Attachment 6. Monitoring, Assessment, and Performance Measures

Levees

After project completion, annual inspections will take place to insure that the construction elements are meeting design standards for underseepage, through seepage and levee settlement. These will include visual inspections of the inboard and outboard levee toes, slopes and hinge points for visual signs of seepage or excessive soil mobilization. In addition, ground surveys or geotechnical investigations may be performed when deemed necessary. Additional inspections will be conducted after major storm events to evaluate embankment erosion protection, new or emerging areas of erosion or scour, and their impact on slope stability.

Habitat

Over a five-year period summer and winter inventories of native plant species will be conducted to evaluate the success of plantings and to ensure the sustainability of the new and restored habitat.

Table

On the following page is a table that reflects (1) project goals, (2) desired outcomes, (3) output indicators, (4) outcome indicators, (5) measurement tools and methods, and (6) targets.

Complete Monitoring Program

A comprehensive monitoring and assessment plan will be developed in cooperation with DWR during contract development.

Monitoring, Assessment and Performance Measures

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Reduce Flood Risks in the Project Area	Flood protection for homes in East Palo Alto (a disadvantaged community of the State of California), and businesses, public facilities and parklands in the City of Palo Alto	Increased conveyance capacity to accommodate 100-yr fluvial event coincident with mean higher high water Improved levee stability	Decrease in frequency and severity of flooding Decrease in frequency and expense of local emergency operations	Freeboard measurements during peak events Assessment of acres inundated Post-flood analysis of erosion and scouring	Reduce economic and social impacts of flood events Reduce emergency response needs Reduce loss of commerce and clean up due to street inundation
Accommodate Future Flood Protection Projects	Increased Conveyance Capacity in Project Reach to allow for future projects upstream	Increased capacity shown to accommodate full 100-yr fluvial event after upstream hydraulic constrictions removed	Future projects upstream do not induce flooding in project area	Freeboard measurements with future conditions	Capacity to convey 9400 cfs during 100-yr tide event, plus 26" to accommodate future sea level rise, plus FEMA freeboard requirements
Improve Habitat for Protected Species	Increased marsh plain habitat Improved connectivity between existing habitats	16.7 acres of new mid-marsh habitat 4.0 acres of new low-marsh habitat Restoration of connection between creek corridor and Bayland Preserve	Increase in habitat quantity and quality for salt marsh harvest mouse and California clapper rail Increase in acclimation period for migratory steelhead	Photo documentation of colonization of pickleweed and other indicator species within new marsh plain terrace	Colonization of 50% of new marsh plain 1 year after project completion Colonization of 100% of new marsh plain 3 years after project completion
Improve Opportunities for Recreation	Creation of more inviting and accommodating trail and nature viewing areas	Increased use of project area for recreational activities	Increased awareness of natural environment Improved public health in DAC with little opportunity for outdoor recreation	Consult annual trail use numbers published for Bay Trail and by Cities	Increase number of recreational trail users by 20%