Table 1. Environmental flow studies selected for funding to support adaptive management in the Trinity-San Jacinto, Brazos, Colorado-Lavaca, Guadalupe-San Antonio, and Nueces basin and bay areas. *Note: Highlighted rows indicate studies in the Colorado-Lavaca basin-bay area.*

#	Study topic	Cooperator	Budget
1	Environmental flows validation in three river basins (Brazos, Colorado-Lavaca, and Guadalupe-San Antonio)	Texas A&M University (Contract Pending; Awarded via RFQ-580-18-0067)	$245,000
2	Statewide synthesis of environmental flow studies from 2014–2017	Texas State University (Contract Executed–1900012284; Awarded via RFQ-580-18-0069)	$237,000
3	Monitoring of nutrient and sediment loads from the Trinity-San Jacinto and Guadalupe-San Antonio river basins into Galveston and San Antonio bays	U.S. Geological Survey (Contract Pending)	$150,000
4	Using comparative long-term benthic data for adaptive management of freshwater inflow to three estuaries (Colorado-Lavaca, Guadalupe, and Nueces)	Harte Research Institute (Contract Executed–1800012223)	$135,000
~~5~~	~~Assessing the effects of freshwater inflows and other key drivers on the population dynamics of oysters and sport finfish in four estuaries (Colorado-Lavaca, Guadalupe-San Antonio, Mission-Aransas, and Nueces)~~	~~University of Texas Marine Science Institute (Canceled)~~	~~$100,000~~
6	Influence of freshwater inflow gradients on estuarine nutrient-phytoplankton dynamics in the three estuaries (Guadalupe, Nueces, and Upper Laguna Madre)	Texas A&M University Corpus Christi (Contract Executed–1800012228)	$100,000
7	Building and testing the Trinity River delta hydrodynamic model	University of Texas at Austin (Contract Executed–1800012195)	$82,387
8	Evaluation of rainfall/runoff trends in the upper Colorado River basin, phase II	LRE Water, LLC (Contract Executed–1800012283; Awarded via RFQ-580-18-0070)	$75,000
9	Trinity River Senate Bill 3 flow assessment, phase III	Trinity River Authority (Contract Executed–1800012226)	$75,000
10	Development of freshwater inflow/biological indicator relationship for Lavaca Bay	Harte Research Institute (Contract Executed–1800012268; Awarded via RFQ-580-18-0068)	$75,000
11	Initial data gathering to implement groundwater-surface water interaction field work from GAM improvements study	Lower Colorado River Authority (Contract Executed–1900012305)	$75,000
12	Guadalupe delta ecological assessment of freshwater inflows	Guadalupe-Blanco River Authority (Contract Executed–1800012267)	$75,000
13	Analysis of the riverine estuary of the Brazos basin	Environmental Institute of Houston (Contract Executed–1800012239)	$75,000
Total for environmental flow studies for adaptive management			**$1,499,387**

Table 2. Environmental flow studies supporting TWDB Bays and Estuaries and Instream Flow programs.

Study topic	Cooperator	Budget
Estuarine water quality monitoring (Datasonde Program)	Texas Parks and Wildlife Department (Contract Executed–1800012170)	$120,600
Monitoring of nutrient and sediment loads from the Colorado and Nueces river basins into Matagorda and Corpus Christi bays	U.S. Geological Survey (Contract Pending)	$95,365
Improving rainfall-runoff simulation in ungauged coastal watersheds	The University of Texas – Arlington (Contract Executed–1800012276)	$54,635
Development of an environmental flows hydrology model of the Brazos River	U.S. Army Corps of Engineers	$50,000
Training and support for measuring bedload sediment transport in large, sand-bedded rivers and hydraulic modeling support	U.S. Army Corps of Engineers (Contract Executed–1800012263)	$50,000
Specialized (bathymetric) LiDAR data collection of the Frio River for use in geomorphic model development	Bureau of Economic Geology (Contract Executed–1800012220)	$50,000
Suspended sediment sampling at TCEQ environmental flows measurement points in four river basins (Trinity, Brazos, Colorado, and Brazos)	U.S. Geological Survey (Contract Executed–1800012253)	$50,000
Data collection equipment	Not applicable	$30,013
Total for agency programs		**$500,613**