Appendix E

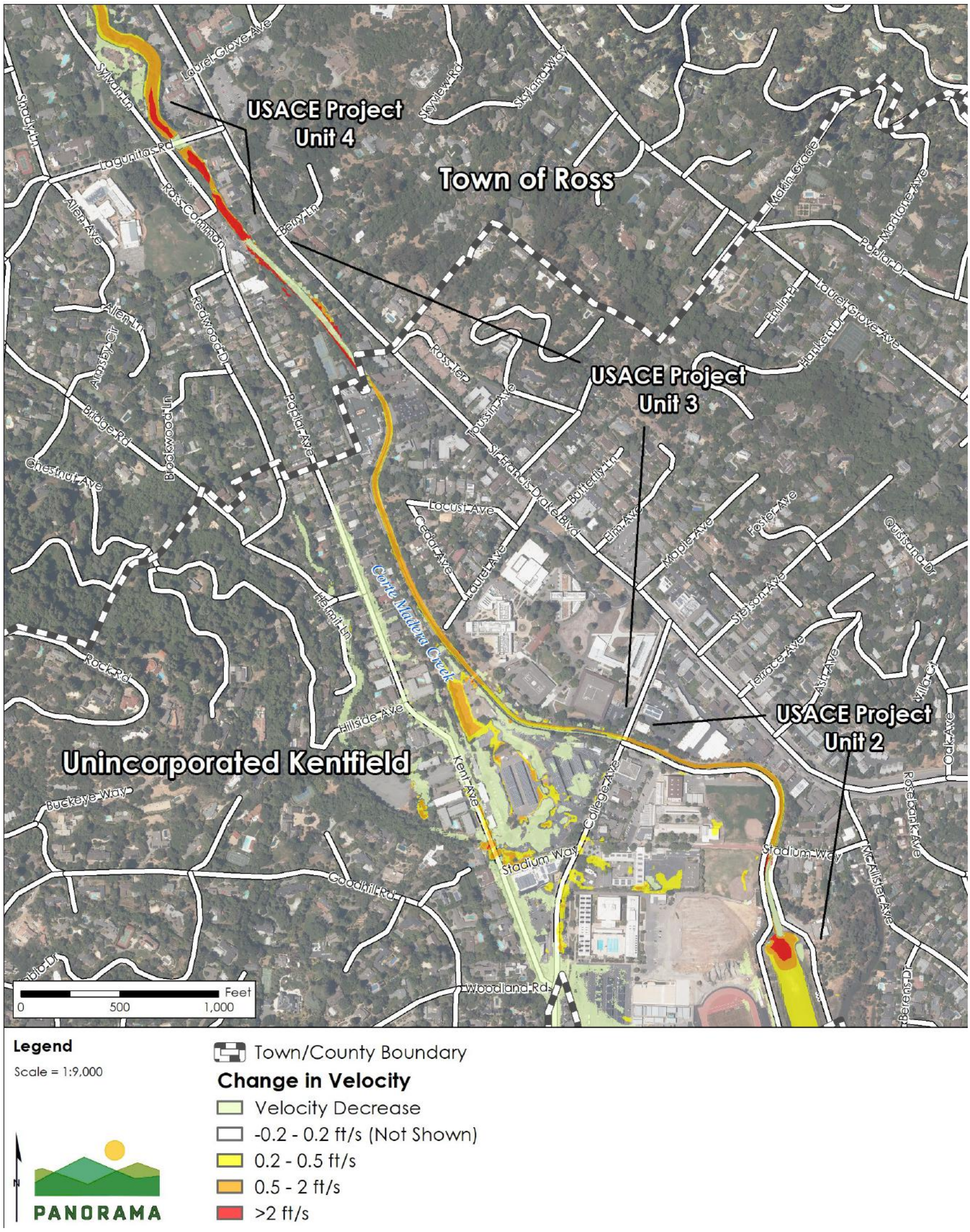
Supplemental Water Surface Elevation Change Maps

Supplemental Water Surface Elevation Maps

This appendix includes figures that supplement the analysis provided in Section 3.9 Hydrology and Water Quality. The figures show the project changes in velocity and model-predicted water surface elevation changes during 10-year, 25-year, and 100-year flood as follows:

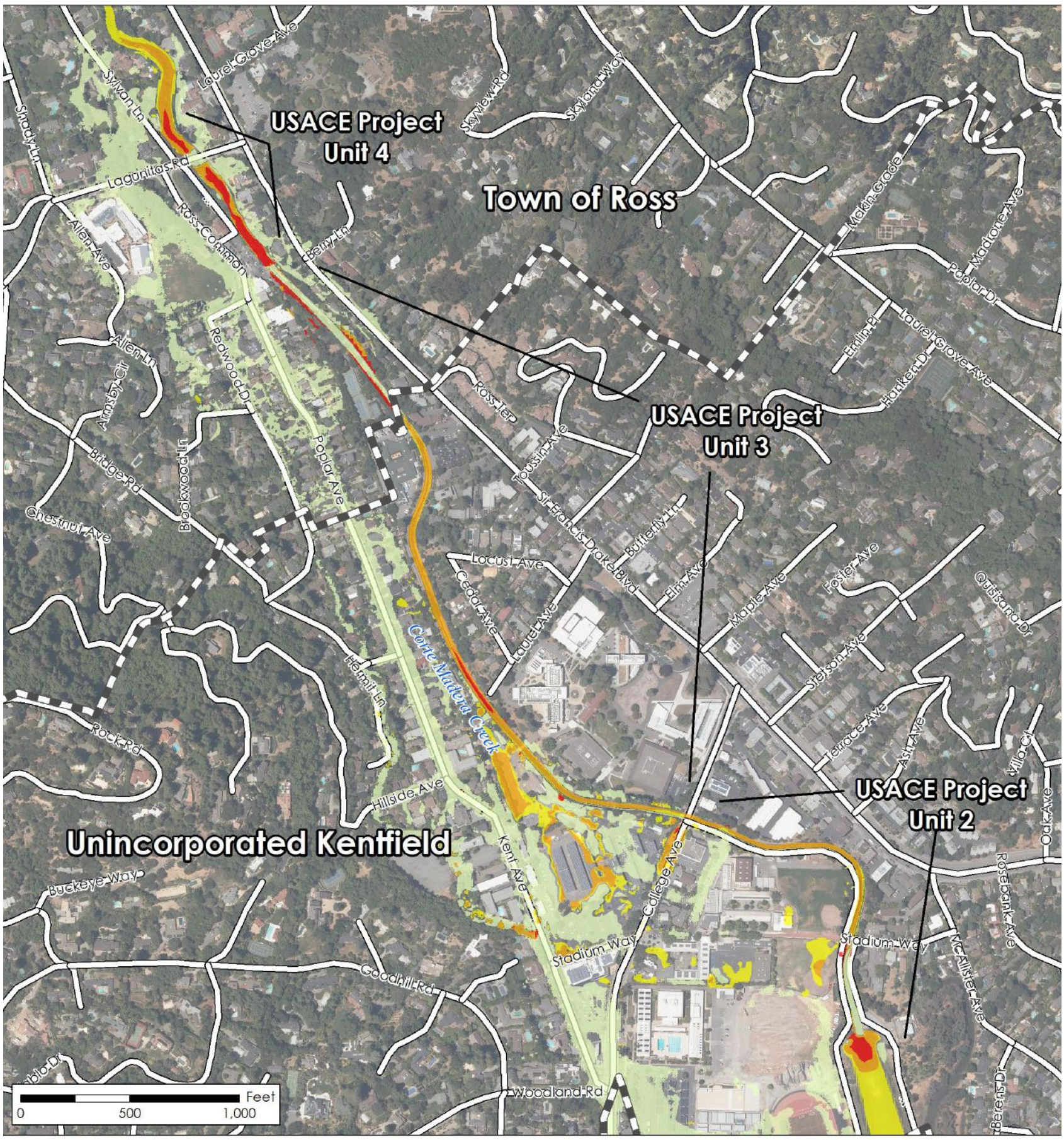
- Project changes in velocity during the 10-year, 25-year, and 100-year flood events under existing conditions (Figure E-1 to Figure E-3)
- Water surface elevation changes during the 10- year, 25-year, and 100-year flood events under existing conditions (Figure E-4 to Figure E-6)
- Model predicted water surface elevations for the existing condition without project and existing condition with project during the 10-year, 25-year, and 100-year flood events (Figure E-7 to Figure E-12)
- Model predicted water surface elevations for the future condition without project and the future condition with project during the 10-year, 25-year, and 100-year flood events (Figure E-13 to Figure E-18)

Figure E-1 Project Changes in Velocity from Existing Conditions, 10-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-2 Project Changes in Velocity from Existing Conditions, 25-Year Flood Event



Legend

Scale = 1:9,000

Town/County Boundary

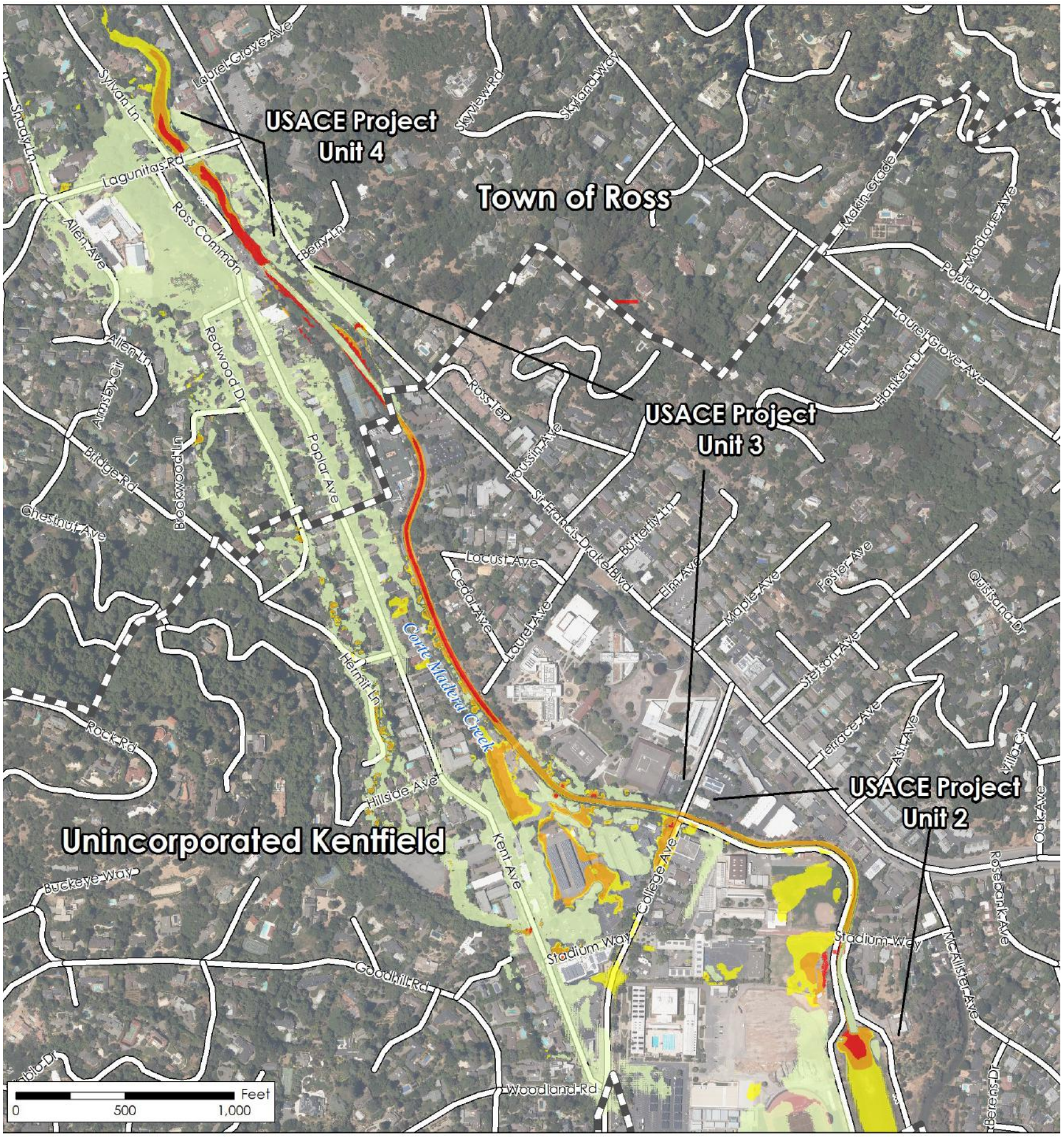
Change in Velocity

- Velocity Decrease
- -0.2 - 0.2 ft/s (Not Shown)
- 0.2 - 0.5 ft/s
- 0.5 - 2 ft/s
- >2 ft/s

PANORAMA

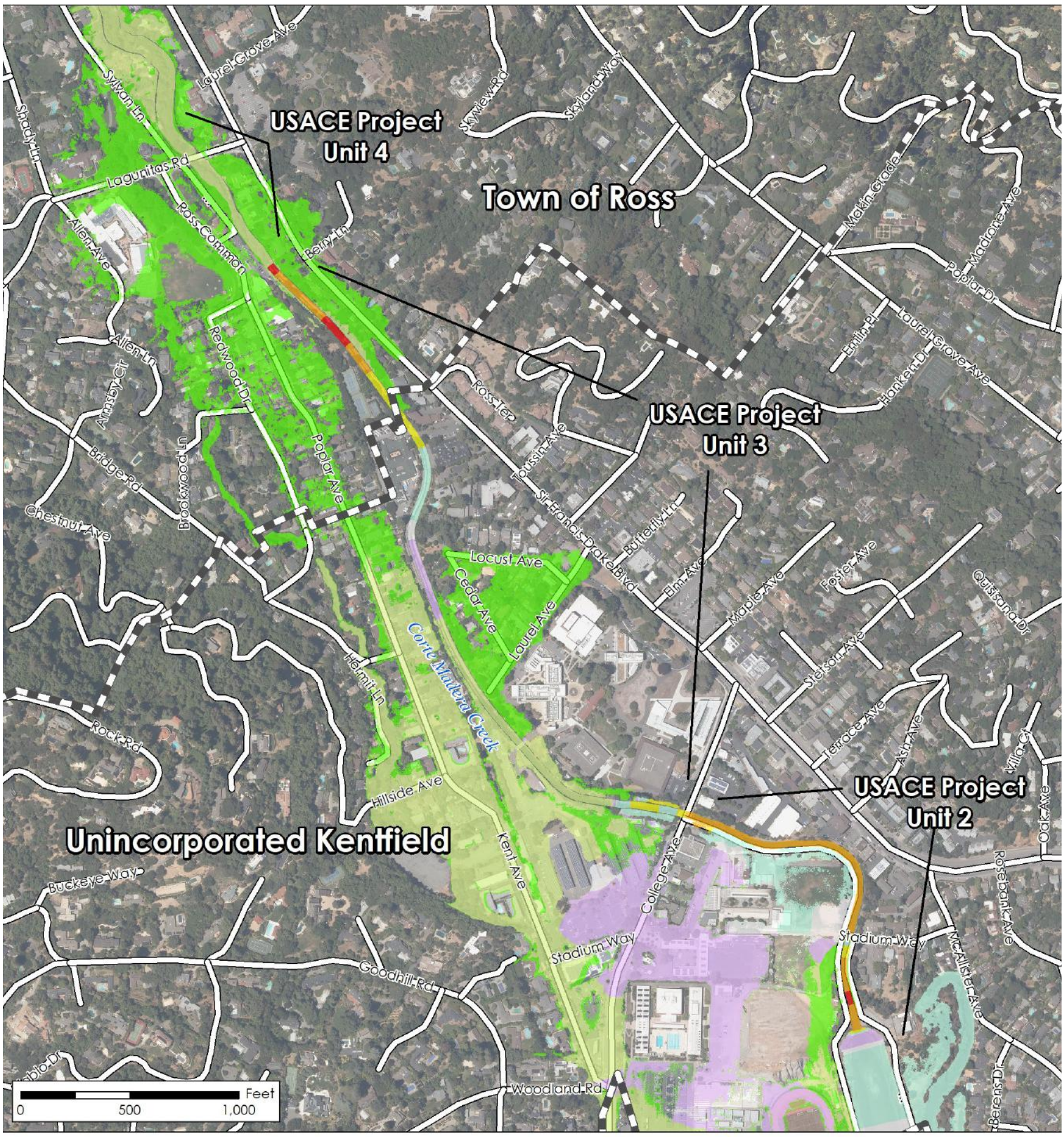
Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-3 Project Changes in Velocity from Existing Conditions, 100-Year Flood Event



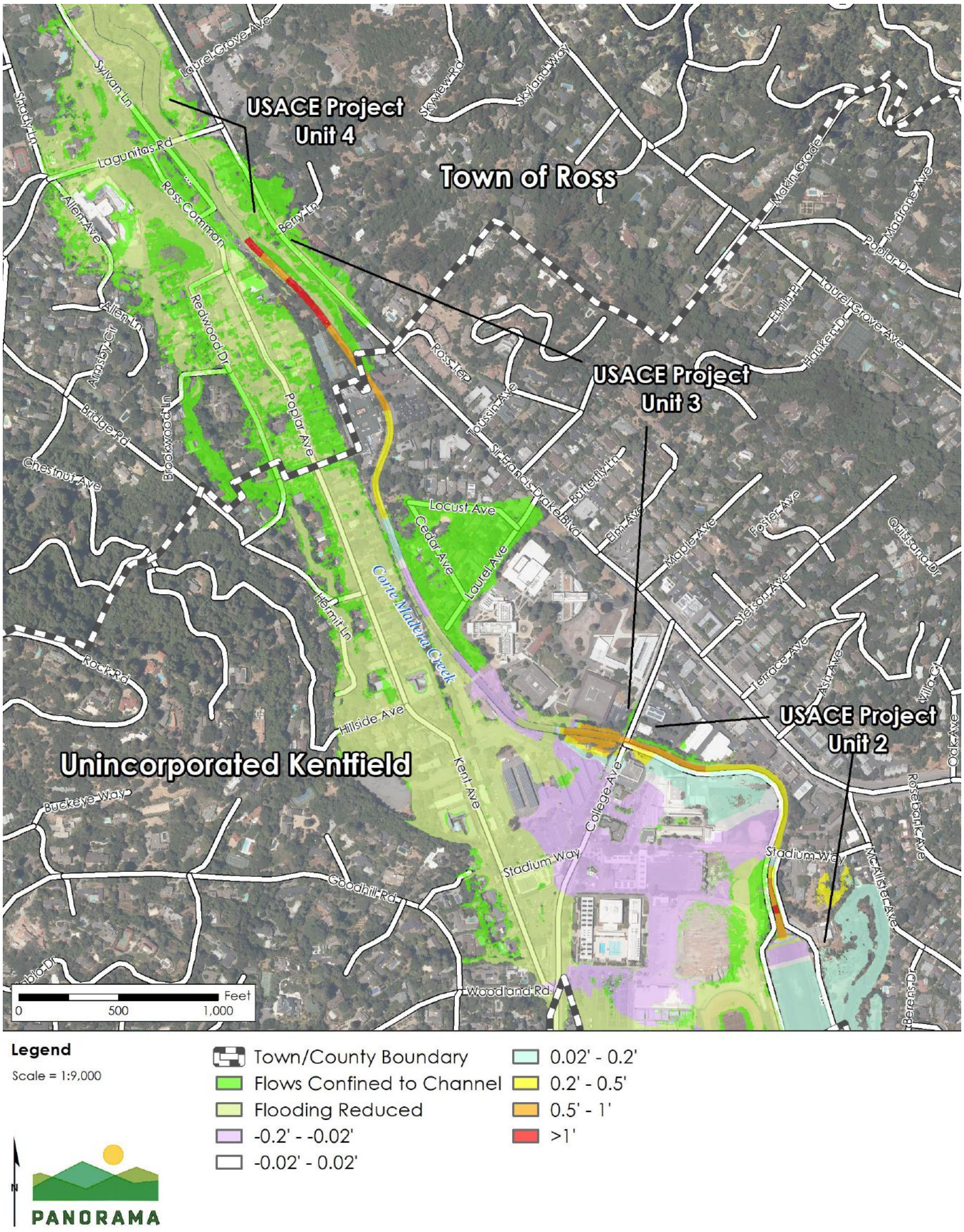
Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-4 Project Changes in Water Surface Elevation from Existing Conditions, 10-Year Flood Event



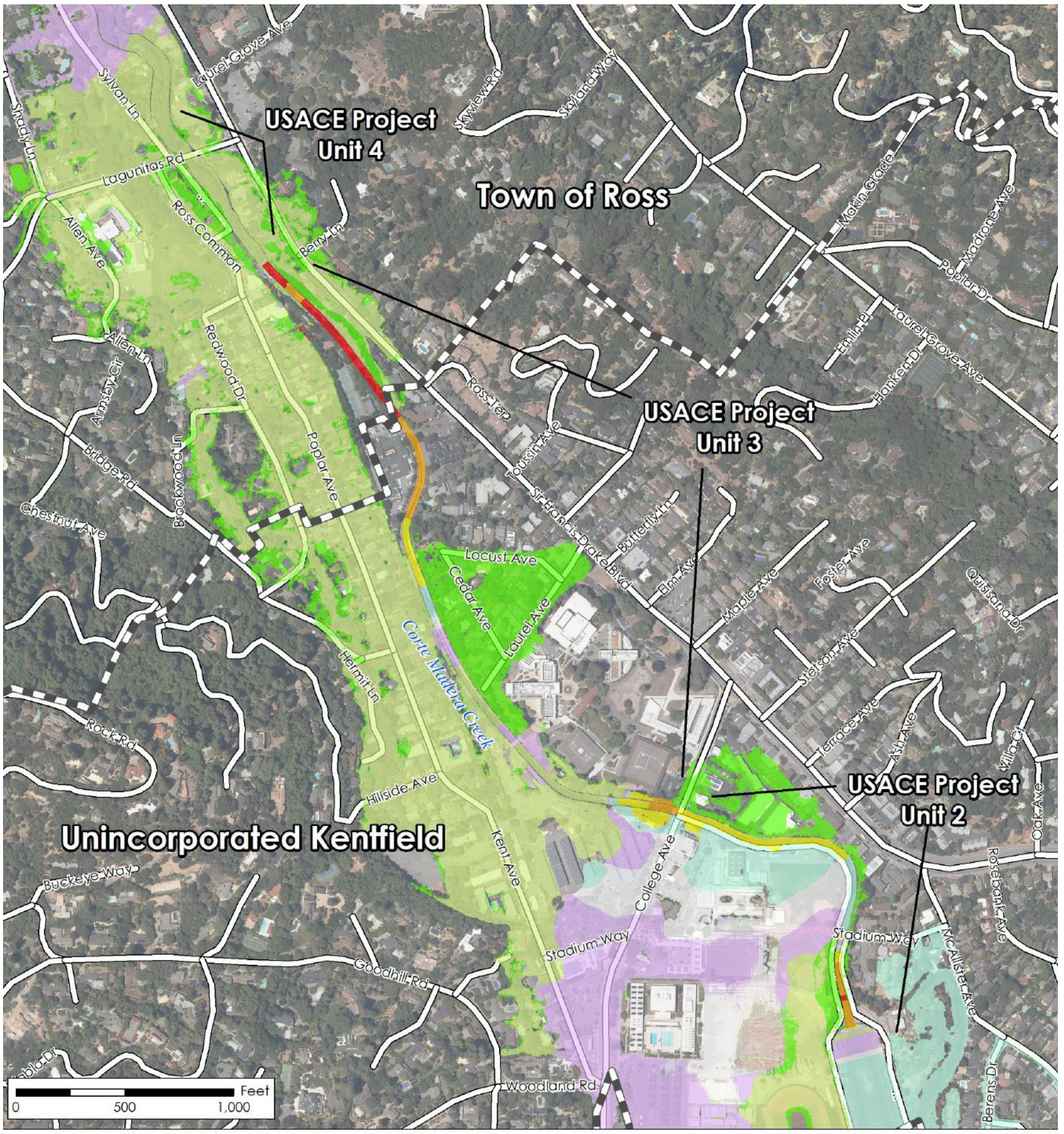
Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-5 Project Changes in Water Surface Elevation from Existing Conditions, 25-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E- 6 Project Changes in Water Surface Elevation from Existing Conditions, 100-Year Flood Event



Legend

Scale = 1:9,000

- Town/County Boundary
- Flows Confined to Channel
- Flooding Reduced
- -0.2' - -0.02'
- -0.02' - 0.02'
- 0.02' - 0.2'
- 0.2' - 0.5'
- 0.5' - 1'
- >1'

PANORAMA

Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-7 Water Surface Elevation, Existing Condition Without Project, 10-Year Flood Event

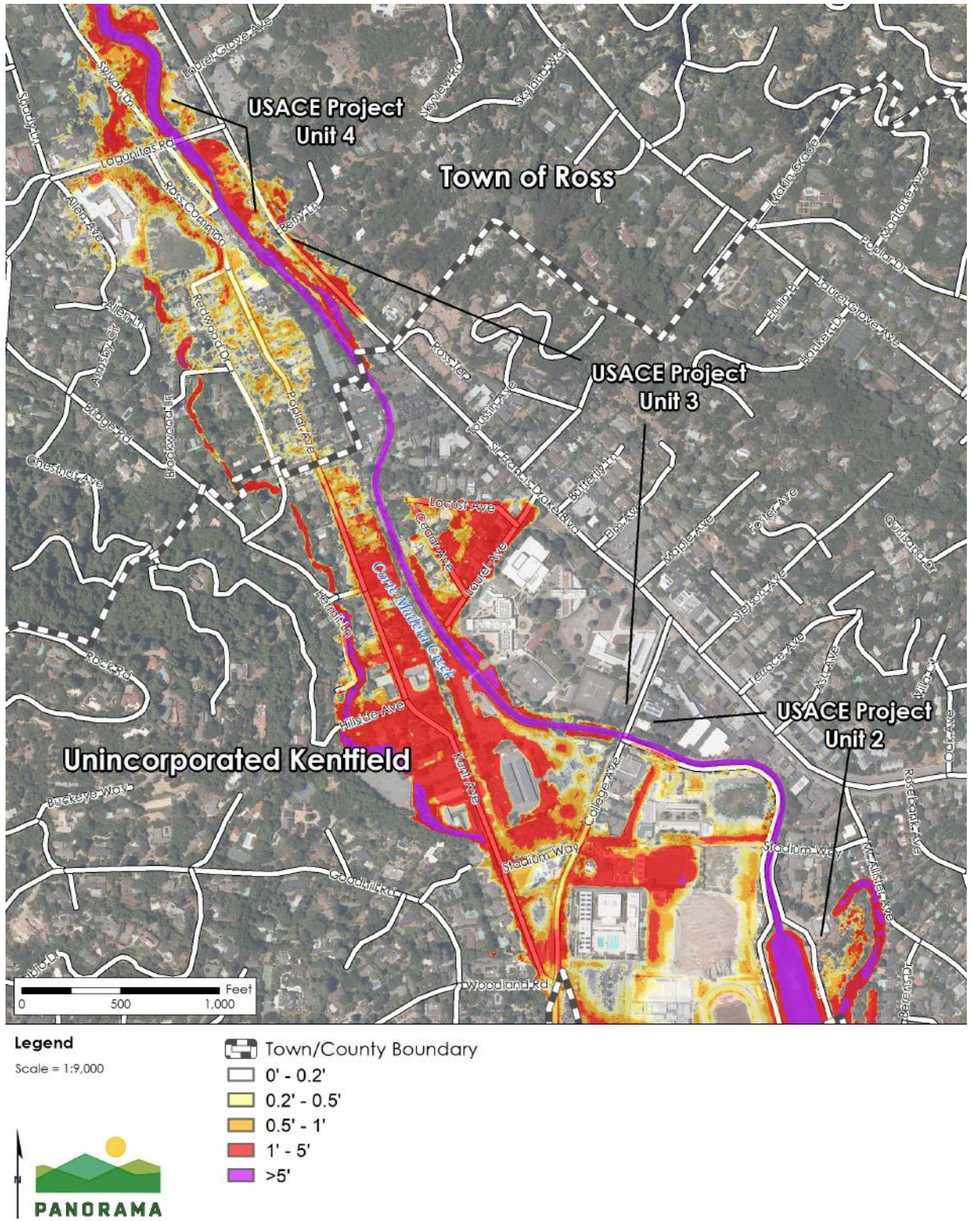
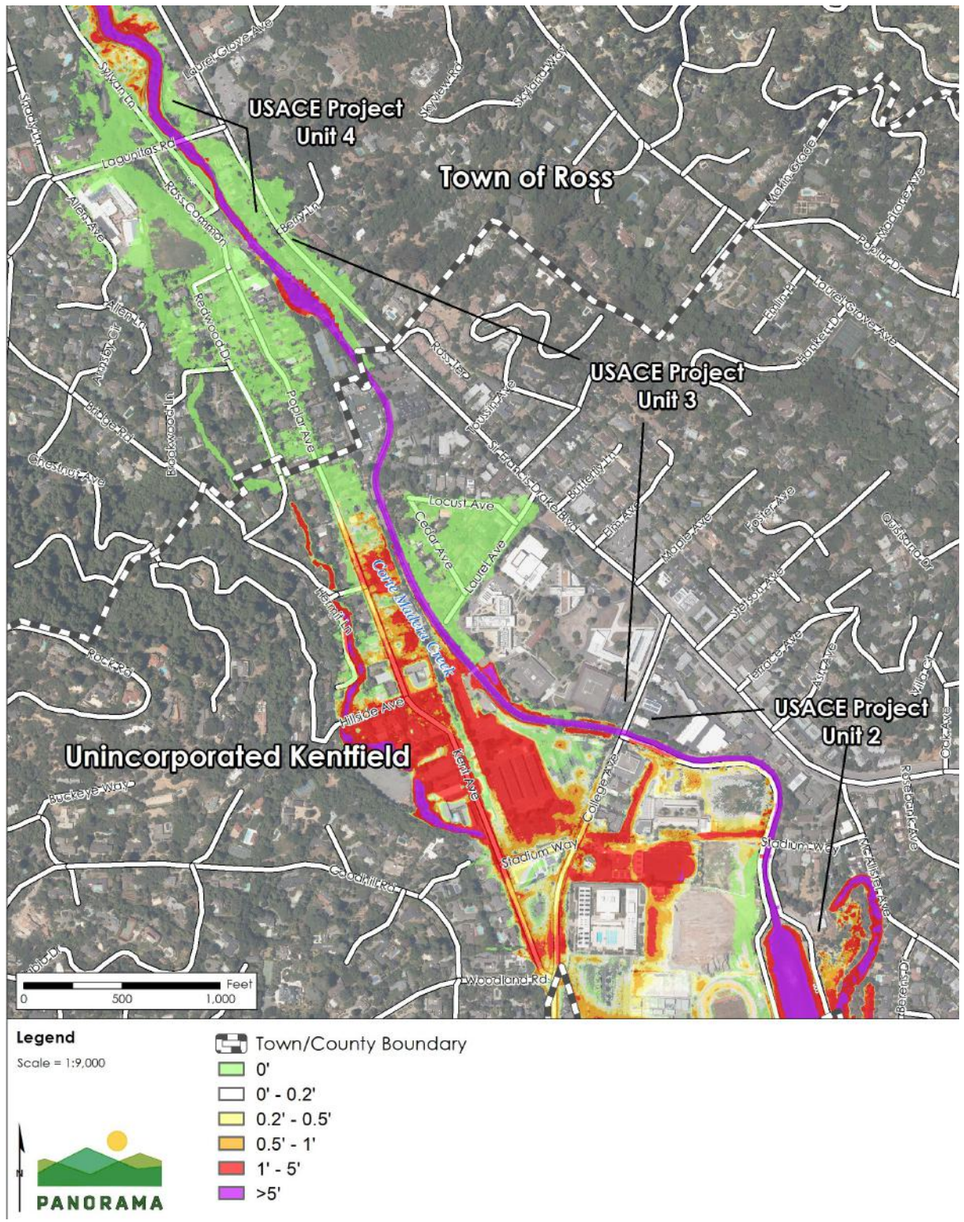


Figure E-8 Water Surface Elevation, Existing Condition With Project, 10-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-9 Water Surface Elevation, Existing Condition Without Project, 25-Year Flood Event

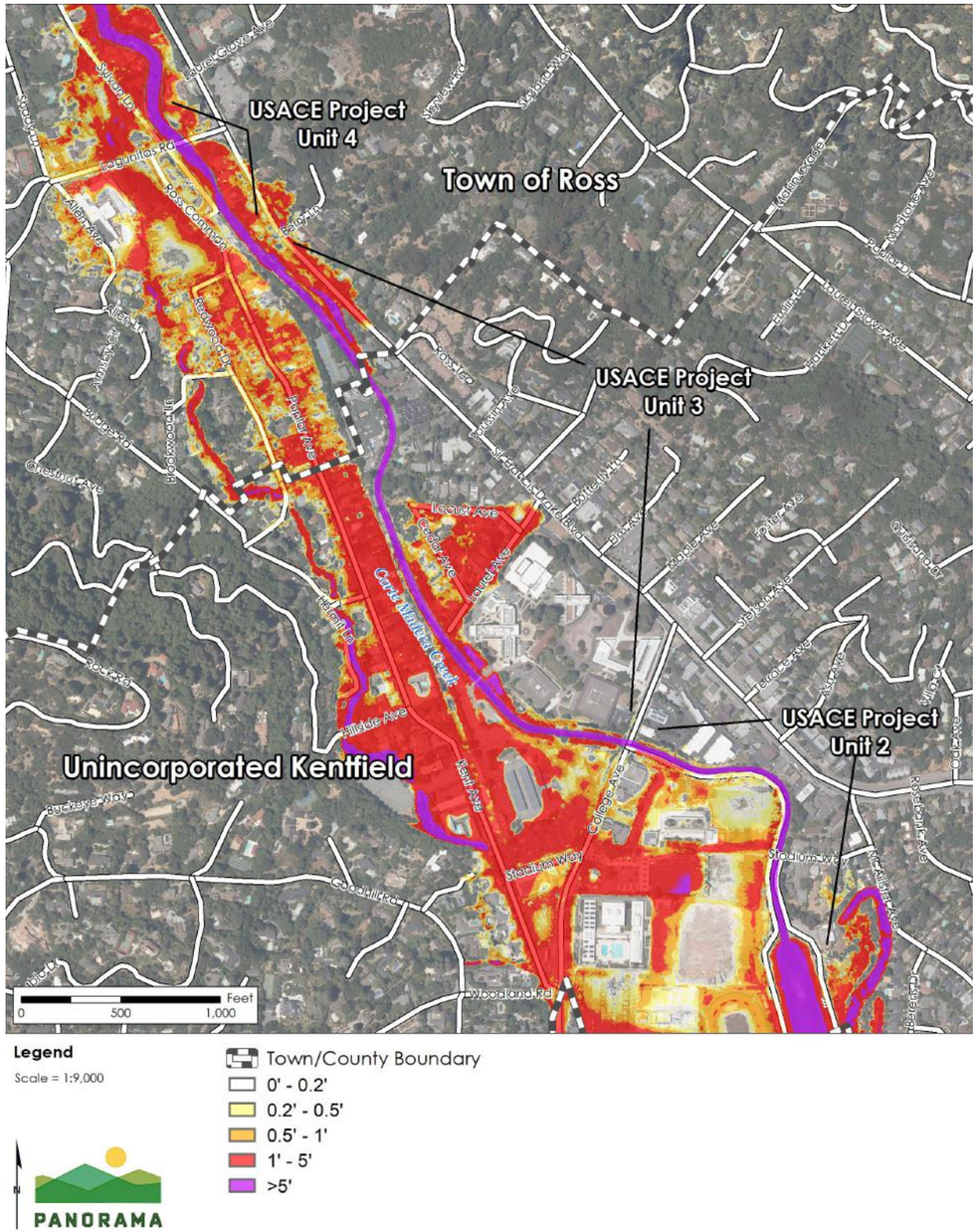
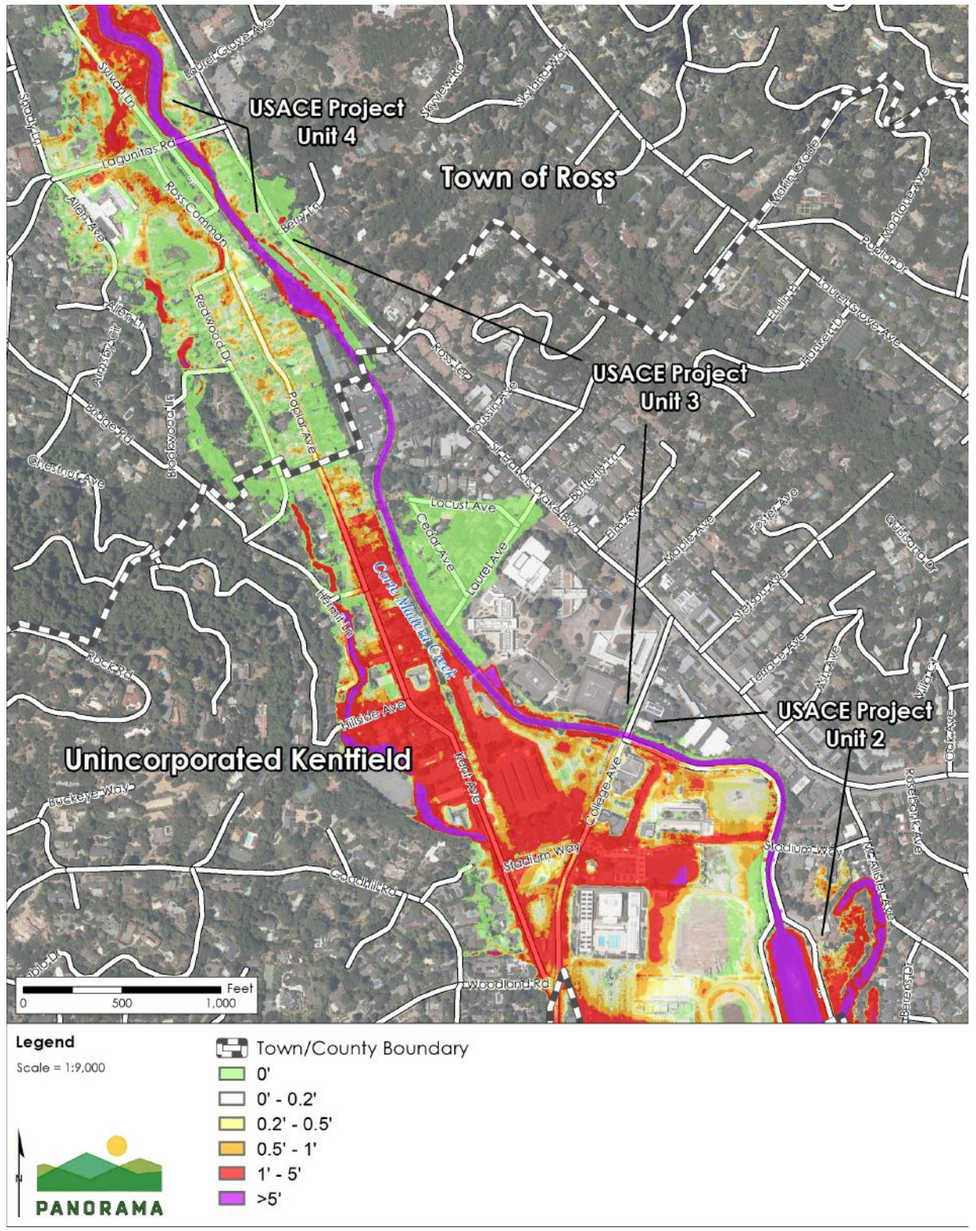


Figure E-10 Water Surface Elevation, Existing Condition With Project, 25-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-11 Water Surface Elevation, Existing Condition Without Project, 100-Year Flood Event

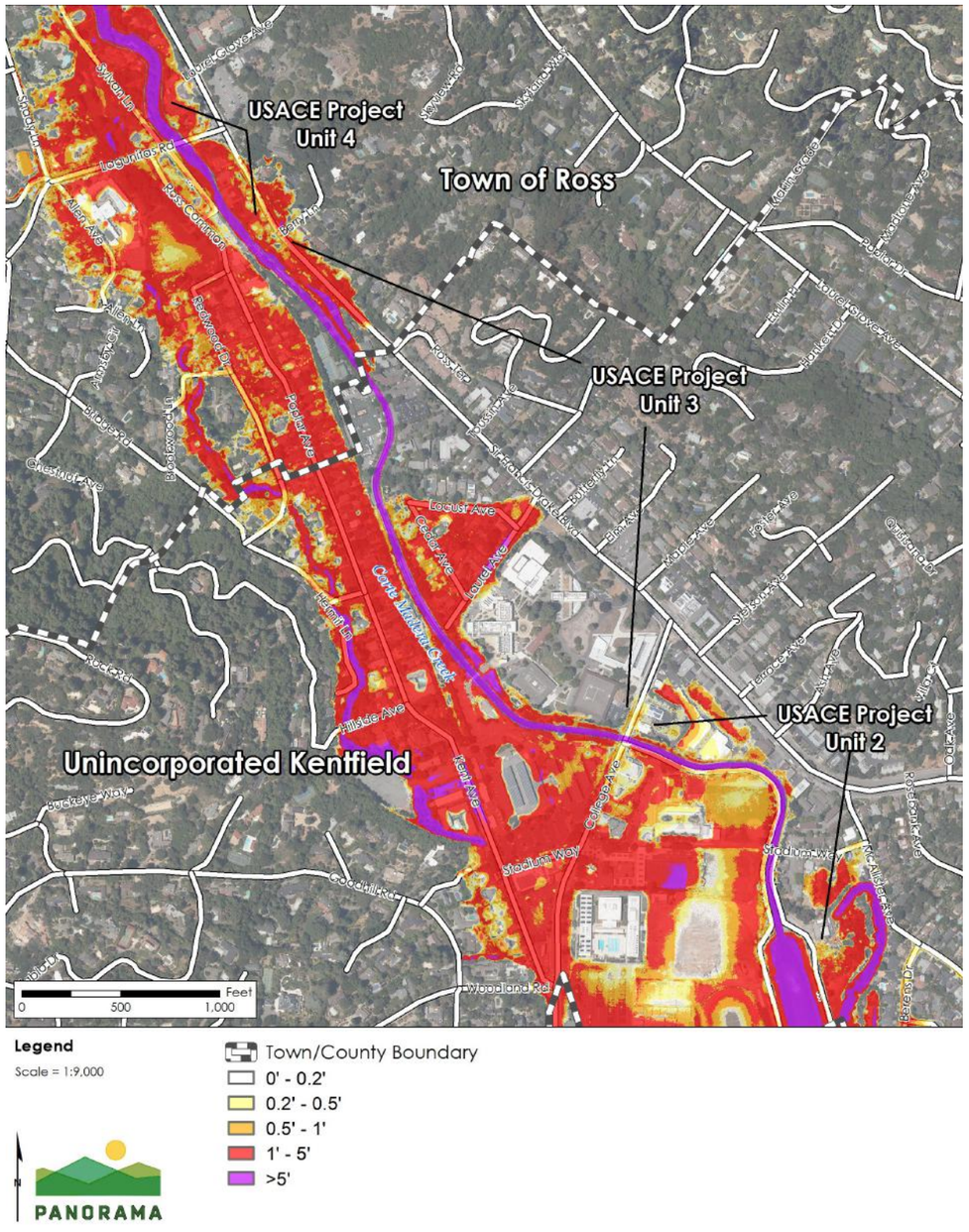
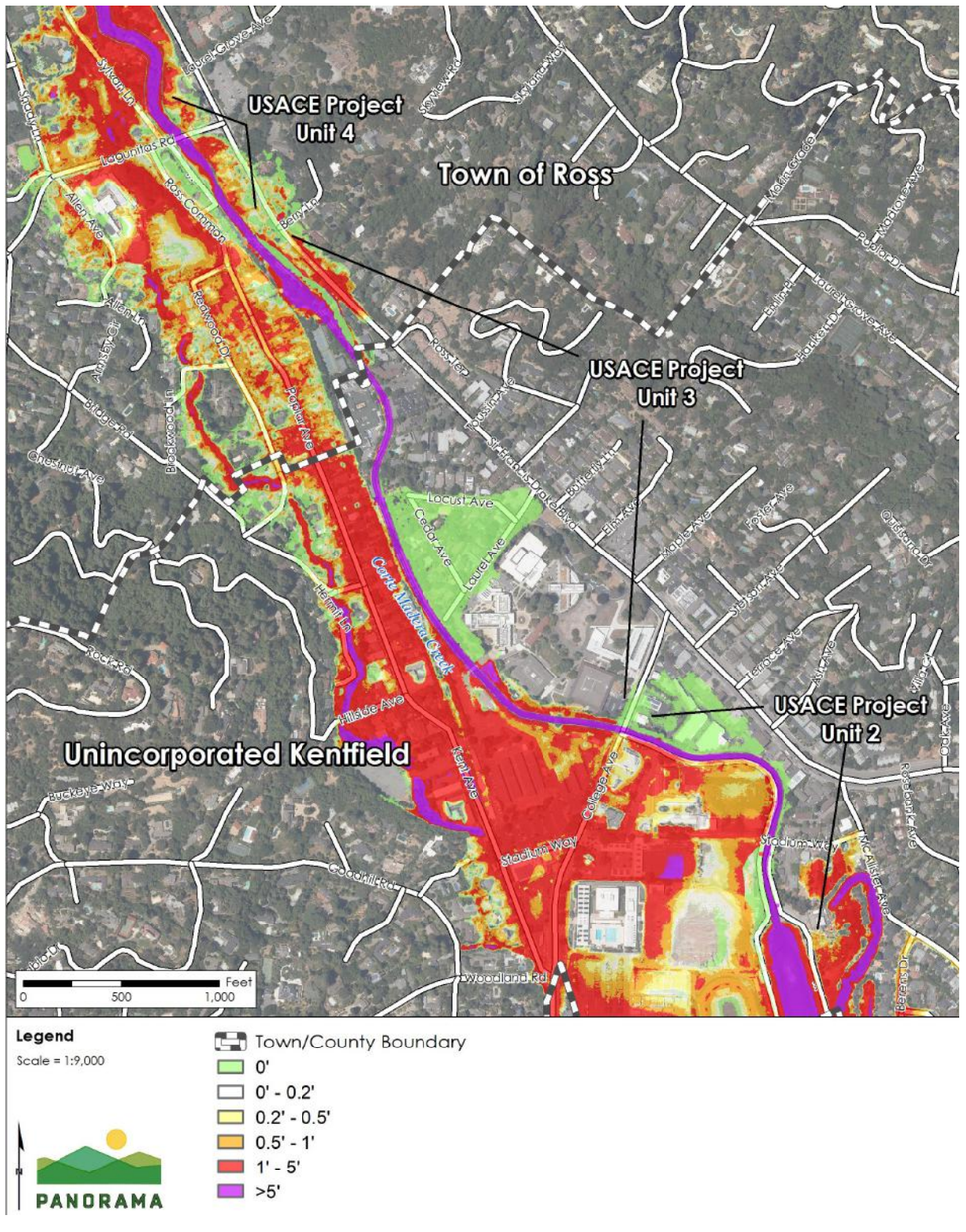


Figure E-12 Water Surface Elevation, Existing Condition With Project, 100-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-13 Water Surface Elevation, Future Condition Without Project, 10-Year Flood Event

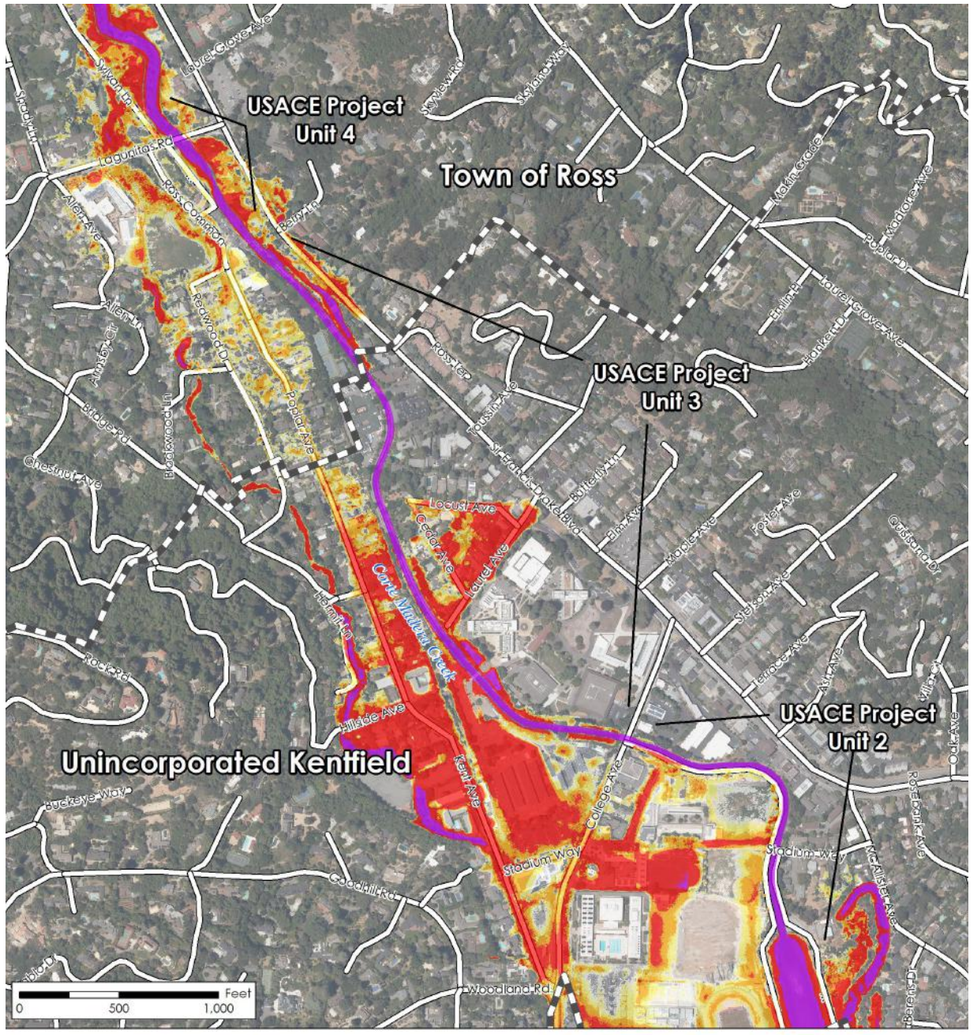
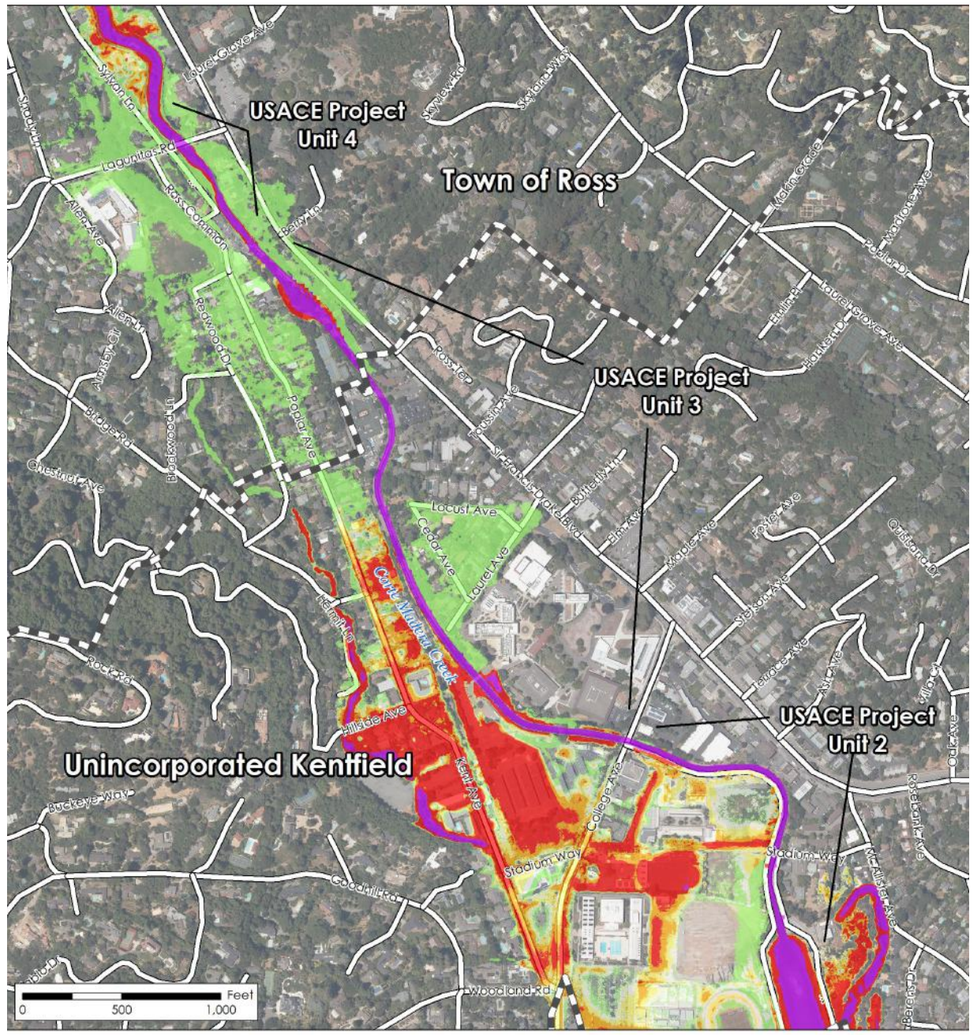


Figure E-14 Water Surface Elevation, Future Condition With Project, 10-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-15 Water Surface Elevation, Future Condition Without Project, 25-Year Flood Event

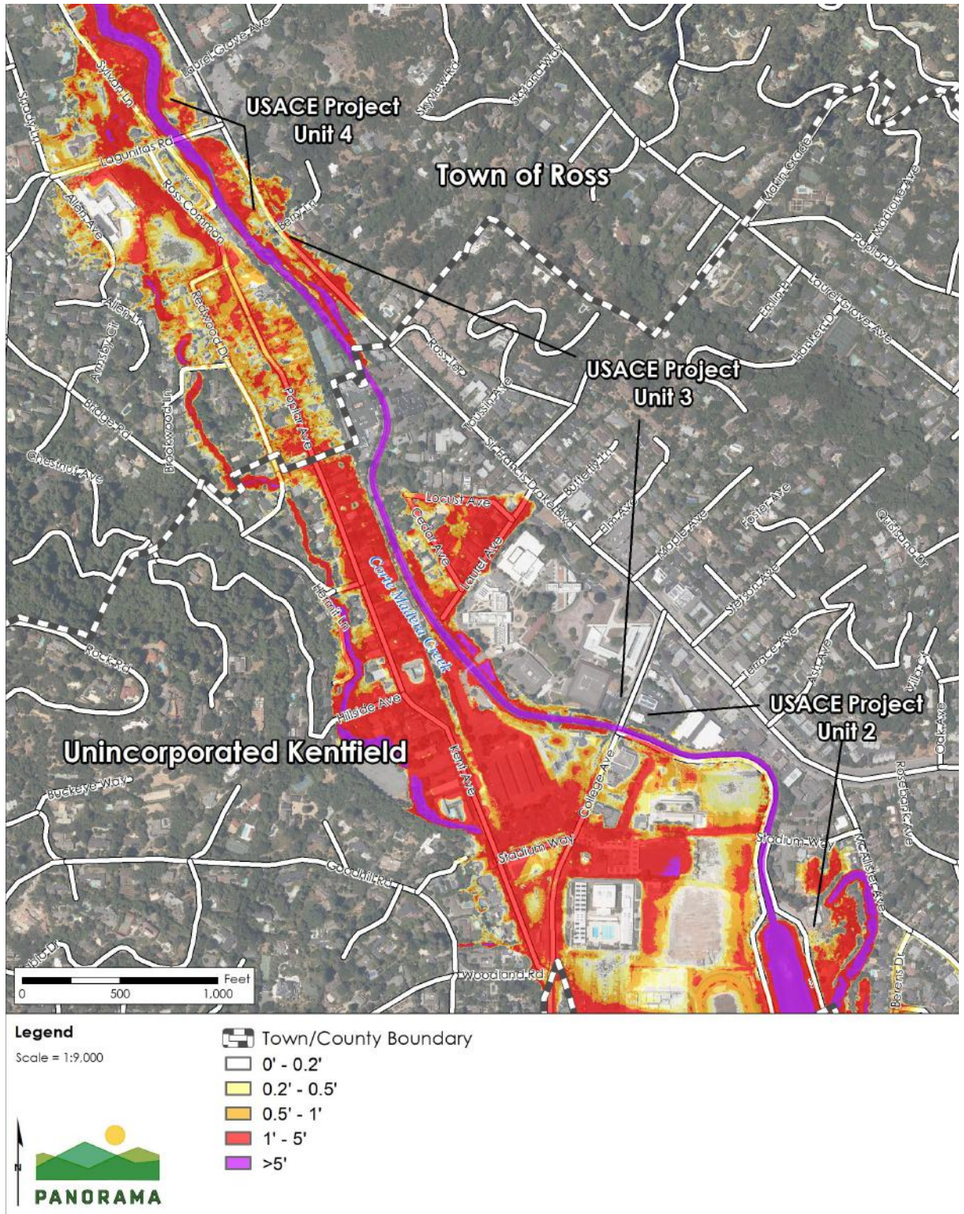
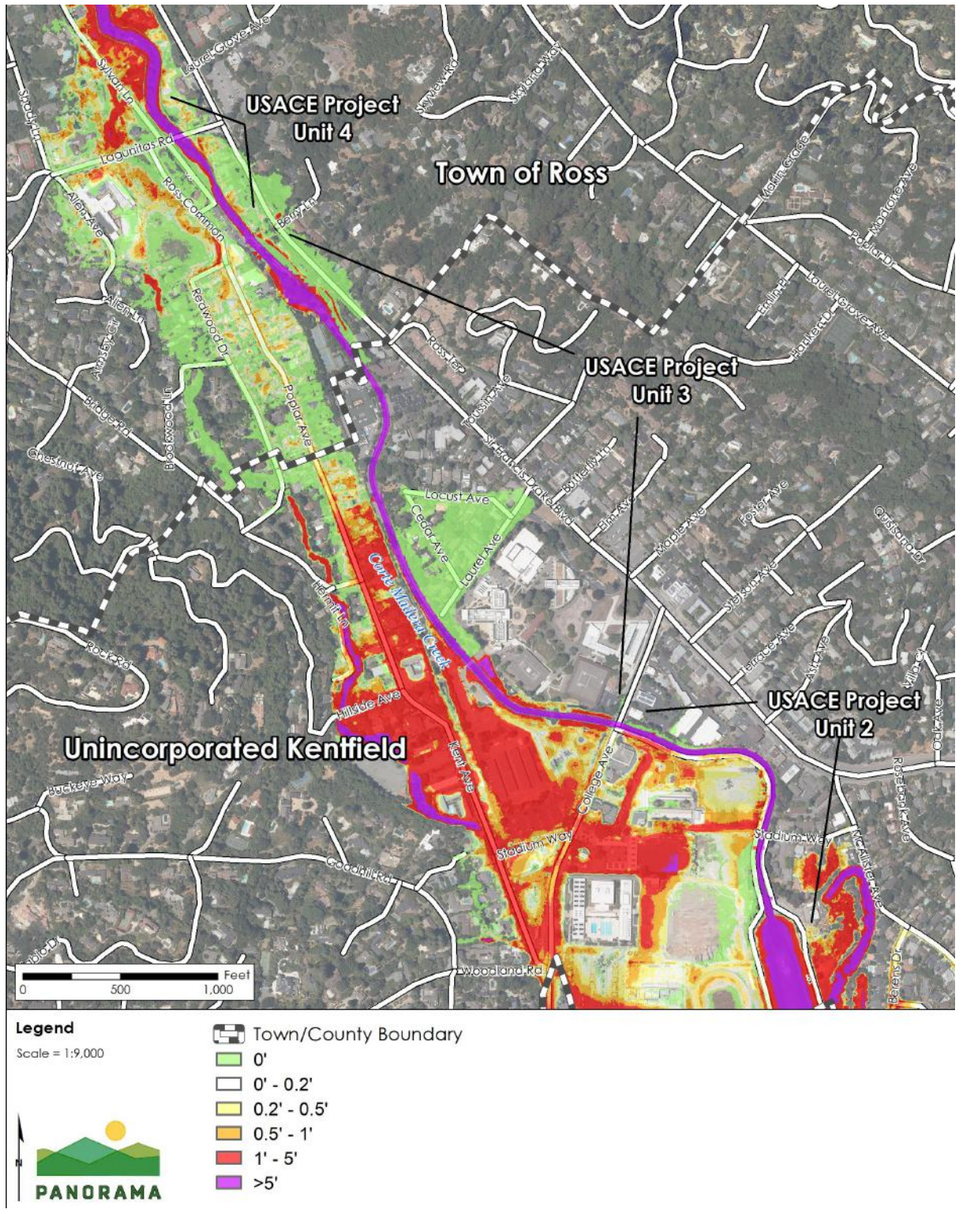


Figure E-16 Water Surface Elevation, Future Condition With Project, 25-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

Figure E-17 Water Surface Elevation, Future Condition Without Project, 100-Year Flood Event

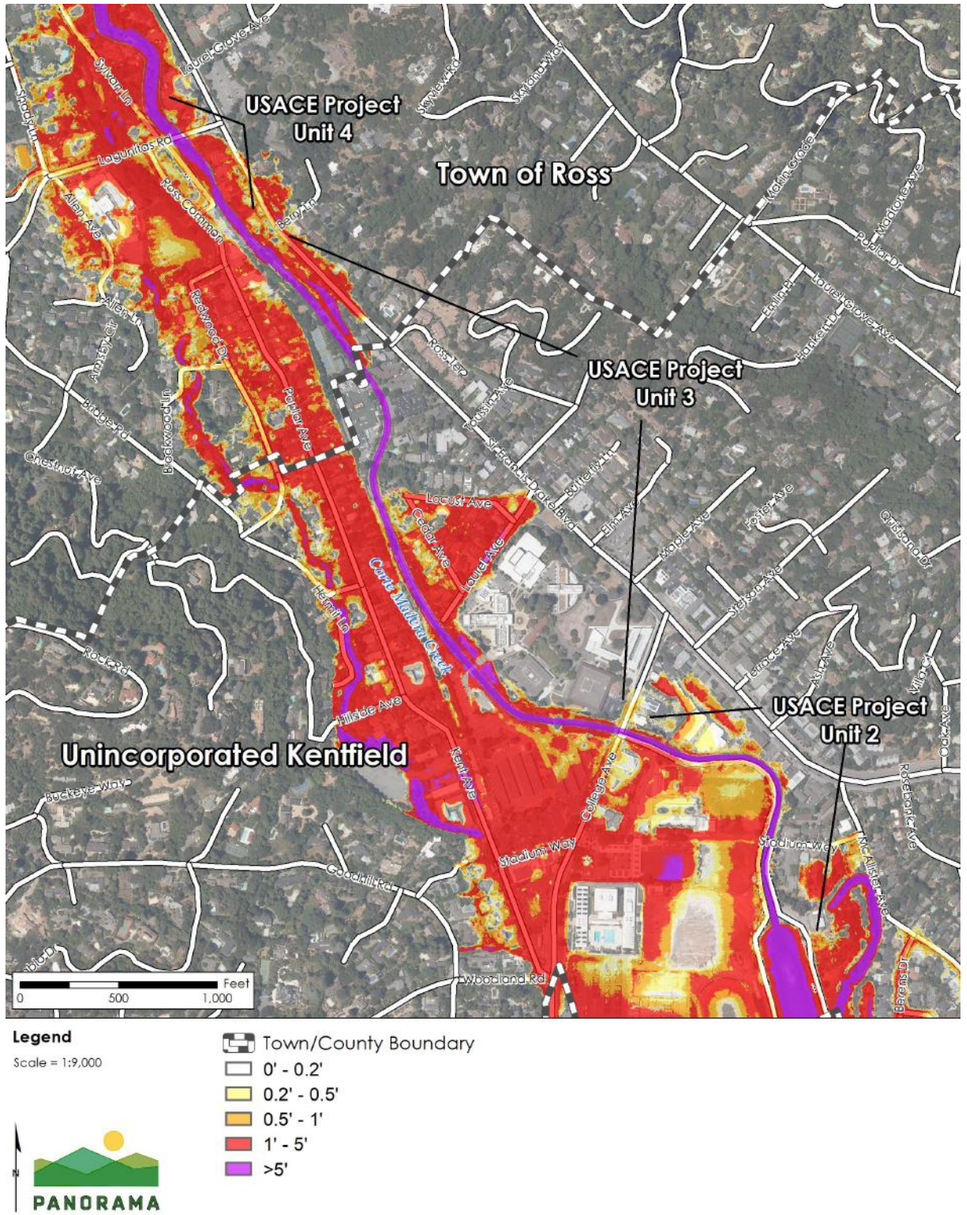
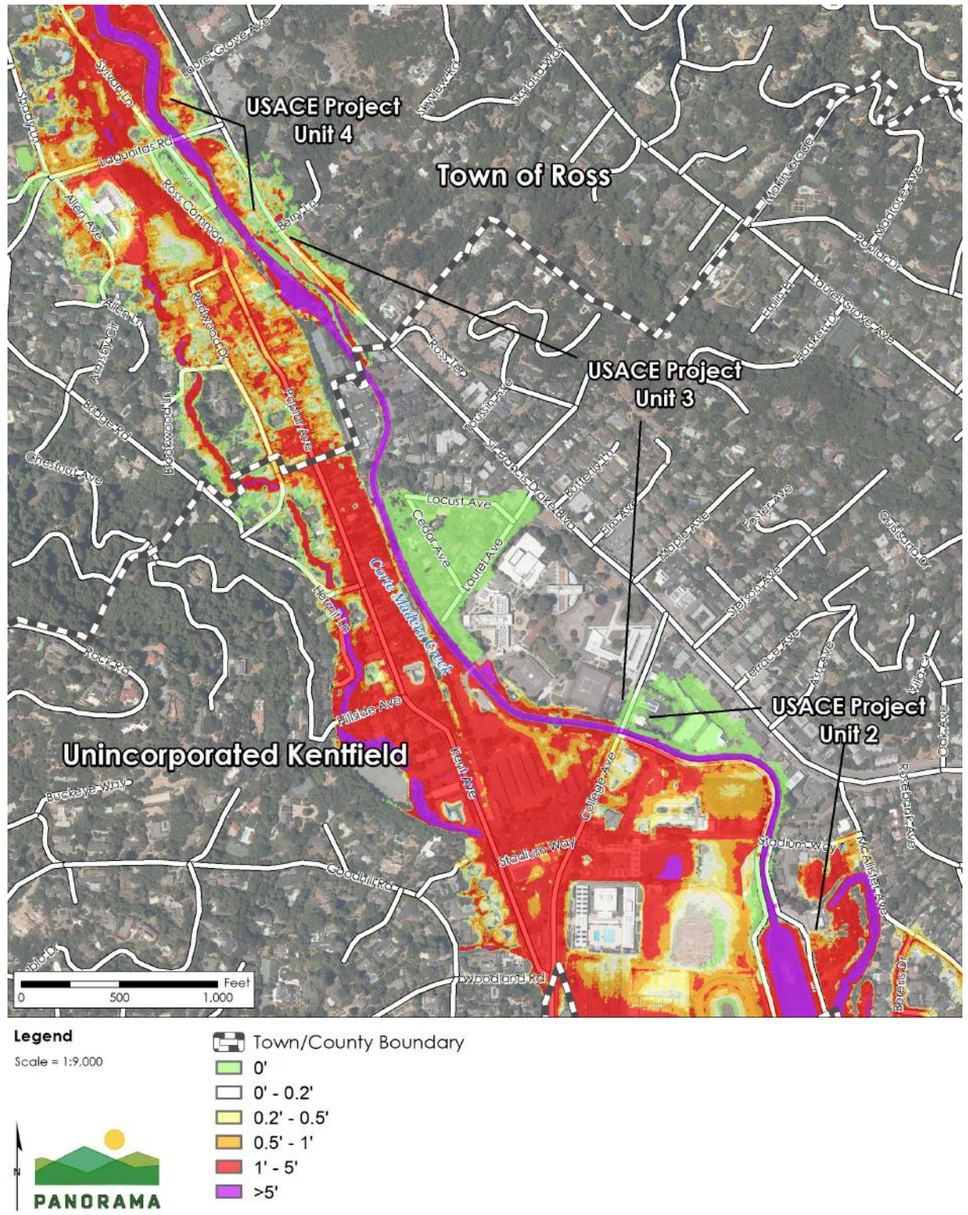


Figure E-18 Water Surface Elevation, Future Condition With Project, 100-Year Flood Event



Sources: (US Geological Survey, 2013; U.S. Geological Survey, 2016; Tele Atlas North America, Inc., 2020; Bay Area Open Space Council, 2011; GHD, 2020)

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