

9.0 Study Period Costs

During the first year after LCRA and SAWS signed the Definitive Agreement to study the project, the study period plan was developed. The study period plan developed high level scopes of work designed to assess the viability of the project and meet the requirements of House Bill 1629 (legislation authorizing LCRA to sell water outside of its service area if certain criteria are met) and state and federal permitting. The plan also provided cost estimates to conduct the studies; implementation of the studies is approved each year by the SAWS Board of Trustees.

The original study period plan provided a roadmap for the future studies that has been modified in response to new information and new regulatory drivers. During 2007, several valuable insights were gained due to the ongoing studies, the public participation process, and science review panel recommendations. To respond to this new information, on-going studies were expanded to include new activities. Two studies were added last year and described in the 2006 PVA (“Water Quality Study of Tidally Influenced Reach of the Colorado River with Respect to Impacts to the South Texas Project Diversion” and “Wildlife and Waterfowl Study”). Additional analyses were added during 2007, including the following:

- “Expanded Biostatistical Analyses for the Matagorda Bay Health Study”: This assessment involved additional analyses of existing bay health information to better evaluate effects on the Bay during low flow conditions.
- “Potential Implications of Climate Change on the LCRA-SAWS Water Project”: This effort will translate scenarios of possible global climate change for key climate variables (temperature, precipitation, evaporation, and sea level rise and climate variability) at the regional level to explore potential implications for the project.
- “Project Alternatives Analyses”: This effort will evaluate possible additional sources of yield that might be combined with the existing project. Preliminary results of various yields are included in this assessment.
- “Uncertainty Analysis”: This effort will compile information from individual study teams regarding assumptions and data variability into a single document and use a uniform systematic approach for examining the potential for compounding uncertainties as well as unanticipated interdependencies among the individual studies.

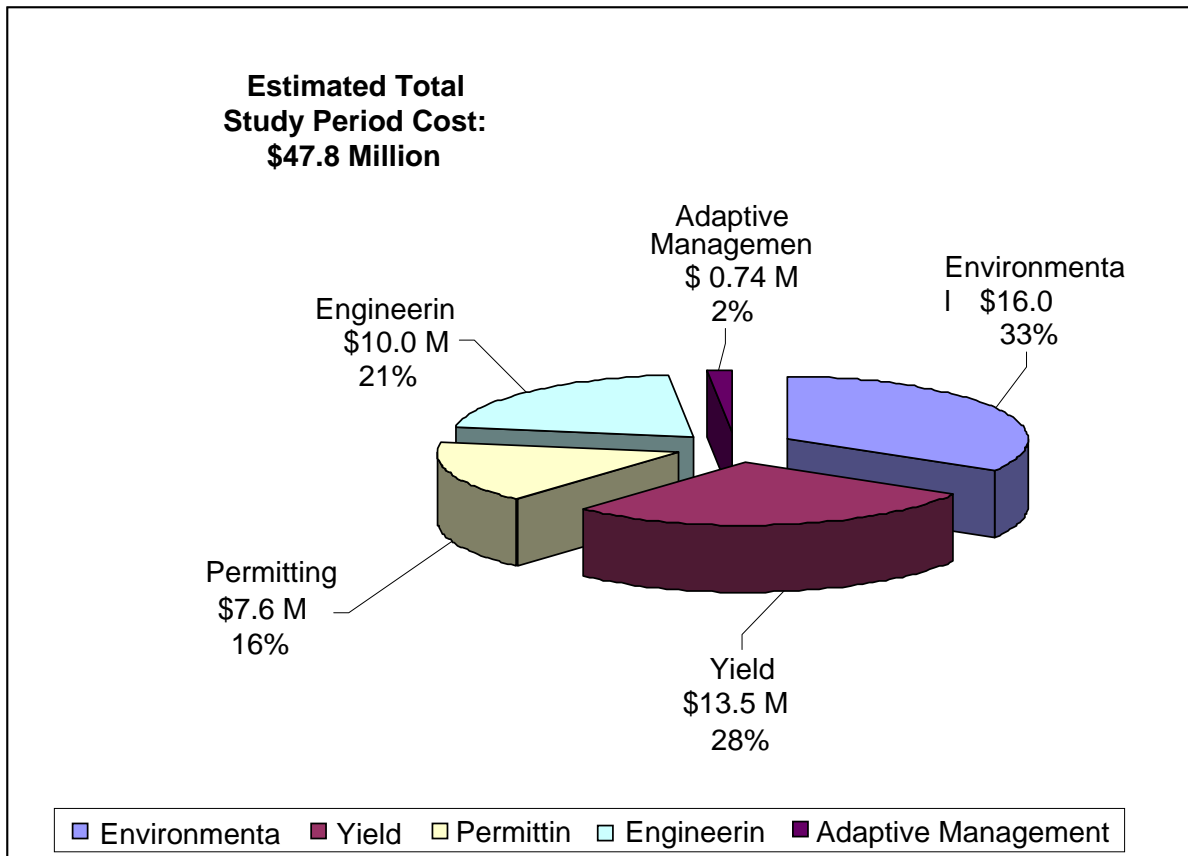
In addition, budget projections have been updated to reflect the revised Section 404/10 permit application submittal date as well as changing study team needs. The shift in the submittal dates, addition of the studies detailed above, and responses to agency comments have resulted in an increase to the total project budget.

Figure 9-1 summarizes by major category the estimated funding necessary for the study period as the project is currently envisioned. Expenditures have been organized to reflect the ultimate purpose of the individual activities. These include assessing water yield, environmental analyses, preparation and negotiation of permits, preliminary engineering,

and remaining projected adaptive management funds. Table 9-1 provides an overview of the current estimated cost on an annual basis for the individual studies. These costs are approximate in nature.

The project team also has been very successful in its pursuit of grant funding and obtained nearly \$650,000 to support 2006 study costs. In 2007, another \$199,000 was provided by the United States Fish and Wildlife Service to support environmental studies.

FIGURE 9-1
 Overview of Study Period Costs
 LCRA-SAWS Water Project



Note: Estimated costs in this figure have been rounded and, therefore, may not exactly match those in Table 9-1.

TABLE 9-1
 Projected Study Period Costs
 LCRA-SAWS Water Project

Description	Actuals			Plan		2009 and Beyond	Total
	2004	2005	2006	2007	2008		
Environmental Studies							
Matagorda Bay Health Evaluation	\$ 854,065	\$ 1,852,882	\$ 2,058,772	\$ 1,742,766	\$ 1,128,960	\$ 250,000	\$ 7,887,445
Colorado River and Off-Stream Water Quality	\$ 282,890	\$ 704,445	\$ 387,138	\$ 434,551	\$ 692,103	\$ 150,000	\$ 2,651,127
Colorado River Flow Relationships to Aquatic Habitat and Blue Sucker	\$ 284,050	\$ 716,682	\$ 520,116	\$ 740,440	\$ 302,244	\$ 150,000	\$ 2,713,532
Facility Siting (Environmental Aspects)	\$ 444,480	\$ 325,346	\$ 702,299	\$ 458,579	\$ 547,517	\$ 250,000	\$ 2,728,221
Subtotal - Environmental	\$ 1,865,485	\$ 3,599,355	\$ 3,668,325	\$ 3,376,336	\$ 2,670,824	\$ 800,000	\$ 15,980,325
Yield Studies							
Surface Water	\$ 167,521	\$ 456,336	\$ 562,609	\$ 831,920	\$ 863,874	\$ 250,000	\$ 3,132,259
Agricultural Conservation	\$ 497,154	\$ 1,324,414	\$ 1,300,294	\$ 809,269	\$ 572,617	\$ 250,000	\$ 4,753,748
Rice Varieties	\$ 218,469	\$ 242,285	\$ 205,422	\$ 282,723	\$ 273,419	\$ 450,000	\$ 1,672,318
Groundwater	\$ 360,669	\$ 848,497	\$ 1,144,829	\$ 850,313	\$ 450,090	\$ 300,000	\$ 3,954,398
Subtotal - Yield	\$ 1,243,813	\$ 2,871,532	\$ 3,213,153	\$ 2,774,225	\$ 2,160,000	\$ 1,250,000	\$ 13,512,723
Permitting							
Permitting and Regulatory	\$ 183,086	\$ 221,075	\$ 357,487	\$ 312,992	\$ 500,271	\$ 3,000,000	\$ 4,574,911
Social and Economic	\$ 2,350	\$ 287,318	\$ 632,457	\$ 615,175	\$ 1,239,666	\$ 250,000	\$ 3,026,966
Subtotal - Permitting	\$ 185,436	\$ 508,393	\$ 989,944	\$ 928,167	\$ 1,739,937	\$ 3,250,000	\$ 7,601,876
Engineering							
Facility Siting (Design Aspects)	\$ -	\$ 973,866	\$ 1,411,578	\$ 386,710	\$ 563,729	\$ 250,000	\$ 3,585,883
Implementation Planning (Including Preliminary Engineering)	\$ 481,935	\$ 122,650	\$ 71,279	\$ 112,461	\$ 116,441	\$ 5,500,000	\$ 6,404,767
Subtotal - Engineering	\$ 481,935	\$ 1,096,516	\$ 1,482,857	\$ 499,172	\$ 680,170	\$ 5,750,000	\$ 9,990,650
Adaptive Management							
Adaptive Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 745,266	\$ 745,266
Subtotal - Adaptive Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 745,266	\$ 745,266
Program Total	\$ 3,776,669	\$ 8,075,795	\$ 9,354,279	\$ 7,577,900	\$ 7,250,932	\$ 11,795,266	\$ 47,830,841

Notes:

1. Other program costs, including program management, are prorated against individual studies.
2. 2004, 2005, 2006, and 2007 costs have been updated through December 31, 2007.
3. 2008 costs reflect anticipated study expenditures as of December 2007.
4. 2009 and beyond costs are estimated and subject to change.