

The ecotone slope will:

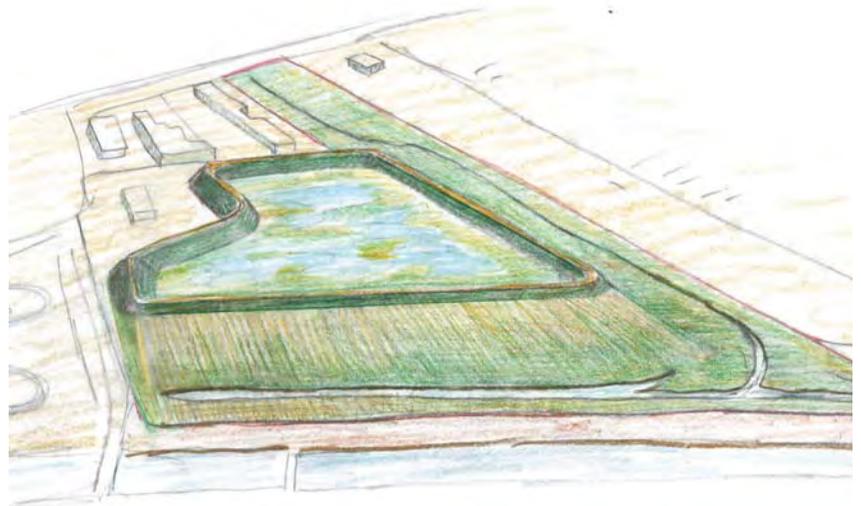
- Create an upland /transitional ecotone and restore elevation and salinity gradients that are missing in many parts of the Bay due to diking and provide endangered species habitat more resilient to sea level rise;
- Create gently sloping upland to act as buffers to waves and sea level rise, with greater productivity to increase accretion rates, with the ability to treat stormwater, and at costs significantly lower than traditional levee designs;
- Act as treatment wetlands to polish wastewater discharge as an effective, low cost, low energy, and environmentally sustainable method to nearly eliminate nutrient loadings and CECs from the receiving waters.



If the pilot projects prove successful, they could be replicated adjacent to WWTPs around San Francisco Bay, built to treat stormwater flows (including summertime 'urban drool'), as well as to create up to 5,000 acres of moist grassland/bayland ecotone around the Bay.

The Pilot

The pilot projects are intended to act as a laboratory for increasing our understanding of seepage flows, vegetation establishment and water quality processes on ecotone slopes. The first pilot project is in the East Bay, on the Hayward Shoreline, where Oro Loma Sanitary District is planning to construct an equalization facility for treated wastewater to divert peak flows and store them for a period of hours. The berm surrounding the facility will be constructed as a short section of seepage slope allowing the treated wastewater to seep into the moist grasslands / bayland ecotone. Native species will be planted on the ecotone slope to emulate a natural alluvial fan substrate, topography, and subsurface discharge patterns. Water that passes through the slope will be returned for treatment and discharge through the EBDA outfall.



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