

Adaptive Management Summary Table—Water and Sediment Quality Group

Category	Restoration Target	Monitoring Parameter (Method)	Spatial Scale for Monitoring Results	Expected Time frame for Decision-making	Management Trigger	Applied Studies	Potential Management Action
Water Quality Project Objective 4	<ul style="list-style-type: none"> * Water quality parameters in ponds will meet RWQCB standards * South Bay water quality will not decline from baseline levels 	<ul style="list-style-type: none"> * Water quality parameters (Dissolved Oxygen, pH, suspended sediment and turbidity, trace contaminants other than mercury, etc.) set by RWCQB in ponds and Bay (methods as per Takekawa, et al. 2005). * Continue as is under regulatory requirements for managed ponds. * *Relate to RMP for conventional pollutants (Use RMP infrastructure for Far South Bay main water mass.) * Relate to RMP for trace contaminants (Use RMP process for determining frequency and methods for Far South Bay main water mass. Also use RMP process for determining need for and frequency of tidal habitat special studies.) 		Ongoing	<ul style="list-style-type: none"> * Non-compliance with standards. * Annual data review. * Review of RMP results indicate abnormal conditions. * Other indication of abnormal conditions such as fish kill? 	<ul style="list-style-type: none"> * What is the effect of a) pond management, including increased pond flows and associated managed pond effects, and b) increased tidal prism from tidal marsh restoration on water quality, phytoplankton and fish diversity and abundance, and food web dynamics in South Bay? 	<ul style="list-style-type: none"> * Applied studies to find causes of water quality problems in ponds (need salinity, temperature, wind speed, solar radiation, sediment oxygen demand, and net primary production) * Applied studies of Bay-wide conditions * Applied studies of WQ effects on pond/Bay species (plankton, shrimp, fish, birds) * Active management such as baffles, aerators, etc. * Decrease number of ponds monitored as conversion away from managed ponds to full tidal occurs. Focus on managed ponds with compliance issues. * Review all available data. * Reduce pond residence times. * Accelerate conversion from managed ponds to tidal habitat. * Eliminate managed pond discharges by converting to seasonal wetlands.
Mercury (not updated by Subteam) Project Objective 4	<ul style="list-style-type: none"> Levels of Hg in sentinel species do not show significant increases over baseline conditions Levels of Hg in sentinel species are not higher in target restoration habitats than in existing habitats 	<ul style="list-style-type: none"> Hg levels in sediment, water column and sentinel species (methods as per Collins, et al. 2005) 		1-3 years depending on task and overall geographic scope	<ul style="list-style-type: none"> * One or more sentinel species show higher levels of Hg in target habitats than existing habitats * One or more sentinel species show higher than ambient levels of Hg in Pond A8 or Alviso Slough. 	<ul style="list-style-type: none"> * Will tidal marsh restoration and associated channel scour increase MeHg levels in marsh and bay-associated sentinel species? * Will pond management increase MeHg levels in ponds and pond-associated sentinel species? 	<ul style="list-style-type: none"> * Applied study of sources of Hg and causes of increases * Applied study of sediment capping methods (if relevant) * Applied study of methylation processes (e.g., photo-degradation, microbial methylation) * Adjust phasing and design; for example, undertake preventative dredging or prevent draining of interstitial spaces or pore water. * Reconsider opening more Alviso ponds to tidal action.