

CHARG Adaptation Strategies Needs Inventory – Additional Studies, Tasks, and Research

No.	CATEGORY	Project/Study/Task	Domain				
			Surface Water	Ground Water	Environment/ Ecosystem	Tide/Storm Coincidence	Planning (Education/Outreach)
1	Modeling Adaptation Strategies	Determine impacts of individual response to SLR.	X	X	X		
2		Determine impacts of a wall/Levee option around the Bay including associated infrastructure (e.g. pump stations)	X		X		
3		Evaluate pros/cons of modeling approaches (including associated maintenance and policy).	X		X		
4		Evaluate control strategies to regulate and optimize tributary flow into and out of Bay during periods of high discharge and high tide.	X			X	
5		Evaluate the impacts from large scale infrastructure (tide gates, tide barriers) on water levels, circulation, and sedimentation.	X		X	X	
6		Quantify reduction in SLR due to green infrastructure.	X		X		
7	Modeling (Update)	Recalibrate the SF Bay hydrodynamic model(s) based on impacts of restoration projects.	X		X		
8		Evaluate SLR impacts to riverine flooding.	X			X	
9		Evaluate increased Wave Heights in the bay and at the shoreline due to presumably deeper water conditions.	X				
10		Determine SLR impacts on closed landfills.	X				
11	Environment/Ecosystem	Evaluate sediment supply and demand for restoration projects targets under various SLR projections.	X		X		
12		Assess the range of flood protection that local and sub-regional restoration projects offer for SLR.	X		X		
13		Evaluate SLR impacts to Bay morphology and bathymetry.	X		X		
14	Groundwater	Evaluate groundwater impacts to aquifers, infrastructure, and natural systems.		X			
15		Generate local capacity to use SGMA SLR models.		X			
16		In areas outside of Central Valley, develop a routing model to use SGMA runoff projections under various SLR scenarios.		X			
17	Monitoring	Evaluate/monitor local rates of vertical land motion.		X	X		X
18	Planning (Education/Outreach)	Best practices from other regions (in/out of US) facing SLR.					X
19		Virtual database/library of best available models/LiDAR.					X
20		Delineate boundary of areas that fall under/require EO 13690.	X				X
21		Evaluate SLR impacts and best practices to address social vulnerability and environmental justice.					X

