

Work Plan Tasks for TPWD

Walker Maloney Runge Hall Brzozowski Box

		Walker	Maloney	Runge	Hall	Brzozowski	Box	
1	Identify stream locations and estuaries not included in the BBEST environmental flow regime report that should be analyzed for relationships between flow and environmental health.							
2	Review best available science for determining environmental flow regimes for streams.	X	X			X		Priority
3	Describe ecological services provided by perennial pools.	X						
4	Describe relationships between aquatic biota (including riparian and floodplain species) and flow.	X						
5	Identify flow regime components and quantities necessary to sustain mussels and compare to flow regimes identified necessary to sustain fish communities.	X						
6	Determine if there are relationships between toxic golden algae blooms and flow in the upper Colorado basin.							
7	Describe relationships between physical habitat and flow.	X					X	Priority
8	Describe upstream-downstream connectivity and lateral connectivity of streams with the floodplain and aquatic features like wetlands, backwaters, sloughs, and oxbows under different flow conditions.							
9	Identify ecological effects of overbank flows and flows that reach flood stage elevation but do not overbank should be identified.							
10	Identify improvements made in methods for determining environmental flow regimes for estuaries.		X			X		Priority
11	Describe relationships between freshwater inflow, marsh, and the threatened diamond-back terrapin populations.							
12	Describe the relationship between freshwater inflow and <i>Rangia</i> clam abundance in upper Lavaca Bay.							
13	Describe the relationship between freshwater inflow, location and size of oyster reefs, and health of oysters in Lavaca Bay and Matagorda Bay.	X						
14	Evaluate relationships between freshwater inflow and the distribution, health, and abundance of seagrass in East Matagorda Bay and Matagorda Bay.	X						
15	Describe relationships between salinity and commercially important indicator species (white and brown shrimp, blue crab, and Gulf menhaden).					X	X	Priority
16	Identify marsh changes occurring in the Lavaca River and the Matagorda River deltas and relationship of those changes to freshwater inflow.				X			

17	Evaluate achievement of the BBEST freshwater inflow recommendations in Matagorda Bay (based on the Matagorda Bay Health Evaluation recommendations) and ecological response to those freshwater inflow quantities and distribution.				X		X	Priority
18	Describe the relationship between freshwater inflow and sound environment in the coastal drainages of East Matagorda Bay.							
19	Identify methods to lower salinities in East Matagorda Bay without degrading the environmental condition of the bay.							

Work Plan Tasks for TWDB

		Walker	Maloney	Runge	Hall	Brzozowski	Box	
1	Determine relationships between groundwater withdrawals from the Carrizo-Wilcox and the Gulf Coast aquifers, and flows to rivers.			X?			X	Priority
2	Identify water development activities planned for the future, and how they might influence groundwater, river flows, and physical and hydrologic connections between the two.			X?			X	Priority
3	Describe changes in geomorphology, i.e. trends in channel elevation, longitudinal profile, width, floodplain width, stream form, bed sediment size, and the role the flow regime contributes to those changes.	X			X			Priority
4	Refine estimates of freshwater flow to the bays.		X			X		Priority
5	Describe flows into Garcitas Creek and their sources with particular emphasis on the reach downstream of the USGS gage.							
6	Describe the relationships between subsidence and salinity regimes in East Matagorda Bay.							
7	Improve the existing hydrodynamic model or use other hydrodynamic models to model hydrology, circulation, and salinity patterns Matagorda and Lavaca Bays.	X	X		X	X		Priority

Work Plan Tasks for TCEQ

		Walker	Maloney	Runge	Hall	Brzozowski	Box	
1	Describe relationships between water chemistry and flow regime components.					X		
2	Evaluate and update the WAM Run 3 for the Colorado River basin.	X	X		X	X	X	Priority

