

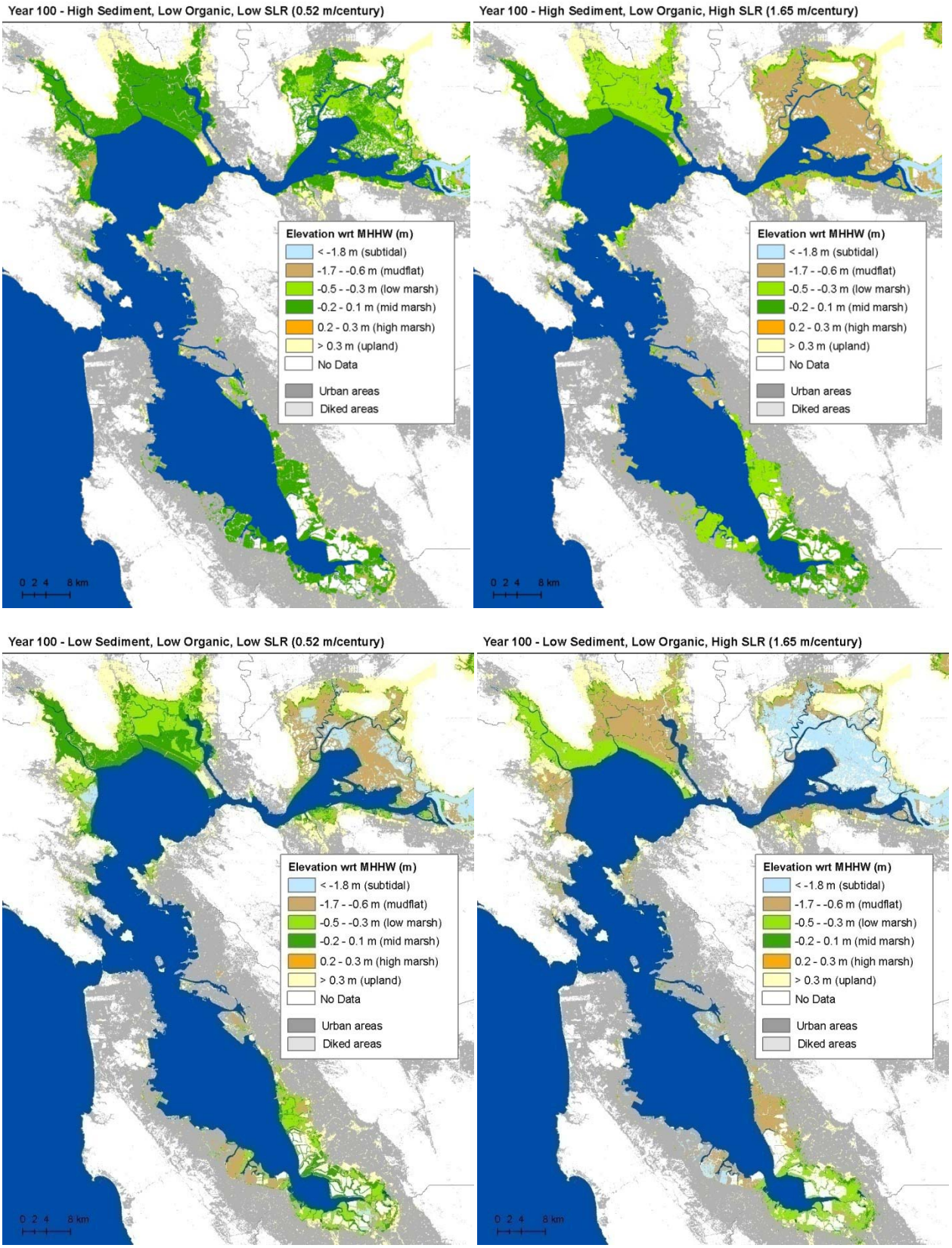

Figure 3. Potential 2110 intertidal habitats under different sea-level rise (SLR) and sediment availability assumptions with complete removal of all levees and other barriers to tidal inundation: (A) high sediment / low SLR; (B) low sediment / low SLR; (C) high sediment / high SLR; (D) low sediment / high SLR. All scenarios shown assume low organic accumulation rates.

Exhibit 2. Results of Preliminary Wetland Modeling Efforts

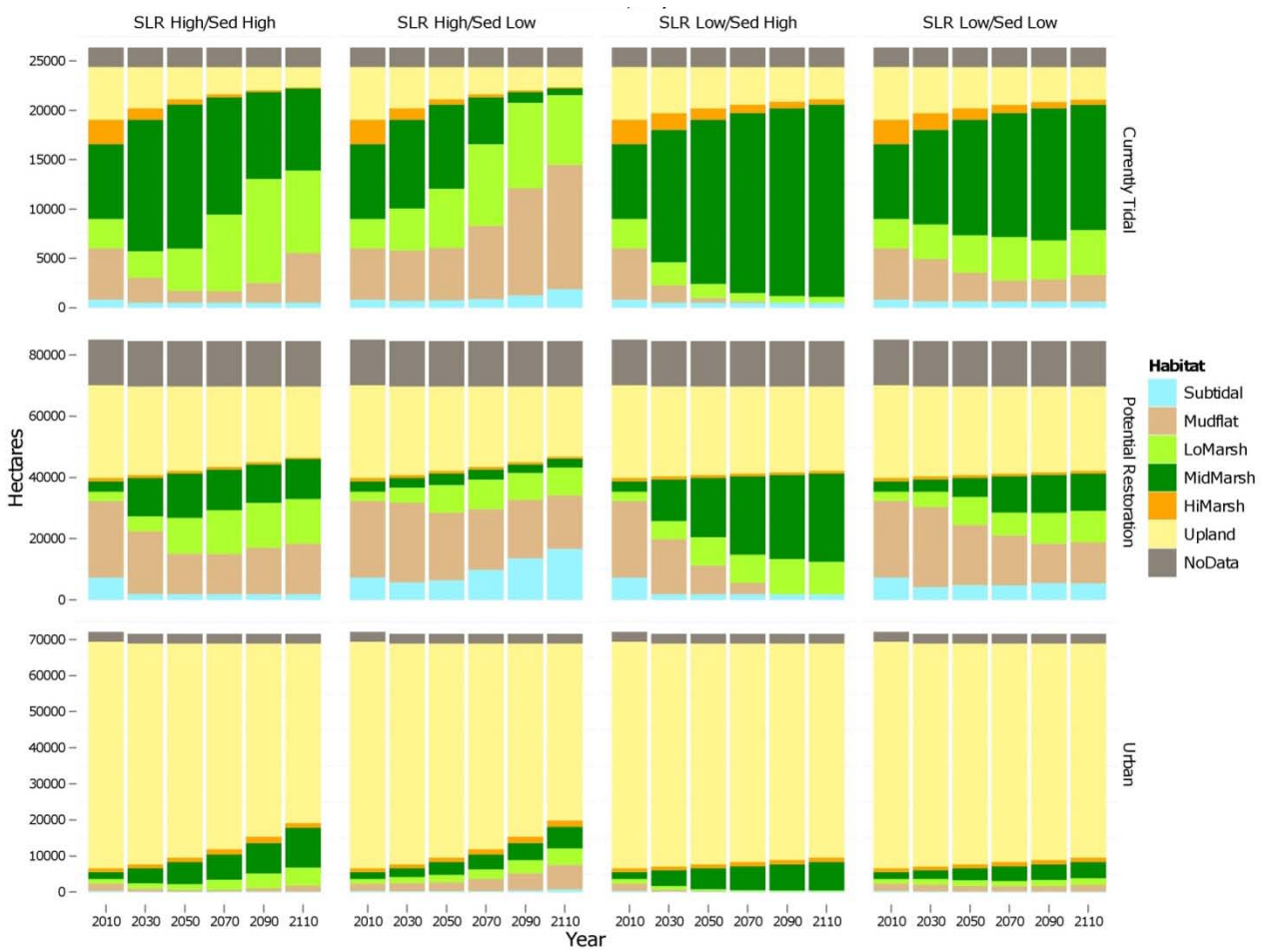

Figure 4. Area of potential future habitats within the study area[1] under different SLR and sediment scenarios: currently tidal, currently diked (potential restoration), and urban. Note different scales on each set of graphs.

1. The study area was defined using the EcoAtlas current baylands layer to approximate mean tide level (the delineation between tidal marsh and mudflat/open bay habitats), and the USGS national elevation dataset (NED) to define upland boundaries. We defined the upland boundary as the 50-foot contour line plus a 100-m horizontal buffer to account for error in the NED dataset.

Exhibit 2. Results of Preliminary Wetland Modeling Efforts

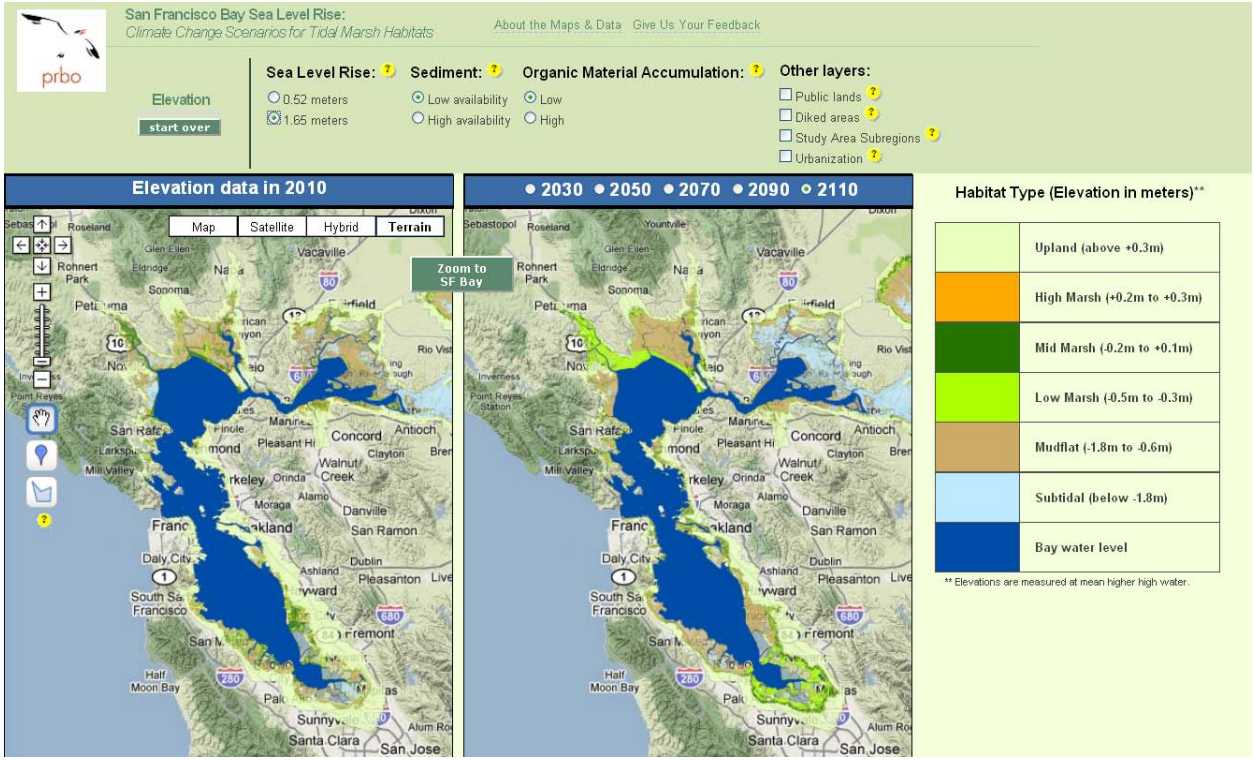

Figure 5. PRBO's preliminary version of an online map viewer and query tool to display the results of tidal marsh change projections (http://data.prbo.org/apps/sfbslr).

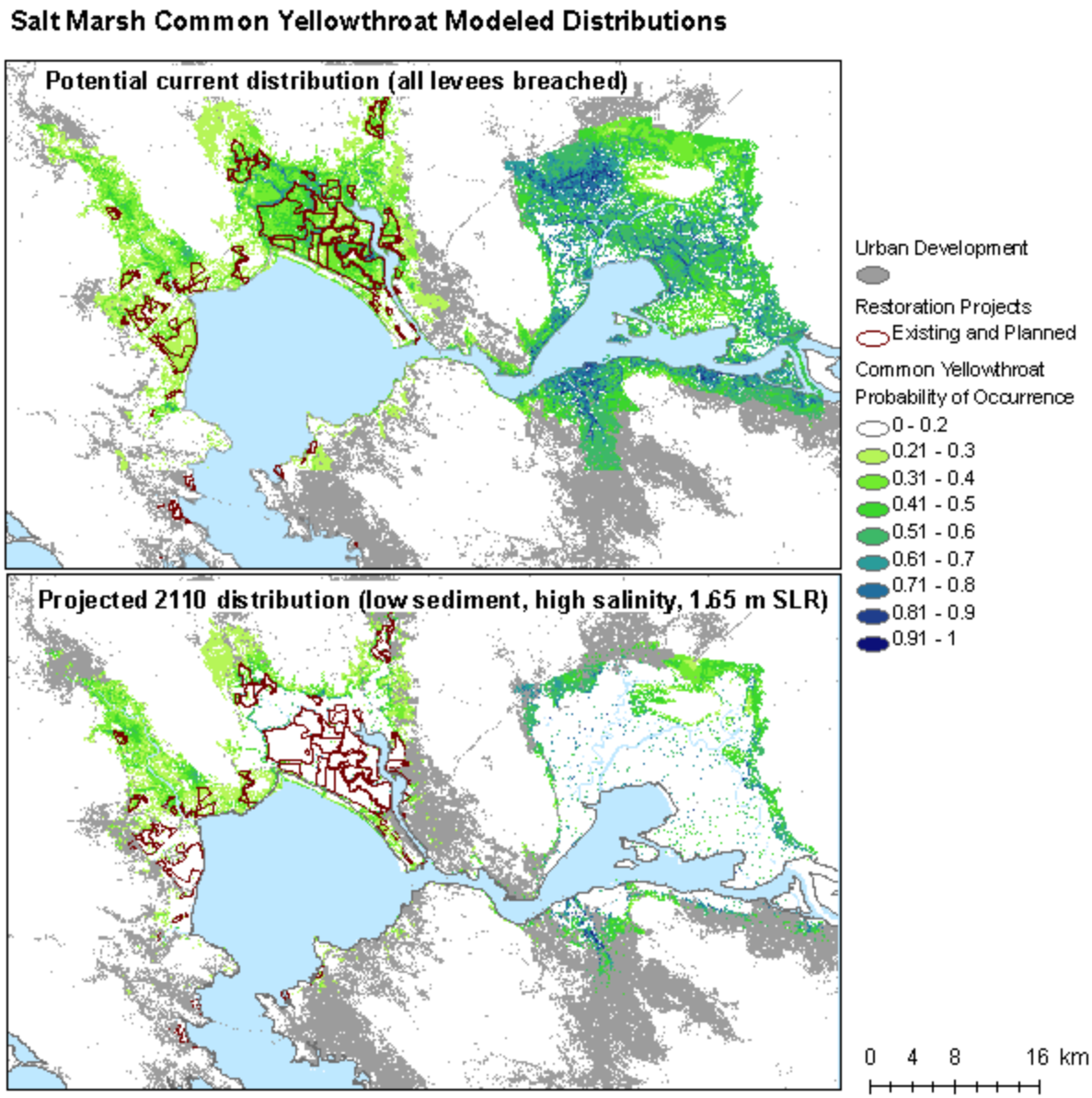

Figure 5. Example North Bay model projections for one species, Salt Marsh Common Yellowthroat, and one climate change scenario (low sediment, high salinity, 1.65 m sea-level rise). Blue colors represent higher suitability; green represents lower suitability; white represents very low suitability of absence of marsh habitat. Existing and planned restoration parcels (http://www.californiawetlands.net/tracker/ba/map) are indicated with a dark red outline. Existing urban development (http://www.csc.noaa.gov/digitalcoast/data/ccapregional/index.html) is indicated in gray.