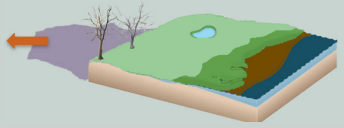
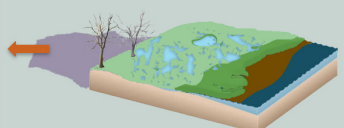
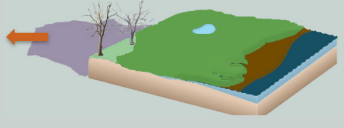


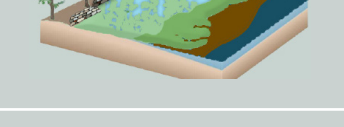

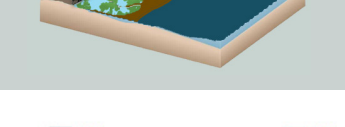


Management Options to Maximize Marsh Resilience

The table below summarizes management options based on a marsh's Current condition (CC), Vulnerability to relative sea level rise (VL), and Adaptation potential (AP). Options are considered from an ecological, rather than socioeconomic, perspective. Green text indicates a positive condition, red reflects a negative one. Marshes that required two-stage restoration have two resilience categories that are impaired so are likely to need more costly solutions. To learn more, visit: www.GreatBay.org/Salt-Marsh-Plan.

Elements of Marsh Resilience			Interpretation of this Management Category	Management Options
CC	VL	AP		
High	Low	High	A marsh in good condition that will migrate inland naturally over the long-term.	 Prioritize conservation: Allow marsh to self maintain. Fee or conservation easement purchase of marsh or migration space. Managed relocation of structures in marsh or migration space.
Low	Low	High	A marsh in poor condition that is not currently vulnerable to sea level rise and has potential to migrate inland naturally.	 Improve condition: Prioritize established restoration techniques. Decrease current stressors to marsh e.g., <i>Phragmites</i> or invasive crab control. Mitigate water quality issues in surrounding watershed, e.g., reduce fertilizer application in residential and agricultural areas.
High	High	High	A marsh in good condition that will adapt if it can out-pace current vulnerability to sea level rise.	 Reduce vulnerability: Increase sediment supply to current marsh footprint through strategies like thin layer sediment placement and removal of barriers to hydrologic flow within the marsh.
High	Low	Low	A marsh in good condition that cannot maintain its current footprint long-term without active management.	 Facilitate migration: Enhance marsh adaptation potential. Remove infrastructure or topographical barriers to inland migration. Protect marsh's current footprint.
High	High	Low	A marsh in good condition but also vulnerable to sea level rise and cannot maintain current footprint without active management.	 Two-stage restoration necessary: Implement thin layer sediment placement, but only if barriers to inland migration are removed first. Two marsh resilience categories are deficit likely making projects more costly.
Low	Low	Low	A marsh in poor condition not currently vulnerable to sea level rise, but cannot maintain current footprint without intervention.	 Two-stage restoration necessary: Apply proven restoration techniques within current marsh footprint, e.g., invasive species management, but only if removal of barriers to migration are planned. Two marsh resilience categories are deficit likely making projects more
Low	High	High	A marsh in poor condition that has potential to migrate inland naturally, if it can out-pace sea level rise.	 Two-stage restoration necessary: Apply proven restoration techniques within current marsh footprint that ideally also increase sediment supply to marsh, e.g. ditch remediation, tidal crossing restoration.
Low	High	Low	A marsh in poor condition marsh that will not persist in the future.	 Limit investment: Marsh will likely disappear so test innovative science, abandon marsh or implement highly engineered solution: Limit investment in land protection or restoration activities as effectiveness will be relatively short-term.

■ High marsh
 ■ Low marsh
 ■ Mudflat
 ■ Open water
 ■ Panne or pool
 ■ Migration pathway