



SAN ANTONIO  
RIVER AUTHORITY

Leaders in Watershed Solutions

*A political subdivision of the State of Texas.*



# PROGRAM BUDGET

Fiscal Year 2016-2017

**INSPIRING ACTIONS FOR HEALTHY CREEKS AND RIVERS**

**VISION:**  
**Inspiring Actions for Healthy Creeks and Rivers**



**MISSION:**  
**Protect and enhance our creeks and rivers through  
service, leadership and expertise.**



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Leaders in Watershed Solutions

**SAN ANTONIO RIVER AUTHORITY  
TEXAS**

**PROGRAM BUDGETS**

**July 1, 2016 - June 30, 2017**

Presented to the  
**Board of Directors**

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RIVER AUTHORITY

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## Overview

The San Antonio River Authority (River Authority) manages and completes projects under a wide range of activities from scientific studies to park improvements to major infrastructure initiatives for flood control, stormwater management and community amenities. Funding for these projects comes from various sources as well. The River Authority does contribute funding specifically towards projects; however, the majority of funding comes from community partners, notably the City of San Antonio and Bexar County. Funding through state and local grants also helps the River Authority support its mission.

The objective of this Program Budget book is to provide a comprehensive look at the projects the River Authority has authorized and budgeted for Fiscal Year 2016/17. Information on established programs, selection of projects during the budget process, and project management processes is contained within this document. In addition, a detailed project sheet has been included for all authorized projects. The detailed project sheets assist in: identifying the project location, describing the objective of the project, listing the various sources of funding, and delineating the progress in prior years, if applicable. The 'Adopted Budget' amount reflected on each page is the total funded project amount. Where staff time is being provided by the River Authority, an estimate of the anticipated labor effort is included in the 'Adopted Budget' amount. This amount for River Authority labor is not specifically included in the project's budget shown in the Annual Budget Detail book.

Because many of the projects managed and budgeted by the River Authority are on behalf of community partners, most of the projects, when completed, do not have an operational cost to the River Authority. The assets and, therefore, the responsibility for operations and maintenance, go to our partners. There are notable exceptions. The Mission Reach improvements along the San Antonio River are maintained by the River Authority. The current operating budget provides sufficient funding for this effort. In the next several years, the River Authority may have responsibility for operations and maintenance of the improvements along the San Pedro Creek. This expansive project could result in an estimated \$2 million in costs for operations and maintenance to the River Authority. Absorption of these costs will present a financial challenge that could be met within the existing property tax rate cap of 2 cents per \$100 of valuation.

The River Authority places great emphasis on efficient and effective project management. In FY 2015/16, a cross functional team identified as the Project Management Center of Expertise (COE), was established to refine and enhance the River Authority's project management processes. After extensive review of existing processes and procedures, recommendations were developed to bring greater consistency, clearer understanding, and improved work-flow processes for project management to the River Authority.

The Project Management COE placed its focus on a balance between recognized project management principles and best practices, such as those recognized by The Project Management Institute (PMI), and principles and practices that are easily understandable and executable for staff members with various levels of experience managing projects. The COE took a holistic approach to project management, incorporating: project evaluation and prioritization; partner relationship management; contract management; financial management; interaction with all River Authority

support functions; and reporting. The end result was a revised program, process and project management checklist, along with a recommendation to upgrade the River Authority's project management software application to the latest, web-based version. Through the upgrade process, reconfiguration of software will occur to support all the Project Management COE recommendations. The appendix to this document includes a full description of the enhanced project management guidelines, processes and procedures that resulted from the COE's work.

Seventy-six projects are recognized in the FY 2016/17 Adopted Budget. These projects are assigned to one of six programs that are managed by a Program Leader with authority to direct the projects within their portfolio. Program Leaders develop annual objectives, report progress and are accountable to the executive staff for achieving programmatic results. These six programs include:

- Natural Resource Protection
- Nature Based Park
- Sustainable Watersheds Implementation
- Watershed Modeling, Studies and Planning
- Watershed Safety and Response
- Utilities



Great egret,  
Bexar County

## Definitions

The River Authority's portfolio of work for FY 2016/17 consist of six programs, seventy-six projects and numerous efforts. These terms, programs, projects, and efforts, have specific meaning for the River Authority. Below are the definitions for each to provide the reader with a common understanding of how these terms apply.

### Program

A program is a group of projects that advance the River Authority's strategic goals; they are managed collectively to obtain benefits not available from managing them individually. Program

Leaders are assigned to programs to ensure projects are communicated and coordinated through the life of the project. Programs can have an end date or can be ongoing.

### **Project**

A project is an endeavor that has a defined start and end date, and produces a unique product or service. The River Authority's classification of projects is shown in the appendix of this document (see 'Classification Tool'). All programs and projects are entered into the River Authority's project management software system and are managed in a consistent fashion.

### **Effort**

An effort is an activity for which the River Authority tracks costs over a period of time, often but not necessarily for multiple fiscal years. Efforts require expending significant resources, and/or represent an activity that is of broad interest to the River Authority's constituents. The costs related to efforts, including staff time, are tracked in a similar fashion to projects.

## **Processes**

Consistent and effective project management lends to efficient fiscal stewardship of public funds and service to the constituents. To maintain effective project management, various internal processes and tools are in place that take a project from the first step – the idea stage – to successful completion. These processes are dynamic and reviewed periodically to ensure continued relevance and success. During FY 2015/16, River Authority staff reviewed existing processes and procedures for project management and worked towards improving the project management process. The following describes the current processes.

Monarch caterpillar,  
Wilson County



## **Project Proposal and Evaluation Process**

Most River Authority projects start with a staff developed idea; some result from legal or legislative mandates; while others initiate at the request of a funding partner. Proposed projects are identified throughout the year and documented for consideration in the annual budget development process. These project ideas are scrutinized through the River Authority's Project Evaluation Process.

All project ideas are evaluated against the River Authority's strategic plan, goals and priorities. A comprehensive evaluation questionnaire is used to identify how the idea integrates with the River Authority's strategic goals, priorities and Triple Bottom Line (described in the next paragraph). At the end of the evaluation process, a priority score is established for each idea. This score is used by River Authority staff to assist in prioritizing projects. The projects funded by the River Authority have all undergone this evaluation process. Partner funded projects are not scored in the same way.

Sustainability within a project is optimized through the Triple Bottom Line analysis, which uses an objective accounting matrix to evaluate and seek balance among the economic, environmental, and quality of life project components (the "triple"). A balance of these factors is best achieved when the following are considered:

- Environmental: A project recognizes the sustainable outlook and value of environmental features and services.
- Economic: The project's immediate and long-term life-cycle costs are considered.
- Quality of Life: The project's deliverables result in improved quality of jobs, education, health, safety, recreation and social interaction within the community.

Program Leaders and River Authority managers meet to prioritize projects as part of the annual budget development process. They use the analytical tools' (described above) results as well as their knowledge of the needs and desires of the River Authority and its constituents to make recommendations regarding which projects to fund. These recommendations are presented to the executive staff that determines which projects and at what funding level are included in the proposed budget for the River Authority's Board of Director's consideration and adoption.

## **Project Management Process**

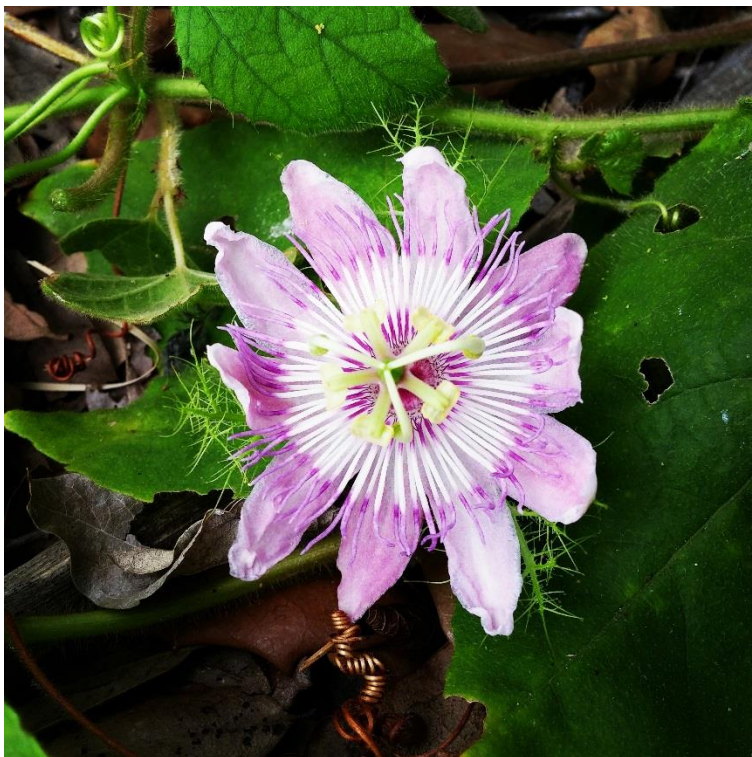
The River Authority's portfolio of projects include engineering, utilities, watershed management, parks, water resources, environmental and technical studies, and support projects.

In 2002, the River Authority initiated a formal Project Management Program based upon best practices and a disciplined approach to project management. In 2016, the Project Management COE recommended improved processes and tools that will be implemented in FY 2016/17. The section gives a brief overview description of the new processes and procedures. Appendix 1 to this document provides much greater detail regarding the refined and enhanced project management process for the River Authority.

The River Authority's processes take projects from the idea stage, prioritizes them, and then implements those that are consistent with the strategic goals and priorities upon the award of funding through the budget process. The River Authority benefits from utilizing a consistent and disciplined approach focused on efficient use of resources, operational synergy, and productivity. Project management processes and notifications are configured in a collaborative enterprise Project Portfolio Management (PPM) software application that has enabled transparency and efficiency. The PPM software is scheduled to be upgraded in FY 2016/17 to capture the latest product enhancements and implement the recommendations of the Project Management COE.

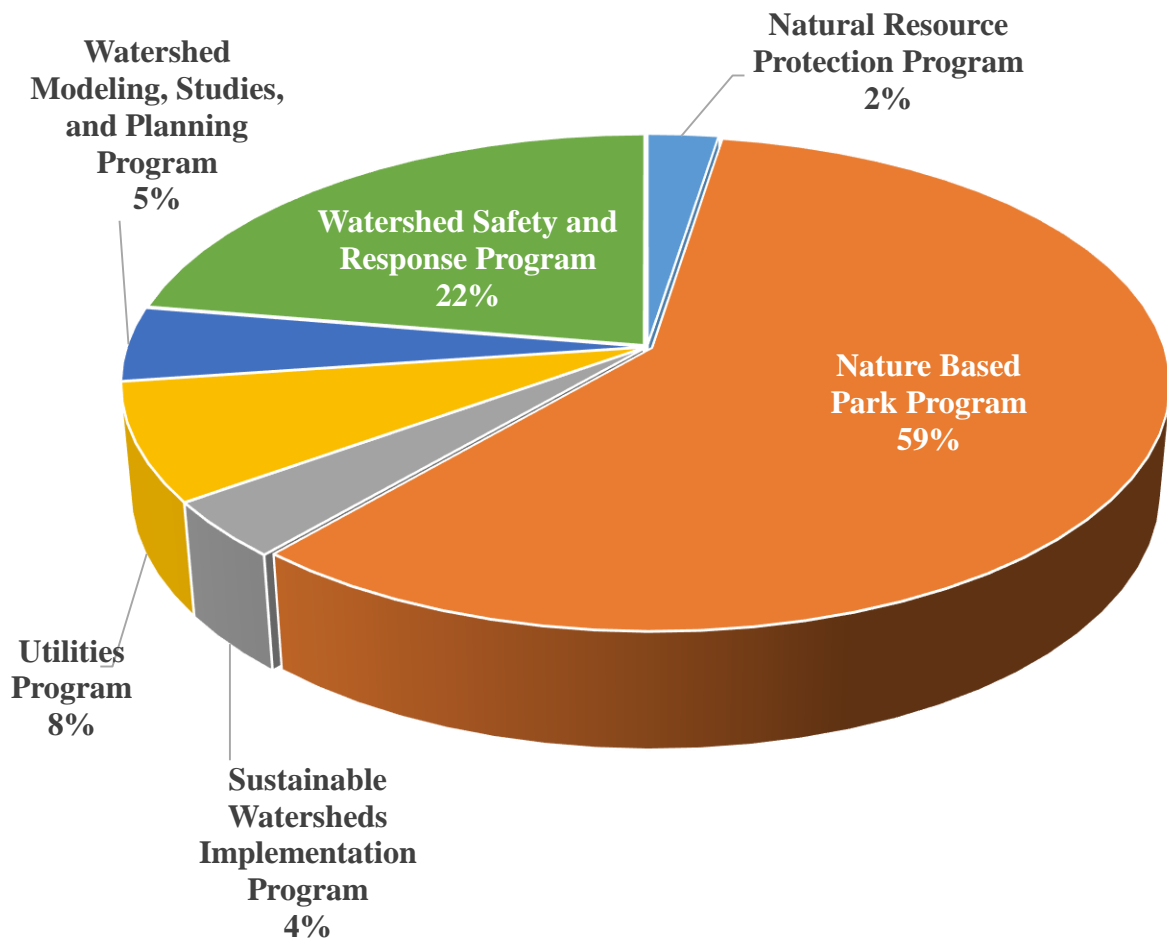
Within the PPM software, programs and projects are accessible by all stakeholders and are documented and managed consistently. As new project managers and project team members are assigned to a project or transitioned from one project to another, there is a common understanding of how the project will work through its life-cycle, which in turn minimizes the learning curve related to "handoffs." Also, with the common project management processes and tools, informed decisions are being made, thereby eliminating guesswork at all levels of the organization. Involvement from all the River Authority's support departments also enhances the overall project deliverable. The River Authority has attempted to comprehensively document and inform staff of: the roles and responsibilities each stakeholder possesses; critical tasks to be completed; and reporting capabilities that make useful project information readily available.

The River Authority continuously reviews its programs and projects and, when there is a need, programs, projects and efforts are rearranged or consolidated. Currently projects are consolidated under six programs. Program Leaders are assigned to a program and are responsible for managing the program.



Purple passionflower,  
Wilson County

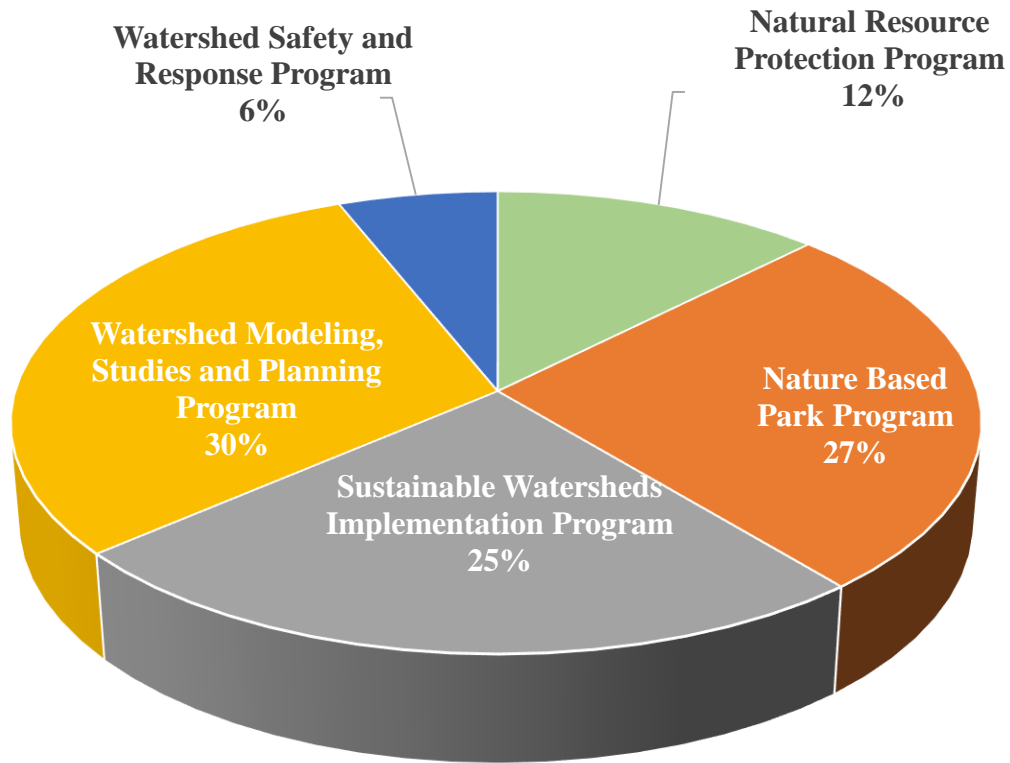
## River Authority Program Funding - All Funds



Natural Resource Protection Program	\$ 3,752,982
Nature Based Park Program	87,700,440
Sustainable Watersheds Implementation Program	5,599,953
Utilities Program	11,493,796
Watershed Modeling, Studies and Planning Program	7,204,425
Watershed Safety and Response Program	<u>33,366,564</u>
<b>Total</b>	<b>\$ 149,118,160</b>

Note: The Nature Based Park Program funding does not include \$264,395,747 from Mission Reach reflected on project sheet.

## River Authority Program Funding - General Fund and Park Resource Development Fund



Natural Resource Protection Program	\$ 496,100
Nature Based Park Program	1,057,000
Sustainable Watersheds Implementation Program	981,424
Watershed Modeling, Studies and Planning Program	1,206,182
Watershed Safety and Response Program	240,350
<b>Total</b>	<b>\$ 3,981,056</b>

Note: The Nature Based Park Program funding includes \$317,000 from the Park Resources Development Fund.



## Programs

### Natural Resource Protection Program

This program includes projects that are designed to identify concerns and communicate information about water quality, sediment pollutants, environmental flows, aquatic and riparian habitats (defined below) and organisms, so they may be protected, conserved and/or restored. The information gathered is used to preserve and protect the aquatic health in the San Antonio River watershed, estuaries and bays and creeks and to influence management decisions.

Automated Stormwater Data Collection Project  
Bacterial Source Tracking  
Clean Rivers Program 2015  
Environmental Flows Validation  
Feral Hog Management  
Holistic Freshwater Mussel Project  
Laboratory Management Software Replacement  
Lower Leon Creek Use Attainability Analysis (UAA)  
Mid/Lower Cibolo Creek Watershed Protection Plan (WPP)  
Mission Reach Avian Study  
Urban Reach E. coli Monitoring  
US Geological Survey (USGS):

- USGS Huisache Brush Management
- USGS Oil and Gas Production Constituents Phase II
- USGS Westside Creek Sediment Study

Water Quality Data Analytics  
Watershed Wise River Discovery

Riparian habitat: Wildlife habitat along the banks of the river and streams; ecologically diverse and home to a wide range of plants, insects and amphibians, making it ideal for different species of birds.

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2016/17 San Antonio River Authority Strategic Plan.

### Agency Goals and Strategic Opportunities:

*Goal:* Generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.

*Goal:* Enhance community appreciation for and recreational use of our creeks and rivers.

*Goal:* Advance and apply our expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of our communities.

*Goal:* Expand, diversity and leverage funding sources and partnerships by delivering results.

*Opportunity:* Develop capacity and operational efficiencies to respond to growing demands for our services.

*Fiscal Year Annual Objectives and Actions:*

1. Utilize our capabilities to identify sources of E. coli and take actions to mitigate.
5. Develop outreach and educational strategies to highlight the River Authority's watershed, riparian and aquatic expertise and data collection to elevate public knowledge and appreciation of the river as a highly valued resource.

*Nature Based Park Program*

This program oversees and maintains all San Antonio River Authority parks projects, paddling trails, programming, and efforts to enhance community appreciation for, and access to, the environmental resources of the San Antonio River Watershed for enjoyment and to enhance quality of life.

Brooks City Base – Mission Reach Linkage Project  
Escondido Creek Parkway  
Graytown Park on the San Antonio River  
John William Helton San Antonio River Nature Park  
Mann's Crossing Park on the Medina River  
Mission Reach  
Mission Reach Erosion Repair  
Museum Reach (Park Segment)  
Nature Park Signage Development  
Trueheart Park  
Urban Reach Operation Center  
Westside Creeks Linear Creekways and Elmendorf Lake Park  
Westside Creeks San Pedro Creek

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2016/17 San Antonio River Authority Strategic Plan.

*Agency Goals and Strategic Opportunities:*

*Goal:* Enhance community appreciation for and recreational use of our creeks and rivers.

*Goal:* Advance and apply our expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of our communities.

*Goal:* Expand, diversify and leverage funding sources and partnerships by delivering results.

*Fiscal Year Annual Objectives and Actions:*

3. Enhance nature-based park improvements at John William Helton San Antonio River Nature Park, Graytown Park on the San Antonio River and Branch Nature Park.
4. Initiate construction activity for Escondido Park based on input and direction from the City of Kenedy and stakeholders.
6. Advance construction on San Pedro Creek and finalize operations and maintenance role.

7. Increase attendance, improve visitor experience and access to parks including uses by community organizations.

**Sustainable Watersheds Implementation Program**

This program improves the San Antonio River basin's sustainability by influencing changes in land-use development practices, expanding expertise and maximizing the sustainability of the San Antonio River Authority's services.

Bexar Regional Watershed Management (BRWM) Stream Mitigation Bank  
Edwards Aquifer Watershed Protection  
Guenther/Euclid Stormwater Retrofit  
Olmos Creek Aquatic Ecosystem Restoration  
River Road Stream Restoration  
Stormwater Best Management Practices (BMP) Verification  
Stormwater Training and Tools  
Trash and Floatables Mitigation  
Trash and Floatables Mitigation – Olmos Creek  
Watershed Wise Rebate Program  
Watershed Wise School Grant

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2016/17 San Antonio River Authority Strategic Plan.

**Agency Goals and Strategic Opportunities:**

*Goal:* Generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.

*Goal:* Advance and apply our expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of our communities.

*Opportunity:* Lead community implementation of actions that improve stormwater quality.

**Fiscal Year Annual Objectives and Actions:**

8. Deliver exceptional quality in completing Low Impact Development reviews and technical training.
9. Implement a project management role for SARA and with the City of San Antonio, develop a Proposition 1 Edwards Aquifer Protection Program project selection criteria that ensures the maximum benefit for our community.

Strategic Opportunities Action Item:

- Promote the understanding and use of the City of San Antonio's Unified Development Code revisions for low impact development and conservation subdivisions and use our experience to encourage the development of similar land use code within other cities in the basin.

### **Utilities Program**

This program manages, markets and develops water, wastewater, reuse and collection system-related projects and efforts.

- City Metering for Salatrillo Wastewater Treatment Plant
- Graytown Road Wastewater System
- IH 10 Martinez II Wastewater Line Relocation Project
- Randolph Air Force Base Year 13 (2016)
- Randolph Air Force Base Year 14 (2017)
- Salatrillo & Martinez Sewershed Models
- Salatrillo Collection Wholesale System Inflow and Infiltration
- San Antonio River Authority Wastewater Collection System Inflow and Infiltration
- Utilities Supervisory Control and Data Acquisition (SCADA) System
- Wastewater Treatment Plant (WWTP) Subsurface Utility Exploration & Utility Mapping

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2016/17 San Antonio River Authority Strategic Plan.

#### **Agency Goals and Strategic Opportunities:**

*Goal:* Generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.

*Goal:* Advance and apply our expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of our communities.

### **Watershed Modeling, Studies, and Planning Program**

This program oversees, coordinates and manages projects that relate to data management, development of tools and techniques for assessing watershed conditions, and proposing feasible mitigation solutions. This program assimilates water quality, flood, and physical watershed studies and modeling data to assist in informed decision making.

- Basin Assessment Mapping and Analysis Tool
- Bexar County LiDAR Collection
- Cibolo Creek Watershed Master Plan
- City of San Antonio Drainage Master Plan
- Ecosystem Dynamic Simulation (EDYS) San Antonio Bay Model Development
  - Environmental Monitoring System
- Resource Conservation Partnership Program
- South Central Texas Regional Water Planning Group – 2021 Regional Water Plan
  - Fifth Cycle
- Tributary Modeling
- US Geological Survey (USGS) Lower San Antonio River (LSAR) Groundwater
  - Surface Water Interaction Modeling
- University of Texas at San Antonio (UTSA) Sediment Source Mobility
- Watershed Master Plans Integration

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2016/17 San Antonio River Authority Strategic Plan.

Agency Goals and Strategic Opportunities:

*Goal:* Expand, diversify and leverage funding sources and partnerships by delivering results.

*Goal:* Advance the science of watershed management by developing and using data an innovative models and analysis to impact decision making.

*Opportunity:* Provide policy and science-based leadership and support of the San Antonio Bay.

Fiscal Year Annual Objectives and Actions:

Strategic Opportunities Action Items:

- Expand geographic information systems (GIS) basin assessment and analysis capabilities by incorporating broader data sets which will further improve data integration as well as internal and external communication of the River Authority's expertise.
- Strengthen water quality analytical capabilities through applied technologies.
- Advocate and protect fresh water flows to the bay including continued development of San Antonio Bay Ecosystem Dynamic Simulation (EDYS) model, collaboration with the San Antonio Bay Partnership, International Crane Foundation and other interested stakeholders.

Watershed Safety and Response Program

This program supports public and environmental safety preparedness related to flood risks and emergencies associated with point and non-point sources of pollution such as spills and other negative impacts to water quality and aquatic life. This program also includes the operations and maintenance of River Authority dams and the assessments and improvements to stream conveyance. This program utilizes mapping, modeling, and stakeholder engagement to assess, prepare and act.

Bexar County Capital Improvements Program – Real Estate Acquisitions  
Binz-Engleman, Martinez Creek and Escondido Creek Dams (Martinez 1, 2 and 3)  
Rehabilitations  
Calaveras 10 Dam Rehabilitation  
Cooperating Technical Partners (CTP) Development Review  
Cooperating Technical Partner Risk MAP Cibolo  
Cooperating Technical Partners Risk MAP Lower San Antonio River  
Cooperating Technical Partner Risk MAP Medina River  
Cooperating Technical Partner Risk MAP Upper San Antonio River  
Dam Operations Center  
Downstream Flood Inundation Library  
Flood Gate 4 Replacement  
FloodWorks Website Enhancement  
Integrated Catchment Modeling (ICM) System Pilot  
Stone Oak Park Dam (Salado 8) Spillway Repair

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2016/17 San Antonio River Authority Strategic Plan.

*Agency Goals and Strategic Opportunities:*

*Goal:* Generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.

*Goal:* Advance and apply our expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of our communities.

*Goal:* Expand, diversity and leverage funding sources and partnerships by delivering results.

*Opportunity:* Develop capacity and operational efficiencies to respond to growing demands for our services.

*Fiscal Year Annual Objectives and Actions:*

2. Upgrade and expand the use of the flood alert system to enhance emergency response and public safety.



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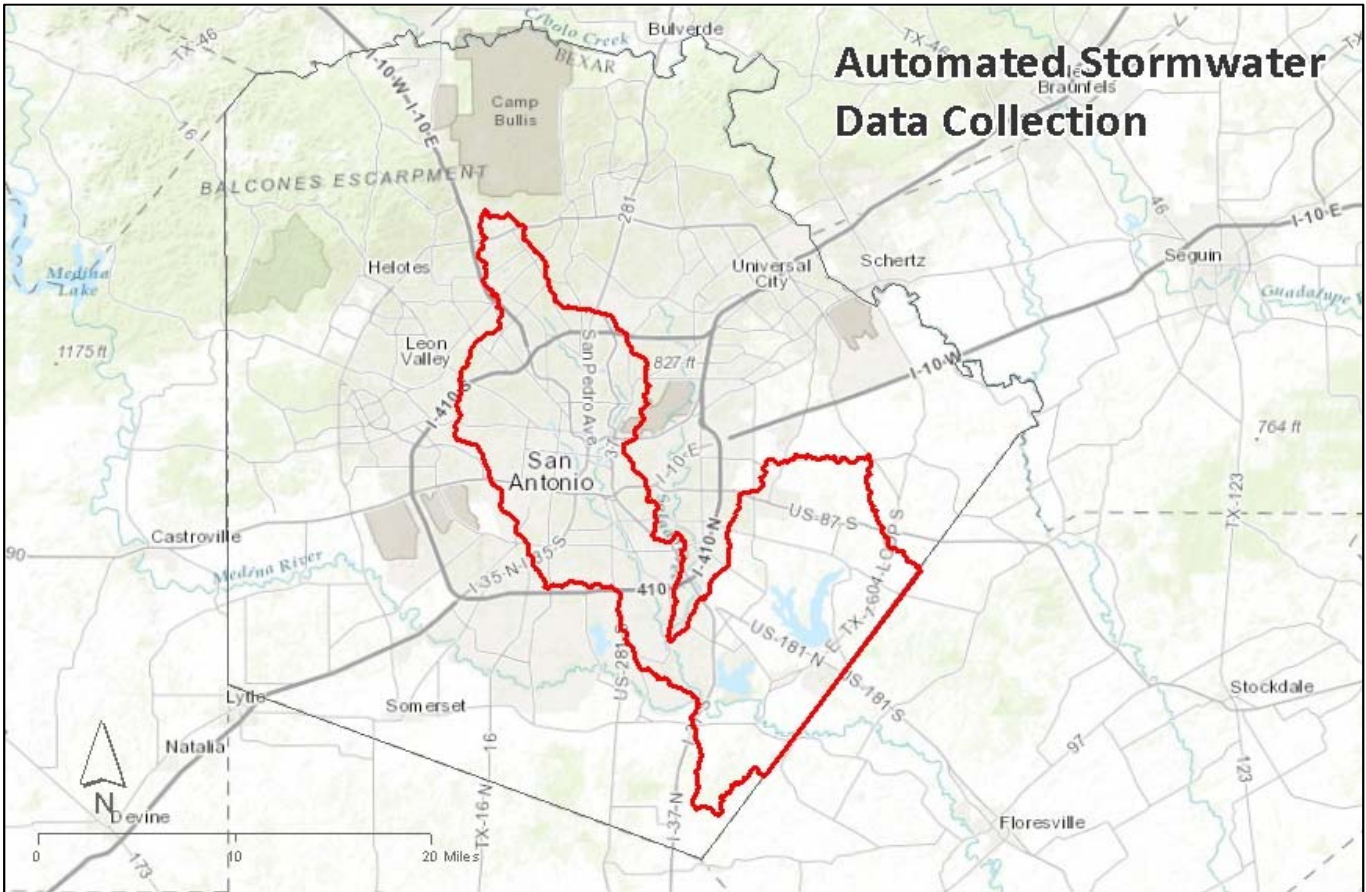
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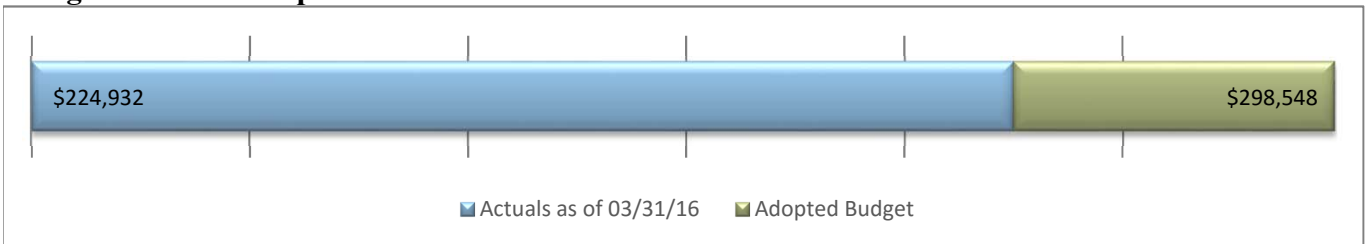
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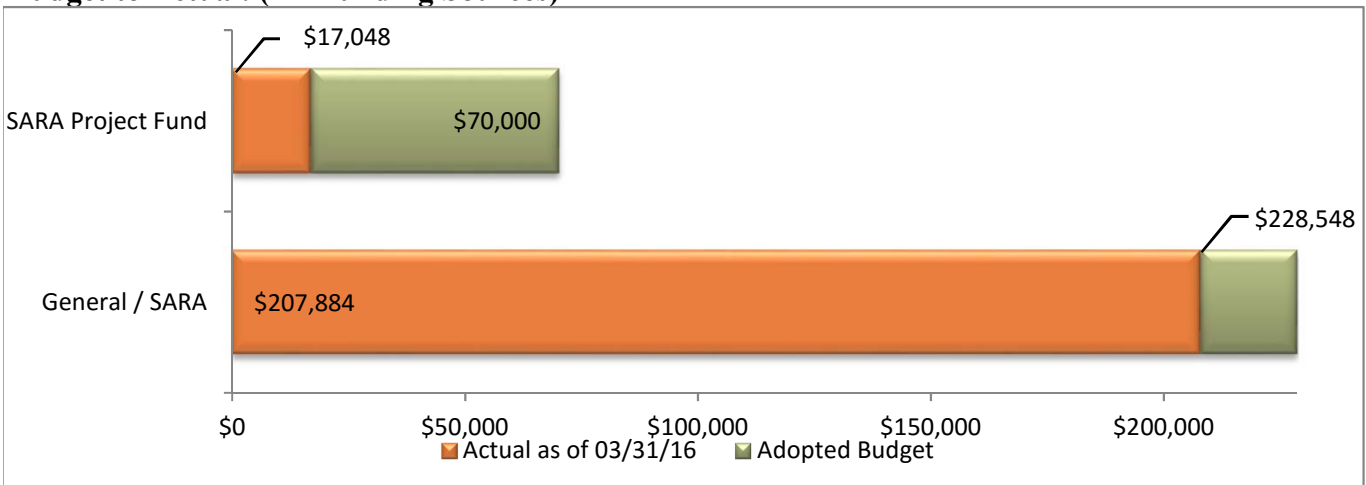




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Automated Stormwater Data Collection Project      **Project #** 0406  
**Managing Department:** Environmental Sciences

		Adopted Budget:	\$	298,548
Project Start Date:	07/01/13	Unfunded Budget:	\$	-
Project Finish Date:	12/30/16	Total Project Budget:	\$	298,548

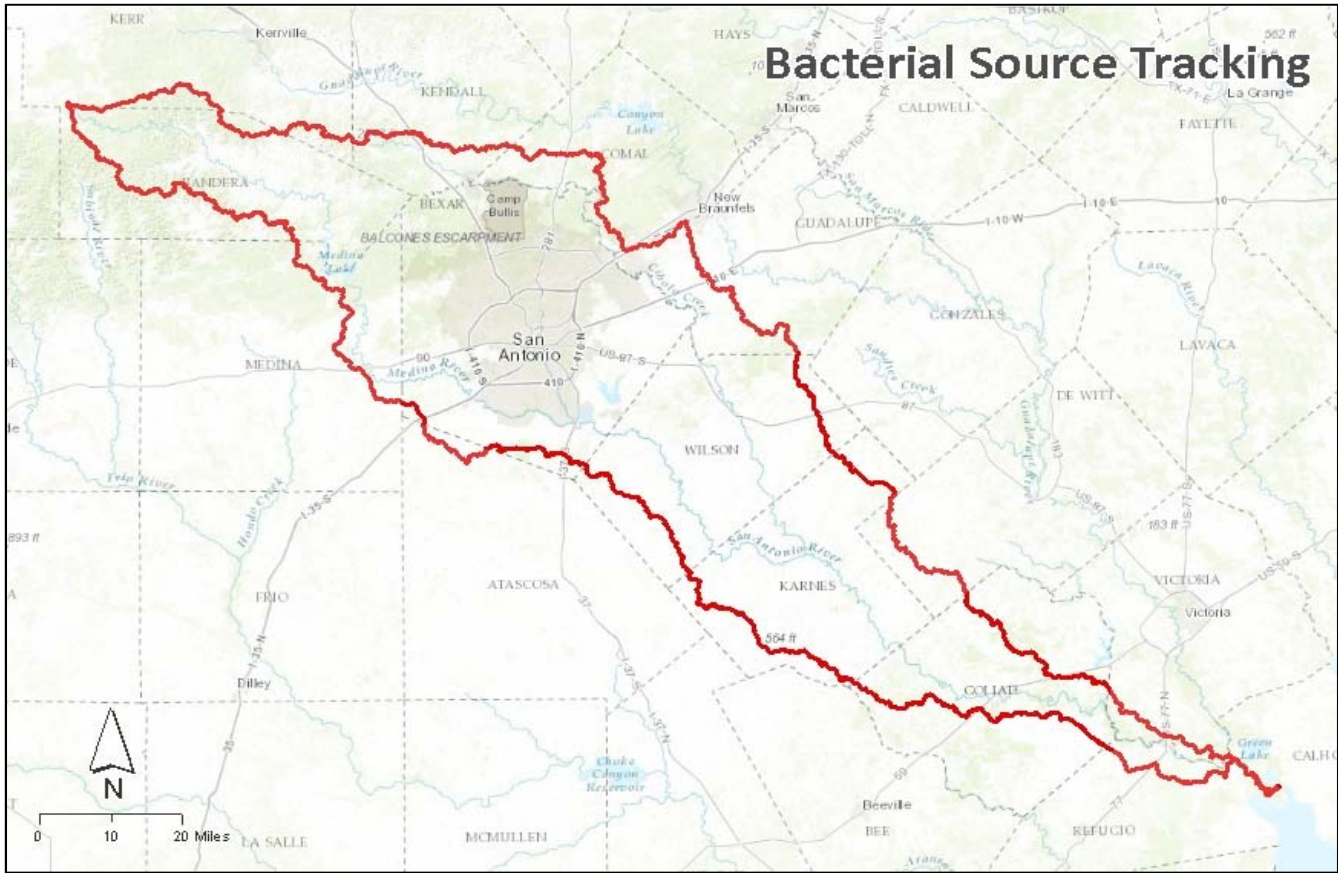
Streams within the San Antonio River watershed are influenced by non-point sources during storm events. The River Authority is challenged with the task of defining stream water quality within the watershed during storm events. To accomplish this, the River Authority is incorporating the latest innovative procedures to collect water quality data by implementing permanent long-term automated sampling stations designed to collect water samples under stormwater conditions. Automated sampling procedures can collect water quality samples throughout the duration of a storm event, making the collection effort more economically feasible and safer without endangering field personnel during hazardous weather conditions.

This project helps to develop watershed solutions by collecting stormwater data that can be used to insure that the watershed master plan models are dynamic and relevant. This project also strengthens and develops staff expertise dealing with automatic samplers and associated equipment.

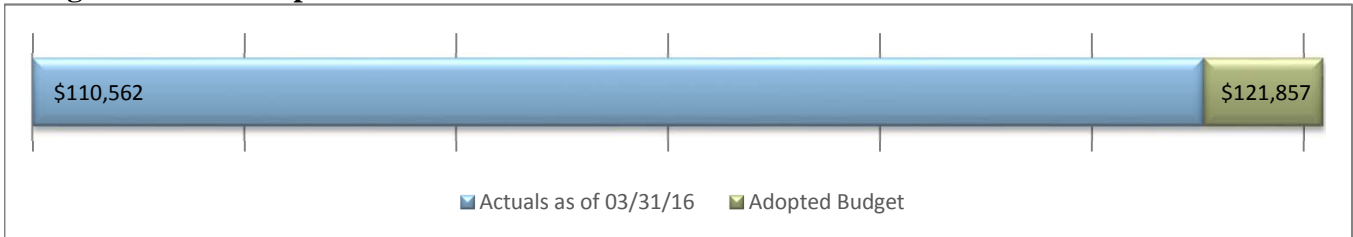
In FY 2016/17, the River Authority will complete the research and construction of one permanent long-term automated stream monitoring station within the San Antonio River watershed. The purpose of this stormwater monitoring station is to collect long-term water quality data to help characterize stream water quality conditions during stormwater conditions.

Of the total \$298,548 Adopted Budget, \$142,483 is estimated contribution through the River Authority General Fund.

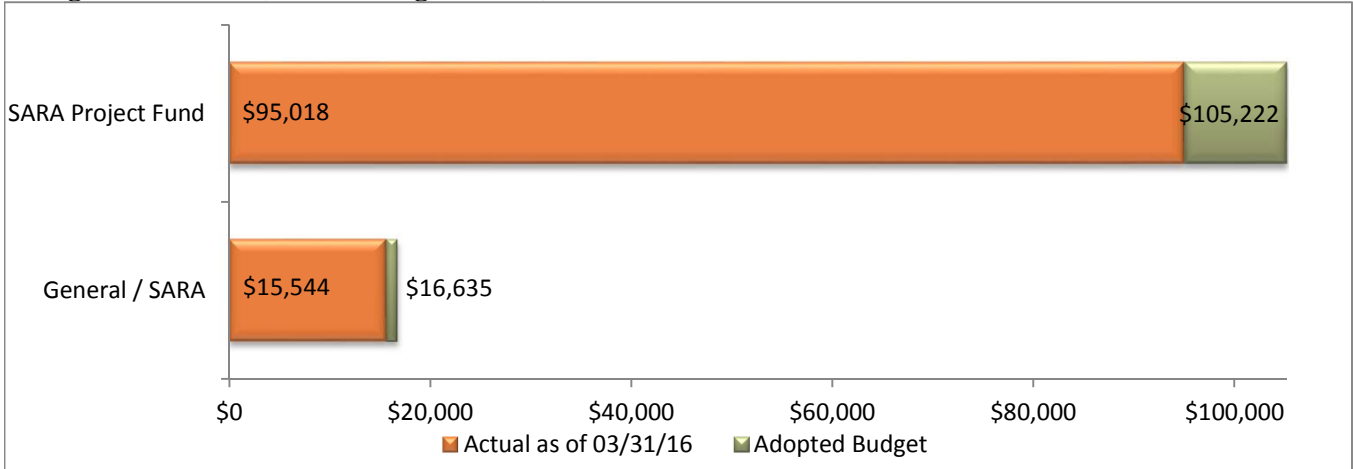
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ 121,819	\$ 20,664	\$ -	\$ -	\$ 142,483
Commodities	103,112	52,953	-	-	156,065
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 224,932</u>	<u>\$ 73,617</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 298,548</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Bacterial Source Tracking**  
 Managing Department: Environmental Sciences

**Project # 0443**

		Adopted Budget:	\$	121,857
Project Start Date:	07/01/14	Unfunded Budget:	\$	-
Project Finish Date:	09/30/16	Total Project Budget:	\$	121,857

Bacterial Source Tracking (BST) is an emerging scientific discipline used to determine the source of fecal indicator bacteria in the environment. In FY 2015/16, various BST methodologies and instrumentation were researched, along with technical and facility requirements needed to successfully incorporate this capability into laboratory operations, and the instruments were purchased and laboratory modifications completed for the analysis. The BST testing is now fully operational.

The development and implementation of this project advances watershed health and safety by supporting and enhancing efforts to identify and reduce fecal indicator bacteria levels in the river.

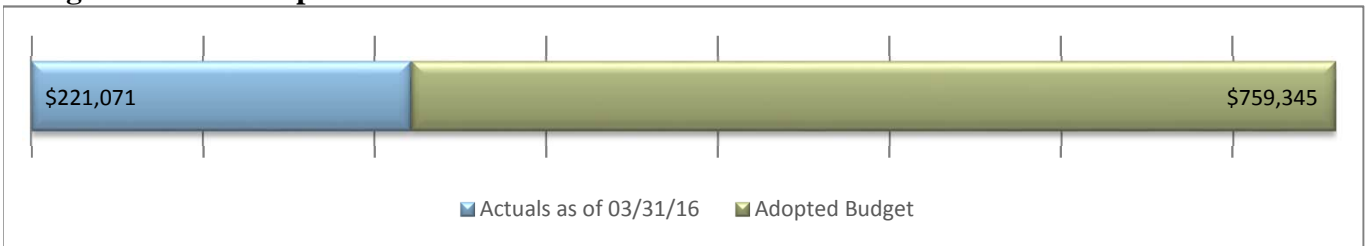
In FY 2016/17, the laboratory will market this analysis to the public. Staff will work to advance the methodology by including additional genetic markers to detect a variety of species including feral hog, avian species, and ruminants. In the following year, BST analysis will be utilized in the Discharge Detection project.

Of the total \$121,857 Adopted Budget, \$9,327 is estimated labor contribution through the River Authority General Fund.

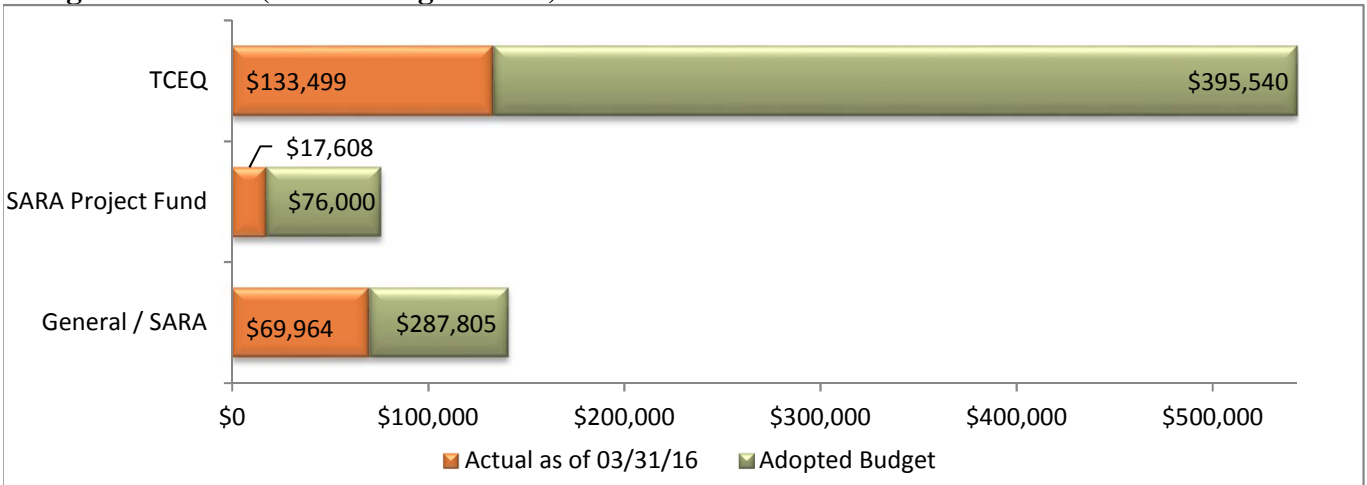
<b>Expenditures</b>	Actuals as of <u>March 31, 2016</u>	April 2016 to <u>June 2017</u>	<u>2017/18</u>	Succeeding from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 8,236	\$ 1,091	\$ -	\$ -	\$ 9,327
Commodities	102,326	10,204	-	-	112,530
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 110,562</u>	<u>\$ 11,295</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 121,857</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Clean Rivers Program 2015  
 Managing Department: Environmental Sciences

**Project #** 0490

	Adopted Budget:	\$	759,345
Project Start Date: 08/28/15	Unfunded Budget:	\$	2,264
Project Finish Date: 12/29/17	Total Project Budget:	\$	761,609

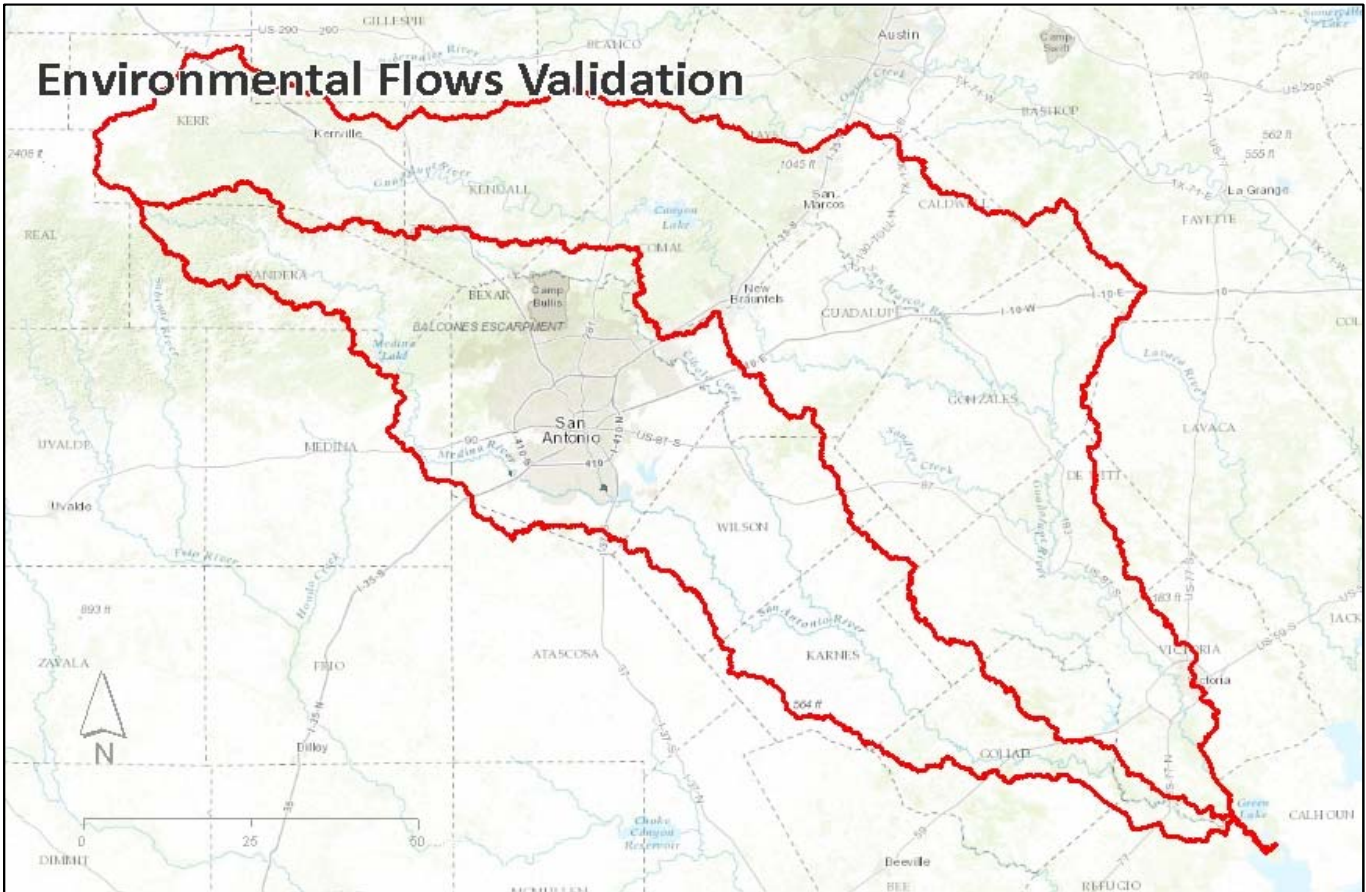
The Texas Clean Rivers Program (CRP) funded by the Texas Commission on Environmental Quality (TCEQ) with additional funding support from the River Authority, supports the River Authority’s routine surface water quality data collection within the San Antonio River basin. The CRP provide for the analysis and data gathered management of surface water samples collected throughout the basin. CRP produces quality assured water quality data for the assessment of current water quality conditions and identify long-term trends. Information is shared with the community and stakeholders. The CRP has been ongoing since 1992.

The CRP and the River Authority’s Stream Monitoring Project utilize a watershed approach to address impairments, concerns, and long-term trends to generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.

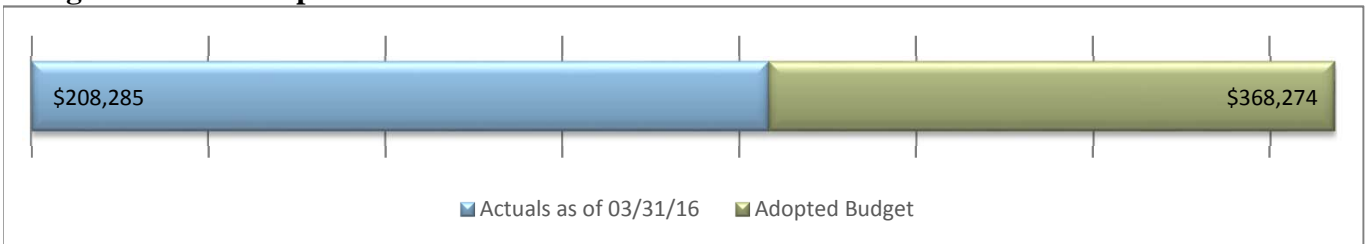
In FY 2016/17, the CRP will collect, analyze, and manage surface water quality data collected throughout the San Antonio River basin.

Of the total \$759,345 Adopted Budget, \$287,805 is estimated labor contribution through the River Authority General Fund.

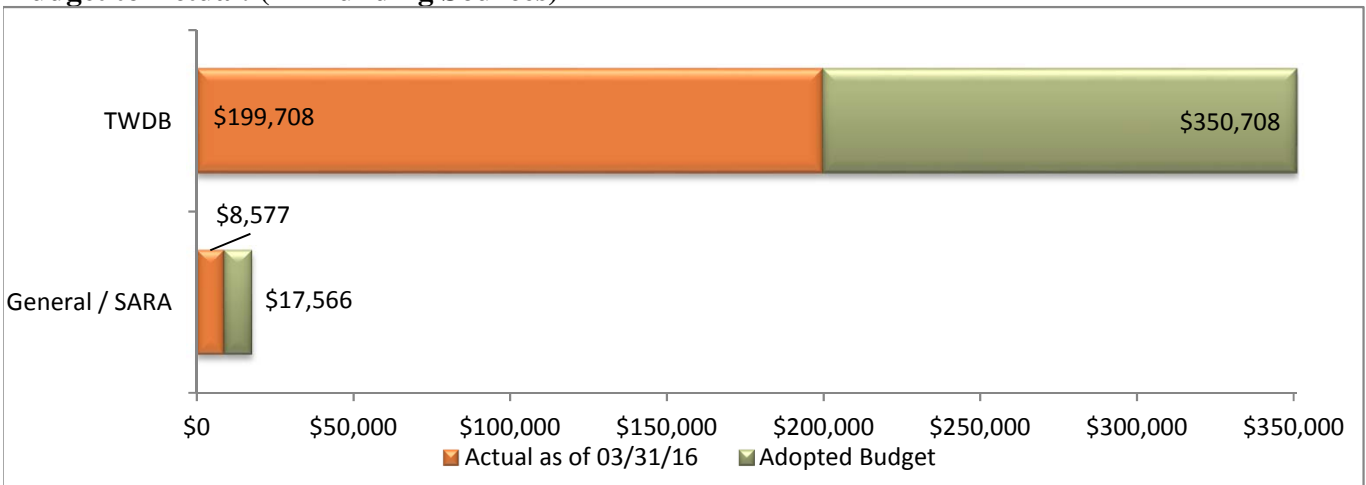
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 196,779	\$ 447,566	\$ 2,264	\$ -	\$ 646,609
Commodities	24,292	45,708	-	-	70,000
Contracts	-	45,000	-	-	45,000
<b>Total</b>	<u>\$ 221,071</u>	<u>\$ 538,274</u>	<u>\$ 2,264</u>	<u>\$ -</u>	<u>\$ 761,609</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Environmental Flows-Validation** **Project # 0447**  
 Managing Department: Environmental Sciences

	Adopted Budget:	\$	368,274
Project Start Date: 04/15/14	Unfunded Budget:	\$	1,825
Project Finish Date: 08/31/17	Total Project Budget:	\$	370,099

The goal of this project is to develop methodologies to validate environmental flows adopted by the State of Texas. Phase I was completed in 2015 and the Texas Water Development Board granted the River Authority additional funds to perform additional work. The additional work will be accomplished by conducting a workshop with an expert panel to explain the findings to date and seek advice for which ideas show promise and should be investigated further. These selected indicators will then be studied at several sites and under several flow regimes to validate the theories and the associated flow recommendations.

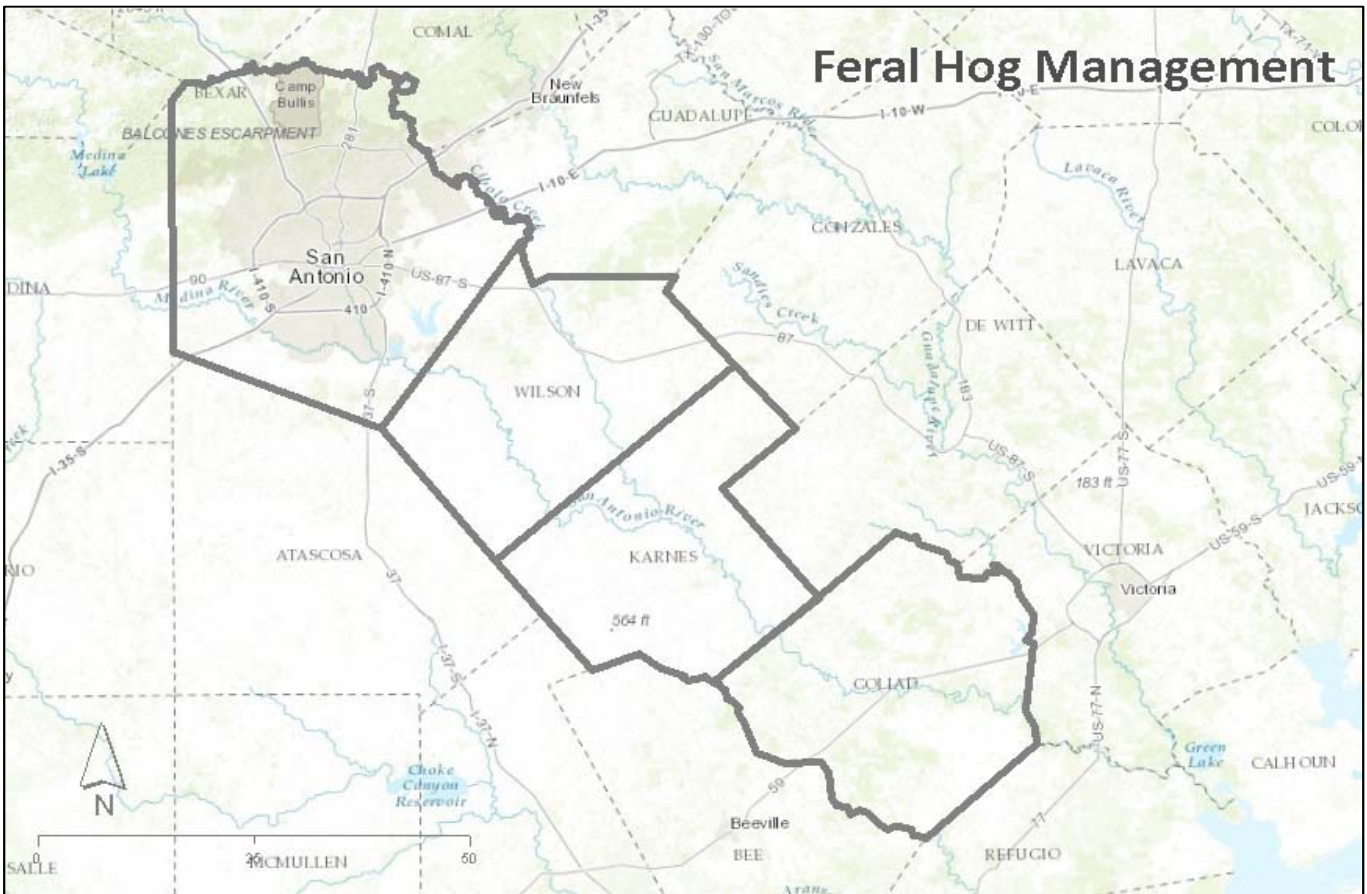
This data advances the River Authority’s goal of implementing watershed solutions because the validated information can be used to refine future environmental flow recommendations.

In FY 2016/17, an expert workshop will be held to evaluate the results from phase I, and solicit feedback on which methodologies should move forward in phase II . Sampling will continue at some of the current sampling locations to determine biological organisms response to pulse flows. Fewer sample sites will be selected so sampling can be conducted at a greater frequency and a greater variety of pulse sizes and durations may be evaluated.

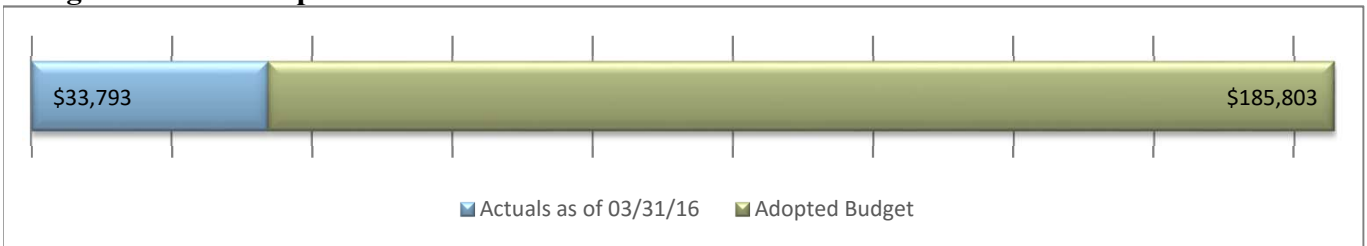
Of the Total \$368,274 Adopted Budget, \$17,435 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 8,446	\$ 8,989	\$ 1,825	\$ -	\$ 19,260
Commodities	8	-	-	-	8
Contracts	<u>199,831</u>	<u>126,000</u>	<u>25,000</u>	<u>-</u>	<u>350,831</u>
<b>Total</b>	<u>\$ 208,285</u>	<u>\$ 134,989</u>	<u>\$ 26,825</u>	<u>\$ -</u>	<u>\$ 370,099</u>

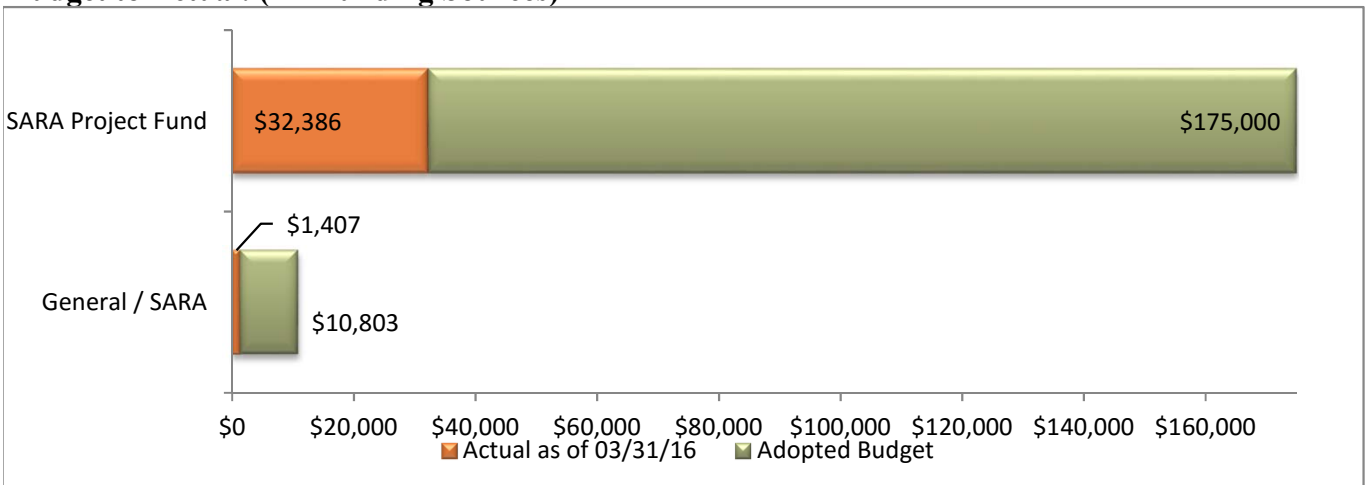




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Feral Hog Management**  
 Managing Department: Environmental Sciences

**Project # 0510**

	Adopted Budget:	\$	185,803
Project Start Date: 07/01/15	Unfunded Budget:	\$	-
Project Finish Date: 06/30/17	Total Project Budget:	\$	185,803

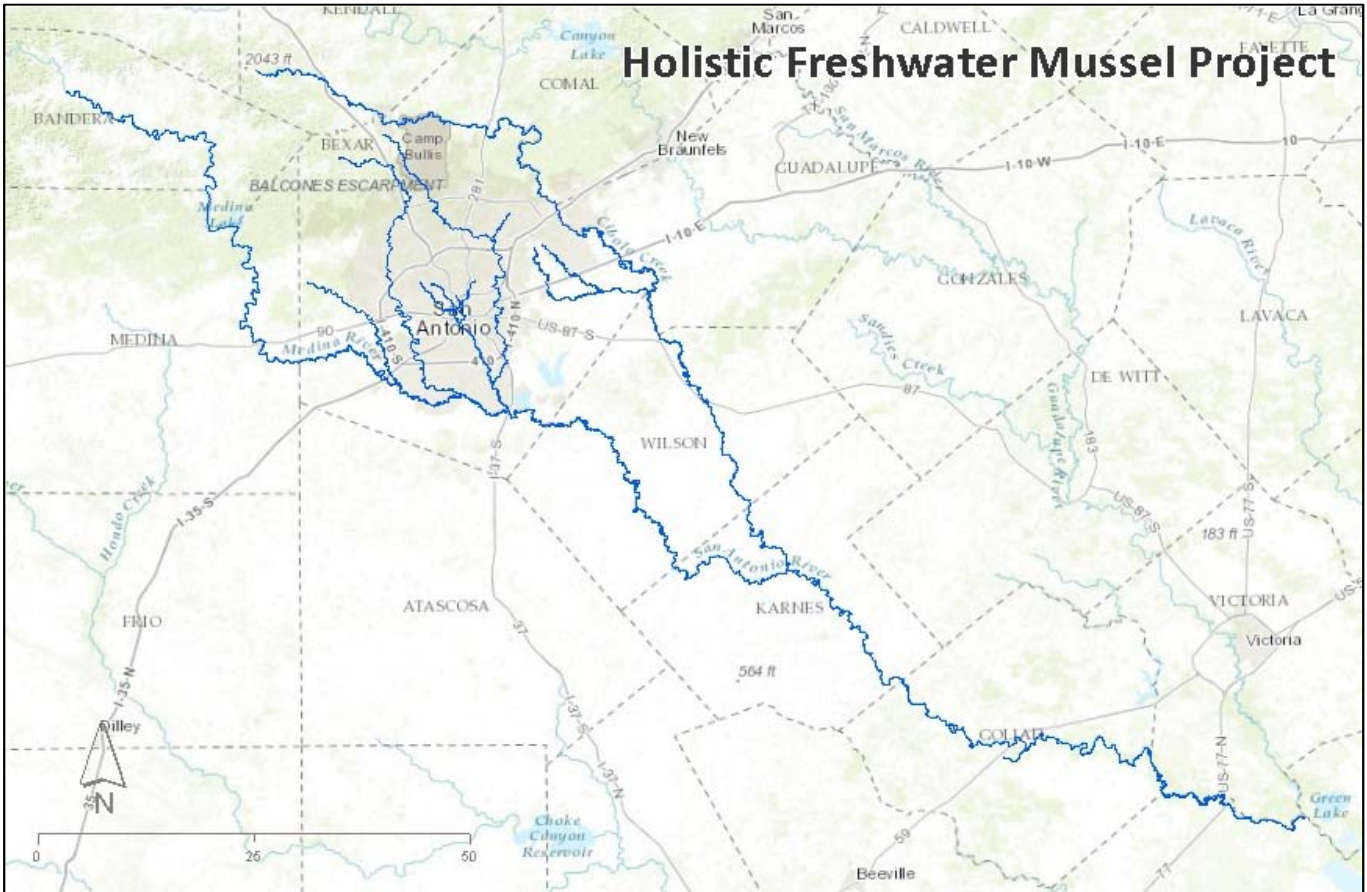
This project, in its second year, continues to develop relationships and fund activities with other agencies to develop strategies that will work to manage the feral hog population in the San Antonio River Authority’s district using programs that both educate land owners and provide support for management of feral hogs. This project implements wildlife best management practices in the district to improve water quality and promote riparian health.

Texas is home to about 2.6 million feral hogs which cause an estimated \$500 million annually in damages to rural and urban areas in Texas. The hogs cause damage to riparian areas along streams, increasing erosion. Feral hogs defecate in and around water, increasing levels of bacteria and nutrients in creeks and rivers. Efforts from this continued project will work towards generating lasting and recognized improvements to the health and safety of the creeks, rivers, estuaries and bays.

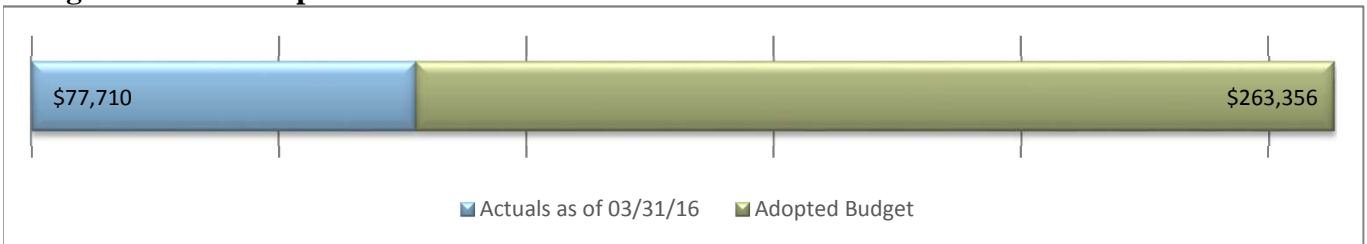
In FY 2016/17, the River Authority, along with Texas A&M AgriLife, will host workshops to educate landowners in the district about feral hog management. Staff will also work with United States Department of Agriculture Animal and Plant Health Inspection Service (USDA-APHIS) Wildlife Services to actively manage populations of feral hogs in the district.

Of the total \$185,803 Adopted Budget, \$10,803 is estimated labor contribution through the River Authority General Fund.

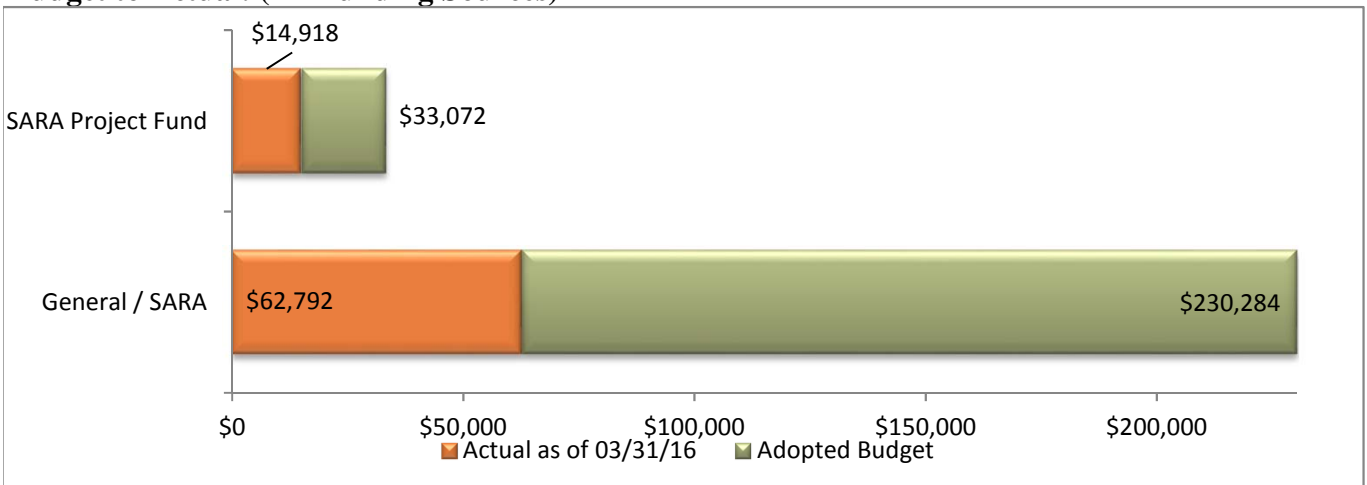
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Labor	\$ 1,407	\$ 9,396	\$ -	\$ -	\$ 10,803
Commodities	7,386	-	-	-	7,386
Contracts	<u>25,000</u>	<u>142,614</u>	<u>-</u>	<u>-</u>	<u>167,614</u>
<b>Total</b>	<u>\$ 33,793</u>	<u>\$ 152,010</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 185,803</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Holistic Freshwater Mussel Project **Project #** 0442  
**Managing Department:** Environmental Sciences

		Adopted Budget:	\$	263,356
Project Start Date:	07/01/14	Unfunded Budget:	\$	-
Project Finish Date:	06/30/18	Total Project Budget:	\$	263,356

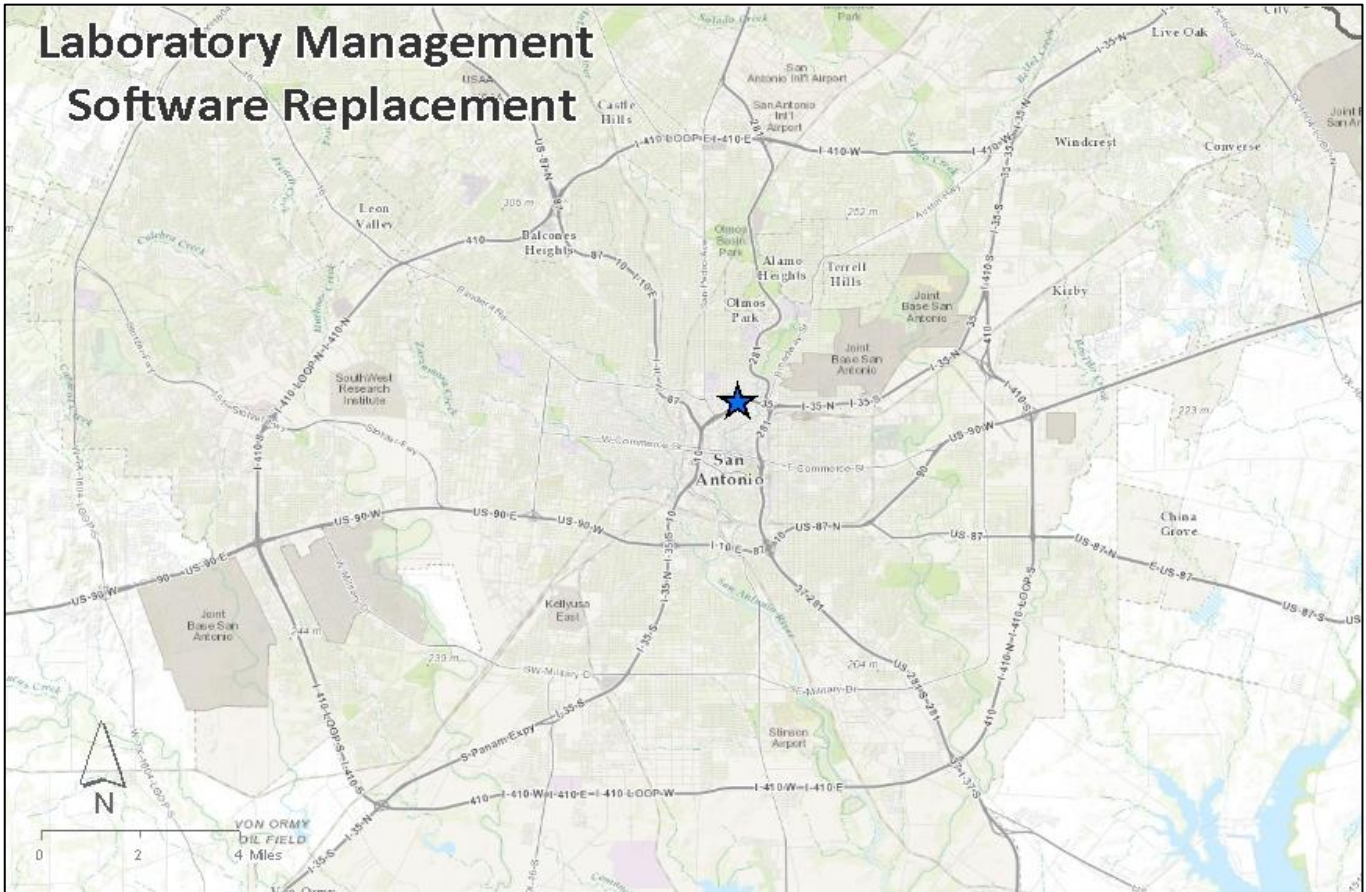
Three freshwater mussel species under review for federal listing as threatened or endangered have historically been found in the San Antonio River Basin. One species, Golden Orb, has been recently found in numerous locations in the San Antonio River. In an effort to determine mussel densities and species richness for the entire native mussel community in the San Antonio River Basin, the River Authority will conduct reconnaissance surveys and mussel sample collections efforts throughout the basin. Data collected will be distributed to regulatory agencies to assist in decision-making for listing or delisting candidate species. Sampling locations include the San Antonio River, Cibolo Creek, Salado Creek, Lower Leon Creek, Salatrillo and Martinez Creeks, lower Medina River, Medio Creek and Westside Creeks.

This ongoing project promotes watershed solutions and leverages resources by providing data for the United States Fish and Wildlife Service for at risk species through mussel surveys from the lower Cibolo Creek and San Antonio River, augmenting the Cibolo Creek Watershed Master plan, and providing data for Texas Parks and Wildlife Department (TPWD) for the Texas In Stream Flows Program (TIFP).

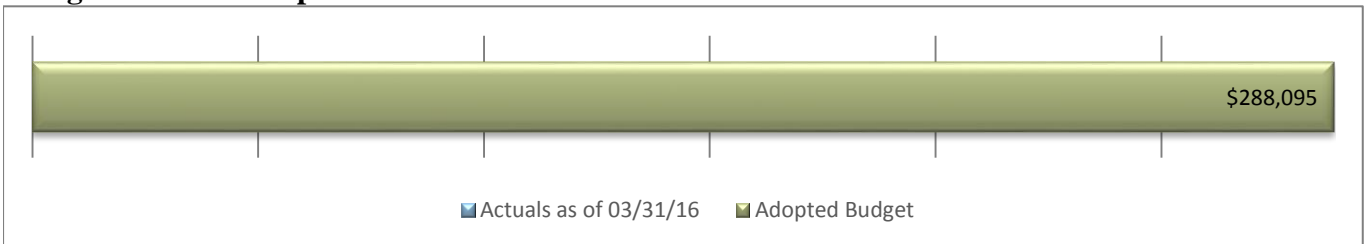
In FY 2016/17, the River Authority will conduct reconnaissance surveys throughout the lower San Antonio River to estimate mussel population parameters which includes species richness, mussel densities, variance, population size and recruitment. Following the completion of these qualitative efforts, mussel abundance from all qualitative sites will be assessed to determine if quantitative efforts are needed throughout the study area.

Of the \$263,356 Adopted Budget, \$215,596 is estimated labor contribution through the River Authority General Fund.

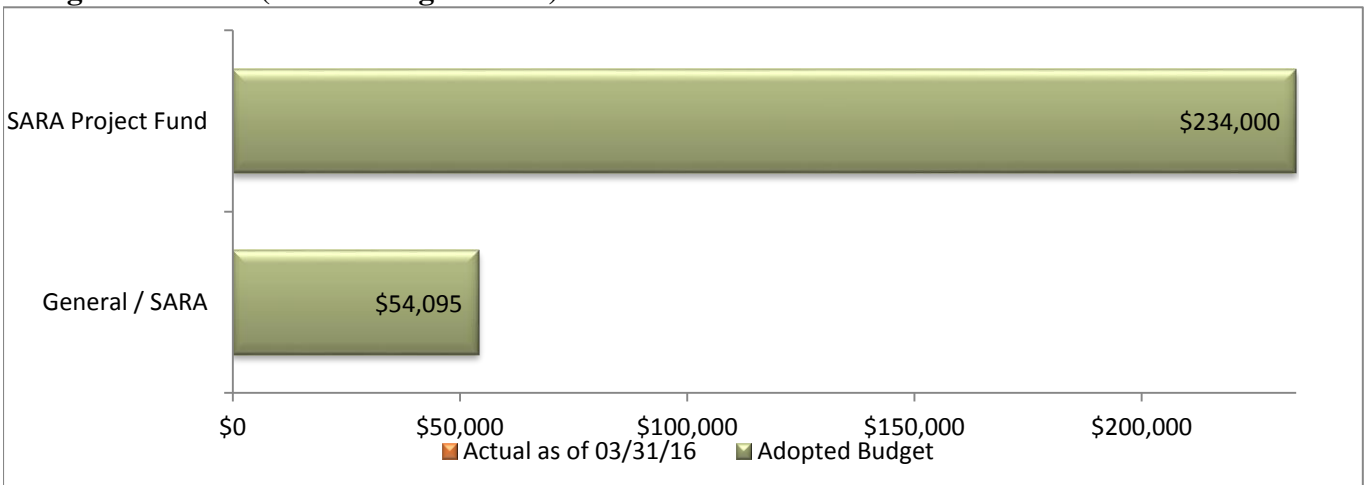
<b>Expenditures</b>	<b>Actuals as of <u>March 31, 2016</u></b>	<b>April 2016 to <u>June 2017</u></b>	<b><u>2017/18</u></b>	<b>Succeeding from <u>2018/19</u></b>	<b><u>Total</u></b>
Personnel	\$ 50,371	\$ 165,226	\$ -	\$ -	\$ 215,596
Commodities	18,618	17,348	-	-	35,966
Contracts	<u>8,721</u>	<u>3,072</u>	-	-	<u>11,793</u>
<b>Total</b>	<b>\$ <u>77,710</u></b>	<b>\$ <u>185,646</u></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ <u>263,356</u></b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: LIMS Replacement**  
 Managing Department: Environmental Sciences

**Project # 0537**

	Adopted Budget:	\$	288,095
Project Start Date: 07/01/16	Unfunded Budget:	\$	182,297
Project Finish Date: 06/30/18	Total Project Budget:	\$	470,392

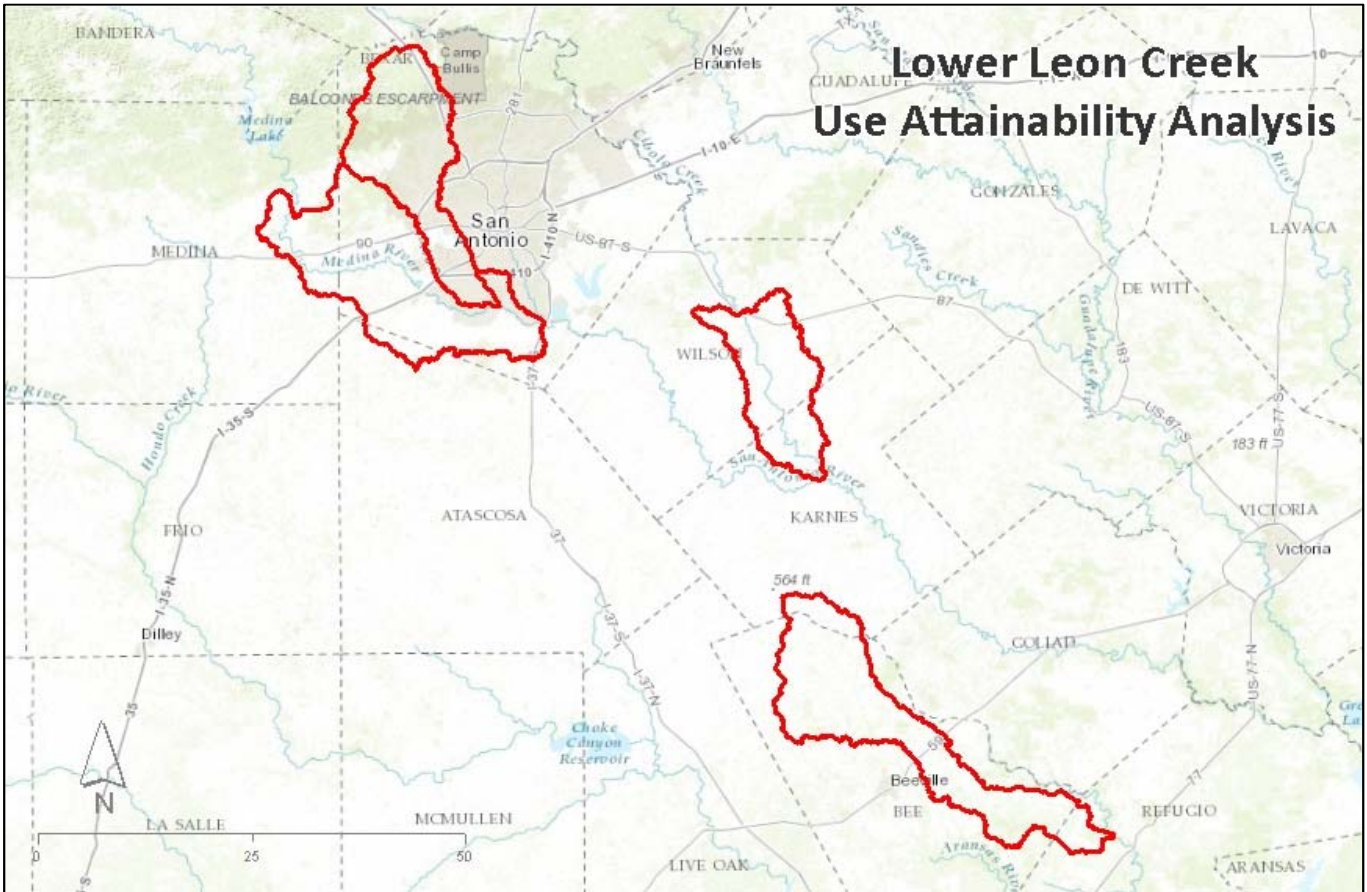
The San Antonio River Authority Regional Environmental Laboratory currently utilizes a Laboratory Information Management System (LIMS) to electronically capture information for all samples submitted to our laboratory from internal and external customers. This LIMS has been in use since February 2006 and was upgraded to a newer version in 2011. However, the product has not kept up with advances throughout the industry and lacks productivity, reporting, interfacing, and management tools to meet the ever increasing data management and reporting challenges of environmental testing laboratories. This project will allow the SARA laboratory to create a request for proposal for a new LIMS, evaluate vendors, and select and implement a new LIMS that will meet and exceed the laboratory’s needs. □

The acquisition and implementation of a new LIMS will support SARA’s commitment to advance the science of watershed management by utilizing an advanced modern tool to manage, store, report, retrieve, and integrate data used for decision making. This system will also assist with implementing operational efficiencies that respond to the growing and evolving demands for laboratory testing and data services.

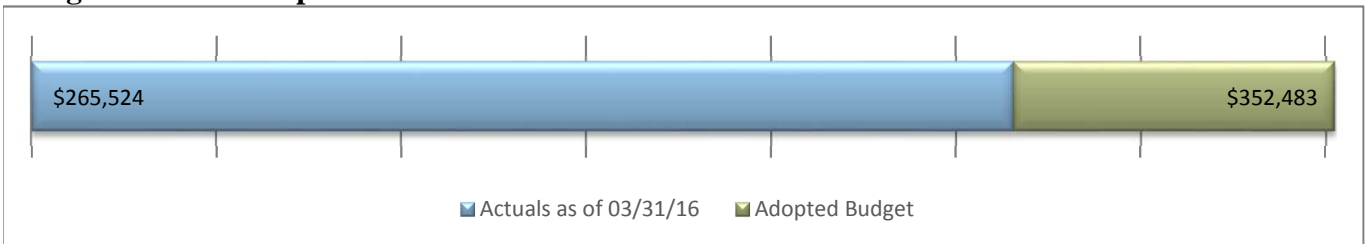
For FY16/17, the project deliverables are to develop a request for proposal, review submittals, evaluate vendors, select product, and create a test environment for the new system.

Of the total \$288,095 Adopted Budget, \$54,095 is estimated labor contribution through the River Authority General Fund.

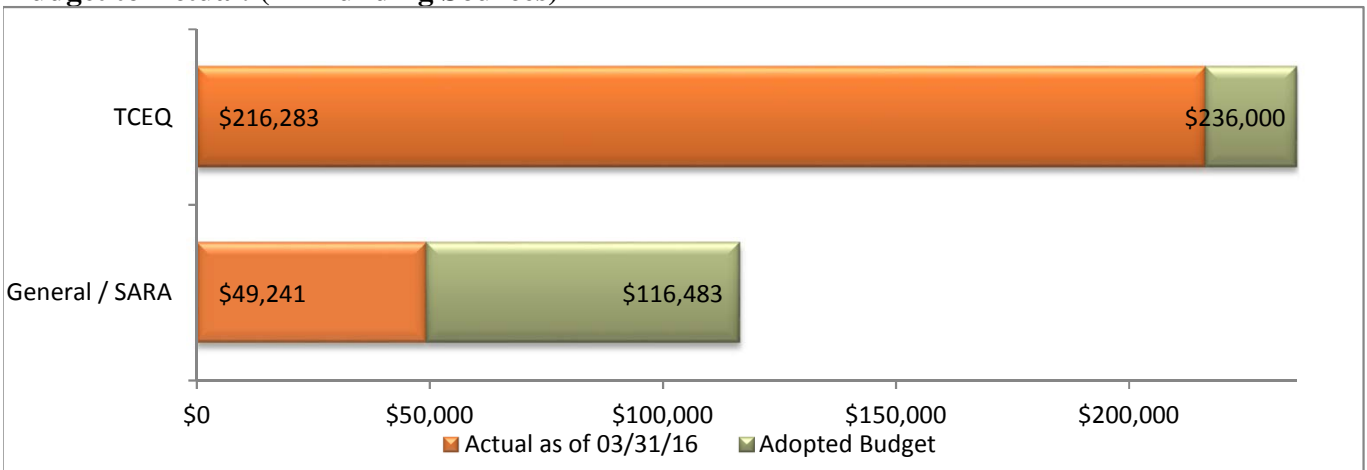
<b>Expenditures</b>	<u>Actuals as of March 31, 2016</u>	<u>April 2016 to June 2017</u>	<u>2017/18</u>	<u>Succeeding from 2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 54,095	\$ 123,797	\$ -	\$ 177,892
Commodities	-	194,000	18,500	-	212,500
Contracts	-	40,000	40,000	-	80,000
<b>Total</b>	<u>\$ -</u>	<u>\$ 288,095</u>	<u>\$ 182,297</u>	<u>\$ -</u>	<u>\$ 470,392</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Lower Leon Creek Use-Attainability Analysis **Project #** 0428  
**Managing Department:** Environmental Sciences

	Adopted Budget:	\$	352,483
Project Start Date: 03/03/14	Unfunded Budget:	\$	-
Project Finish Date: 12/29/17	Total Project Budget:	\$	352,483

The Lower Leon Creek Use-Attainability Analysis (UAA) project conducts monitoring in support of the Texas Commission on Environmental Quality (TCEQ) efforts to assign appropriate aquatic life use and dissolved oxygen criterion in Lower Leon Creek.

The project’s watershed approach to identifying and monitoring impairments, concerns, and long-term trends will generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.

In FY 2016/17, aquatic life, routine chemistry, and 24-hour dissolved oxygen measurements will be collected at two monitoring stations along the Lower Leon Creek. The Lower Leon Creek Use-Attainability Analysis Report is the major deliverable for the project and will detail the correlation of water quality.

Of the total \$352,483 Adopted Budget, \$116,483 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2018/19</u>	<u>Succeeding</u> <u>from</u> <u>2019/20</u>	<u>Total</u>
Personnel	\$ 177,924	\$ 86,263	\$ -	\$ -	\$ 264,187
Commodities	87,600	696	-	-	88,296
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 265,524</u>	<u>\$ 86,959</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 352,483</u>

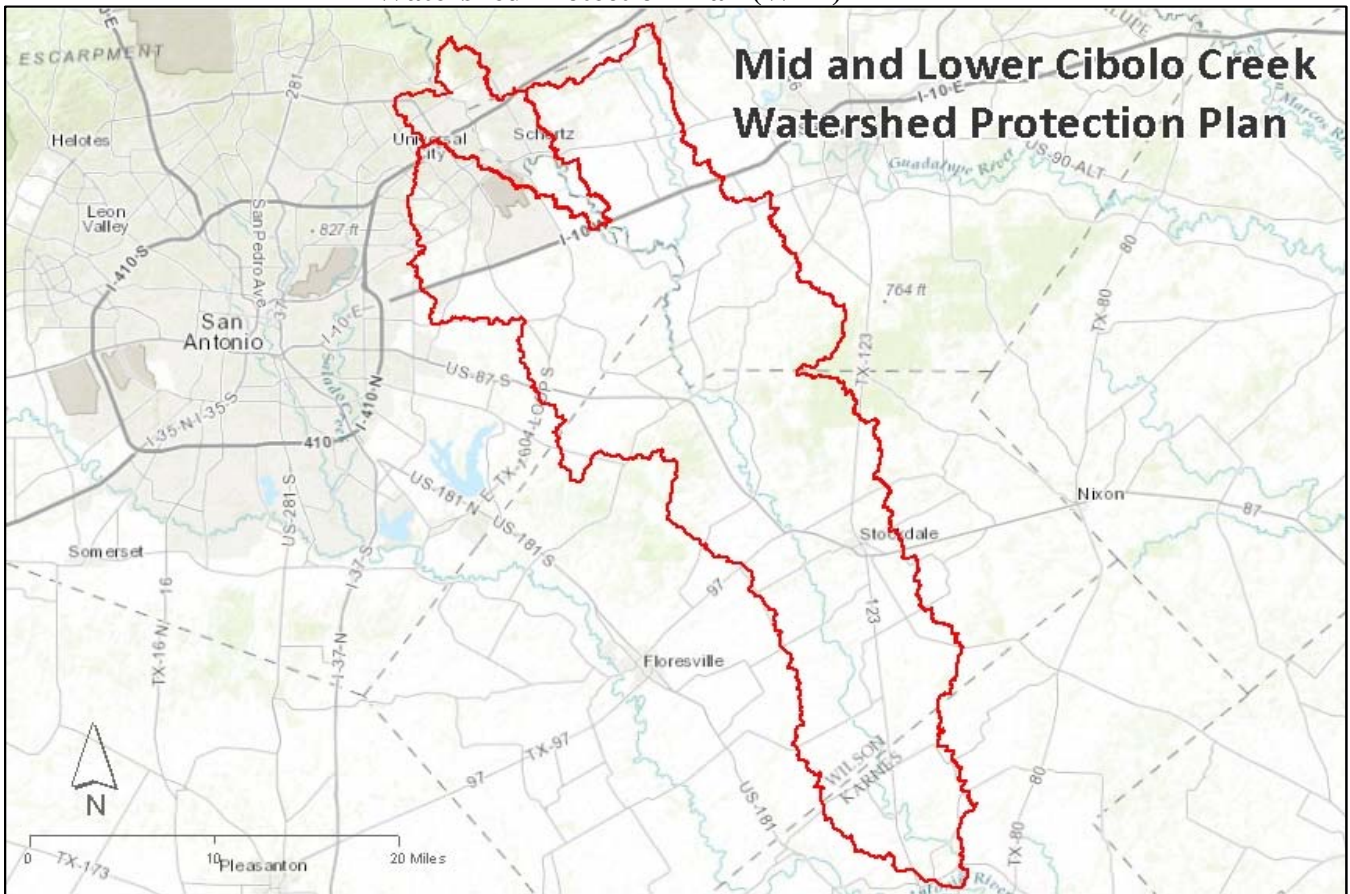


Project Name:

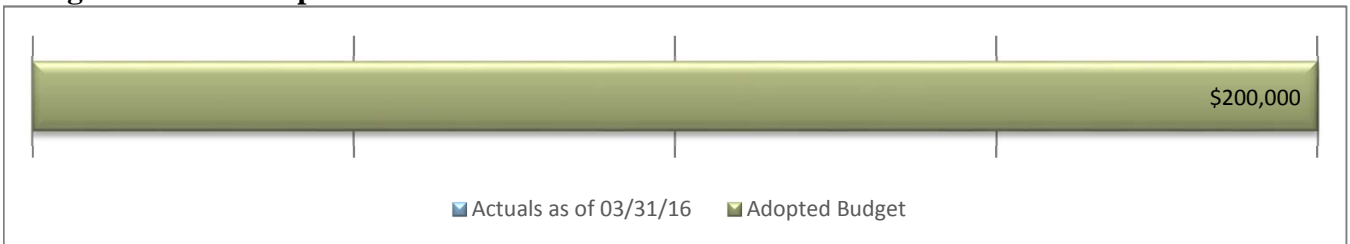
Mid Cibolo and Lower Cibolo Creek  
Watershed Protection Plan (WPP)

Project #

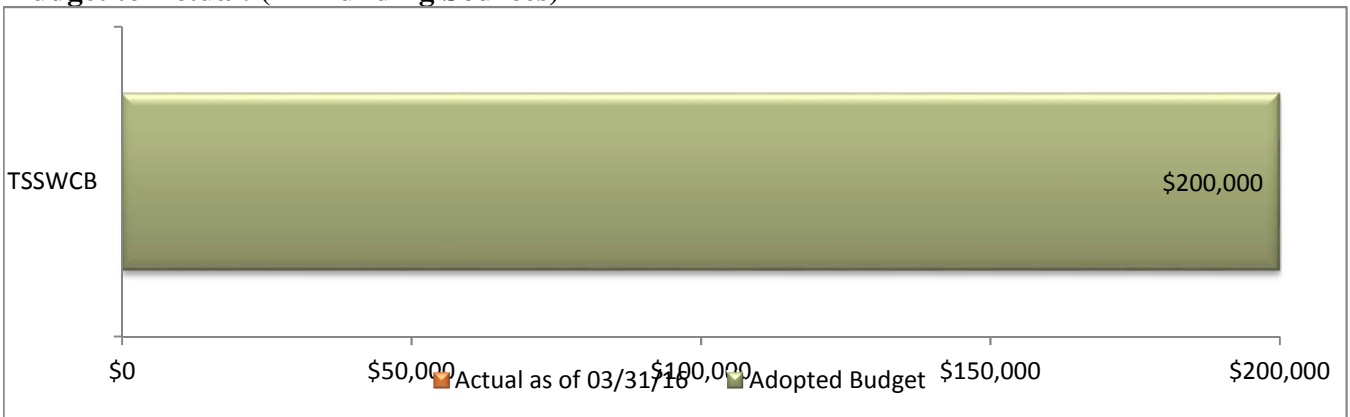
0532



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Mid Cibolo and Lower Cibolo Creek Watershed Protection Plan (WPP) **Project #** 0532

Managing Department: Environmental Sciences

	Adopted Budget:	\$	200,000
Project Start Date: 07/01/16	Unfunded Budget:	\$	-
Project Finish Date: 12/31/18	Total Project Budget:	\$	200,000

The project will consist of the completion of a Watershed Protection Plan for the Mid and Lower Cibolo Creek Watersheds for the Texas State Soil and Water Conservation Board (TSSWCB). San Antonio River Authority (SARA) staff is proposing to participate with Texas AgriLife Extension (AgriLife) to conduct a Watershed Protection Plan (WPP) for the Mid Cibolo Creek and Lower Cibolo Creek watersheds. SARA would be a subcontracted participant to Texas AgriLife Extension providing services to include stormwater quality monitoring, participation in public meetings and use of the water quality model developed for the Cibolo Creek Watershed Master Plan Project.

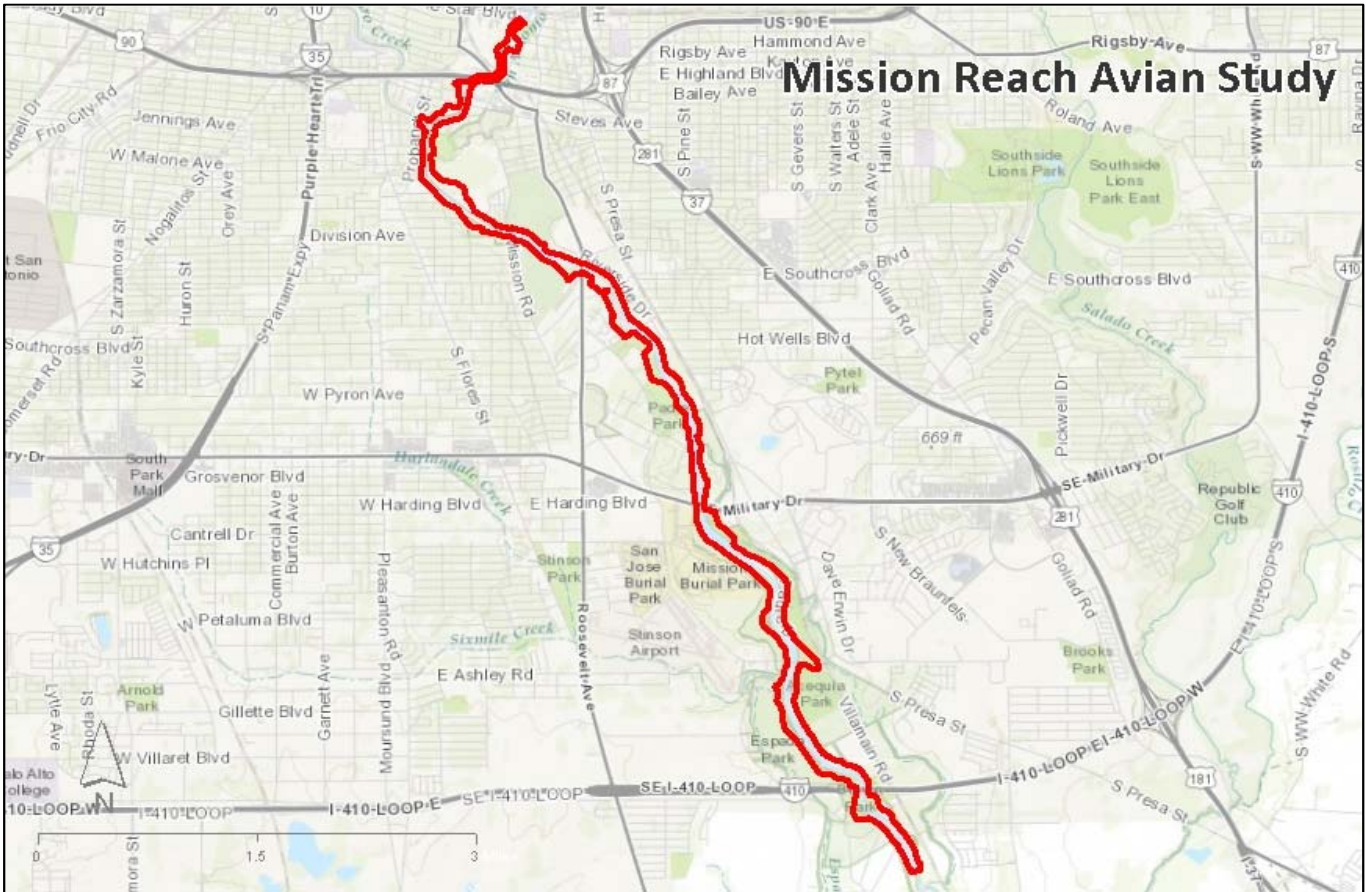
SARA tasks will include Project Administration, Quality Assurance, Water Quality Monitoring, Water Quality Modeling (to consist of running of scenarios to support the development of the WPP and participation in stakeholder facilitation as well as participation in the development of the WPP document.

This project compliments the Cibolo Creek Watershed Master Plan and supports the SARA Strategic Plan. The project will be entirely funded by the TSSWCB.

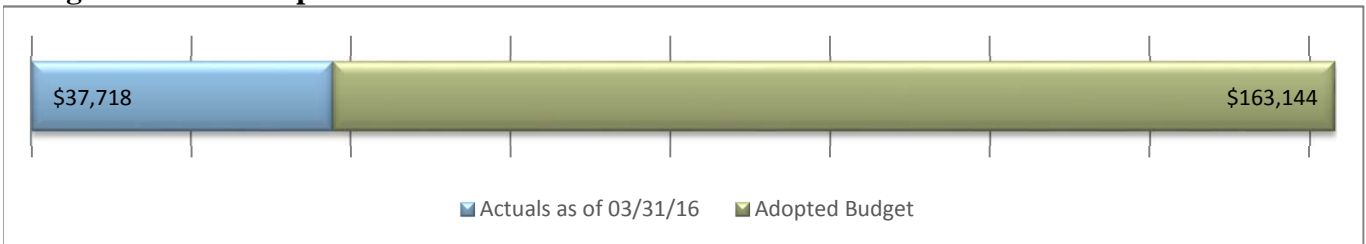
This project will support objectives 1 and 5. The project will utilize our ability to identify sources of E. coli that are contributing to concerns and impairments within the Mid/Lower Cibolo Creek Watershed. The project will also develop outreach and educational strategies that will highlight SARA’s expertise as they participate on the development of the watershed protection plan and increase public knowledge and appreciation for the Mid and Lower Cibolo Creek. The project will expand funding sources and partnerships with both Texas A&M AgriLife and TSSWCB in the area of Watershed Protection Plan development.

Fiscal Year Deliverables for the first year include draft and final quality assurance project plan (QAPP) and the initiation of monitoring.

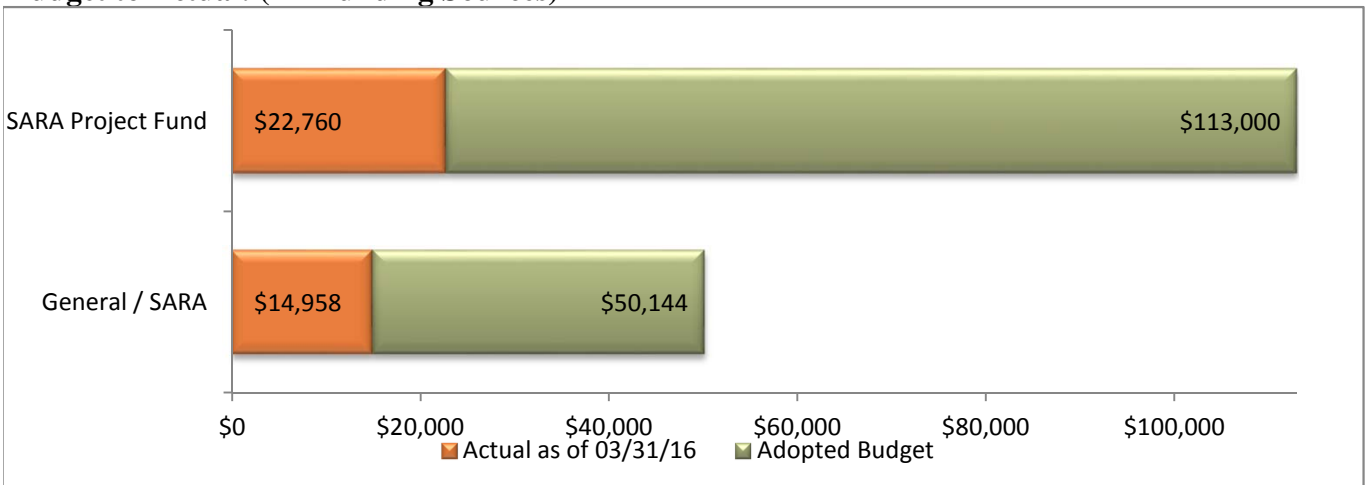
<b>Expenditures</b>	Actuals	April 2016	Succeeding		
	as of	to	2017/18	from	Total
	<u>March 31, 2016</u>	<u>June 2017</u>	<u>2017/18</u>	<u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 40,298	\$ 43,042	\$ 6,013	\$ 89,353
Commodities	-	15,000	34,147	1,500	50,647
Contracts	-	-	60,000	-	60,000
<b>Total</b>	<u>\$ -</u>	<u>\$ 55,298</u>	<u>\$ 137,189</u>	<u>\$ 7,513</u>	<u>\$ 200,000</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Mission Reach Avian Study**  
 Managing Department: Watershed Park Operations

**Project # 0502**

	Adopted Budget:	\$	163,144
Project Start Date: 07/01/15	Unfunded Budget:	\$	89,613
Project Finish Date: 06/30/18	Total Project Budget:	\$	252,757

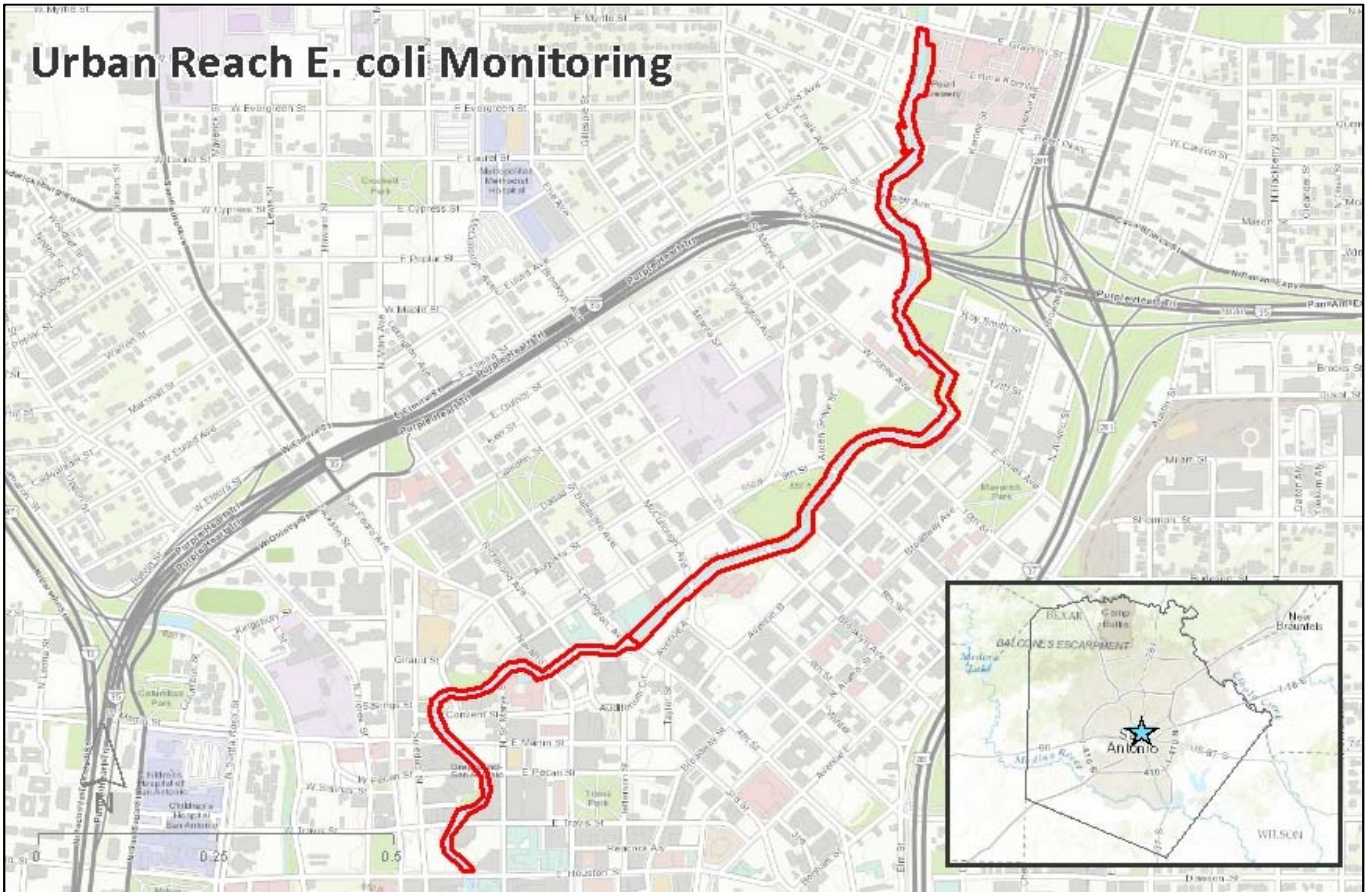
The Mission Reach Avian Study is a three year study that documents avian species within the Mission Reach Ecosystem Restoration and Recreation Project. Incidental and point count surveys are used to document avian species found in the project area. The incidental survey data is being used to prepare an avian checklist for the project that will be used for a variety of education and outreach purposes. The point count survey data establishes a baseline data set that can be used in the future for statistical analysis of the project outcomes as they relate to avian habitat being provided on the Mission Reach.

This study enhances community appreciation for and recreational use of the San Antonio River by documenting avian species along Mission Reach, utilizing the data to demonstrate the benefits of the ecosystem restoration project and sharing information about the types and locations of avian species present in the Mission Reach with the community. The study also supports the goal to strengthen employee expertise and dedication through active participation in data collection and other project activities.

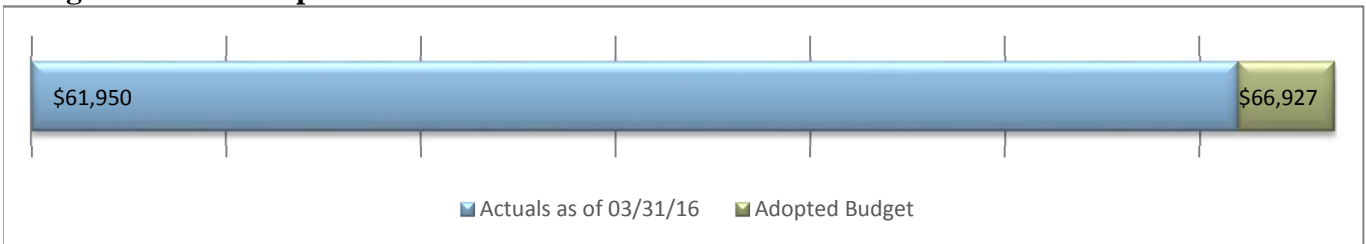
In FY 2016/17, the River Authority will complete year two of the three-year study following protocols developed during year one. Data collection throughout the Mission Reach Project will occur and data will be provided to the River Authority.

Of the \$163,144 total Adopted Budget, \$50,144 is estimated labor contribution from the River Authority General Fund.

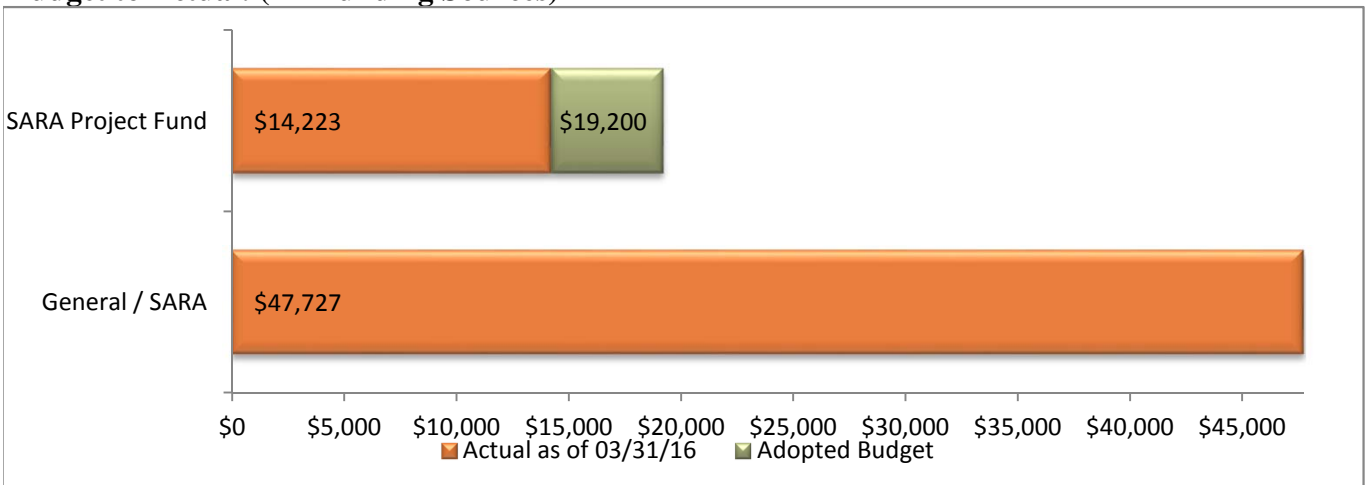
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 14,958	\$ 35,186	\$ 29,613	\$ -	\$ 79,757
Commodities	-	-	-	-	-
Contracts	<u>22,760</u>	<u>90,240</u>	<u>60,000</u>	<u>-</u>	<u>173,000</u>
<b>Total</b>	<u>\$ 37,718</u>	<u>\$ 125,426</u>	<u>\$ 89,613</u>	<u>\$ -</u>	<u>\$ 252,757</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Urban Reach E coli Monitoring **Project #** 0494  
**Managing Department:** Environmental Sciences

		Adopted Budget:	\$	66,927
Project Start Date:	07/01/15	Unfunded Budget:	\$	-
Project Finish Date:	06/30/17	Total Project Budget:	\$	66,927

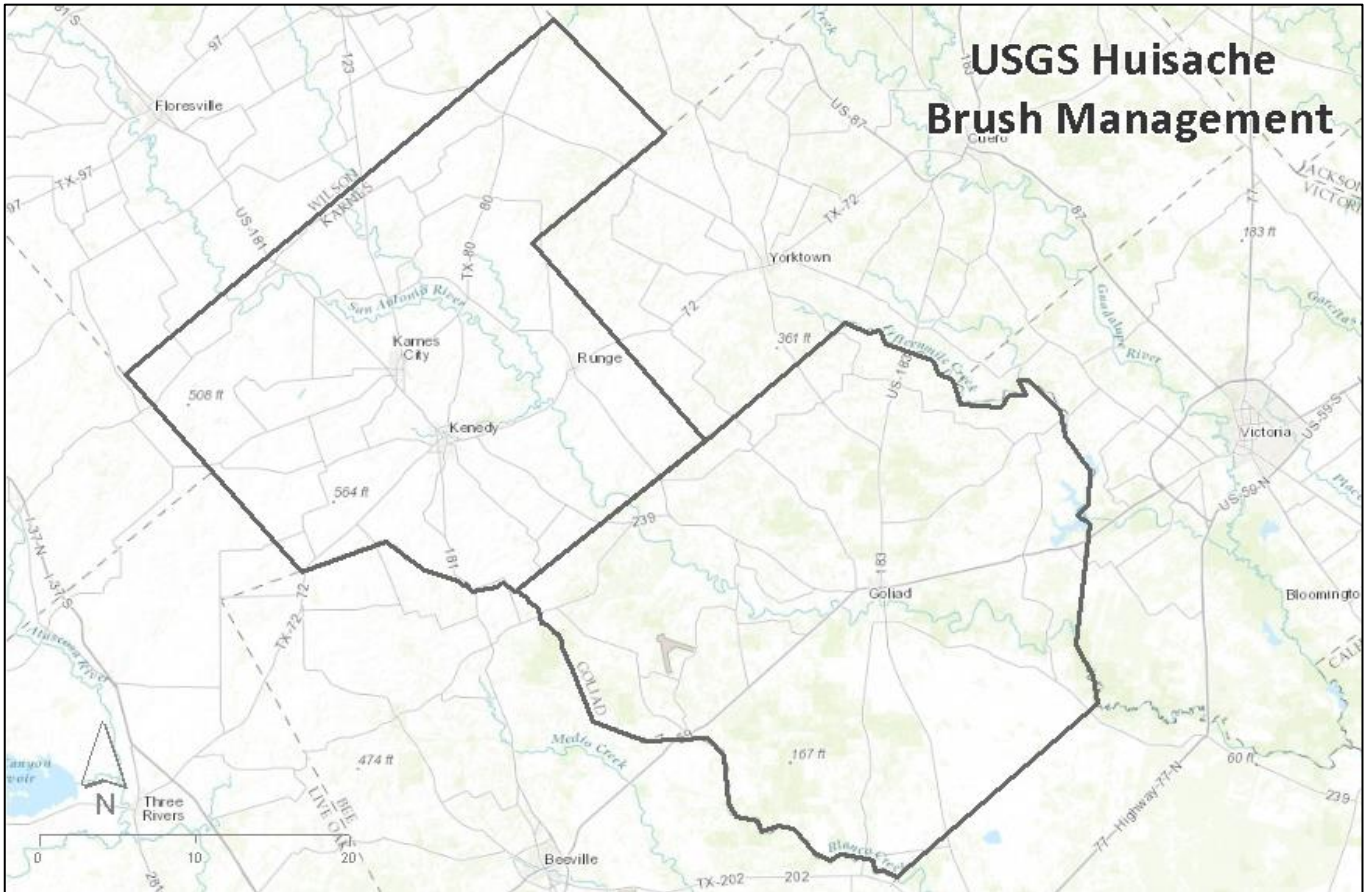
Findings from two intensive E. coli monitoring events conducted in 2014 revealed bacteria levels may vary significantly when collected at the same monitoring site at different times of the day. This project will monitor and characterize E. coli levels in water and sediment at two locations along the urban reach of the Upper San Antonio River over a 24 hour period each quarter during ambient conditions. The project will also include scanning the river bed for sediment profiles and documenting river activities during each monitoring period. The goal of the project is to obtain water quality and sediment data to determine if correlations exist among bacteria levels, water quality, sediment depositions, diurnal activities, and anthropogenic river activities.

This project supports the River Authority’s goal of advancing watershed health and safety and will contribute to the generation of lasting and recognized improvements to our river by utilizing our resources to identify relationships between water quality and river activity, as well as utilizing our capabilities to identify source of E. coli.

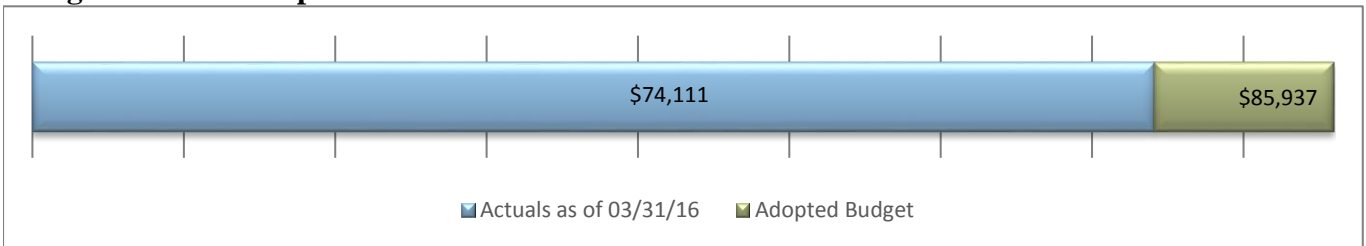
In FY 2016/17, the project deliverables include continued monitoring for E. coli, bacterial source tracking, and monitoring water quality parameters at two locations within the Urban Reach of the San Antonio River on a quarterly basis. A report summarizing all findings and recommendations will be created.

Of the total \$66,927 Adopted Budget, \$47,727 is estimated labor contribution through the River Authority General Fund

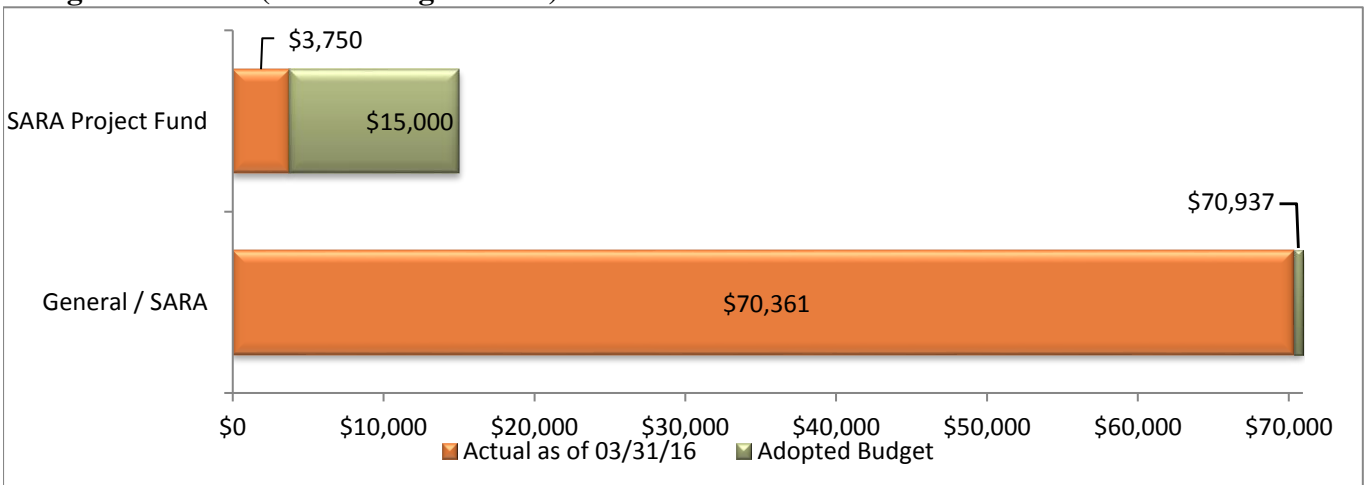
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 47,727	\$ -	\$ -	\$ -	\$ 47,727
Commodities	14,223	-	-	-	14,223
Contracts	-	4,977	-	-	4,977
<b>Total</b>	<b>\$ 61,950</b>	<b>\$ 4,977</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 66,927</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** USGS Huisache Brush Management **Project #** 0454  
 Managing Department: Environmental Sciences

	Adopted Budget:	\$	85,937
Project Start Date: 03/25/14	Unfunded Budget:	\$	61,969
Project Finish Date: 06/30/20	Total Project Budget:	\$	147,906

The southern San Antonio River Basin has experienced woody plant encroachment from Huisache. It is commonly believed that the change in vegetative land cover has affected streamflow and groundwater recharge. This project evaluates different components of the water cycle as a result of brush management (specifically Huisache management). Meteorological instrumentation is being installed on two adjacent plots of land, one with managed grassland and the second with Huisache brushland to measure evapotranspiration and rainfall over a range of hydrologic conditions. The data is linked with remote sensing imagery to provide regional estimates of the effects of these two management techniques. After two years, brush management will be implemented to identify the effect on water availability.

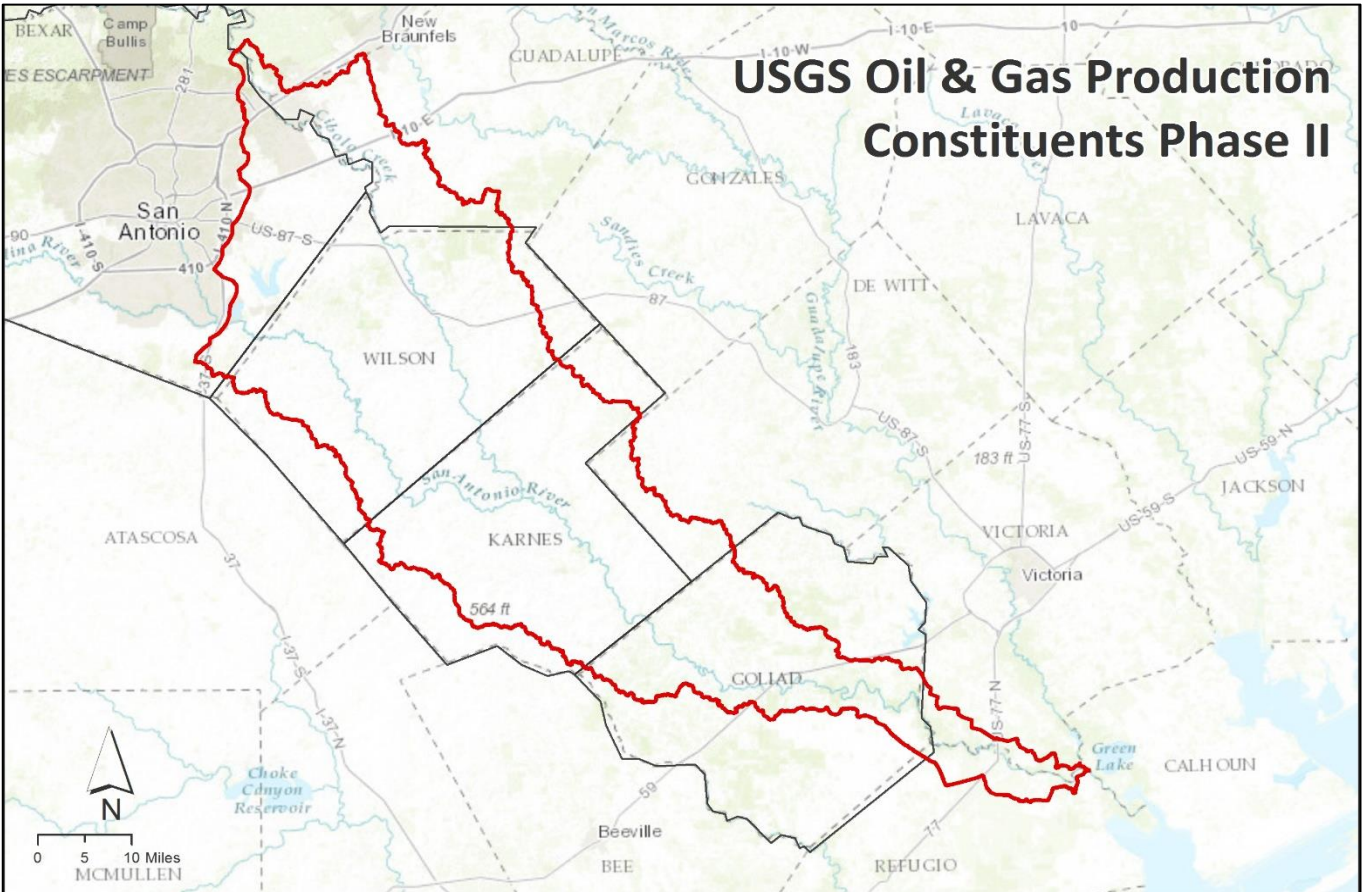
The River Authority is collaborating with multiple state, federal, and local partners to investigate the effects of Huisache on surface water resources in south Texas. By quantifying the impact of Huisache management on water availability, the River Authority can assist landowners in making land management decisions that support improving the health of the watersheds and implementing watershed solutions.

In FY 2016/17, the United States Geological Survey (USGS) will maintain eddy covariance towers on two plots of land, a managed grassland and a Huisache brushland, to collect meteorological and rainfall data. The site specific meteorological measurements, estimation of evapotranspiration, and remote sensing evaluation data will be analyzed to advance evaluation of the hydrologic budget.

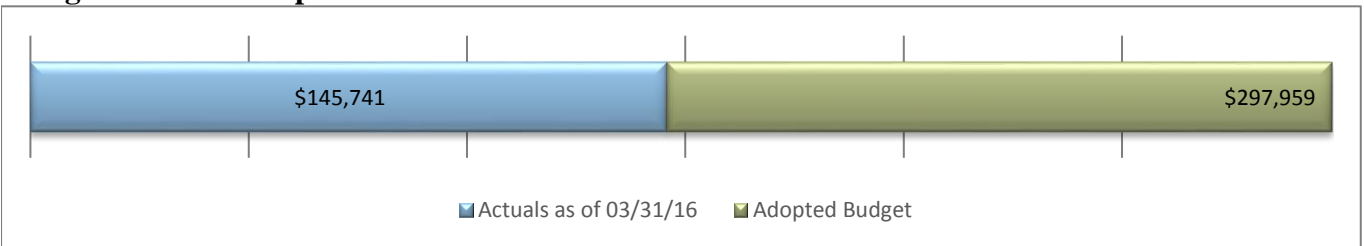
Of the total \$85,937 Adopted Budget, \$937 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 361	\$ 576	\$ 1,969	\$ -	\$ 2,906
Commodities	-	-	-	-	-
Contracts	<u>73,750</u>	<u>11,250</u>	<u>20,000</u>	<u>40,000</u>	<u>145,000</u>
<b>Total</b>	<b>\$ 74,111</b>	<b>\$ 11,826</b>	<b>\$ 21,969</b>	<b>\$ 40,000</b>	<b>\$ 147,906</b>

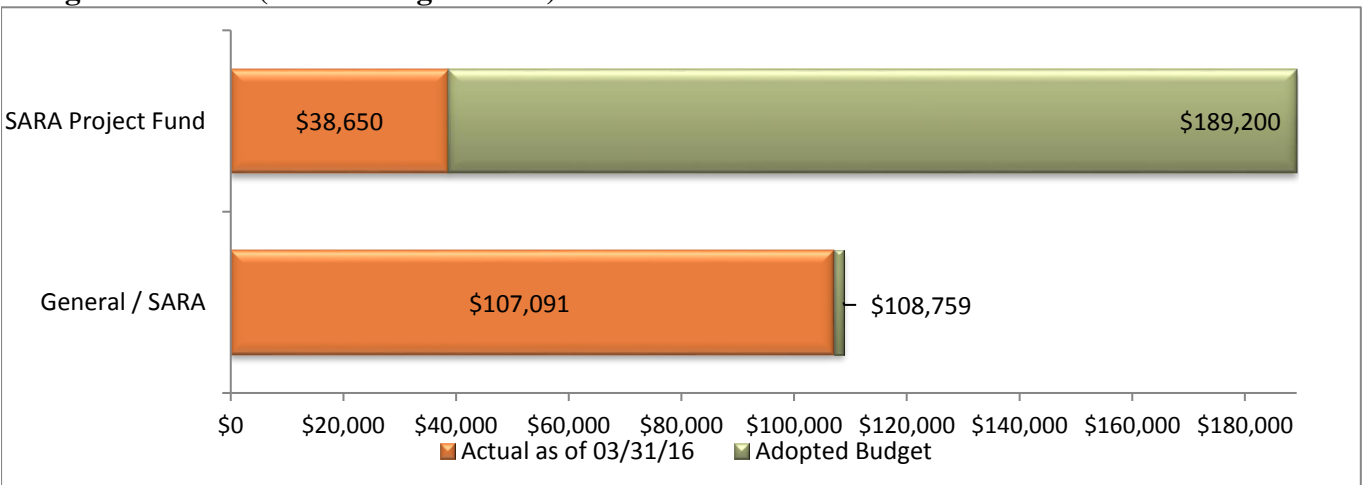




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** USGS Oil and Gas Production Constituents Phase II **Project #** 0445  
**Managing Department:** Environmental Sciences

		Adopted Budget:	\$	297,959
Project Start Date:	10/01/14	Unfunded Budget:	\$	56,515
Project Finish Date:	10/31/18	Total Project Budget:	\$	354,474

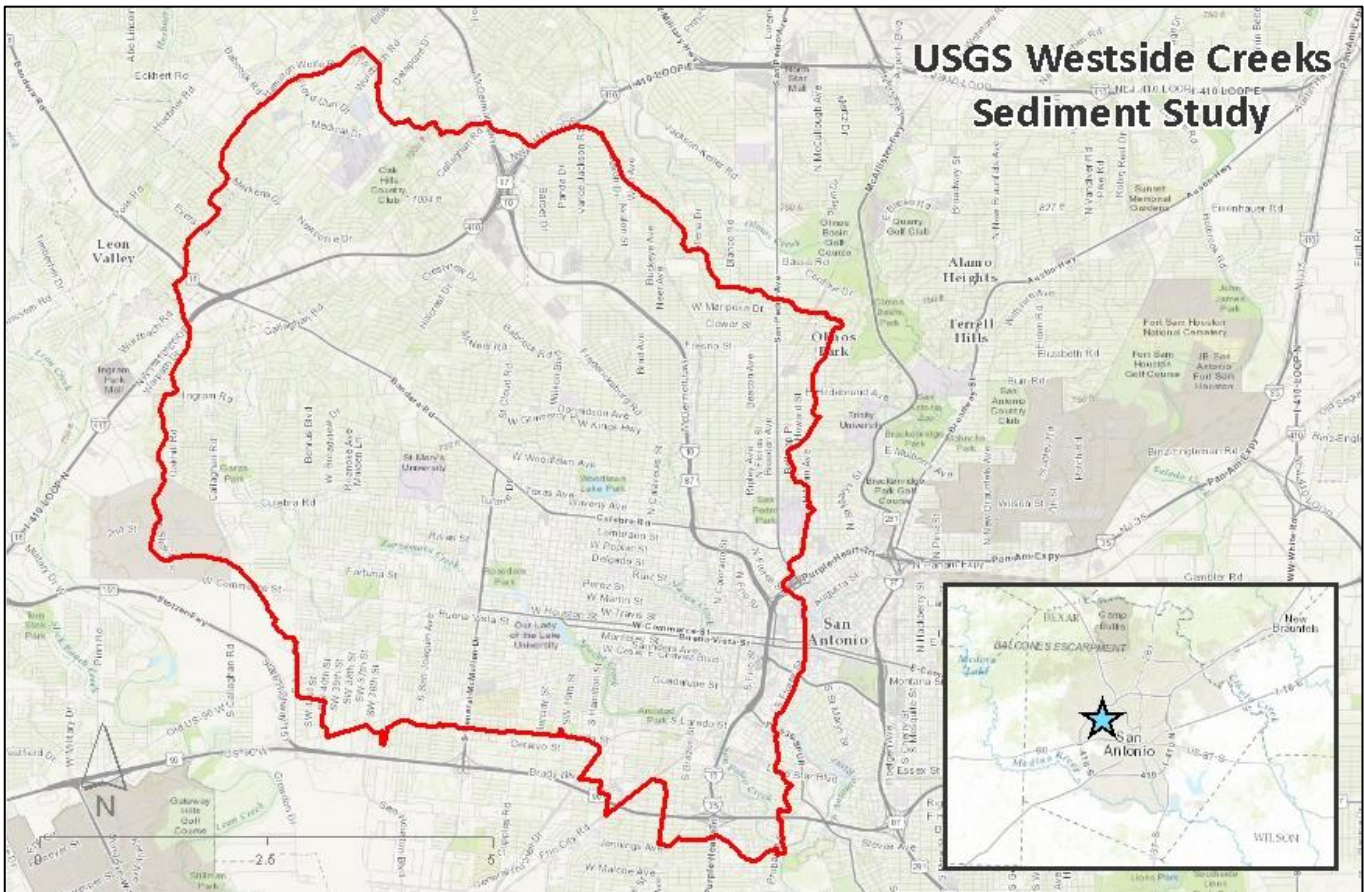
In Karnes and Wilson Counties, new oil and gas production wells have increased substantially since completion of the Phase I report. The United States Geological Survey (USGS) plans both continued long-term water and sediment sampling at a subset of currently-sampled stream sites and new focused sampling at additional stream sites within the Lower San Antonio River (LSAR) Basin to identify changes since Phase I. The purpose is to determine what, if any, correlation exists between polyaromatic hydrocarbon (PAH) concentrations and impervious surface area in the most active area of oil and natural-gas production. The study will also estimate the change in land cover in the central portion of the Lower San Antonio River Basin due to the conversion of rangeland to well pad sites.

This specialized monitoring project promotes healthy creeks and rivers by identifying water and streambed-sediment constituents with a potential risk to human and environmental health in the Lower San Antonio River, Cibolo Creek and Ecleto Creek.

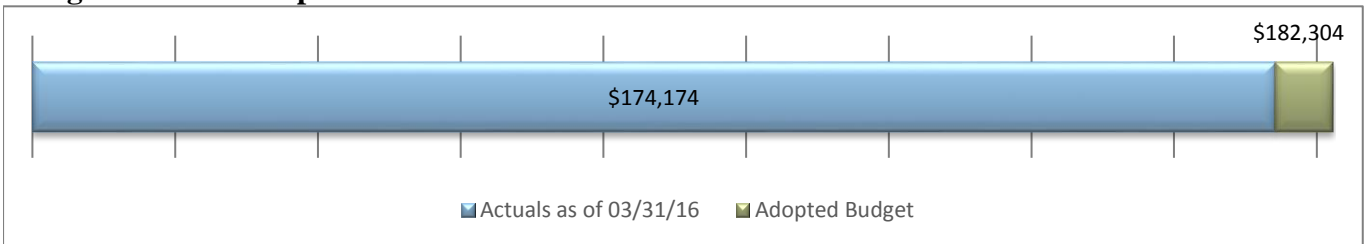
For FY 2016/17, Phase II activities include water and streambed-sediment sampling, land cover analysis, and data analysis and interpretation for the Lower San Antonio River, Cibolo Creek and Ecleto Creek.

Of the total \$297,959 Adopted Budget, \$2,559 is estimated labor contribution through the River Authority General Fund.

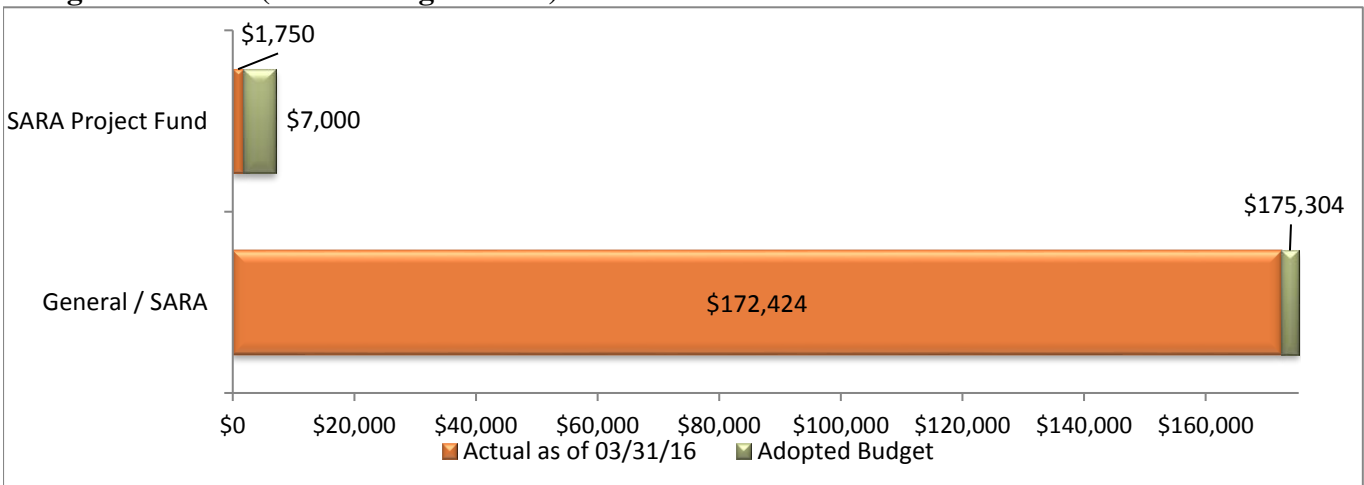
<b>Expenditures</b>	Actuals as of <u>March 31, 2016</u>	April 2016 to <u>June 2017</u>	<u>2017/18</u>	Succeeding from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 891	\$ 1,668	\$ 1,515	\$ -	\$ 4,074
Commodities	-	-	-	-	-
Contracts	144,850	150,550	55,000	-	350,400
<b>Total</b>	<u>\$ 145,741</u>	<u>\$ 152,218</u>	<u>\$ 56,515</u>	<u>\$ -</u>	<u>\$ 354,474</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** USGS Westside Creeks Sediment Study **Project #** 0409  
 Managing Department: Environmental Sciences

		Adopted Budget:	\$	182,304
Project Start Date:	10/01/13	Unfunded Budget:	\$	-
Project Finish Date:	11/30/16	Total Project Budget:	\$	182,304

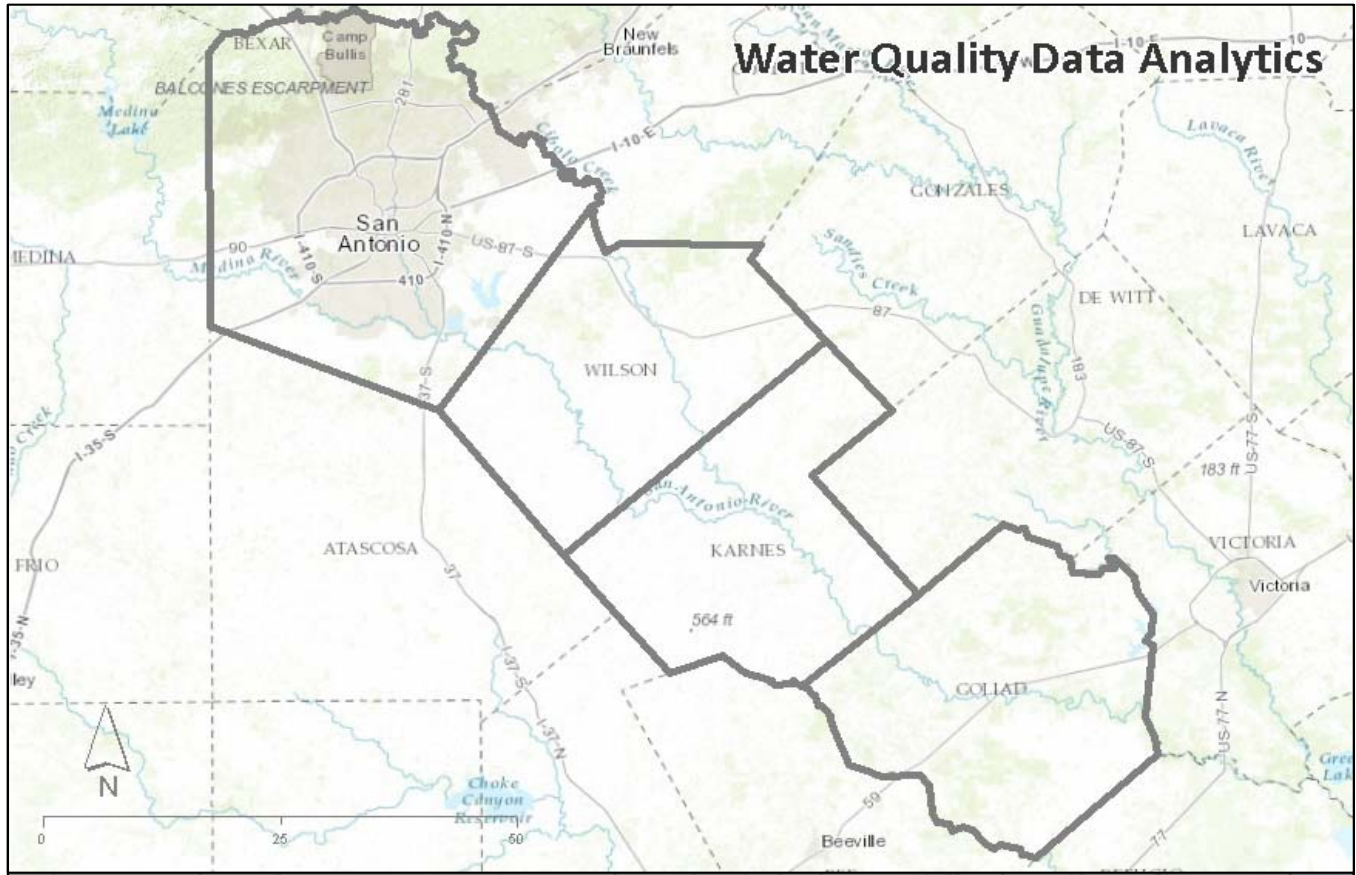
The Westside Creeks (Alazan, Apache, Martinez and San Pedro) are four tributaries to the San Antonio River that were channelized by the U.S. Army Corps of Engineers (USACE) in the 1960s and 1970s. A feasibility study, conducted by USACE and the River Authority and completed in September 2014, evaluated the ecological restoration opportunities of these creeks. This new study builds upon the completed feasibility study and provides additional information about the current creek sediment and water quality conditions to determine if there are concerns about disturbing the streambed during potential restoration activities.

This ongoing project is a collaborative effort with the U.S. Geological Survey (USGS) that expands employee expertise in assessing sediment and water quality of the Westside Creeks. The data and analysis is used to understand and evaluate sediment and water quality conditions in advance of a future Westside Creeks ecological restoration project. This project also leverages River Authority funding with USGS Cooperative funds.

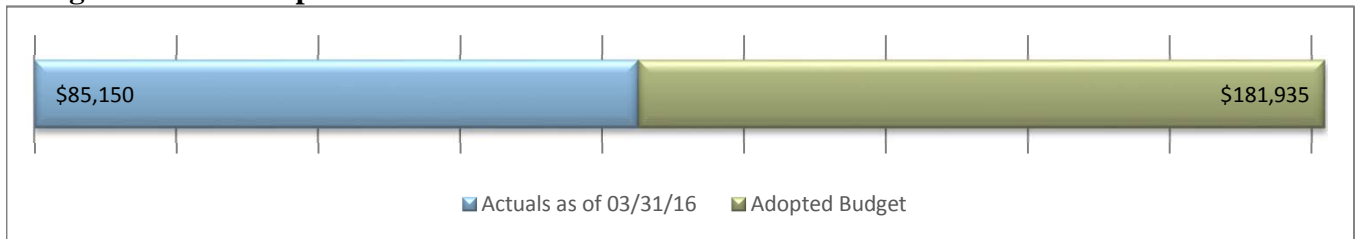
For FY 2016/17, the USGS will complete the scientific investigation report. This report is anticipated to be ready for publication by November 30, 2016.

Of the total \$182,304 Adopted Budget, \$4,304 is estimated labor contribution through the River Authority General Fund.

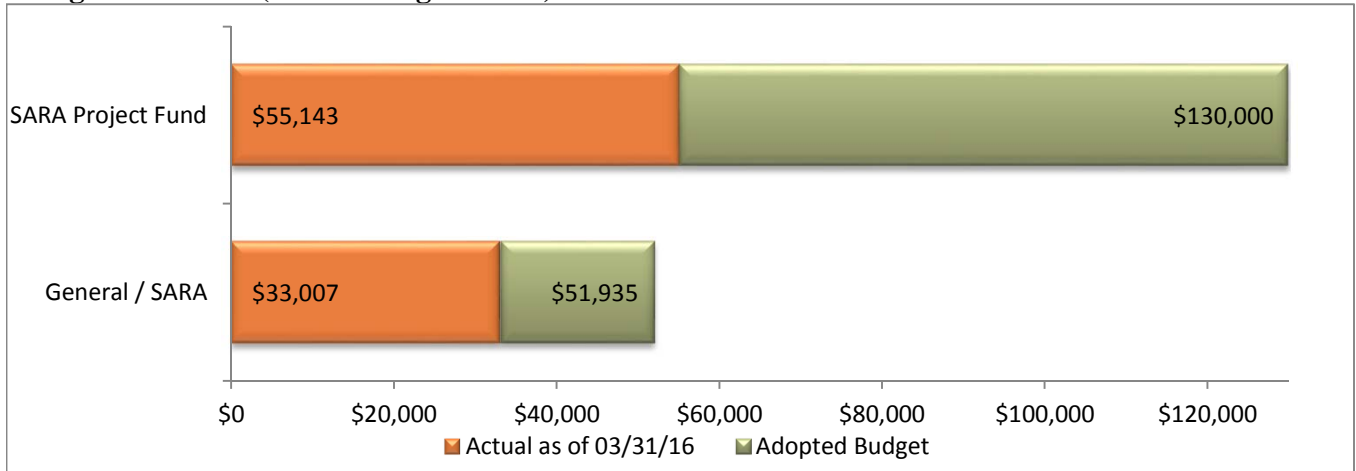
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 1,424	\$ 2,880	\$ -	\$ -	\$ 4,304
Commodities	-	-	-	-	-
Contracts	172,750	5,250	-	-	178,000
<b>Total</b>	<b>\$ 174,174</b>	<b>\$ 8,130</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 182,304</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Water Quality Data Analytics**  
 Managing Department: Watershed Engineering

**Project # 0460**

		Adopted Budget:	\$	181,935
Project Start Date:	07/01/15	Unfunded Budget:	\$	-
Project Finish Date:	06/30/18	Total Project Budget:	\$	181,935

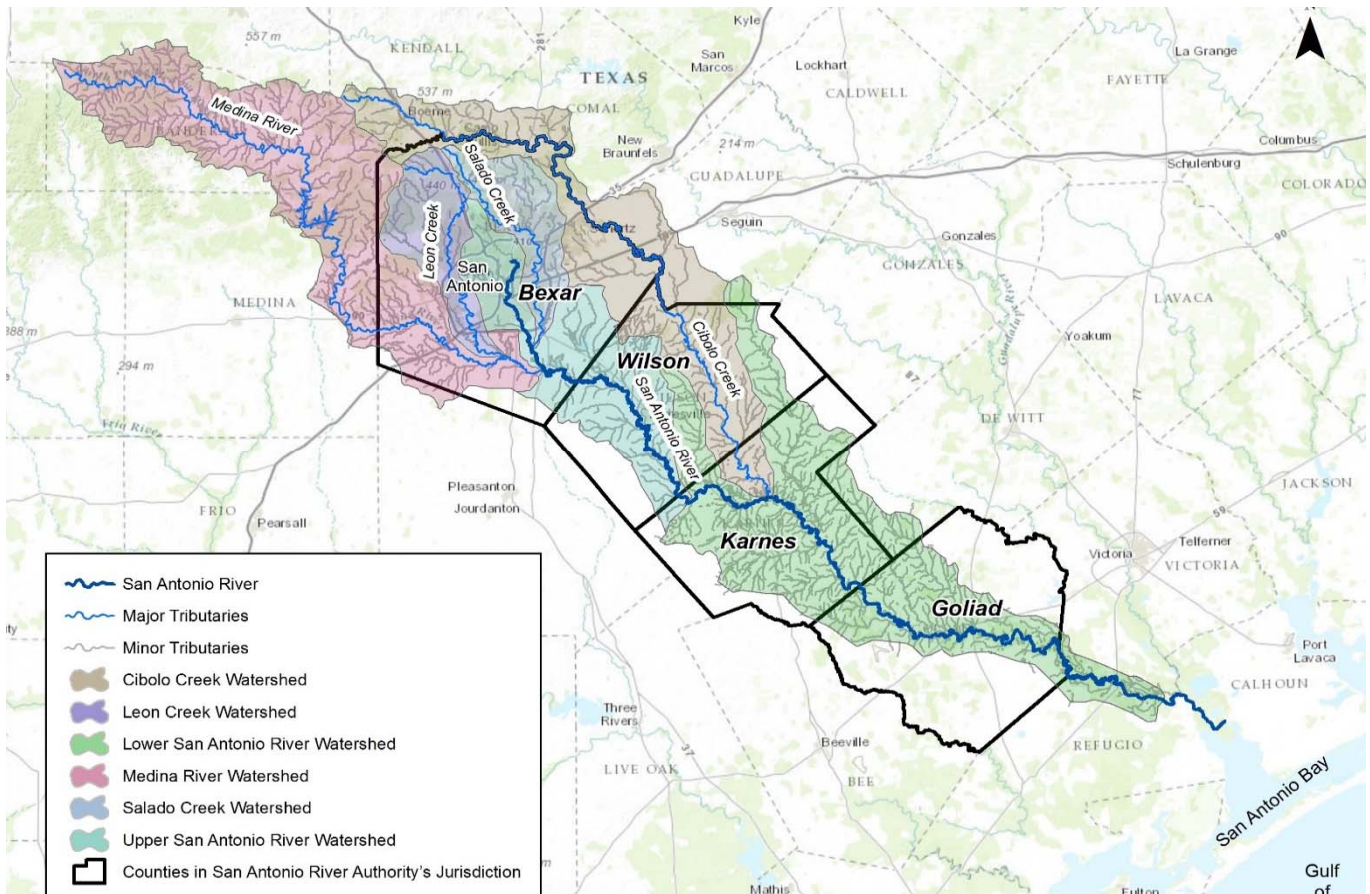
This project will develop a tool that will facilitate the process of exploring environmental data. By efficiently analyzing the data, scientists and engineers can draw conclusions that assess the condition of the watershed, develop recommendations for addressing watershed concerns and impairments, and improve future sampling plans.

The development and use of the new water quality data analytics tool strengthens and develops the expertise of the users and developers. This expertise along with the data collected by the River Authority can be used to generate lasting improvements to the health and safety of creeks and rivers.

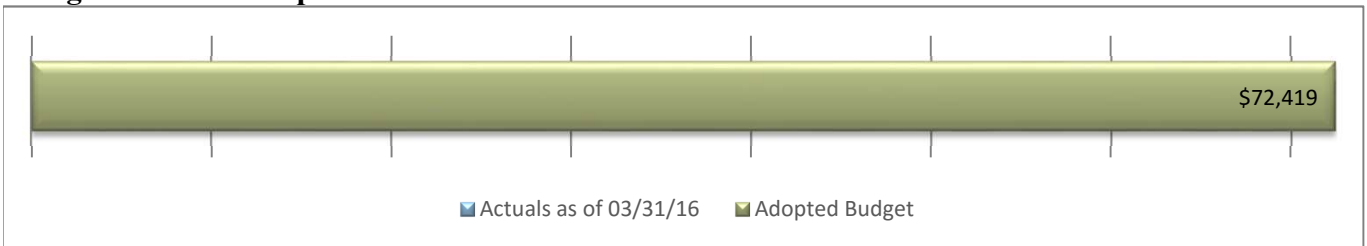
In FY 2016/17, the tool will continue to be refined and tested and staff will be trained on the tool. Staff will also receive additional training in advanced statistics that are useful for analyzing ecological data. Environmental Sciences Department computers will go through performance testing to ensure the tool will run. Computers may be need to be purchased if they are found to be insufficient for running the tool.

Of the total \$181,935 Adopted Budget, \$51,935 is estimated labor contribution through the River Authority General Fund.

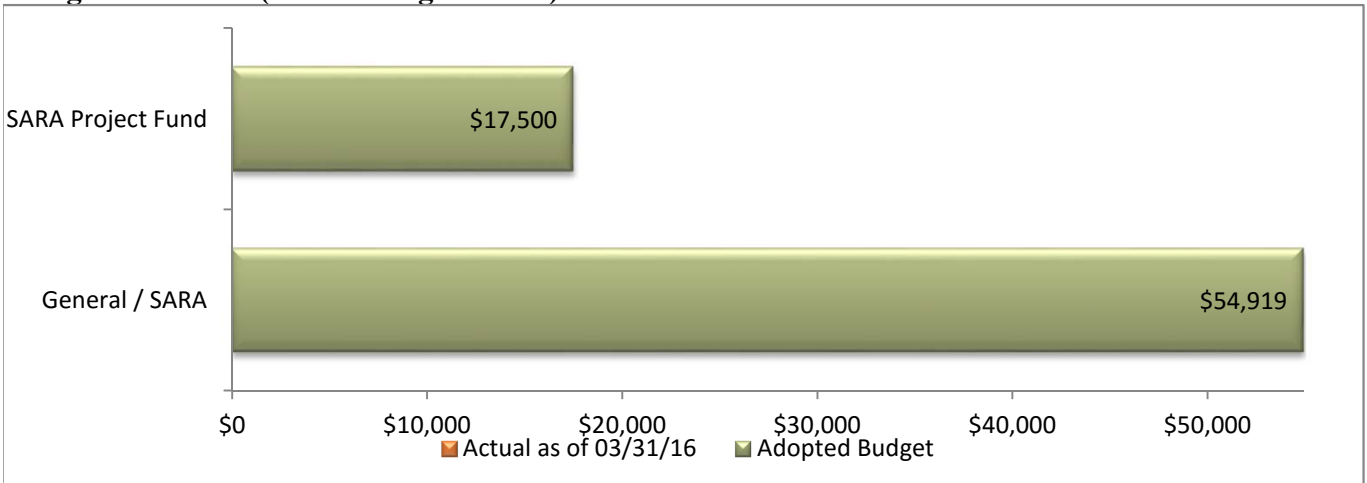
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2017</u>	<u>April 2017</u> to <u>June 2018</u>	<u>2018/19</u>	<u>Succeeding</u> from <u>2019/20</u>	<u>Total</u>
Personnel	\$ 30,007	\$ 21,928	\$ -	\$ -	\$ 51,935
Commodities	9,774	-	-	-	9,774
Contracts	45,369	74,857	-	-	120,226
<b>Total</b>	<u>\$ 85,150</u>	<u>\$ 96,785</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 181,935</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Watershed Wise River Discovery **Project #** 0553  
**Managing Department:** Intergovernmental and Community Relations

		Adopted Budget:	\$	72,419
Project Start Date:	07/01/16	Unfunded Budget:	\$	164,183
Project Finish Date:	06/30/19	Total Project Budget:	\$	236,602

In the initial phases of this project, watershed data will be used to create various information modules to include, but not be limited to water quality, flood mitigation, aquatic and riparian habitat, bay and estuary, history including the acequias, geology, recreation, and economic uses. The major public outreach and educational outcomes of the project will include improvements to the River Authority’s website to add select portions of the GIS basin assessment tool and a virtual river tour with corresponding online educational resources; K-12 classroom educational tools and presentations; general population outreach and educational tools and presentations; and guided river tours via canoes and/or kayaks.

In its first year, FY 2016/17, the project will determine the education/data potential of the GIS basin assessment tool, outline project expectations, timelines, and outcomes; assess the River Authority’s website, purchase video equipment/training to aid creation of the virtual river tour and project plans, and apply initial changes to the River Authority’s website; and continue collection and presentation of additional data. Staff will also work with the local historians and universities to develop and share historical information along the full river reach as well as on the acequias related to the San Antonio River.

Of the total \$72,419 Adopted Budget, \$54,919 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Labor	\$ -	\$ 54,919	\$ 88,767	\$ 75,416	\$ 219,102
Commodities	-	-	-	-	-
Contracts	-	17,500	-	-	17,500
<b>Total</b>	<b>\$ -</b>	<b>\$ 72,419</b>	<b>\$ 88,767</b>	<b>\$ 75,416</b>	<b>\$ 236,602</b>





SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions



SAN ANTONIO  

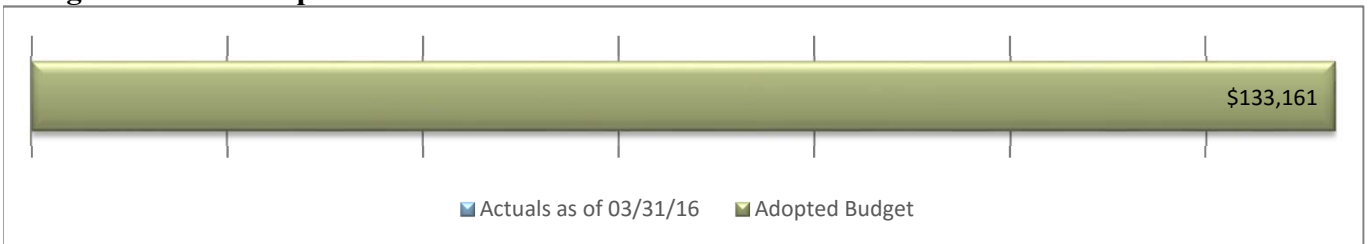
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RIVER AUTHORITY

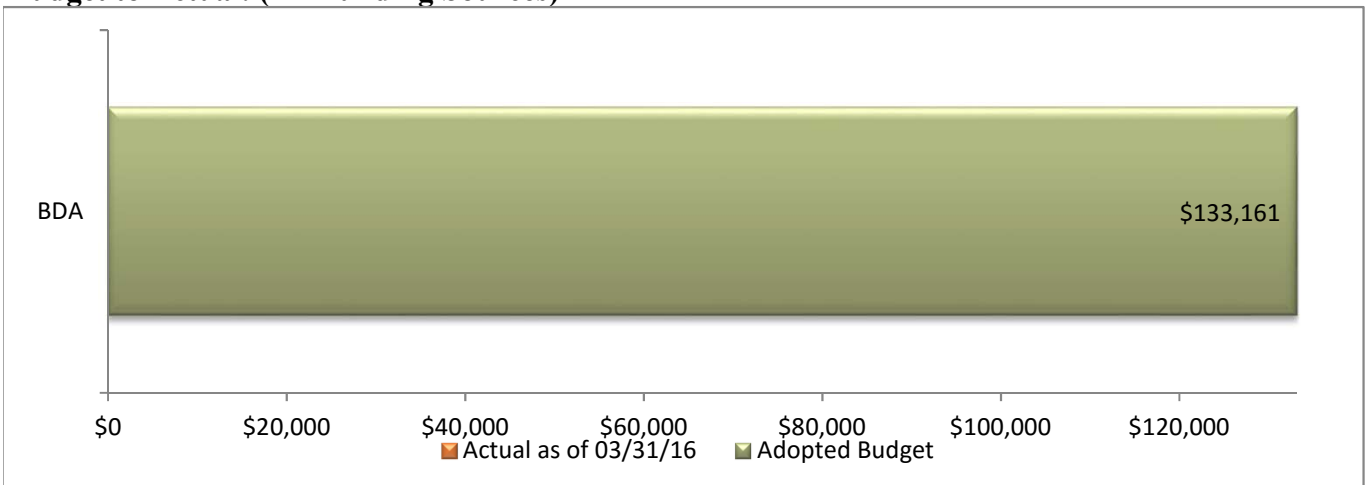
Leaders in Watershed Solutions



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Brooks City Base - Mission Reach Linkage** **Project # 0525**  
 Managing Department: Watershed Engineering

	Adopted Budget:	\$	133,161
Project Start Date: 07/01/16	Unfunded Budget:	\$	-
Project Finish Date: 06/29/18	Total Project Budget:	\$	133,161

The Brooks City Base – Mission Reach Linkage project supports increased attendance, improved visitor experience and access to the San Antonio River Mission Reach. The project is funded by the Brooks Development Authority (BDA).

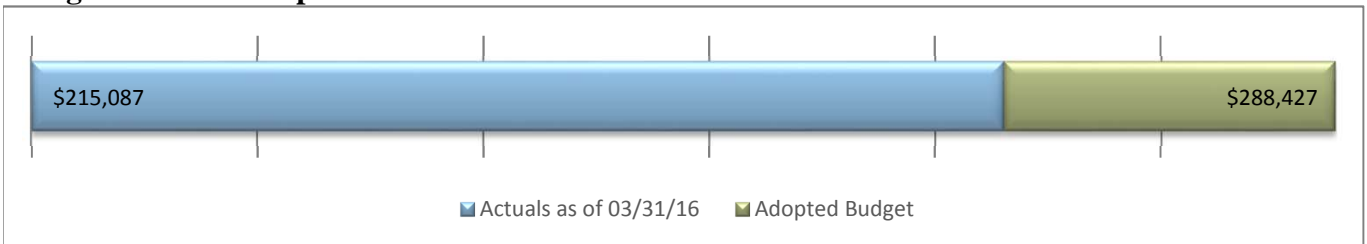
The project is a trail connection between the San Antonio River Mission Reach and Brooks City Base. The Brooks City Base Linear Park is not constructed but anticipated to be completed in the fall of 2017. The approximate .20 mile long, 10-foot wide, hike and bike trail will begin at Corpus Christi Road. The connection at Corpus Christi Road will include pavement markings and signage at street level to signify the crossing. The trail will continue west crossing an acequia located north of a tributary to the San Antonio River. The trail will pass through the existing box culvert at South Presa Street and follow along the north side of the tributary to the San Antonio River. The trail will then continue through the existing Union Pacific Railroad right-of-way and tie into the existing Mission Reach Trail.

In FY 2016/17, the River Authority will conduct a site investigation and initiate the permitting and design for the project.

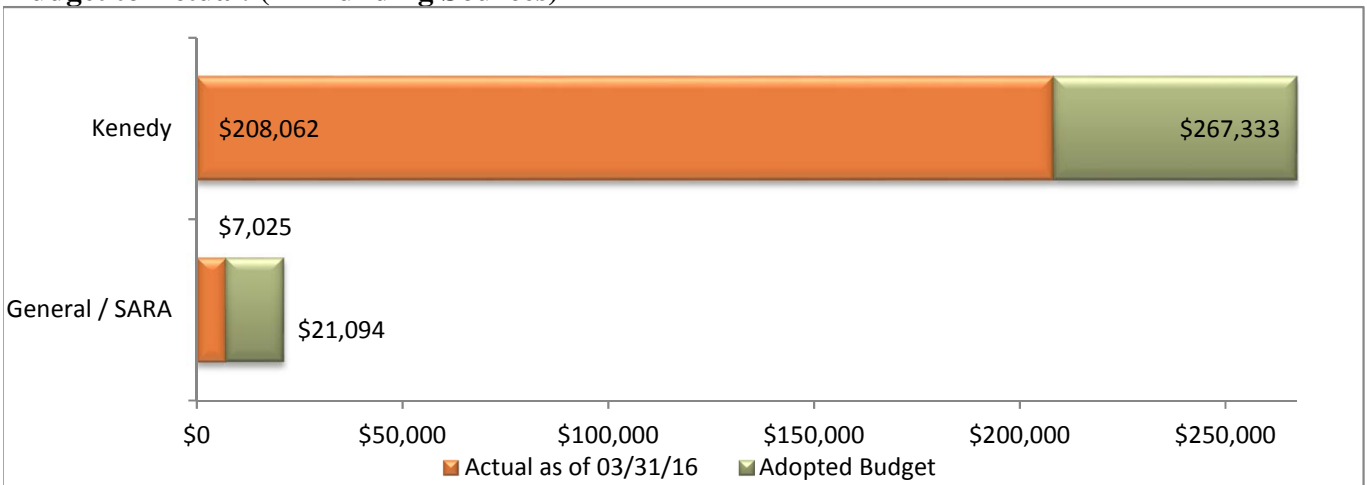
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 88,281	\$ -	\$ -	\$ 88,281
Commodities	-	44,880	-	-	44,880
Contracts	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 133,161</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 133,161</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Escondido Creek Parkway  
**Managing Department:** Watershed and Park Operations

**Project #** 0397

		Adopted Budget:	\$	288,427
Project Start Date:	07/01/12	Unfunded Budget:	\$	8,596
Project Finish Date:	10/02/17	Total Project Budget:	\$	297,023

Escondido Creek Parkway meanders between the City of Kenedy's Joe Gulley Park on the west and downtown Kenedy on the east. This 1.25 mile creek stretch is currently maintained by the River Authority for drainage and flood control. The River Authority is working with the local community to develop the Escondido Creek Parkway. The initial development will extend between Joe Gulley Park to North 5th Street/Business 181, with potential future phases extending east to the old Southern Pacific Railroad right-of-way, and south to a downtown trailhead.

This project advances the River Authority's goal of enhancing community appreciation for and recreational use of our creeks and rivers.

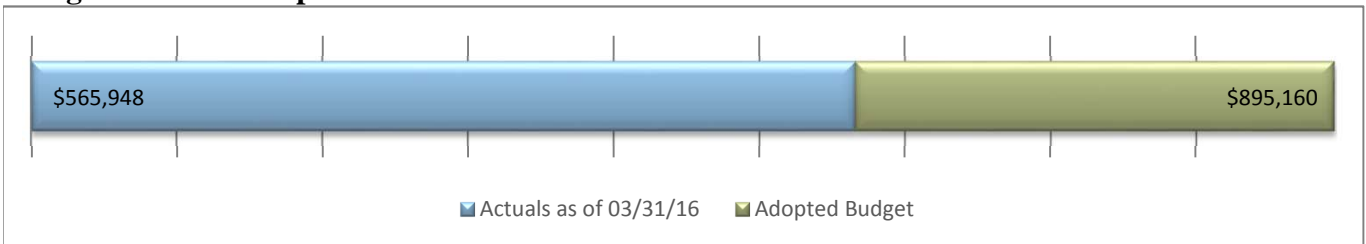
During FY 2016/17, the River Authority will finish acquiring the needed real estate for the planned parkway and will build upon the input received during public meetings held in FY 2015/16 to advance the preliminary design into construction documents. Funding opportunities will be identified and, based upon funding levels, the project will move into construction.

Of the total \$288,427 Adopted Budget, \$21,094 is estimated labor contribution through the River Authority General Fund.

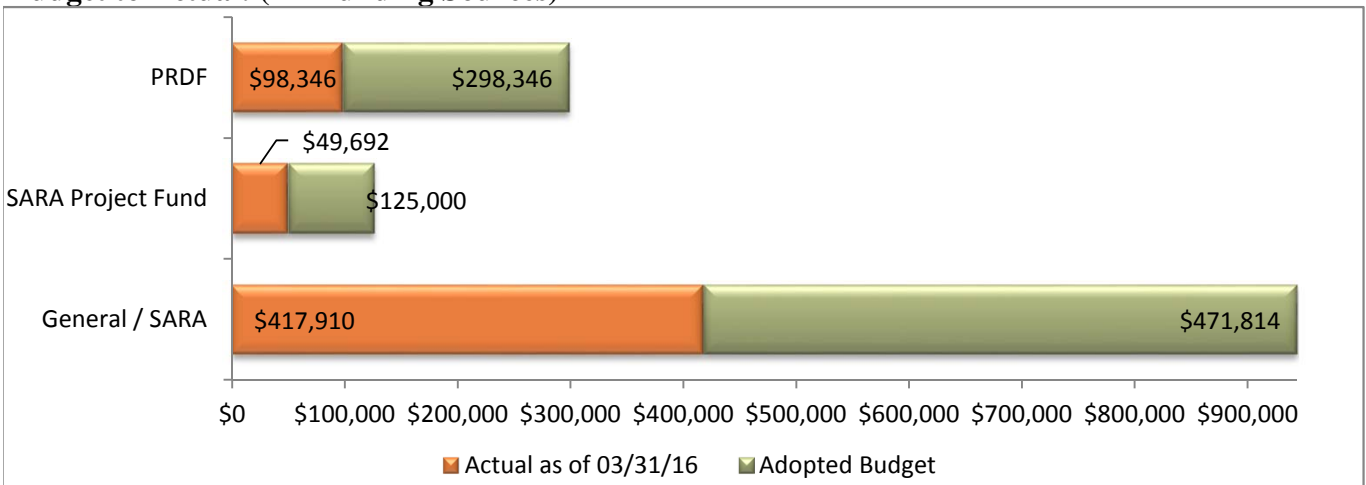
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 59,585	\$ 14,069	\$ 8,596	\$ -	\$ 82,250
Commodities	59,880	49,958	-	-	109,838
Contracts	<u>95,622</u>	<u>9,313</u>	<u>-</u>	<u>-</u>	<u>104,935</u>
Total	<u>\$ 215,087</u>	<u>\$ 73,340</u>	<u>\$ 8,596</u>	<u>\$ -</u>	<u>\$ 297,023</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Graytown Park on the San Antonio River **Project #** 0298  
**Managing Department:** Watershed and Park Operations

	Adopted Budget:	\$	895,160
Project Start Date: 02/01/11	Unfunded Budget:	\$	242,575
Project Finish Date: 06/30/18	Total Project Budget:	\$	1,137,735

Graytown Park on the San Antonio River, formerly referred to as County Road 125 (CR125), is approximately 22 acres situated midway between the Loop 1604 river access site and John William Helton San Antonio River Nature Park. This location is an alternative put-in and takeout for the SASPAMCO paddling trail located near SASPAMCO, Texas. In addition to river access for paddling, this location provides for day use recreational park activities, such as picnic units, walking trails and an 18-hole disc golf constructed in FY 2015/16.

This project allows for continued development of the park to increase attendance and improve visitor experience.

In FY 2016/17, the River Authority will construct a pavilion, public restrooms, increase the walking trails and parking. Trees will also be purchased and added to the disc golf course.

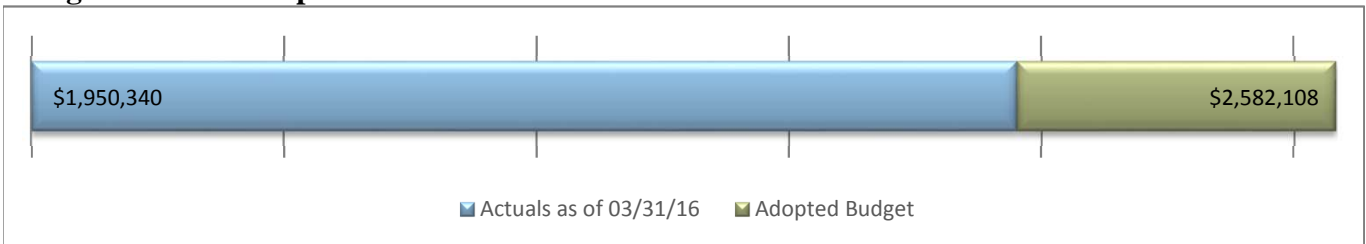
Of the total \$895,160 Adopted Budget, \$141,538 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 87,635	\$ 53,903	\$ 23,575	\$ -	\$ 165,113
Commodities	466,253	275,308	219,000	-	960,561
Contracts	12,061	-	-	-	12,061
<b>Total</b>	<b>\$ 565,948</b>	<b>\$ 329,211</b>	<b>\$ 242,575</b>	<b>\$ -</b>	<b>\$ 1,137,735</b>

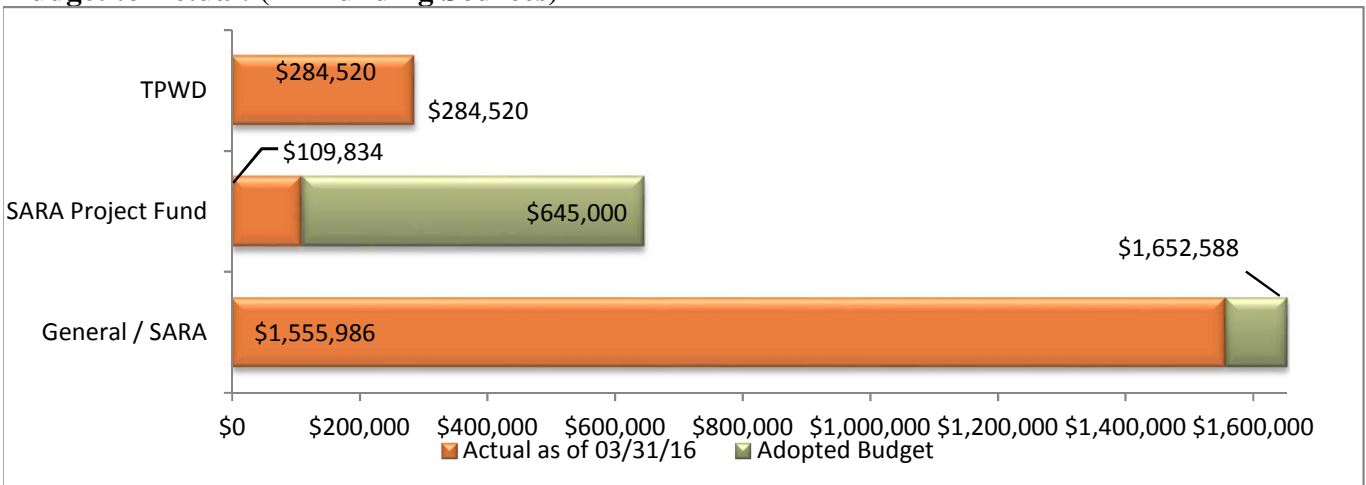




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** **John William Helton** **Project #** **0067**  
**San Antonio River Nature Park**

Managing Department: Watershed and Park Operations

	Adopted Budget:	\$ 2,582,108
Project Start Date: 07/01/07	Unfunded Budget:	\$ 290,946
Project Finish Date: 06/30/18	Total Project Budget:	\$ 2,873,054

Over the past several years, the River Authority has improved the 98 acre John William Helton Nature Park by adding a multi-use pavilion, picnic units, signage, educational panels, paddling trail access, restrooms, a playground, park trails and a riparian land management demonstration area. Additionally, River Authority staff have hosted numerous community programs and events. Funding included in this project will allow for continued development of the park to increase usage.

Continued development of Helton Nature Park furthers opportunities for visitors to enjoy, appreciate and understand the San Antonio River.

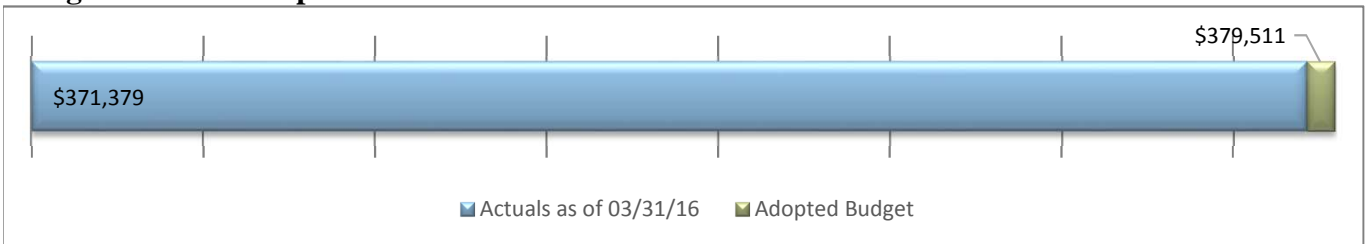
In FY 2016/17, the River Authority will expand the walking trail, install a solar gate at the special use area, construct a basketball court and pavillion. A crossing will be completed over Calaveras Creek known as Silva's crossing as well as installation of native plants around the Heritage House. Design for the river access road will also be completed this fiscal year.

Of the total \$2,582,108 Adopted Budget, \$212,755 is estimated labor funded through the River Authority General Fund.

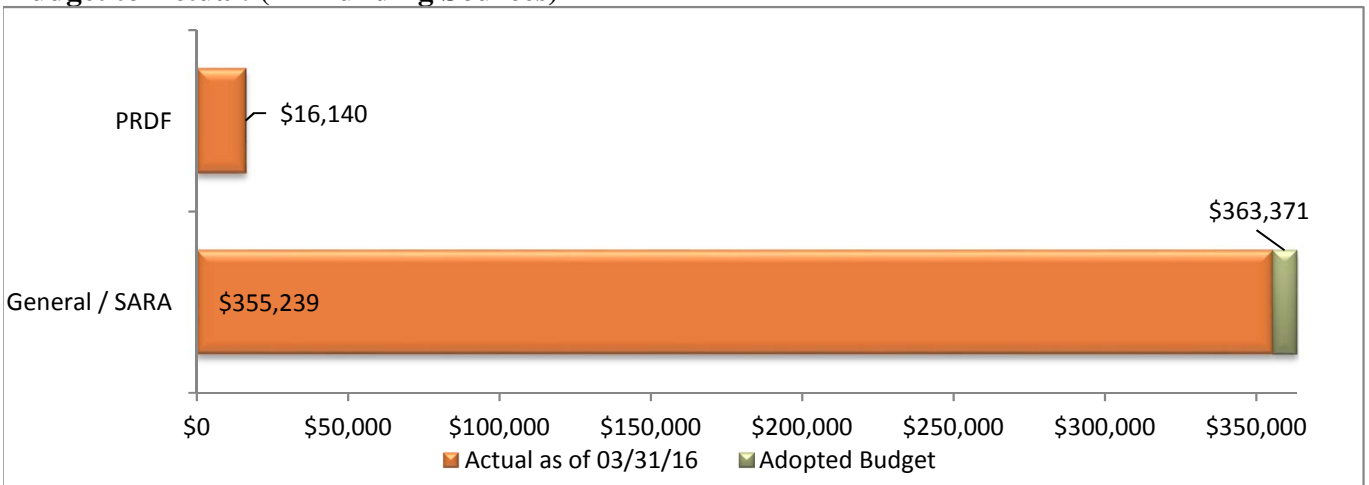
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 116,153	\$ 96,602	\$ 65,946	\$ -	\$ 278,701
Commodities	1,539,768	535,166	225,000	-	2,299,934
Contracts	294,419	-	-	-	294,419
<b>Total</b>	<b>\$ 1,950,340</b>	<b>\$ 631,768</b>	<b>\$ 290,946</b>	<b>\$ -</b>	<b>\$ 2,873,054</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Mann's Crossing Park on the Medina River      **Project #**      **0410**  
**Managing Department:** Watershed and Park Operations

		Adopted Budget:	\$	379,511
Project Start Date:	07/01/13	Unfunded Budget:	\$	7,375
Project Finish Date:	06/30/18	Total Project Budget:	\$	386,886

The long-term vision for Mann’s Crossing Park on the Medina River, formerly referred to as the Catfish Farm/Medina Paddling Trail, is to develop recreational enhancements while preserving the natural beauty and character of the property adjoining the Medina River. This future park will provide an access point along the Medina River for a paddling trail in coordination with other natural resources along the Medina River owned by public and provide partners such as the City of San Antonio and Land Heritage Institute.

Future development of Mann’s Crossing Park will promote enhanced community appreciation for and recreational usage of the Medina River and its natural resources.

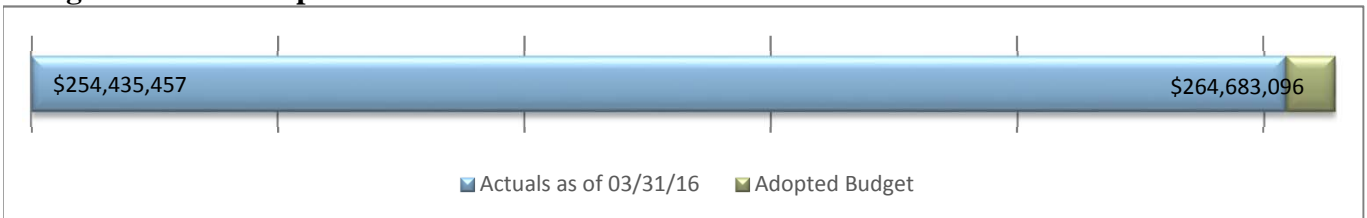
In FY 2016/17, staff will investigate entrance options into the future park and determine the most appropriate solution to creating a safe vehicular park entrance and exit.

Of the total \$379,511 Adopted Budget, \$8,132 is estimated labor contribution funded through the River Authority General fund.

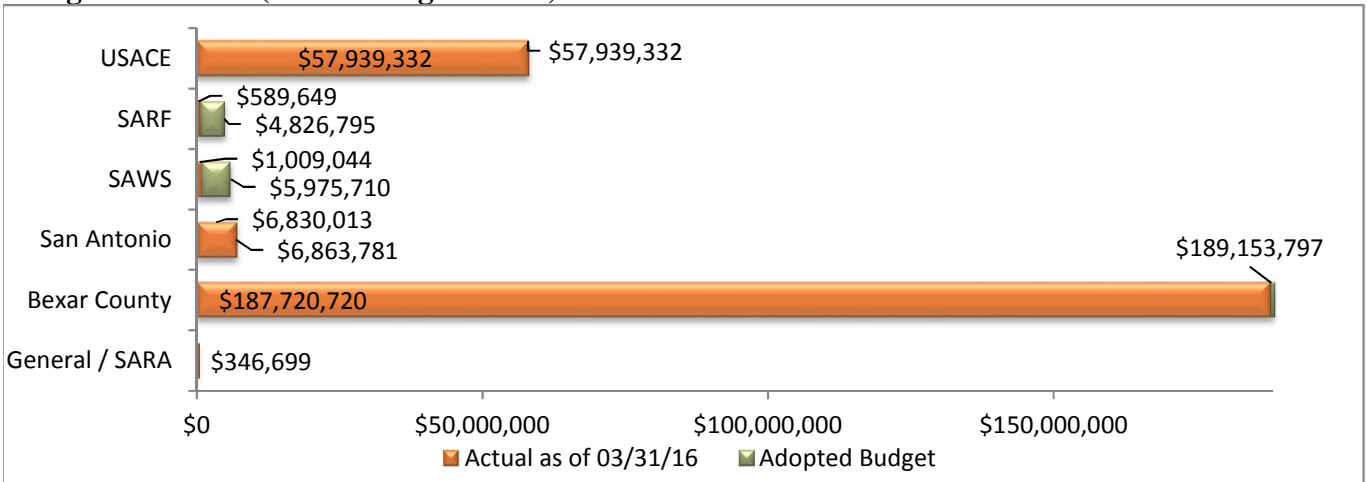
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ -	\$ 8,132	\$ 7,375	\$ -	\$ 15,507
Commodities	371,379	-	-	-	371,379
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 371,379</u>	<u>\$ 8,132</u>	<u>\$ 7,375</u>	<u>\$ -</u>	<u>\$ 386,886</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Mission Reach**  
 Managing Department: Watershed Engineering

**Project # 0136**

	Adopted Budget:	\$ 264,395,747
Project Start Date: 01/01/98	Unfunded Budget:	\$ 287,349
Project Finish Date: 06/30/17	Total Project Budget:	\$ 264,683,096

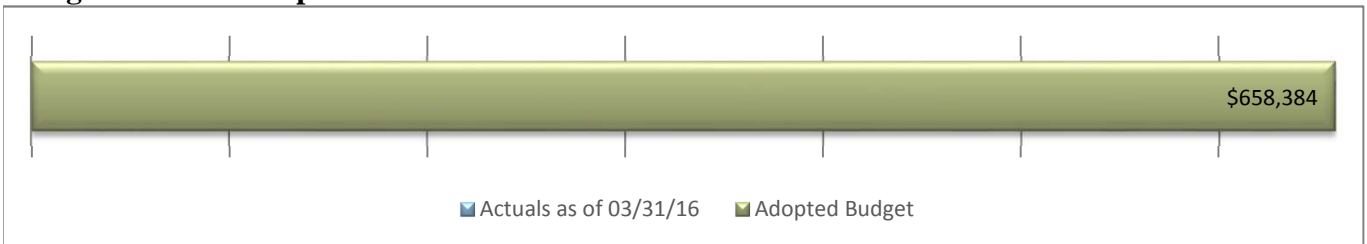
The Mission Reach project is a joint effort between the U.S. Army Corps of Engineers (USACE), Bexar County, City of San Antonio, and the San Antonio River Authority to provide ecosystem restoration while maintaining or improving flood reduction benefits to the San Antonio River from Lone Star Boulevard to Mission Espada. The San Antonio River Oversight Committee provided public direction and input. Preliminary authorization for the Historic Mission Reach was substantially completed in October 2003. The locally prepared design with modifications was selected by the USACE as the preferred plan; final design began in October 2004. Through the co-commitment of local and federal funding, Phase 1 construction was completed in December 2009. Phase 2 construction was completed in May of 2011 with a formal grand opening of Phases 1 and 2 in June 2011. The last portion - Phase 3 construction - was completed in August 2013.

In FY 2016/17, this project will complete the floodplain Letter of Map Revision.

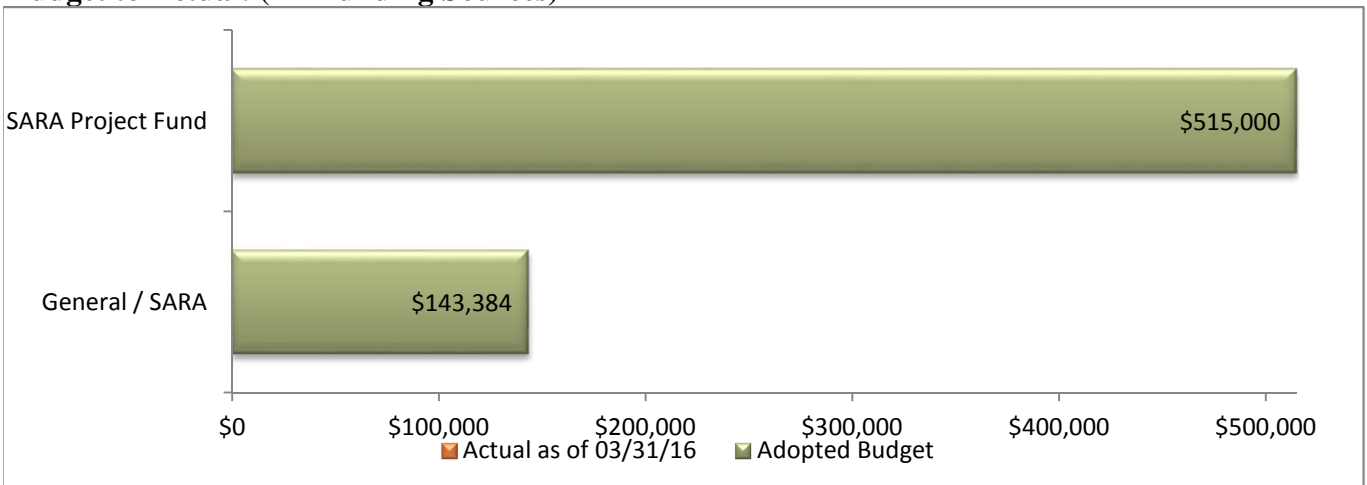
<b>Expenditures</b>	Actuals as of <u>March 31, 2016</u>	April 2016 to <u>June 2017</u>	<u>2018/19</u>	Succeeding from <u>2019/20</u>	<u>Total</u>
Personnel	\$ 7,112,474	\$ 66,927	\$ -	\$ -	\$ 7,179,401
Commodities	13,334,084	337,191	-	-	13,671,275
Contracts	<u>233,988,900</u>	<u>9,843,520</u>	-	-	<u>243,832,420</u>
Total	<u>\$254,435,457</u>	<u>\$ 10,247,638</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 264,683,096</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Mission Reach Erosion Repairs **Project #** 0528  
**Managing Department:** Watershed Engineering/Watershed Parks Operations

	Adopted Budget:	\$	658,384
Project Start Date: 07/01/16	Unfunded Budget:	\$	-
Project Finish Date: 06/30/17	Total Project Budget:	\$	658,384

The Mission Reach Erosion Repairs Project will repair erosion at the following sites: San Pedro Confluence, the rock wall upstream of Mission Rd, and downstream of Espada Dam. Repairing these three major erosion sites will contribute to the health and safety of the San Antonio River by protecting our trails and reducing sediment loads along Mission Reach.

For FY 2016/2017 the repairs will be designed and constructed.

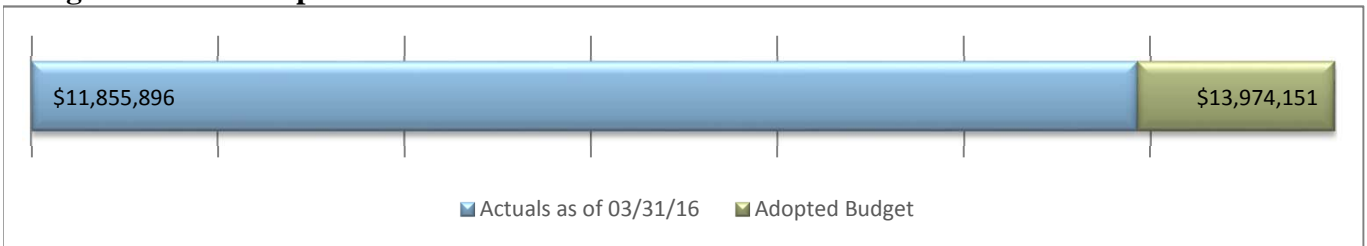
Of the total \$658,384 Adopted Budget, \$43,384 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 43,384	\$ -	\$ -	\$ 43,384
Commodities	-	-	-	-	-
Contracts	-	615,000	-	-	615,000
<b>Total</b>	<u>\$ -</u>	<u>\$ 658,384</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 658,384</u>

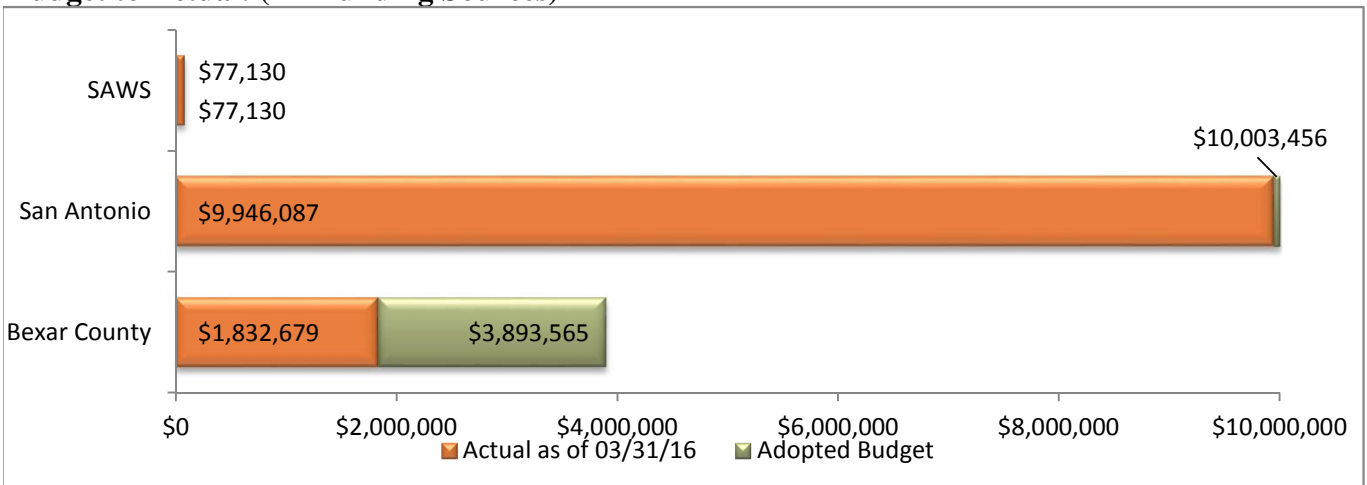




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Museum Reach (Park Segment)**

**Project # 0139**

Managing Department: Watershed Engineering

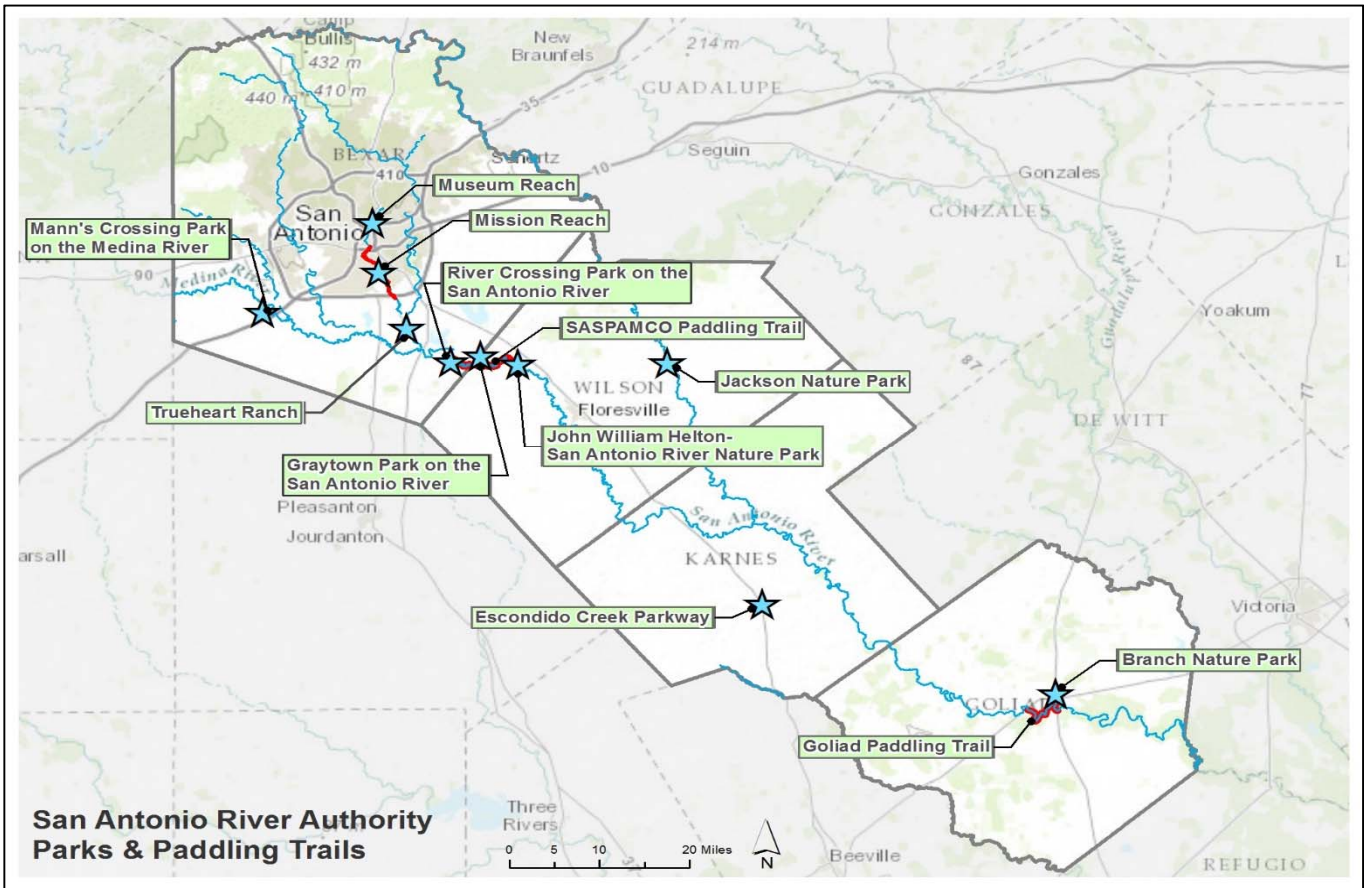
		Adopted Budget:	\$ 13,974,151
Project Start Date:	10/31/03	Unfunded Budget:	\$ -
Project Finish Date:	08/31/16	Total Project Budget:	\$ 13,974,151

The Museum Reach – Park Segment project, a component of the San Antonio River Improvements project funded by the City of San Antonio, Bexar County and San Antonio Water System, along with the support from the River Authority, involves infrastructure improvements that address flood control, amenities for the community and tourists, ecosystem restoration, and recreational opportunities in and along the river, north of U.S. Highway 281 and south of Hildebrand Road.

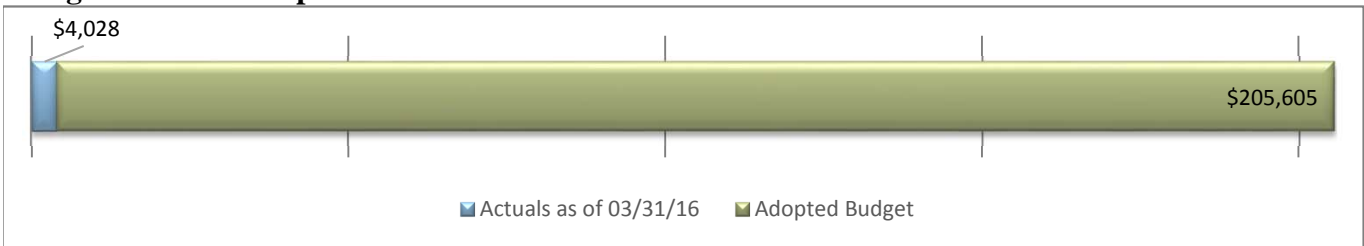
This project advances the River Authority’s goal of enhancing community appreciation and recreational uses adjacent to creeks and rivers.

In FY 2016/17, the last part of this project extends the Museum Reach Park Segment trail system to include Trail 17 and Trail 10. The deliverables include concrete sidewalks, electrical, demolition, signage, asphalt paving, cast-in-place pipe concrete and storm drainage work.

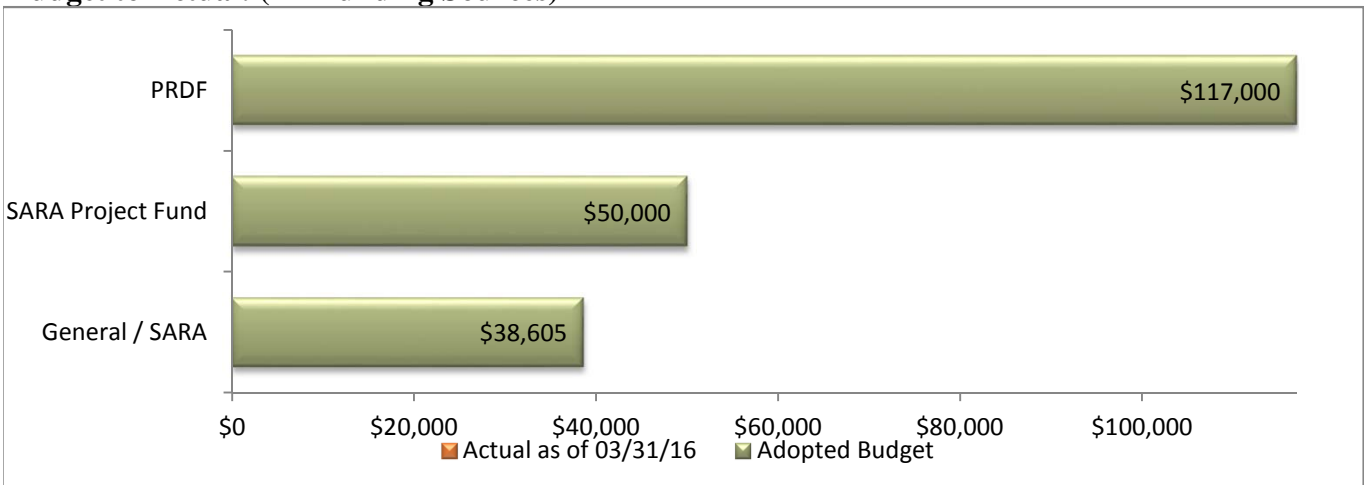
<b>Expenditures</b>	<b>Actuals as of <u>March 31, 2016</u></b>	<b>April 2016 to <u>June 2017</u></b>	<b><u>2017/18</u></b>	<b>Succeeding from <u>2018/19</u></b>	<b><u>Total</u></b>
Personnel	\$ 455,773	\$ 39,204	\$ -	\$ -	\$ 494,977
Commodities	28,224	247	-	-	28,471
Contracts	<u>11,371,899</u>	<u>2,078,804</u>	<u>-</u>	<u>-</u>	<u>13,450,703</u>
<b>Total</b>	<b>\$ <u>11,855,896</u></b>	<b>\$ <u>2,118,255</u></b>	<b>\$ <u>-</u></b>	<b>\$ <u>-</u></b>	<b>\$ <u>13,974,151</u></b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Nature Park Signage Development **Project #** 0501  
**Managing Department:** Watershed and Park Operations

		Adopted Budget:	\$	205,605
Project Start Date:	07/01/15	Unfunded Budget:	\$	20,048
Project Finish Date:	06/30/18	Total Project Budget:	\$	225,653

The Nature Park Signage Development project will design, construct, and install a holistic signage package that is consistent between all of the current River Authority owned nature parks; it also provides templates for all future park development. Signage includes: wayfinding signage to the park, gateway signs, maps (both to the park and within each park, print and online), directional signage for attractions, interpretive signage, and coordination with appropriate entities for applicable state and federal signage for national and state designations (El Camino Real National Historic Trail, Texas Inland Paddling Trail, etc.). In FY 2015/16, designs for the signage were completed and a vendor was selected for sign manufacture.

Development of park signage enhances visitors’ enjoyment, understanding and knowledge of the park as well as identifying other park opportunities/locations the River Authority has to offer. While enjoying the parks, visitors can develop an enhanced appreciation for the San Antonio River and its tributaries.

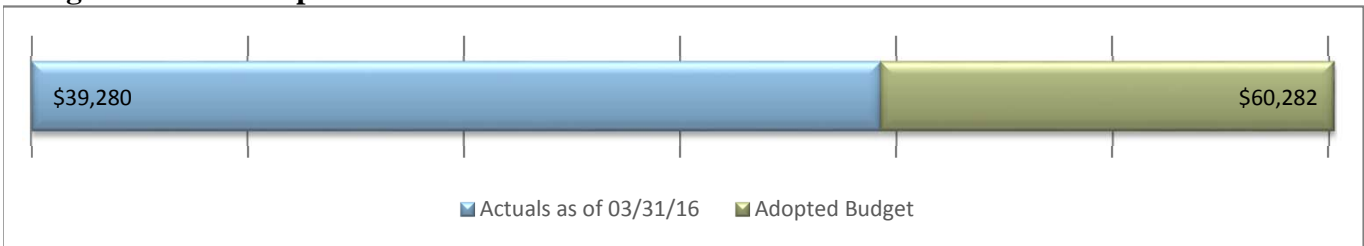
In FY 2016/17, various signs will be installed at multiple parks. Funding will be required over several years to complete all signs.

Of the total \$205,605 Adopted Budget, \$38,605 is estimated labor contribution thorough the River Authority General Fund.

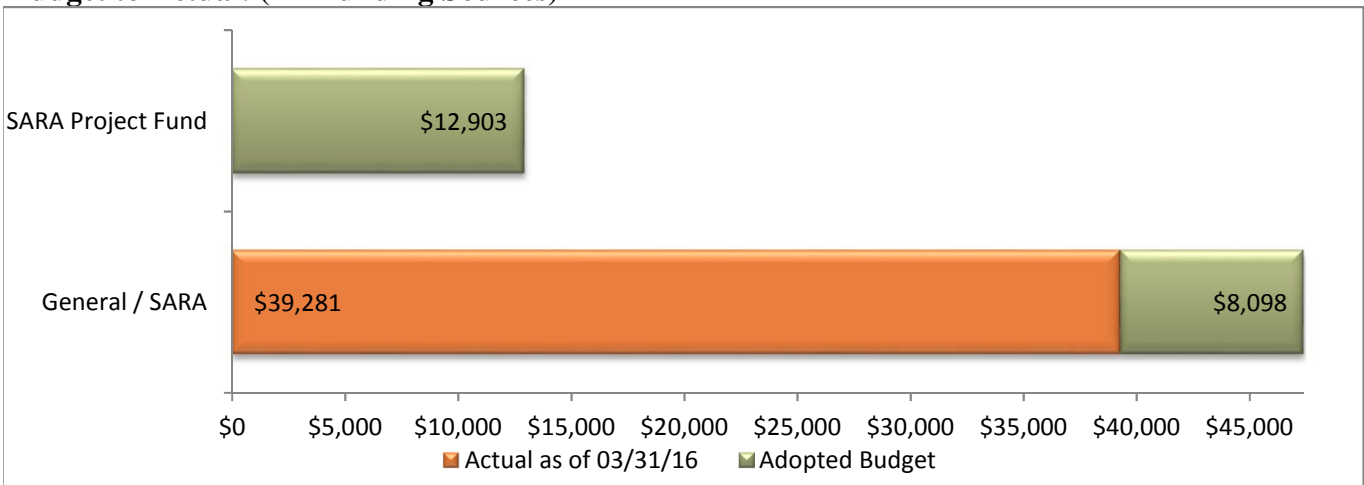
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 4,028	\$ 34,577	\$ 20,048	\$ -	\$ 58,653
Commodities	-	117,000	-	-	117,000
Contracts	-	50,000	-	-	50,000
<b>Total</b>	<b>\$ 4,028</b>	<b>\$ 201,577</b>	<b>\$ 20,048</b>	<b>\$ -</b>	<b>\$ 225,653</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Trueheart Park**  
 Managing Department: Watershed Park Operations

**Project # 0436**

	Adopted Budget:	\$	60,282
Project Start Date: 04/01/14	Unfunded Budget:	\$	-
Project Finish Date: 06/30/17	Total Project Budget:	\$	60,282

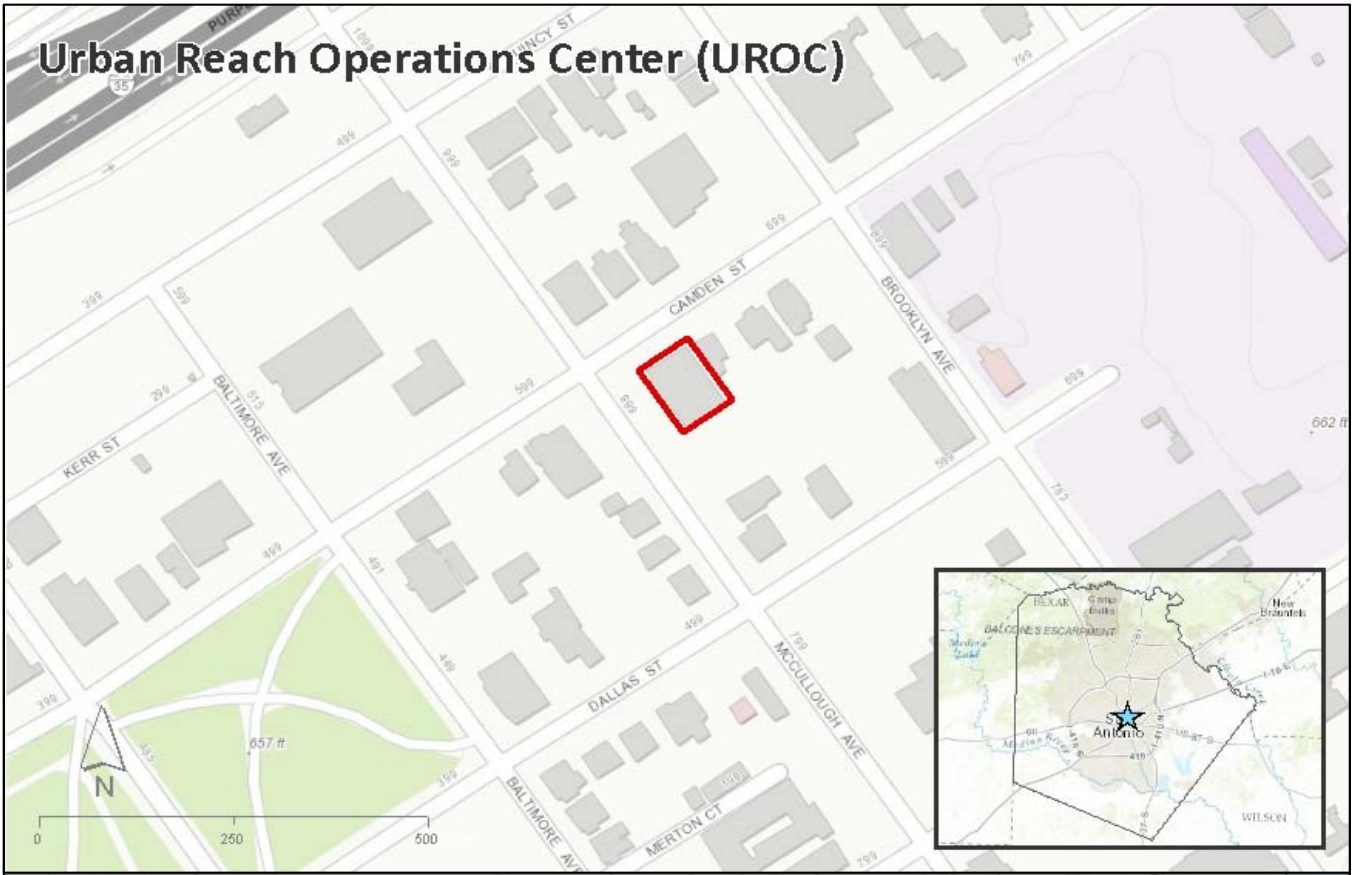
Trueheart Park, located in southern Bexar County off Blue Wing Road along the San Antonio River, was acquired to improve and expand nature-park and paddling trail opportunities as identified in the Nature Based Park Resources Plan Update. This future 300 plus acre park will allow the River Authority to offer increased nature-based recreational activities and park programs for the community. In FY 2015/16, staff worked to develop a conservation plan for the park.

This future park will provide opportunities for visitors to recreate and increase awareness and appreciation of the San Antonio River.

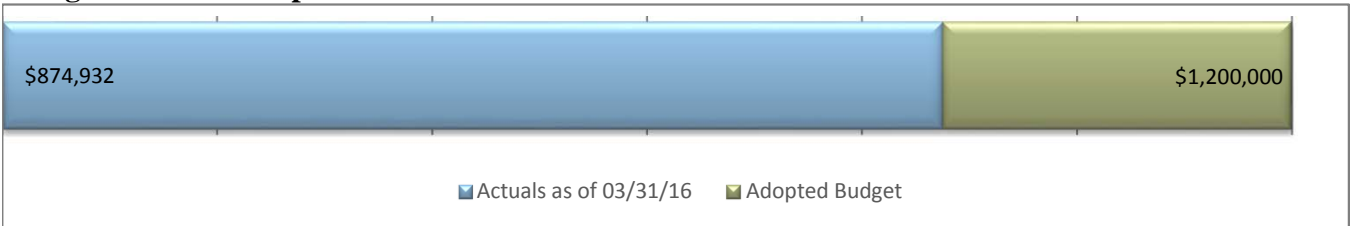
During FY 2016/17, funding will be used to complete a historic conservation plan.

Of the total \$60,282 Adopted Budget, \$11,710 is estimated labor contribution through the River Authority General Fund.

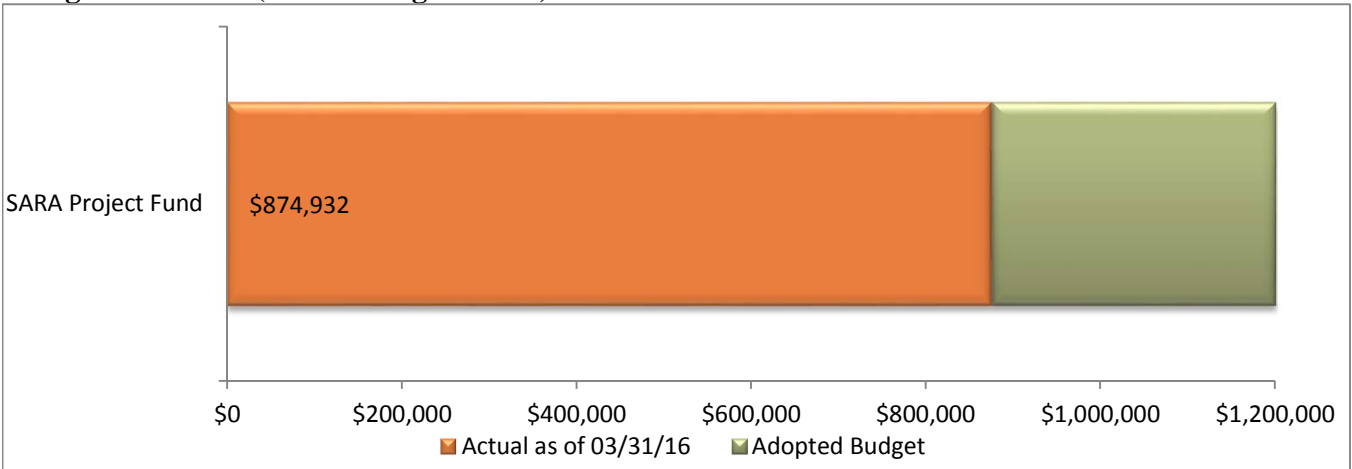
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 708	\$ 11,002	\$ -	\$ -	\$ 11,710
Commodities	38,572	-	-	-	38,572
Contracts	-	10,000	-	-	10,000
<b>Total</b>	<b>\$ 39,280</b>	<b>\$ 21,002</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 60,282</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Urban Reach Operations Center **Project #** 0527  
**Managing Department:** Watershed Park Operations

		Adopted Budget:	\$	1,200,000
Project Start Date:	07/01/15	Unfunded Budget:	\$	-
Project Finish Date:	06/30/16	Total Project Budget:	\$	1,200,000

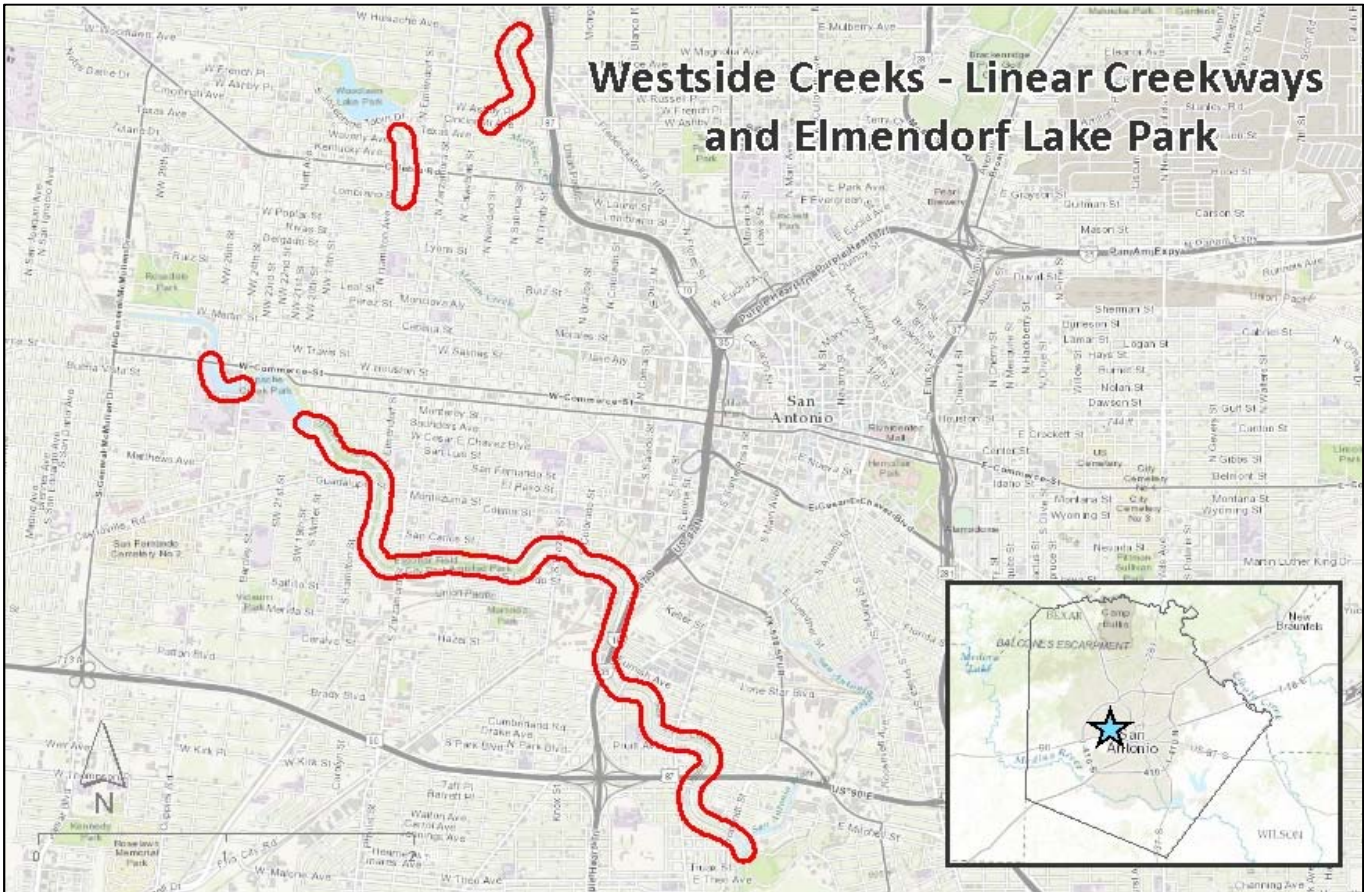
The new Urban Reach Operations Center provides a permanent home for the Watershed and Paks Operations staff that work on the Museum Reach portion of the San Antonio River. The former facility used by staff was provided through a lease that was terminated in fiscal year 2015/16.

This project includes purchase of the facility, renovations to make it efficient and effective for the staff and equipment needed at the facility. This building will support staff working on the Museum Reach that promotes and improves the visitor experience and help maintain water quality.

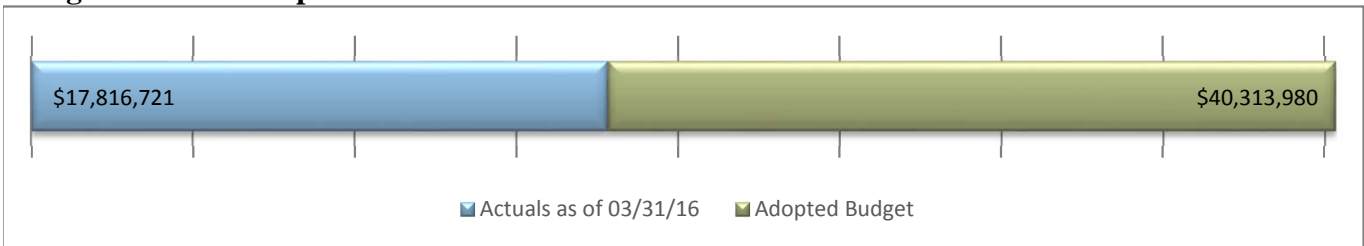
Watershed and Park Operations (WPO) staff that maintain the Museum Reach currently reside in a location near this stretch of the river. However, public improvements underway are requiring the staff to relocate. The River Authority purchased a new building at 814 McCullough Avenue to utilize as the Urban Reach Operations Center as a permanent home for the WPO staff working on the Museum Reach. The purchase was completed in FY 2015/16; renovations will be completed early in FY 2016/17.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2017</u>	<u>April 2017</u> to <u>June 2018</u>	<u>2018/19</u>	<u>Succeeding</u> from <u>2019/20</u>	<u>Total</u>
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	874,932	325,068	-	-	1,200,000
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 874,932</u>	<u>\$ 325,068</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,200,000</u>

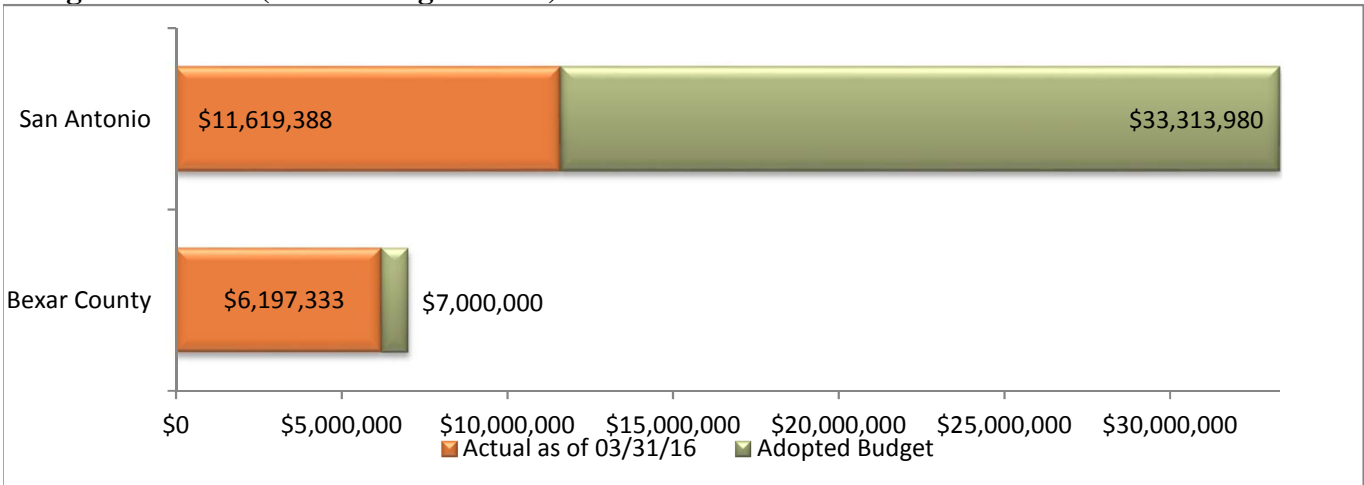




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Westside Creeks - Linear Creekways and Elmendorf Lake Park**      **Project # 0380**  
 Managing Department: Watershed Engineering

		Adopted Budget:	\$ 40,313,980
Project Start Date:	07/01/12	Unfunded Budget:	\$ -
Project Finish Date:	12/31/21	Total Project Budget:	\$ 40,313,980

The Westside Creeks Restoration Project Conceptual Plan, adopted in June 2011 by the River Authority’s Board of Directors, has served as the catalyst for the Elmendorf Lake Park Improvements project, Linear Creekway Trails project, United States Army Corps of Engineers General Reevaluation Report, and the San Pedro Creek Improvements Project. The community-based plan, overseen by the Westside Creeks Restoration Oversight Committee, set out to develop concepts to restore the Alazan, Apache, Martinez, and San Pedro Creeks ecosystem, maintain or enhance the current flood components of these creeks, improve water quality, and provide opportunities for people to enjoy these creeks.

Through the voter approved Proposition 2 in 2010, the City of San Antonio funded creekway trail improvements along the Westside Creeks. The design and construction of these improvements is managed by the River Authority. The Apache and San Pedro Creeks trail connects Elmendorf Lake Park to the San Antonio River. The 10-foot wide trail includes amenities such as shade structures, drinking fountains, signage, and seating. The Alazan Creek trail connects Woodlawn Lake Park to West End Park, and the Martinez Creek trail connects Fredericksburg Road to Cincinnati Avenue providing for multimodal connections linking VIA Metropolitan Transit’s Primo bus station to the creekway trail and connecting to a bike lane along Cincinnati Avenue. Construction of these improvements began in May 2015 and is anticipated to be completed by fall 2016.

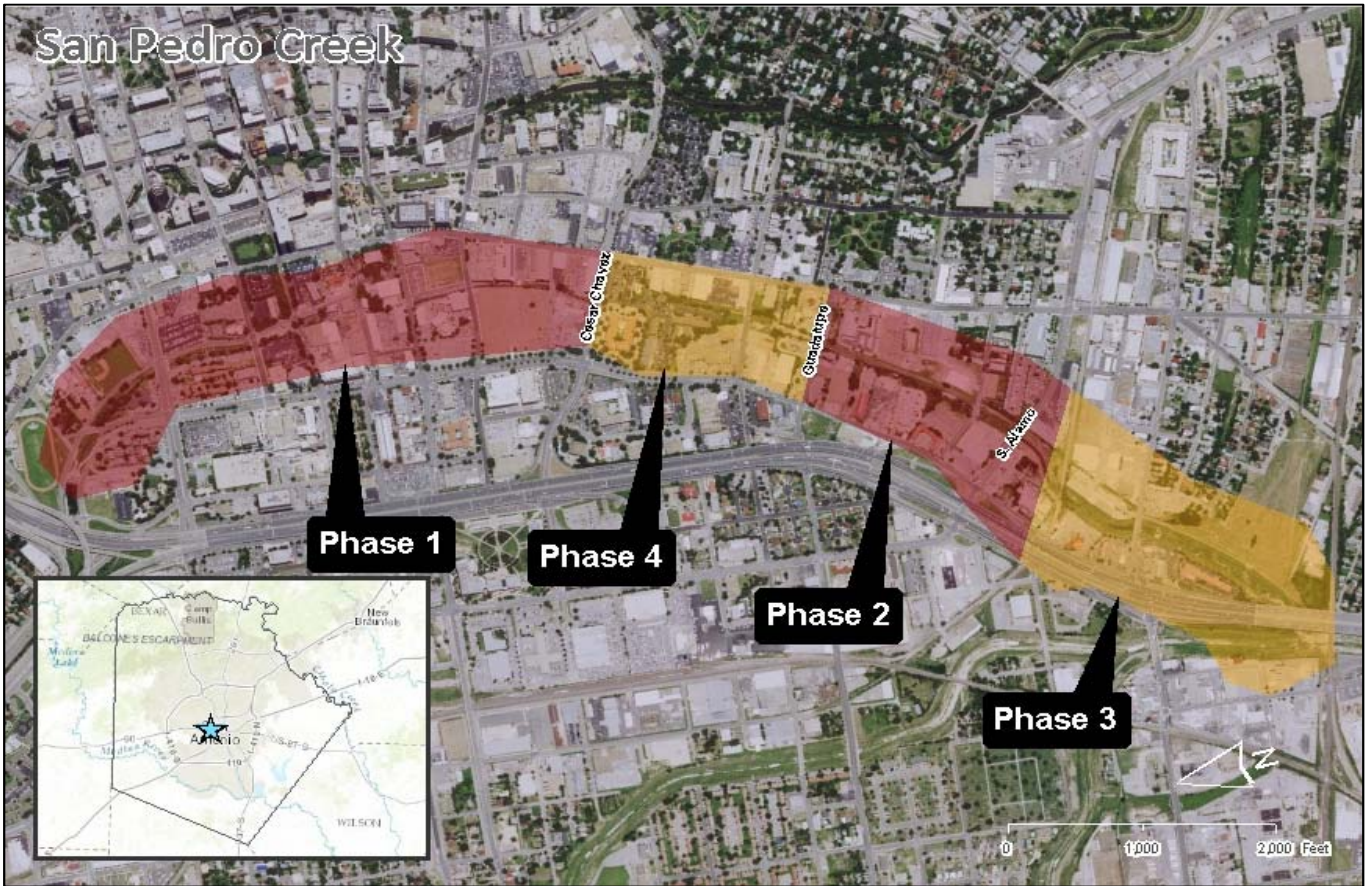
In May 2015, the voters approved another Proposition which will complete the Linear Creekway Trails along the Westside Creeks. The River Authority will manage the design and construction of these projects.

The Elmendorf Lake Park Improvements Project was approved by City of San Antonio voters in 2012 with the passage of the 2012 bond, and additional funding was allocated by Bexar County to fund flood control and water quality enhancements around the lake. The project stretches from 19th Street to Commerce Street. Overall improvements include recreation enhancements such as shade structures, a playground and splash pad, additional bridge crossings over the lake, a pier, trails, picnic areas throughout the park and an improved park plaza for large gatherings. In addition to the recreational elements, water quality best management practices (BMPs) are being installed and include fountains and aerators in the lake, rain gardens and bioswales, shoreline invasive plant removal, and a recirculating water feature to help improve the lake’s water quality. Completion of these improvements is anticipated in the fall 2016.

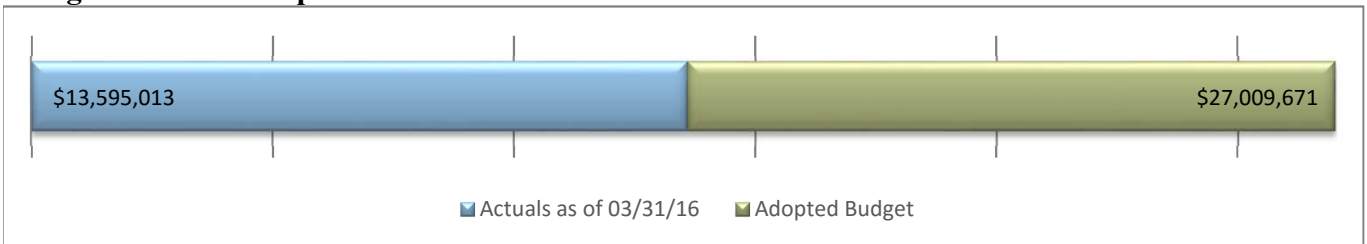
Together, these projects advance the goals of watershed health and safety, community appreciation and recreation, and implanting watershed solutions.

In FY2016/17, construction will be completed on Elmendorf Lake Park and the first phase of the Linear Creekway Trails. The River Authority will administer the design and construction of a second phase of trails along the Alazan, Martinez, San Pedro, and Zarzamora Creeks.

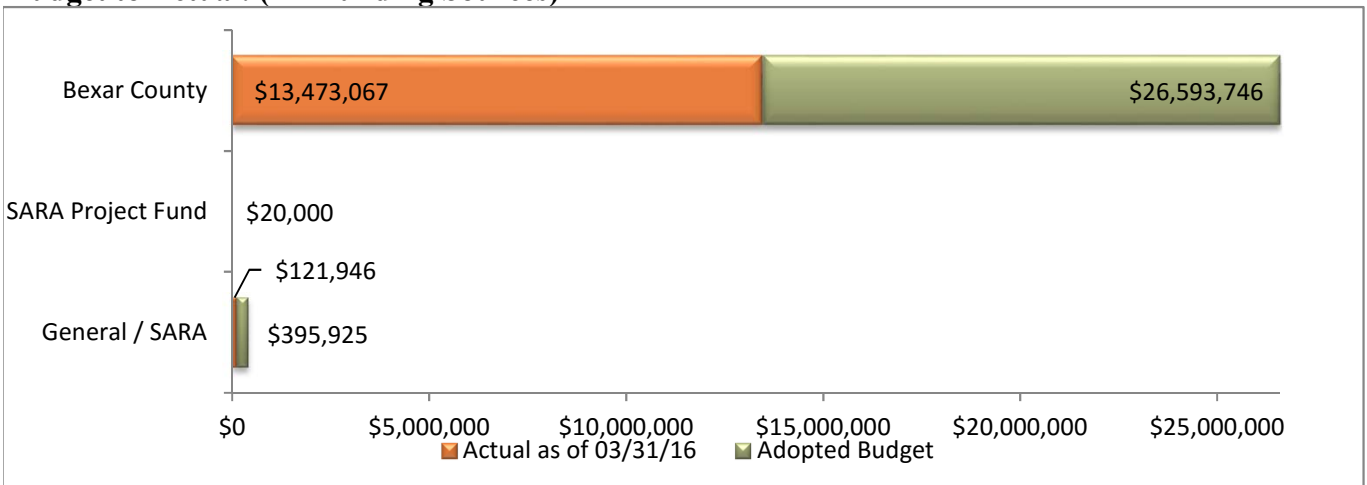
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Labor	\$ 482,409	\$ 1,046,155	\$ -	\$ -	\$ 1,528,564
Commodities	291,113	2,956	-	-	294,069
Contracts	17,043,200	21,448,147	-	-	38,491,348
<b>Total</b>	<b>\$ 17,816,721</b>	<b>\$ 22,497,259</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 40,313,980</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Westside Creeks San Pedro Creek **Project #** 0378  
**Managing Department:** Watershed Engineering

		Adopted Budget:	\$ 27,009,671
Project Start Date:	08/01/12	Unfunded Budget:	\$ -
Project Finish Date:	08/28/18	Total Project Budget:	\$ 27,009,671

Bexar County and the River Authority, in coordination with the City of San Antonio, are in the design phase of San Pedro Creek Improvements Project, which will transform the creek to reflect its place in our cultural history, improve its function in flood control, revitalize natural habitat and water quality, and promote economic development. The project will start at the tunnel inlet near Fox Tech High School and wind through the western side of downtown to the creek’s confluence with the Alazan and Apache Creeks. The project includes four miles of trails and eleven acres of landscaped area and will remove approximately 30 acres and 38 adjacent structures from the 100-year flood plain. Through partnerships, this project is diversifying and leveraging funding and building upon employee expertise.

Bexar County and the San Antonio River Authority authorized the use of an alternative delivery method, Construction Manager at Risk, in December 2015 to maintain the project schedule. The Construction Manager at Risk was hired in June 2016. In June 2016, Bexar County entered into an agreement with the San Antonio River Authority to manage the construction of the Project. Phase 1, between the San Pedro Creek flood control inlet tunnel and Cesar Chavez, will be completed by May 2018 in celebration of the 300th anniversary of the City of San Antonio.

During FY 2016/17, the project’s design will progress while construction begins. Construction on the utilities and bridges in Phase 1 will begin in late summer/early fall of 2016 with full project construction beginning winter 2016. The 100 percent design of Phase 1 and 2 will be completed by January 2017.

	Actuals as of	April 2016 to		Succeeding from	
<b>Expenditures</b>	<u>March 31, 2016</u>	<u>June 2017</u>	<u>2017/18</u>	<u>2018/19</u>	<u>Total</u>
Labor	\$ 584,871	\$ 3,402,984	\$ -	\$ -	\$ 3,987,854
Commodities	80,234	4,155,560	-	-	4,235,793
Contracts	12,929,909	5,856,114	-	-	18,786,023
<b>Total</b>	<u>\$ 13,595,013</u>	<u>\$ 13,414,658</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 27,009,671</u>



SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

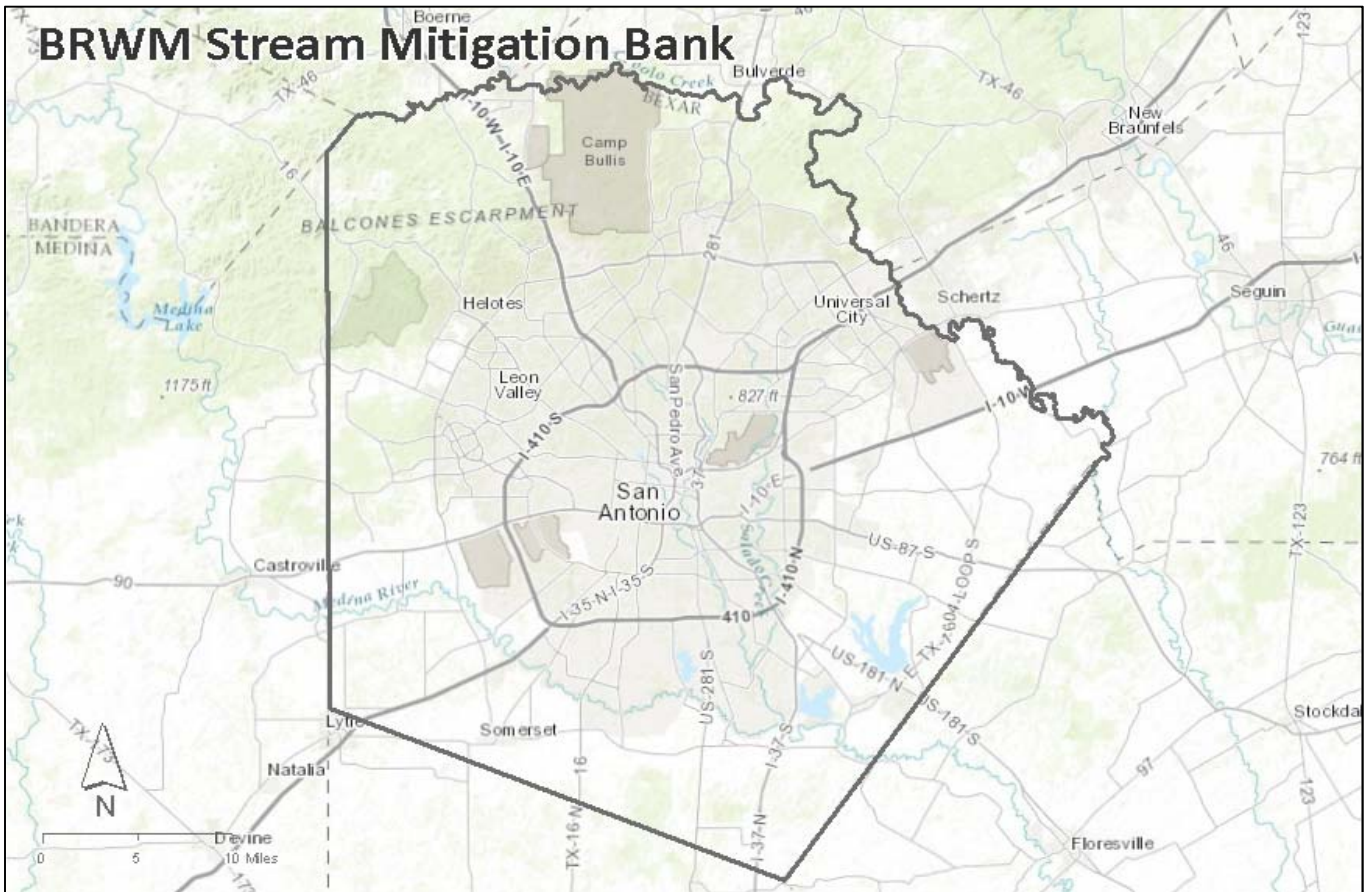


SAN ANTONIO  

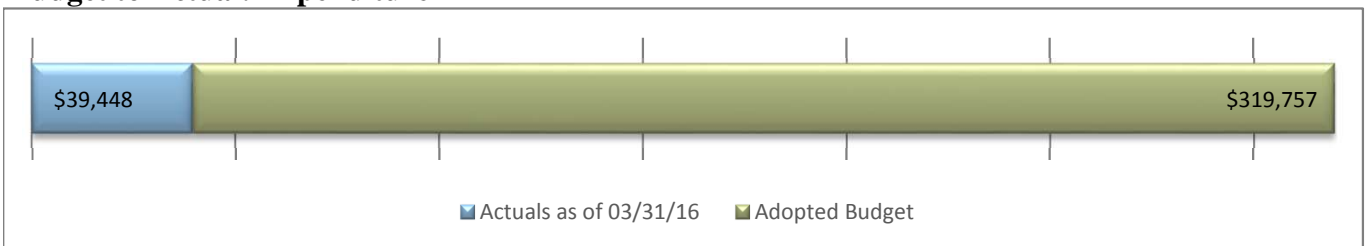
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RIVER AUTHORITY

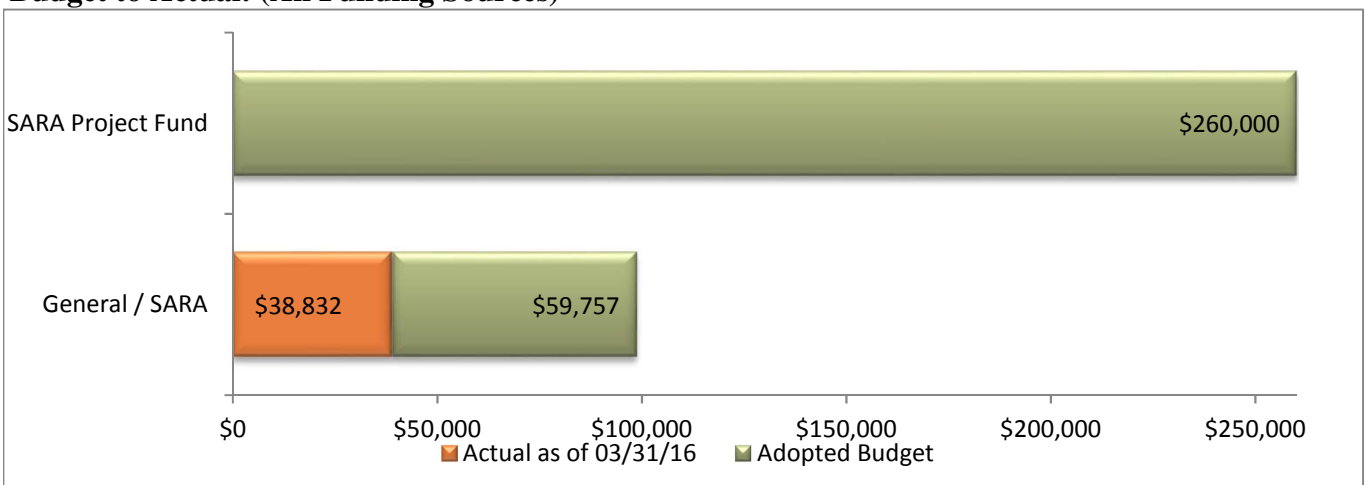
Leaders in Watershed Solutions



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** BRWM Stream Mitigation Bank **Project #** 0466  
 Managing Department: Watershed Engineering

	Adopted Budget:	\$	319,757
Project Start Date: 07/01/14	Unfunded Budget:	\$	-
Project Finish Date: 12/22/17	Total Project Budget:	\$	319,757

Through collaboration with the Bexar Regional Watershed Management (BRWM) partners, the BRWM Mitigation Bank will restore natural stream functions to improve the aquatic and riparian health of the creek. These restoration efforts will generate lasting improvements to the creeks' health and safety.

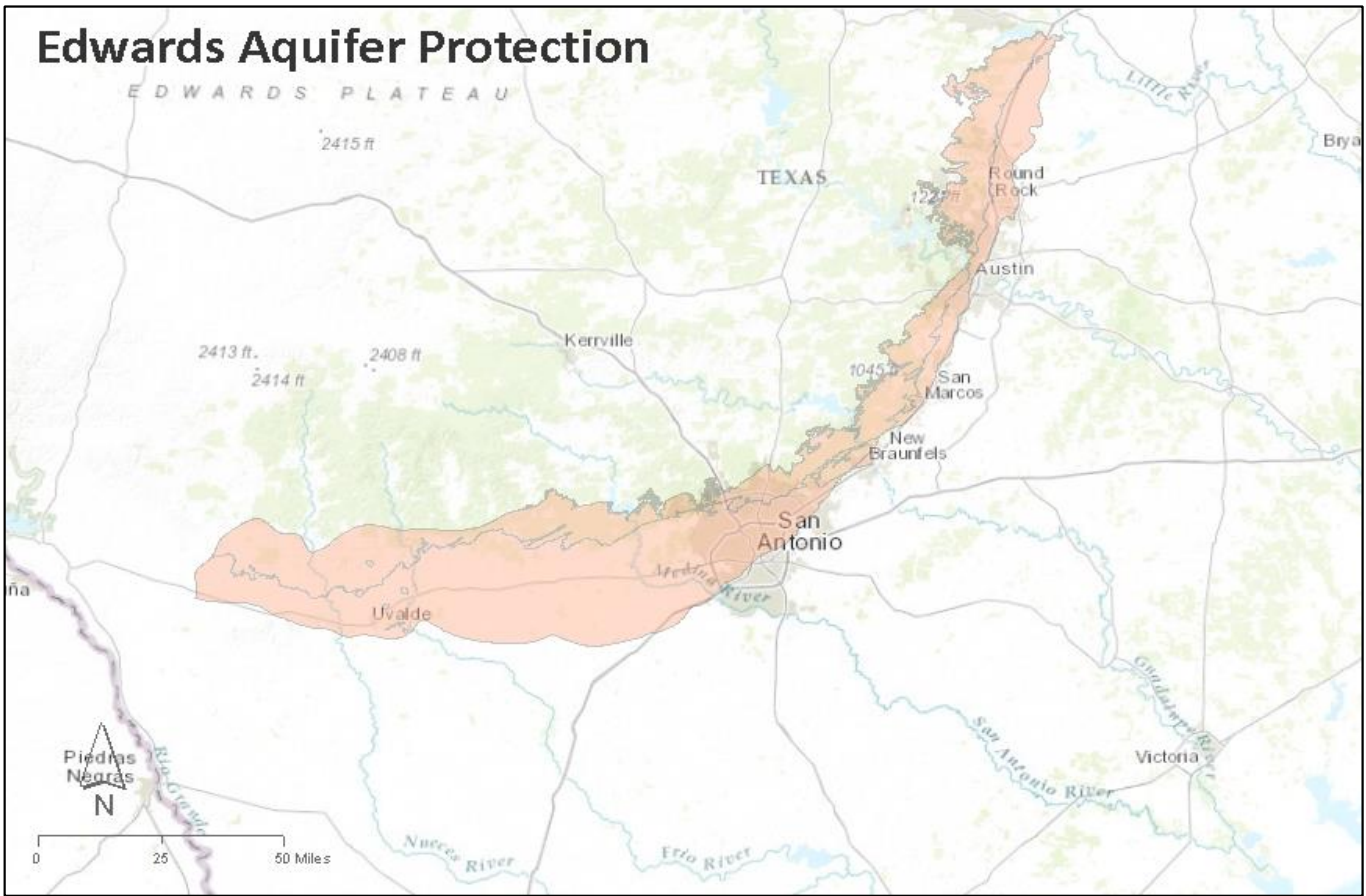
A 2008 U.S. Environmental Protection Agency (EPA)/U.S. Army Corps of Engineers (USACE) rule established mitigation banking as the preferred method of mitigating stream impacts. A stream mitigation bank is a stream that has been restored and then set aside to compensate for future stream impacts. In FY 2013/14, the BRWM funded a study to evaluate developing an urban stream mitigation bank within Bexar County. Based on the recommendations of the study, the prospectus was submitted in FY 2014/15 and the Mitigation Banking Instrument (MBI) will be submitted in early FY 2016/17.

In FY 2016/17, the MBI will be developed and submitted to the USACE. The MBI is documentation that includes design plans and establishes guidelines for the establishment, operation, and maintenance of the proposed mitigation bank.

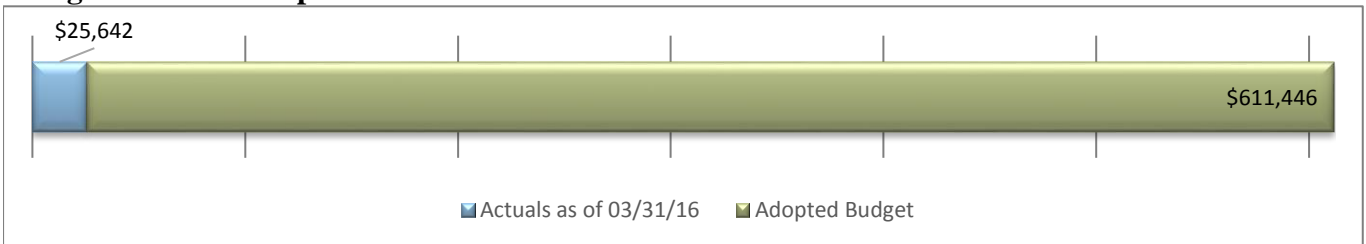
Of the total \$319,757 Adopted Budget, \$18,662 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 2,982	\$ 21,384	\$ -	\$ -	\$ 24,366
Commodities	30	-	-	-	30
Contracts	<u>36,437</u>	<u>258,925</u>	<u>-</u>	<u>-</u>	<u>295,362</u>
<b>Total</b>	<b>\$ 39,448</b>	<b>\$ 280,309</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 319,757</b>

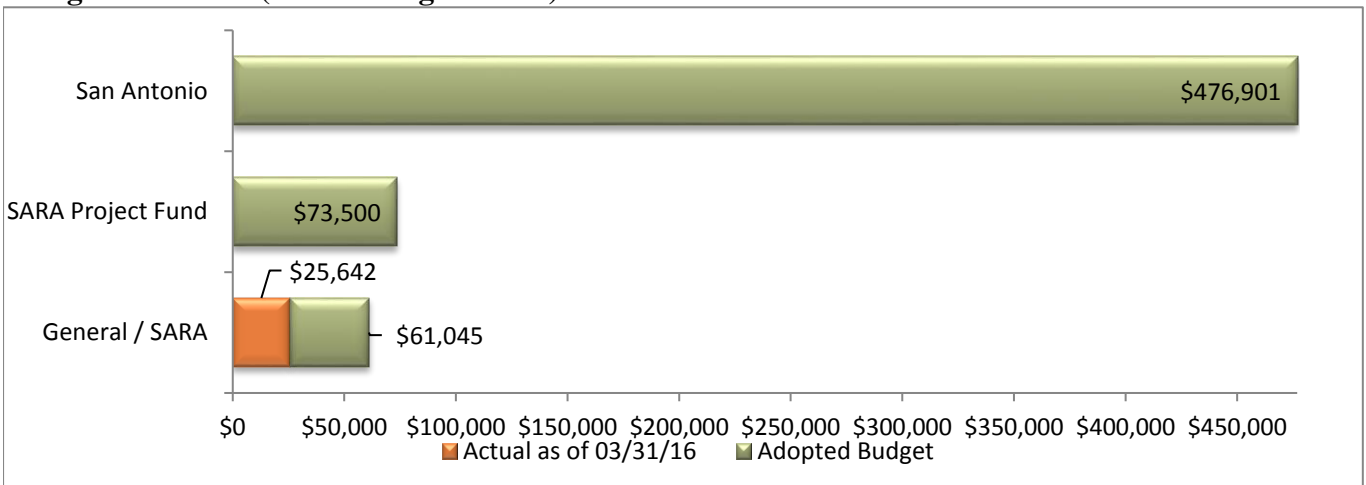




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Edwards Aquifer Watershed Protection** **Project # 0512**  
 Managing Department: Environmental Sciences

	Adopted Budget:	\$	611,446
Project Start Date: 07/01/15	Unfunded Budget:	\$	85,331
Project Finish Date: 06/30/20	Total Project Budget:	\$	696,777

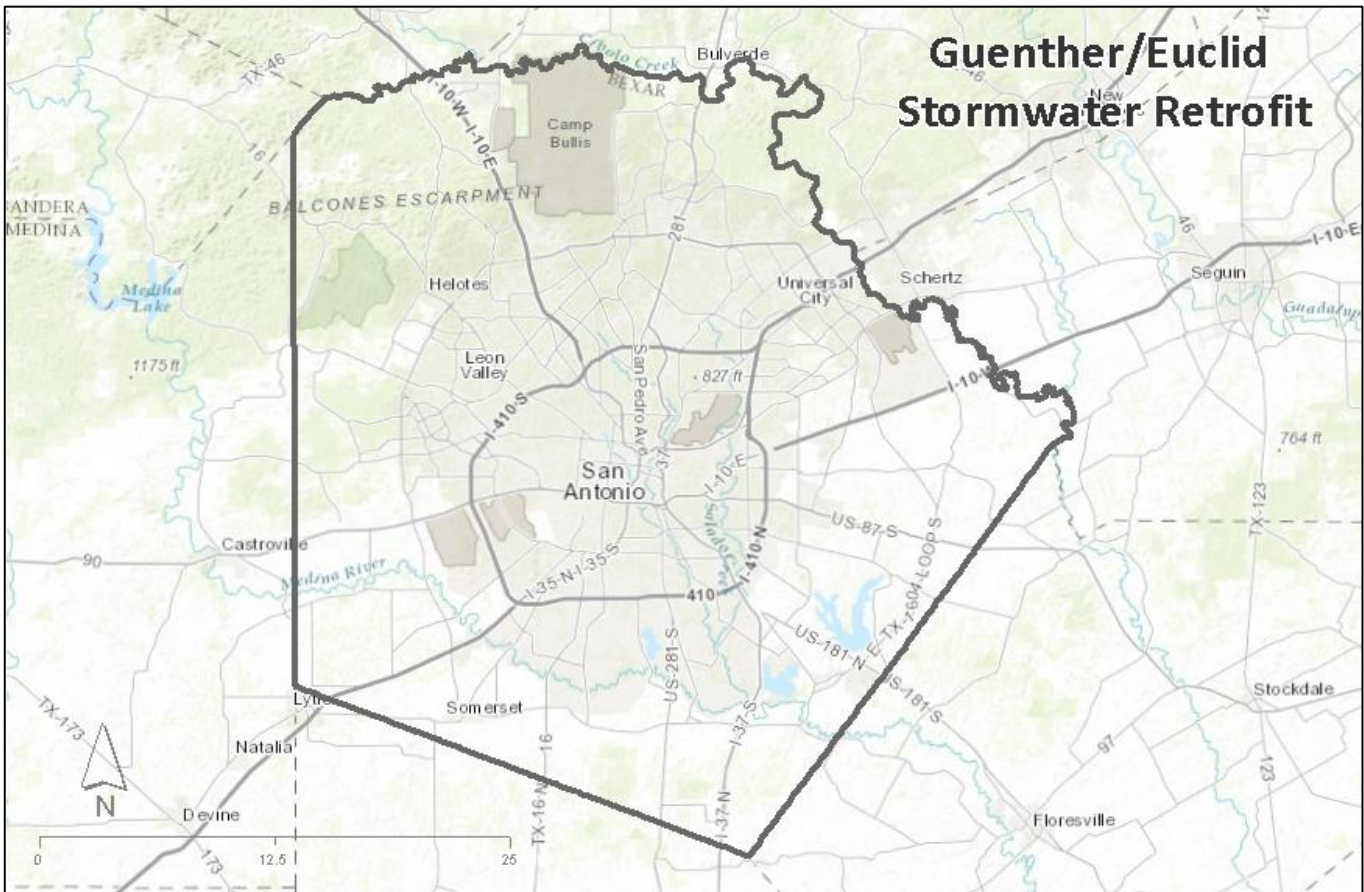
This project funds research and implementation of best management practices (BMPs) to protect and improve water quality over the Edwards Aquifer. The project scope includes serving as project manager and administrator of the City of San Antonio’s Proposition 1 water quality project component centered within urbanized Bexar County’s recharge and contributing zones. The scope also includes providing expertise and support to entities researching and/or developing BMPs within the Edwards Aquifer region, including the University of Texas at San Antonio (UTSA) and the Greater Edwards Aquifer Alliance (GEAA).

Under SARA's goals, this project supports advancement and application of SARA's expertise to influence, develop, and implement watershed solutions that balance environmental, economic, and quality life community needs. It meets the objective of implementing a project management role for the River Authority and with the City, develop a Proposition 1 project selection criteria that ensure the maximum benefit for our community. This project also seeks stormwater runoff management solutions to improve water quality and enhance, in concert with local partners, the health and safety of the creeks and rivers.

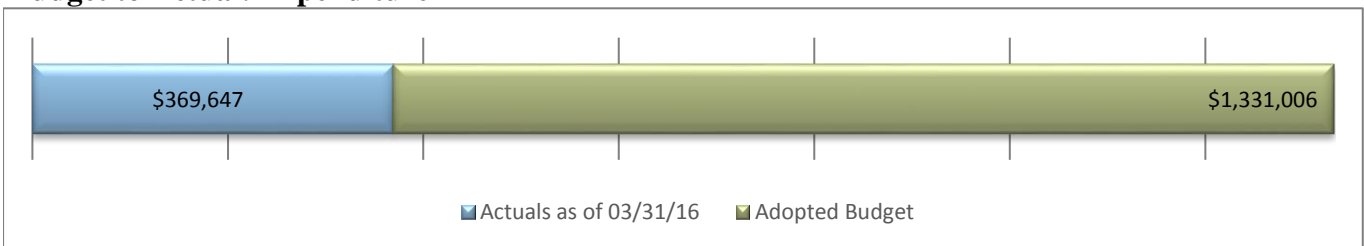
The FY 2016/17 budget funds staff time to manage selection and implementation of Proposition 1 year 1 projects; selection of year 2 projects; staff time and equipment to perform pre-construction stormwater monitoring of Proposition 1 construction projects; staff time and funding to support UTSA's design of LID features for the main campus; and staff support of GEAA's LID implementation projects.

Of the total \$611,446 Adopted Budget, \$45,914 is estimated labor contribution through the River Authority General Fund.

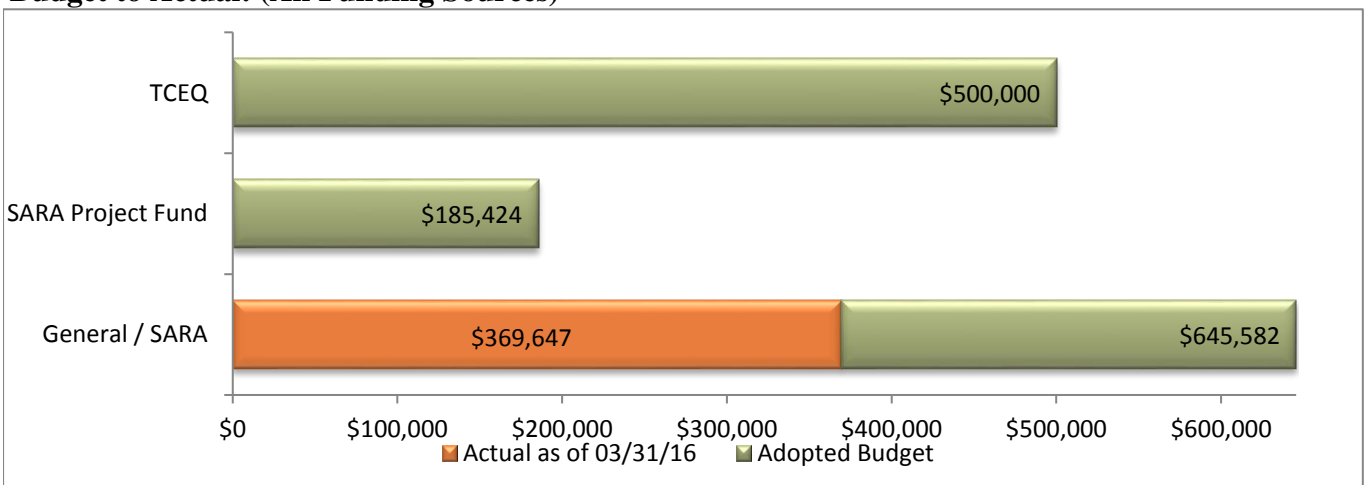
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Labor	\$ 10,511	\$ 151,910	\$ 90,847	\$ 256,778	\$ 510,046
Commodities	-	33,000	-	10,000	43,000
Contracts	15,131	128,600	-	-	143,731
<b>Total</b>	<b>\$ 25,642</b>	<b>\$ 313,510</b>	<b>\$ 90,847</b>	<b>\$ 266,778</b>	<b>\$ 696,777</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Guenther/Euclid Stormwater Retrofit **Project #** 0358  
**Managing Department:** Watershed Engineering

	Adopted Budget:	\$	1,331,006
Project Start Date: 10/08/15	Unfunded Budget:	\$	-
Project Finish Date: 09/04/18	Total Project Budget:	\$	1,331,006

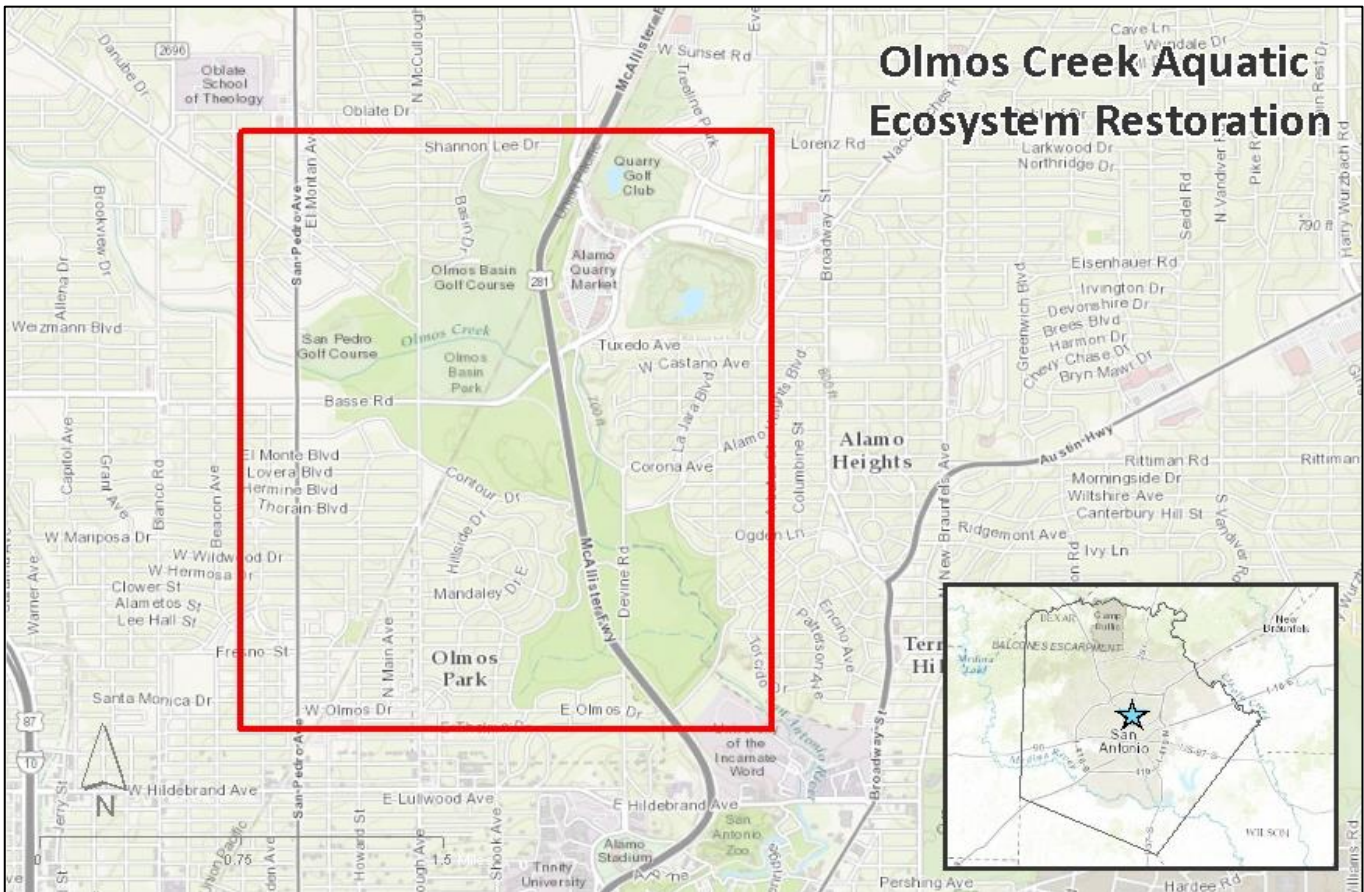
The Guenther and Euclid buildings were constructed before low impact development (LID) and other sustainable stormwater technologies were available. The Guenther stormwater runoff drains into the Eagleland reach of the San Antonio River Improvements Project and the Euclid building's stormwater runoff is causing erosion on River Authority property. The purpose of this project is to retrofit the facilities' stormwater infrastructure utilizing LID design and construction to improve runoff water quality, capture first-flush pollutants, increase on-site infiltration before the runoff reaches the San Antonio River and/or its tributaries, and provide the community examples of successful LID retrofit projects.

The stormwater retrofits are being constructed as demonstration projects in support of the Upper San Antonio Watershed Protection Plan best management practices (BMP). These demonstration projects will provide educational opportunities for the River Authority to educate the local development community and general public how best management practices can be implemented and managed. In addition, the projects benefit the health and safety of the San Antonio River Basin.

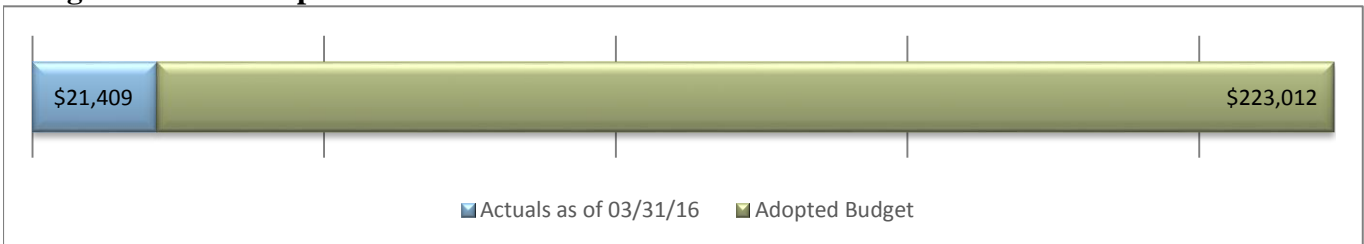
In FY 2016/17, LID features will be constructed at Guenther and Euclid facilities. Features include pervious cover parking areas, rainfall cisterns and reuse of rainfall into on-site irrigation systems. Monitoring equipment will be installed and used to monitor BMP performance. Two educational events will be hosted using the demonstration sites. Funding to support this effort is being provided by an Environmental Protection Agency (EPA) grant, administered through the Texas Commission on Environmental Quality (TCEQ).

Of the total \$1,331,006 Adopted Budget, \$291,502 is estimated labor contribution through the River Authority General Fund.

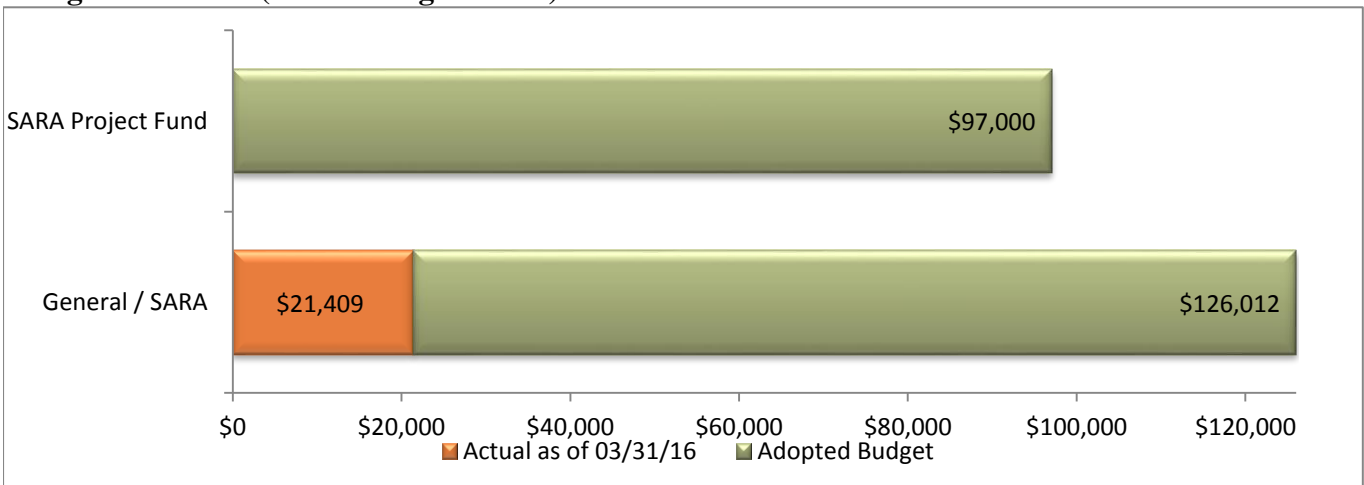
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2018/19</b>	<b>Succeeding from 2019/20</b>	<b>Total</b>
Personnel	\$ 96,032	\$ 195,470	\$ -	\$ -	\$ 291,502
Commodities	33,255	686,056	-	-	719,311
Contracts	240,359	79,834	-	-	320,193
<b>Total</b>	<b>\$ 369,647</b>	<b>\$ 961,359</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,331,006</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Olmos Creek Aquatic Ecosystem Restoration **Project #** 0458  
**Managing Department:** Environmental Sciences

	Adopted Budget:	\$	223,012
Project Start Date: 04/16/14	Unfunded Budget:	\$	99,000
Project Finish Date: 10/31/19	Total Project Budget:	\$	322,012

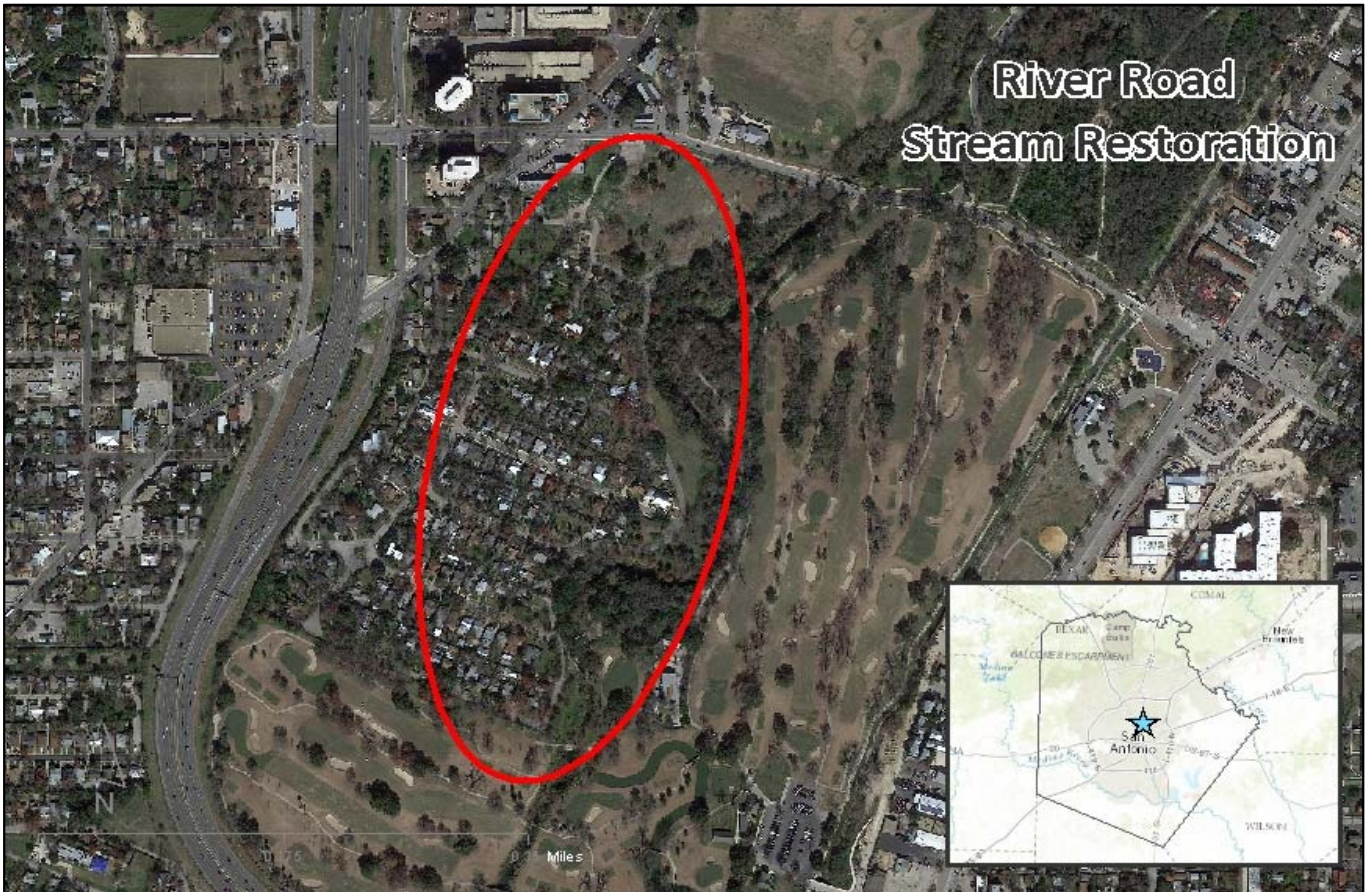
The Olmos Creek Aquatic Ecosystem project includes restoration of the aquatic and riparian habitat along three miles of Olmos Creek between San Pedro Avenue and Olmos Dam. The project will employ natural erosion control techniques, increase in-stream shade and increase native species biodiversity by restoring aquatic and riparian habitat throughout the corridor through the removal of invasive non-native species and planting of native grasses, shrubs and trees. This Federal project is managed by the United States Army Corps of Engineers (USACE) and the City of San Antonio serves as the Local Sponsor. Funding is provided by USACE, City of San Antonio, City of Alamo Heights and the River Authority.

This project advances watershed health and safety by restoring aquatic and riparian habitat along portions of Olmos Creek. The project also builds employee expertise through participation in the design process, project construction and maintenance during the establishment phase for aquatic ecosystem restoration along portions of Olmos Creek.

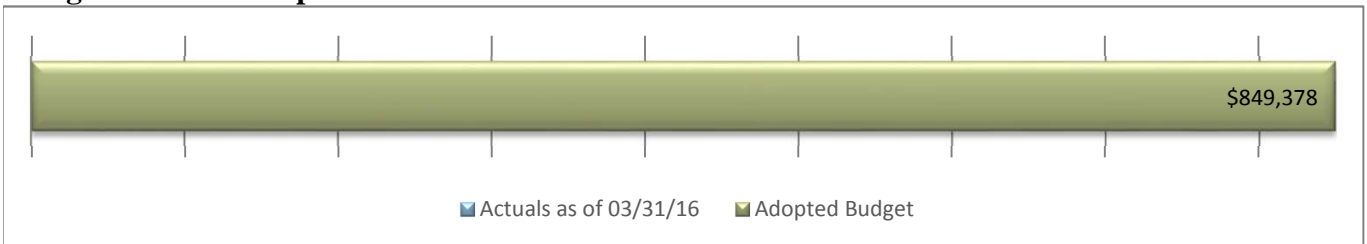
During FY 2016/17, the project will complete the design phase and begin construction.

Of the total \$223,012 Adopted Budget, \$124,472 is estimated labor contribution through the River Authority General Fund.

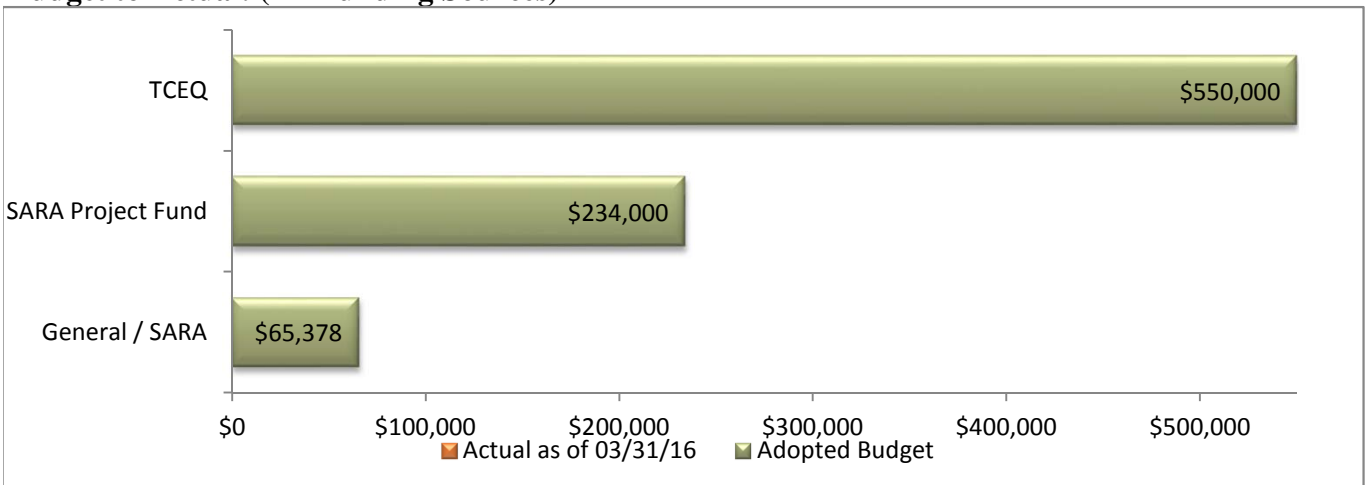
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 19,869	\$ 104,603	\$ 58,055	\$ 40,945	\$ 223,472
Commodities	127	17,000	-	-	17,127
Contracts	1,413	80,000	-	-	81,413
<b>Total</b>	<u>\$ 21,409</u>	<u>\$ 201,603</u>	<u>\$ 58,055</u>	<u>\$ 40,945</u>	<u>\$ 322,012</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** River Road Stream Restoration **Project #** 0530  
 Managing Department: Environmental Sciences/Watershed Engineering

	Adopted Budget:	\$	849,378
Project Start Date: 12/01/16	Unfunded Budget:	\$	67,289
Project Finish Date: 11/29/19	Total Project Budget:	\$	916,667

The San Antonio River Authority has applied for grant funding from the United States Environmental Protection Agency (USEPA) to support stream restoration as a stormwater BMP to address non-point source pollution. This project will design, construct, and monitor restoration of a section of the Upper San Antonio River from Mulberry to Woodlawn Streets. Using this demonstration project, training will be developed and delivered to educate resource managers, designers, and contractors how to plan, manage, design, construct, and maintain stream restoration and stormwater best management practices.

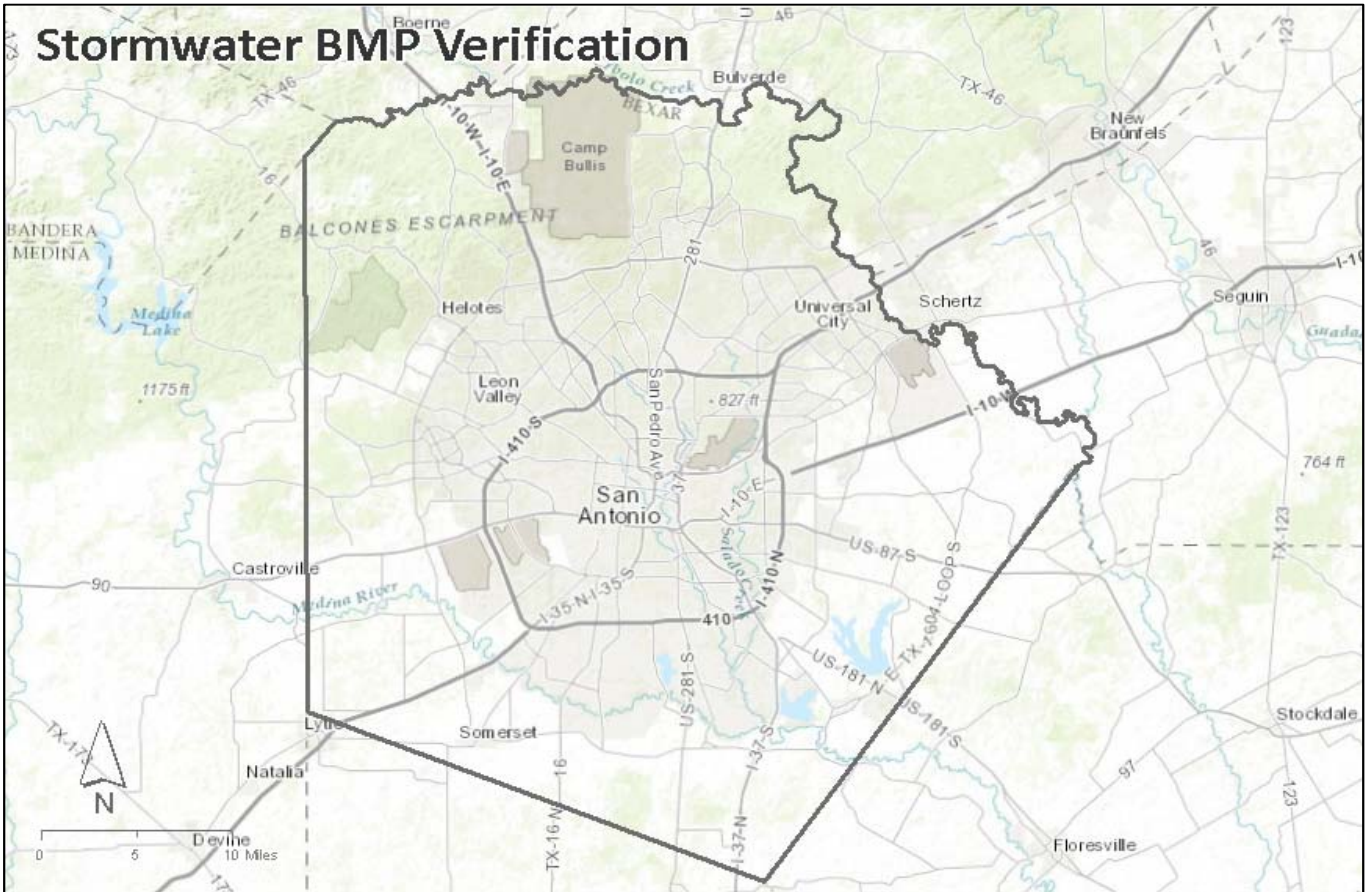
The project targets the strategic opportunity to demonstrate the importance of managing storm water quality for a healthy and vibrant community and the agency goal of advancing and applying our expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of our communities.

This fiscal year, the San Antonio River Authority will pursue funding for the project through the USEPA grant process. In this initial phase, the stream restoration and stormwater best management practices will be designed using natural channel design and low impact development techniques.

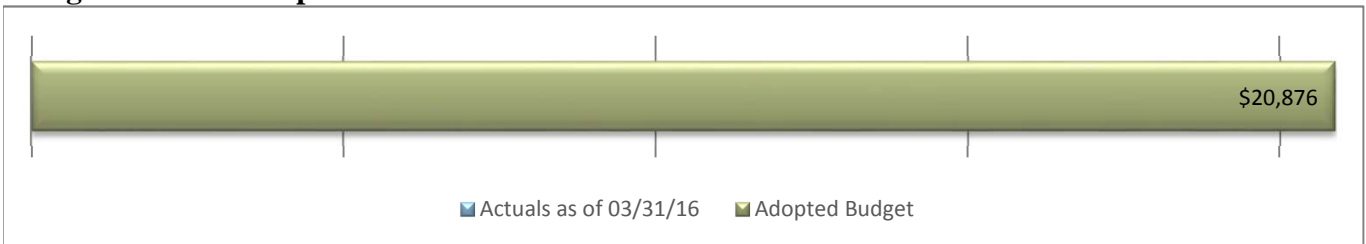
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 65,378	\$ 57,251	\$ 10,038	\$ 132,667
Commodities	-	74,000	-	-	74,000
Contracts	-	185,000	262,500	262,500	710,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 324,378</b>	<b>\$ 319,751</b>	<b>\$ 272,538</b>	<b>\$ 916,667</b>



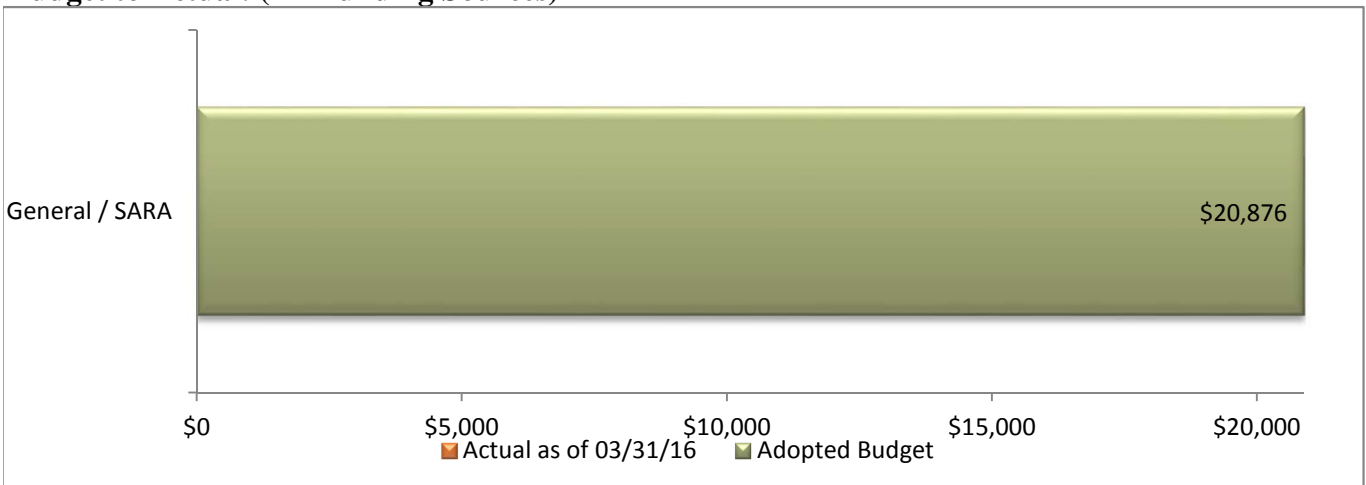
Verification



Budget to Actual: Expenditure



Budget to Actual: (All Funding Sources)



**Project Name:** Stormwater Best Management Practices (BMP) **Project #** 0543  
**Verification**

Managing Department: Environmental Sciences

		Adopted Budget:	\$	20,876
Project Start Date:	07/01/16	Unfunded Budget:	\$	-
Project Finish Date:	06/30/17	Total Project Budget:	\$	20,876

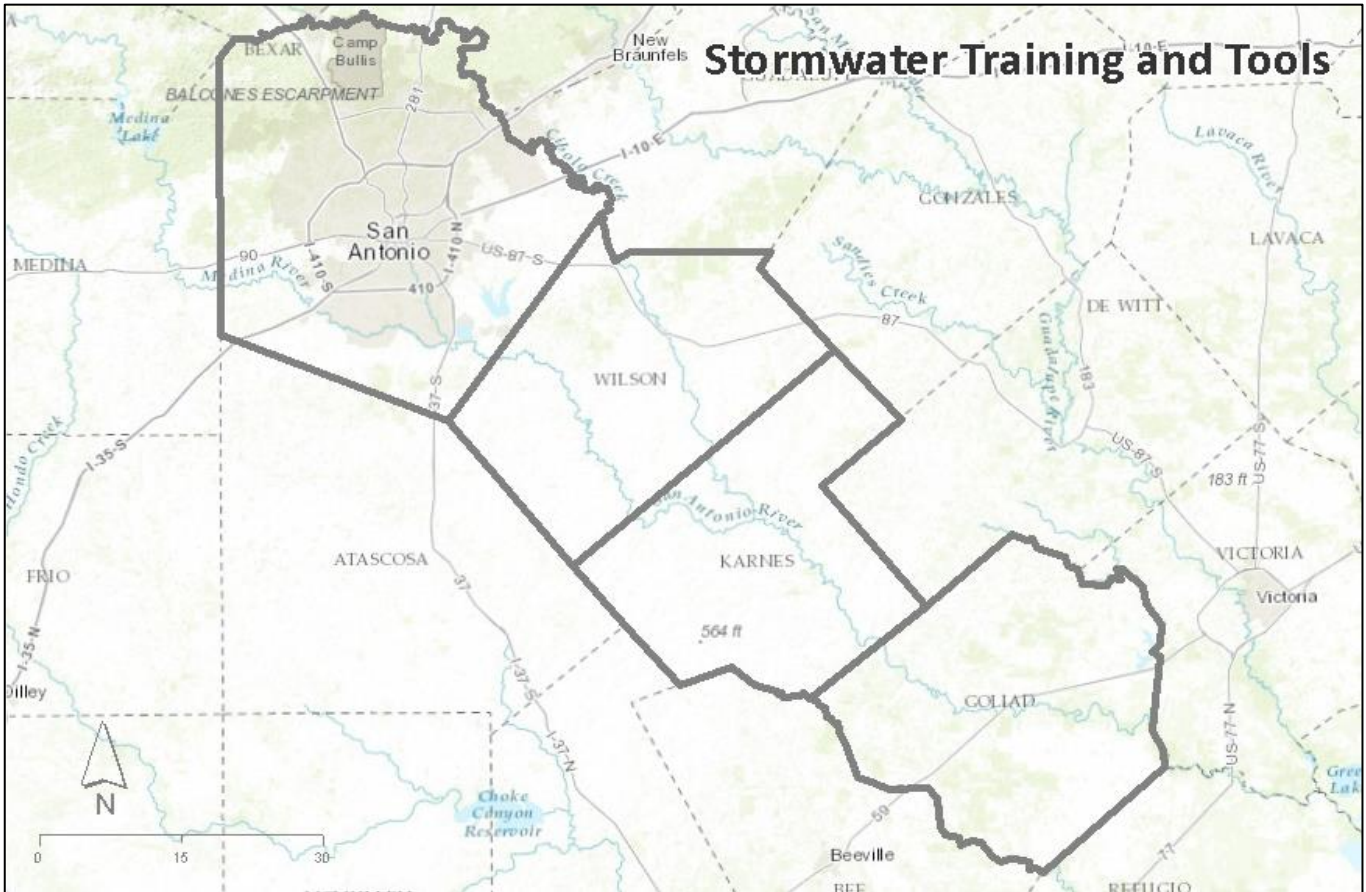
The Stormwater Best Management Practices (BMP) Verification project will update and verify the information for the River Authority’s “Big Green Map.” This information will advance the River Authority’s expertise and scientific knowledge of the watershed and will enhance the community’s understanding of stormwater management and water quality. The project will require ongoing coordination to update both the BMP data and the design and functionality of the map viewer tools and user interface.

This project will verify, update, and obtain information regarding approximately 450 stormwater best management practices (BMPs), including Low Impact Development (LID) features, identified on the River Authority’s “Big Green Map.” The “Big Green Map” is an interactive viewer designed to inform River Authority staff, and eventually the public, on the location and types of stormwater BMPs within the San Antonio River Basin. Much of the map’s information needs to be verified. Once verified, River Authority staff can promote use of the map viewer to stakeholders with the assurance that the information is accurate.

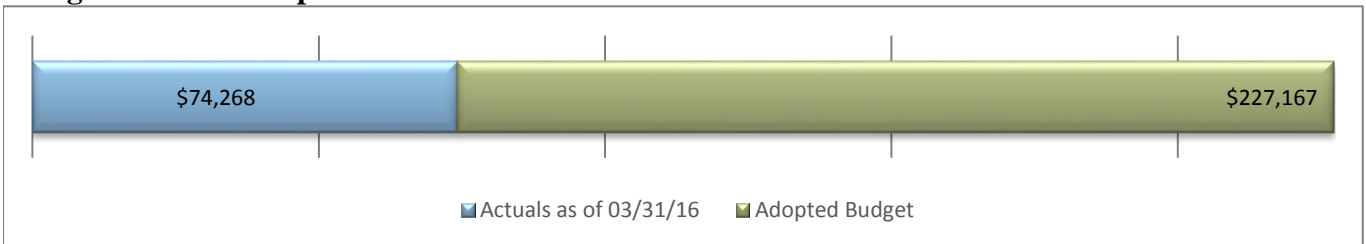
In FY 2016/17, the project will conduct field analysis, verify the location, size, type and functionality of the BMPs in the system, and add new BMPs not currently listed in the map viewer. Staff will also focus on enhancing the tools and functionality within the map viewer and will add other relevant datasets.

Of the total \$20,876 Adopted Budget, all is estimated labor contribution through the River Authority General Fund.

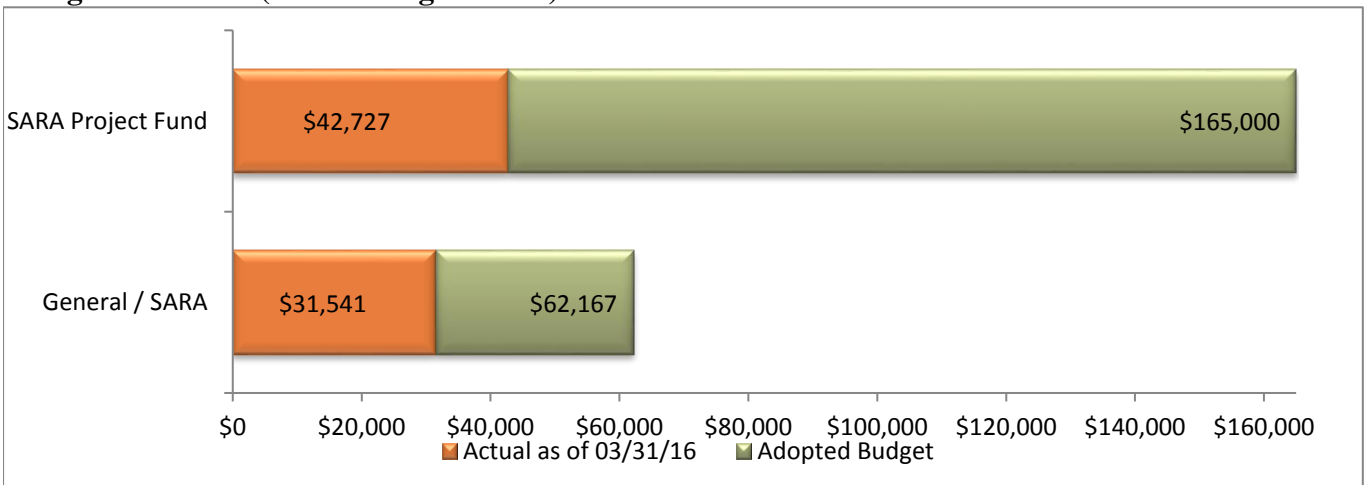
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 20,876	\$ -	\$ -	\$ 20,876
Commodities	-	-	-	-	-
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ -</u>	<u>\$ 20,876</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 20,876</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Stormwater Training and Tools **Project #** 0514  
 Managing Department: Environmental Sciences

	Adopted Budget:	\$	227,167
Project Start Date: 07/01/15	Unfunded Budget:	\$	-
Project Finish Date: 12/31/16	Total Project Budget:	\$	227,167

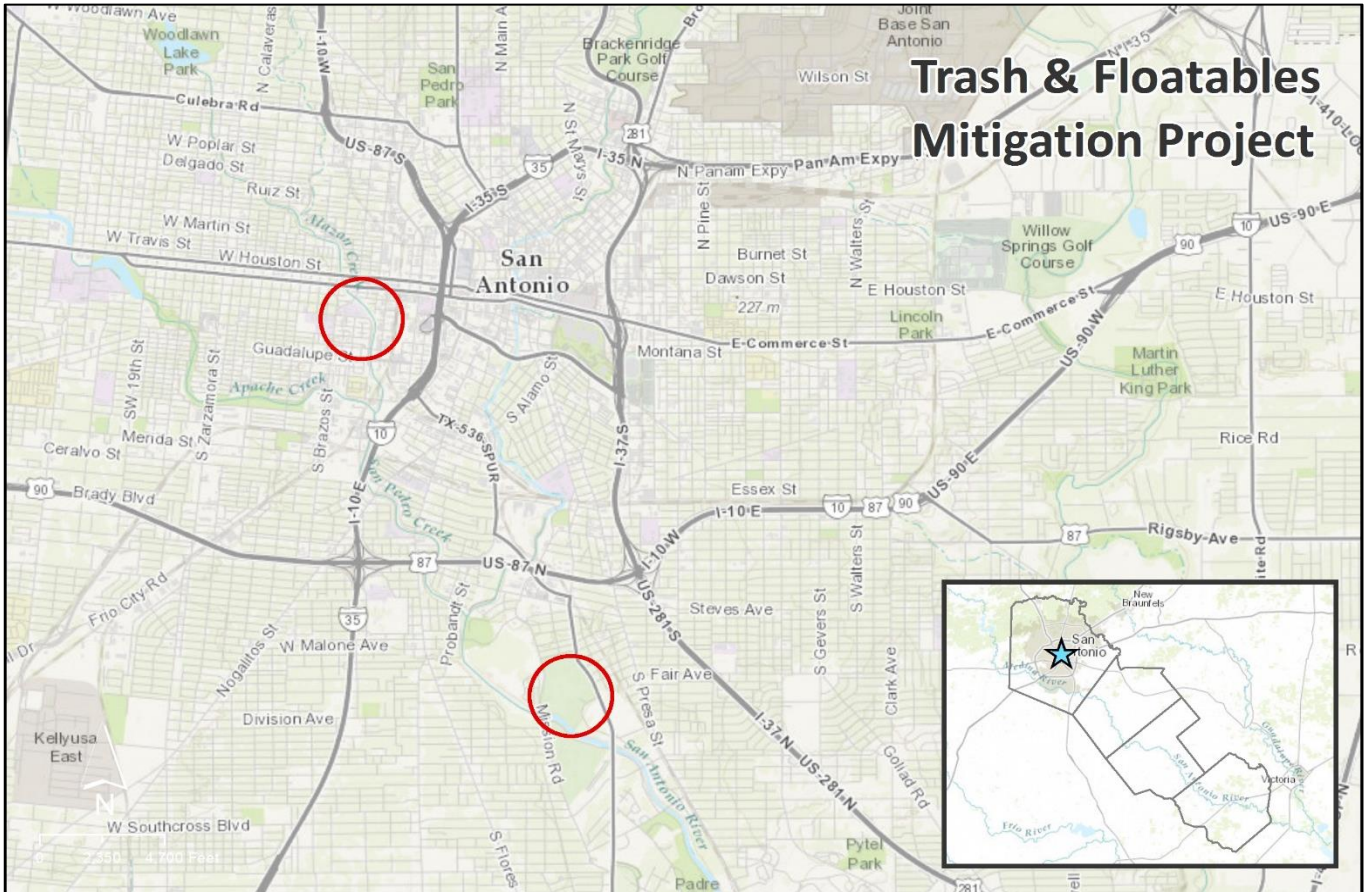
This project educates and provides design tools on managing stormwater runoff through the use of Low Impact Development (LID) stormwater best management practices (BMPs). LID certification training and design tools to guide and expedite LID design will be provided to government agencies; the private design and development community; installers; maintenance and contracting personnel; and staff. The training and design tools will equip individuals with information to better design, construct, and maintain LID BMPs. The LID Design Guidance Manual, previously developed by the River Authority to facilitate the LID design process, will be used in the training and as a tool.

The project advances the goal of implementing watershed solutions by advancing and applying staff expertise to influence, develop and implement Low Impact Development training and tools for managing stormwater.

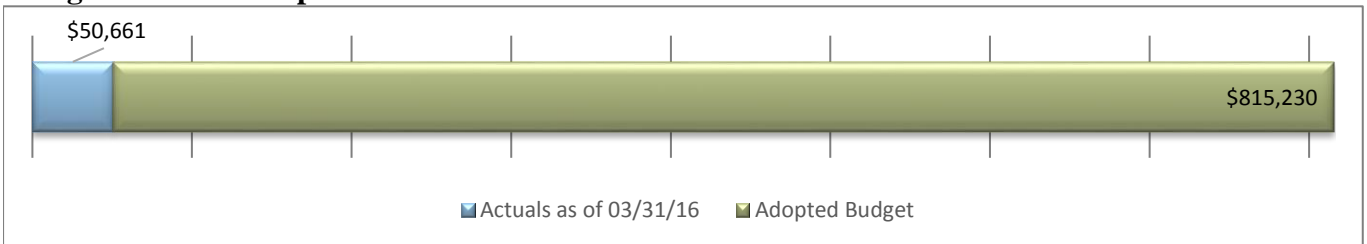
In FY 2016/17, this project will fund stormwater BMP training for installers. In addition, this project includes the LID Registration and Certification training courses created through a River Authority/Bexar County partnership to train construction inspectors and maintenance contractors. The project also funds professional services to facilitate a public process to update the San Antonio River Basin LID Technical Design Guidance Manual.

Of the total \$227,167 Adopted Budget, \$62,167 is estimated labor contribution through the River Authority General Fund.

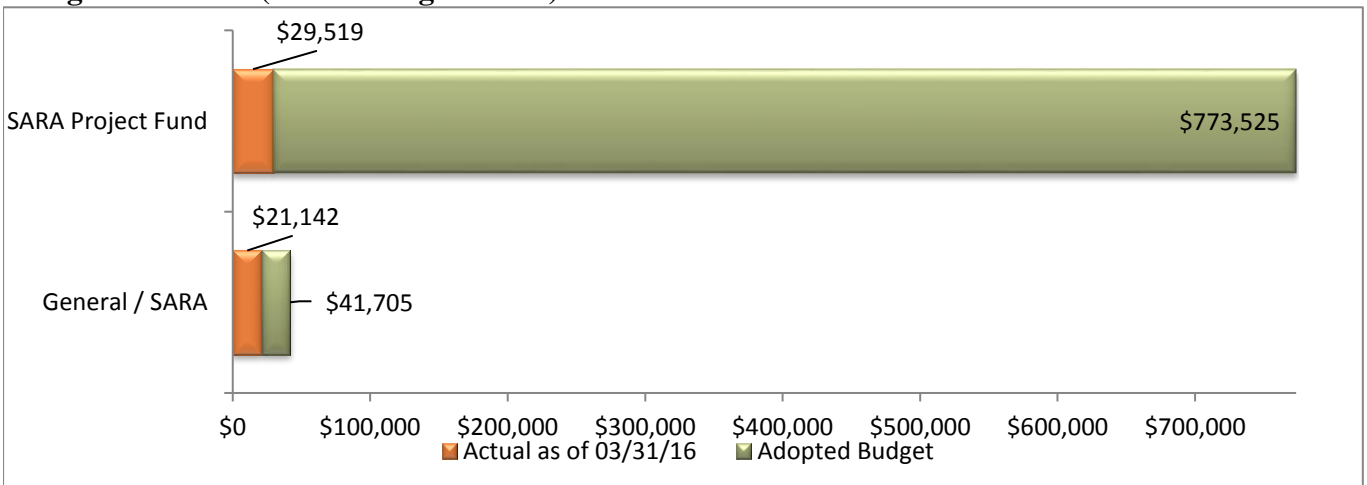
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 31,541	\$ 30,626	\$ -	\$ -	\$ 62,167
Commodities	1,005	41,878	-	-	42,883
Contracts	41,721	80,396	-	-	122,117
<b>Total</b>	<b>\$ 74,268</b>	<b>\$ 152,899</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 227,167</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Trash and Floatables Mitigation **Project #** 0515  
**Managing Department:** Environmental Sciences

	Adopted Budget:	\$	815,230
Project Start Date: 07/01/15	Unfunded Budget:	\$	-
Project Finish Date: 01/31/17	Total Project Budget:	\$	815,230

The Trash and Floatables Mitigation project will build on recent trash and floatable studies within the San Antonio River Basin and will result in the implementation of an in-stream trash collection system.

Trash and floatables are unsightly and require extensive labor by local government agencies and community volunteers to remove trash by hand. Trash and floatables also have adverse impacts on aquatic and riparian habitats and impede recreational use of local parks and waterways. By centralizing the collection of trash that is carried by stormwater runoff, this project will enhance the health, aesthetics, and recreational use of the creeks and rivers.

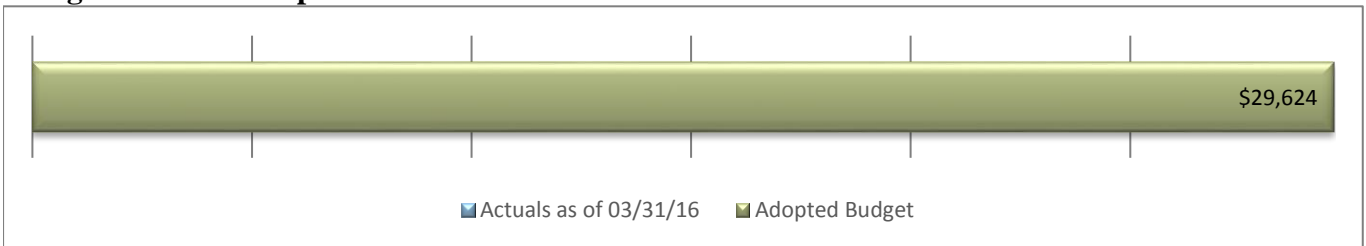
During FY 2016/17, the project will construct two trash collection systems, one on Riverside Creek by Riverside Golf Course and the other on Alazan Creek between South Colorado and El Paso streets.

Of the total \$815,230 Adopted Budget, \$41,581 is estimated labor contribution through the River Authority General Fund.

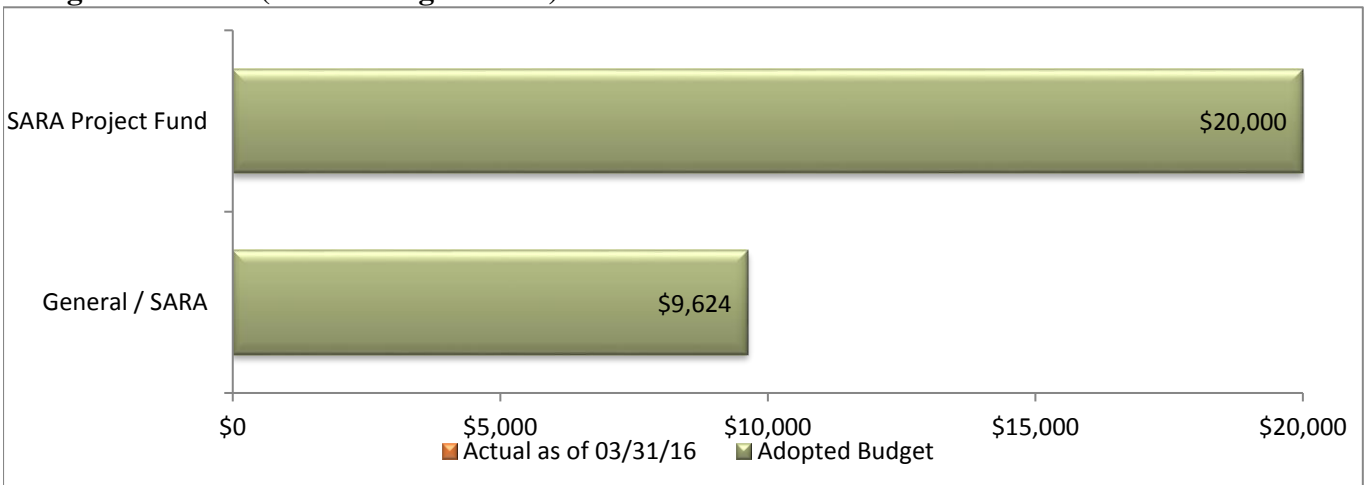
<b>Expenditures</b>	<u>Actuals as of March 31, 2016</u>	<u>April 2016 to June 2017</u>	<u>2017/18</u>	<u>Succeeding from 2018/19</u>	<u>Total</u>
Personnel	\$ 21,018	\$ 20,563	\$ -	\$ -	\$ 41,581
Commodities	2,273	85,000	-	-	87,273
Contracts	<u>27,370</u>	<u>659,006</u>	<u>-</u>	<u>-</u>	<u>686,376</u>
<b>Total</b>	<b>\$ 50,661</b>	<b>\$ 764,570</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 815,230</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Trash and Floatables Mitigation - Olmos Creek **Project #** 0554  
**Managing Department:** Watershed Engineering

	Adopted Budget:	\$	29,624
Project Start Date: 07/01/16	Unfunded Budget:	\$	656,308
Project Finish Date: 06/30/18	Total Project Budget:	\$	685,932

The Trash and Floatables Mitigation - Olmos Creek project will build on a number of recent trash and floatable studies within the San Antonio River Basin and will support our partnership on the Olmos Creek Ecosystem Restoration project.

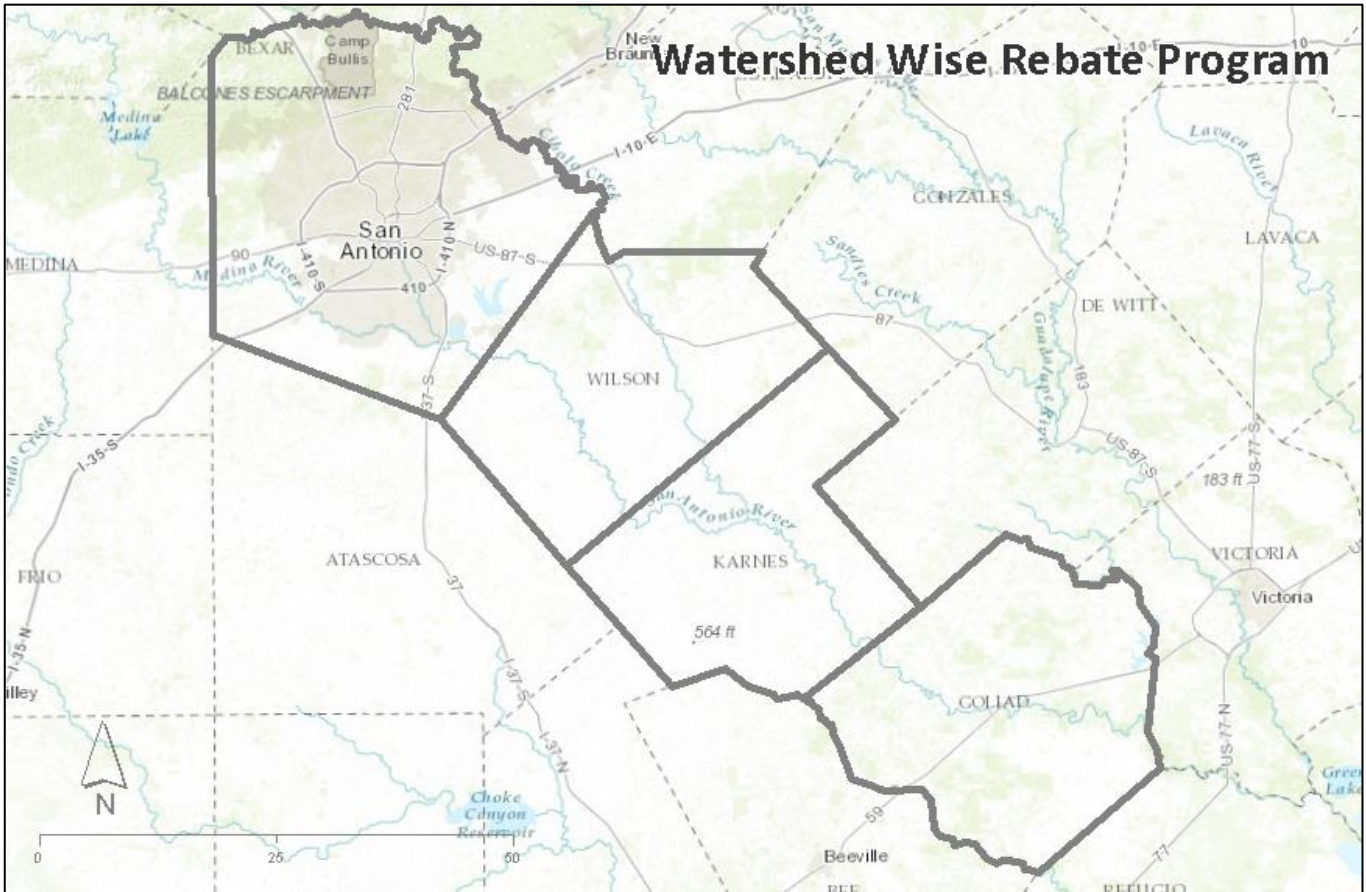
Trash and floatables are unsightly and require extensive government labor resources and local volunteers to remove the trash. Trash and floatables also have adverse impacts on aquatic and riparian habitats and impede recreational use of our local parks and waterways. San Antonio River Authority is responsible for the maintenance of the ecosystem project through the establishment phase. Managing trash through this trash mitigation project will make the restoration and maintenance work more effective.

During fiscal year 2016/17, the project will analyze locations and trash collection systems in the Olmos Creek.

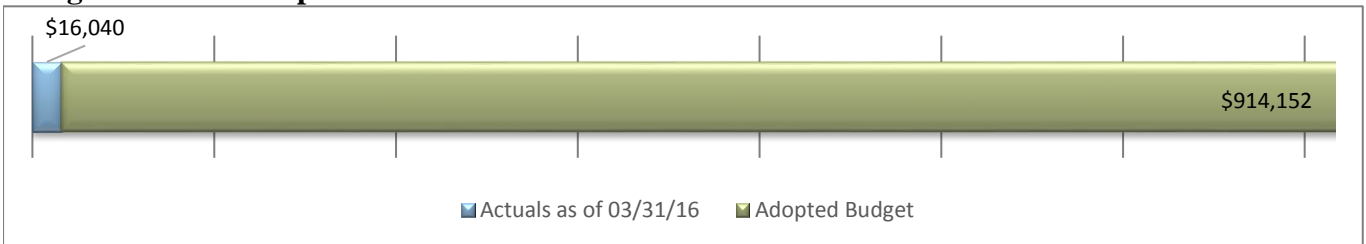
Of the total \$29,624 Adopted Budget, \$9,624 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 9,624	\$ 41,373	\$ -	\$ 50,997
Commodities	-	-	49,935	-	49,935
Contracts	-	20,000	565,000	-	585,000
<b>Total</b>	<u>\$ -</u>	<u>\$ 29,624</u>	<u>\$ 656,308</u>	<u>\$ -</u>	<u>\$ 685,932</u>

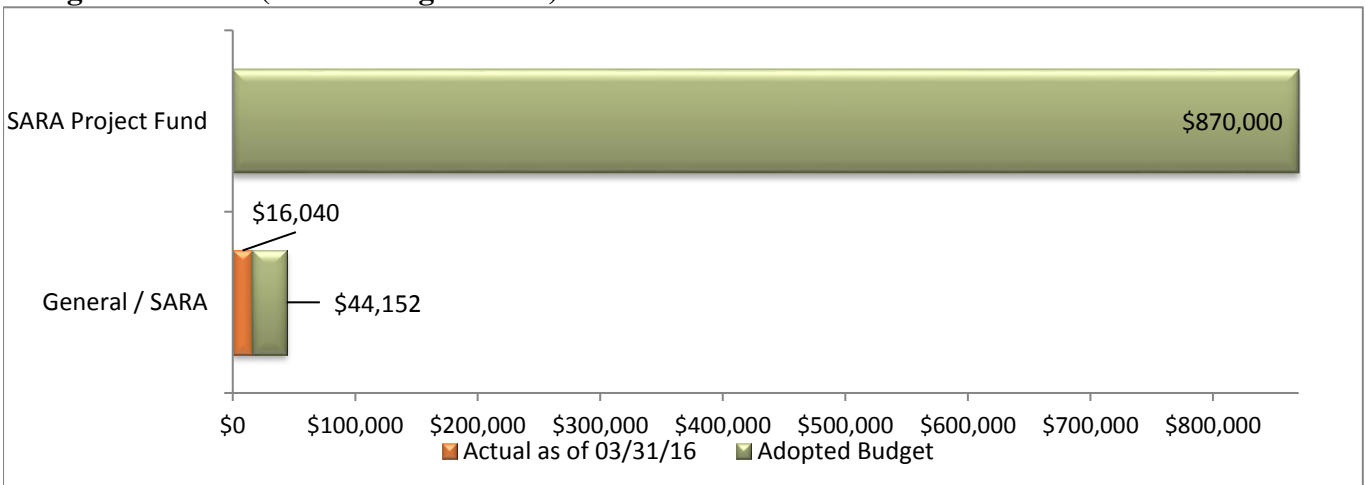




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Watershed Wise Rebate Program**

**Project # 0513**

Managing Department: Environmental Sciences

Project Start Date:	07/01/15	Adopted Budget:	\$ 914,152
Project Finish Date:	06/30/18	Unfunded Budget:	\$ 1,575,195
		Total Project Budget:	\$ 2,489,347

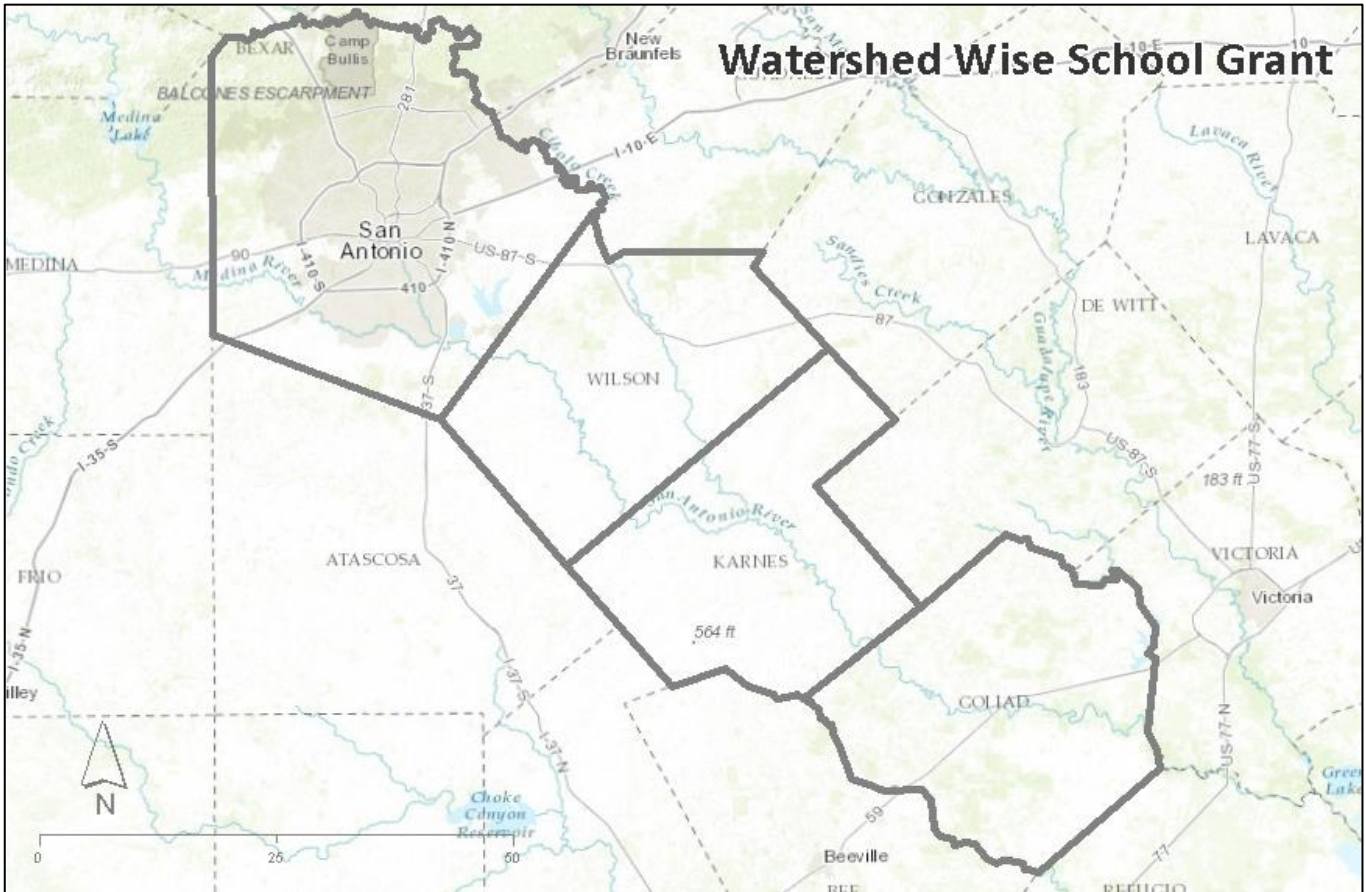
Low Impact Development (LID) is a new concept for many developers and design professionals. To provide an incentive for developers and designers to learn about and to incorporate LID into their design plans, the River Authority developed a rebate program. Through this program, the River Authority will assist in covering LID costs where those costs reflect an increase over traditional design requirements.

This project complements and enhances the results of the new requirements included in the City of San Antonio’s 2015 Unified Development Code (UDC) and is an effective tool by which to generate improvements to the health of the creeks and rivers.

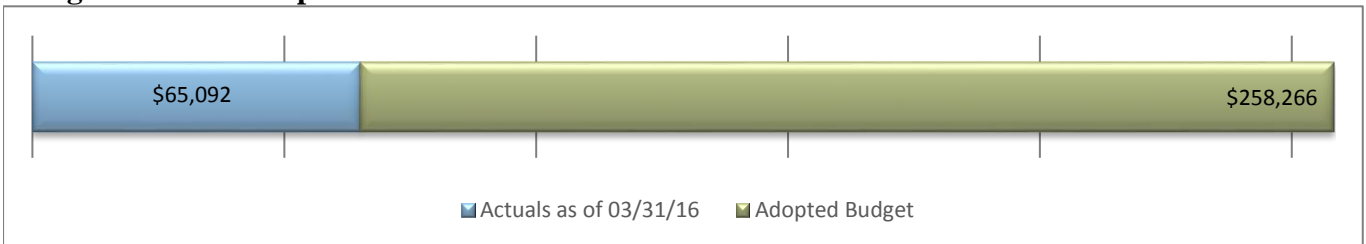
During FY 2016/17, the River Authority will promote the rebate program, accept, evaluate and award rebates where LID is incorporated in the design plans.

Of the total \$914,152 Adopted Budget, \$44,152 is estimated labor contribution through the River Authority General Fund.

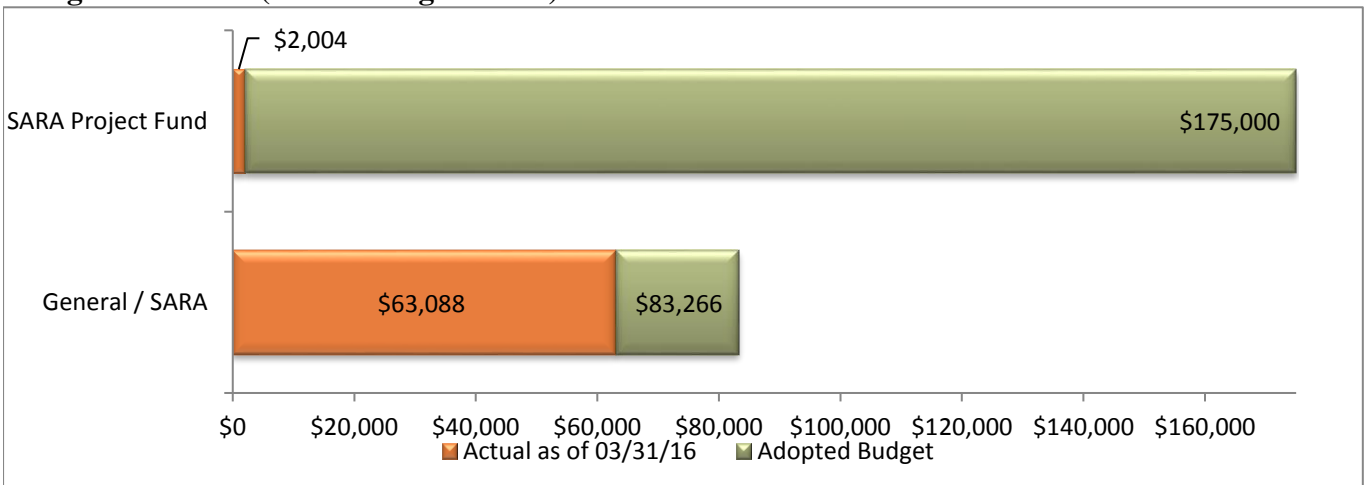
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 16,040	\$ 28,112	\$ 23,243	\$ 48,952	\$ 116,347
Commodities	-	870,000	501,000	1,002,000	2,373,000
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 16,040</u>	<u>\$ 898,112</u>	<u>\$ 524,243</u>	<u>\$ 1,050,952</u>	<u>\$ 2,489,347</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Watershed Wise School Grant**  
 Managing Department: Environmental Sciences

**Project # 0474**

	Adopted Budget:	\$	258,266
Project Start Date: 10/31/14	Unfunded Budget:	\$	345,361
Project Finish Date: 09/30/17	Total Project Budget:	\$	603,627

Up to \$22,000 each will be provided to three schools in the four counties served by the River Authority to design and build a rain garden or select other green infrastructure best management practices for on-site stormwater management. The winning schools are responsible for operation and maintenance of the installed green infrastructure.

In its third year, this project provides an educational demonstration of watershed solutions with an emphasis on managing stormwater quality to enhance local creeks and rivers.

FY 2016/17, this project will provide green infrastructure design and installation on three school campuses.

Of the total \$258,266 Adopted Budget, \$35,348 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 15,170	\$ 20,178	\$ 14,603	\$ 30,758	\$ 80,708
Commodities	49,922	172,996	100,000	200,000	522,918
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ 65,092</u>	<u>\$ 193,174</u>	<u>\$ 114,603</u>	<u>\$ 230,758</u>	<u>\$ 603,627</u>



SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

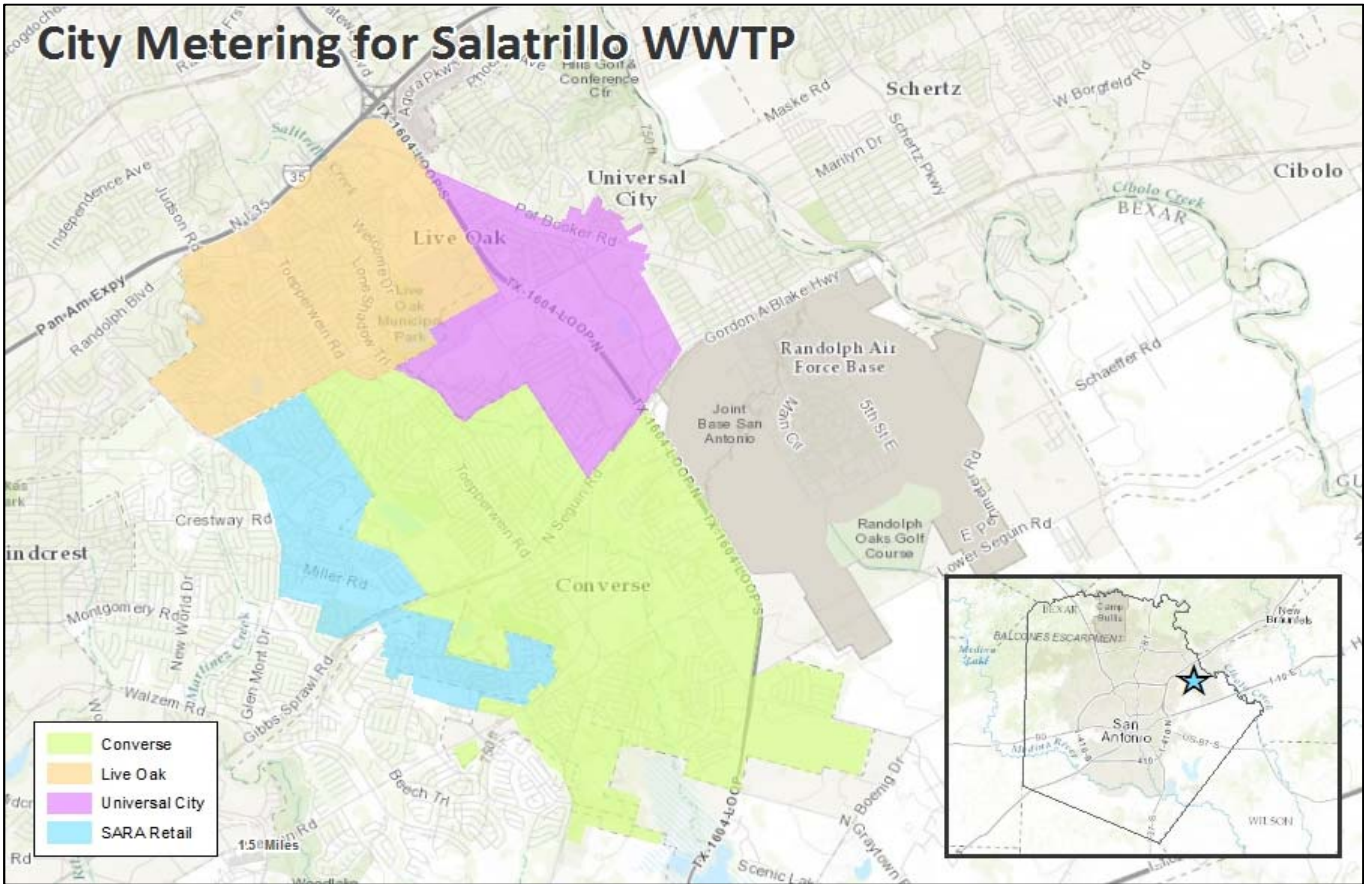


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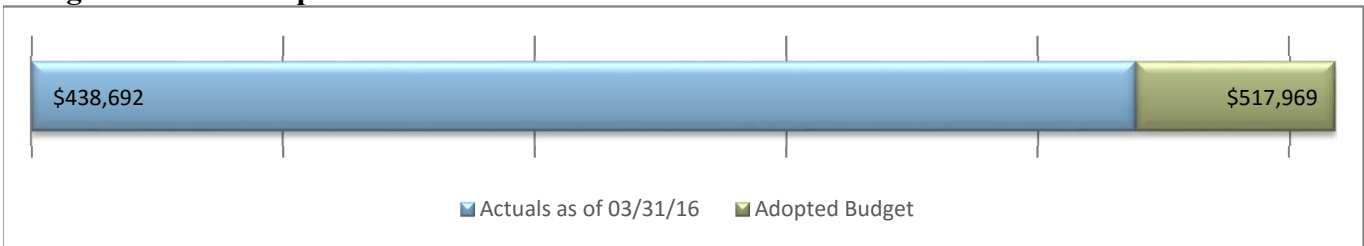
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RIVER AUTHORITY

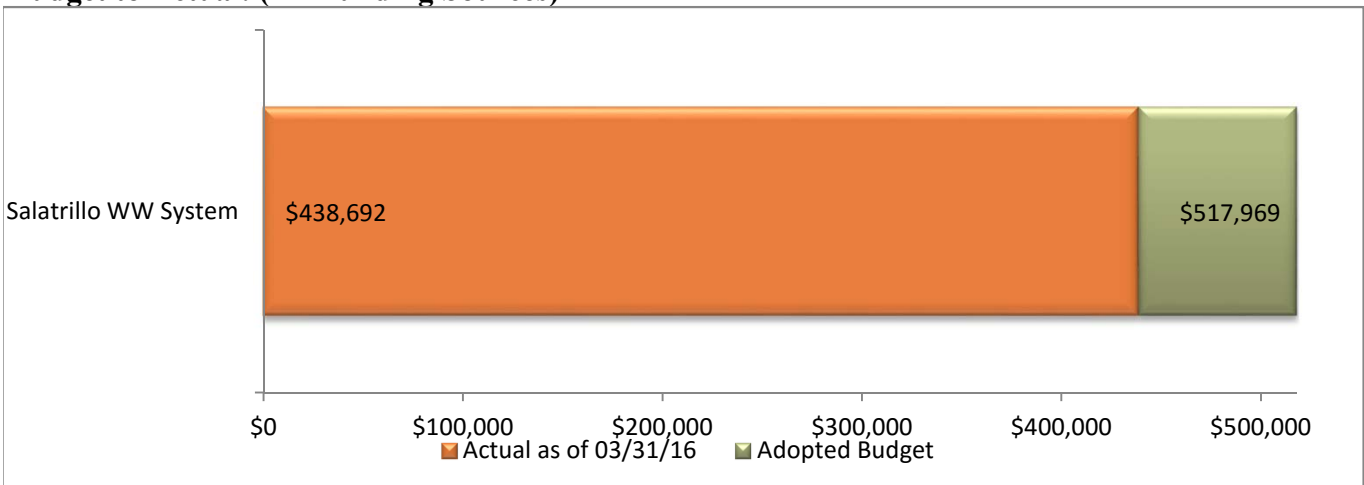
Leaders in Watershed Solutions



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: City Metering for Salatrillo Wastewater Treatment Plant**

**Project # 0251**

Managing Department: Utilities

Project Start Date:	11/01/10	Adopted Budget:	\$ 517,969
Project Finish Date:	06/30/17	Unfunded Budget:	\$ -
		Total Project Budget:	\$ 517,969

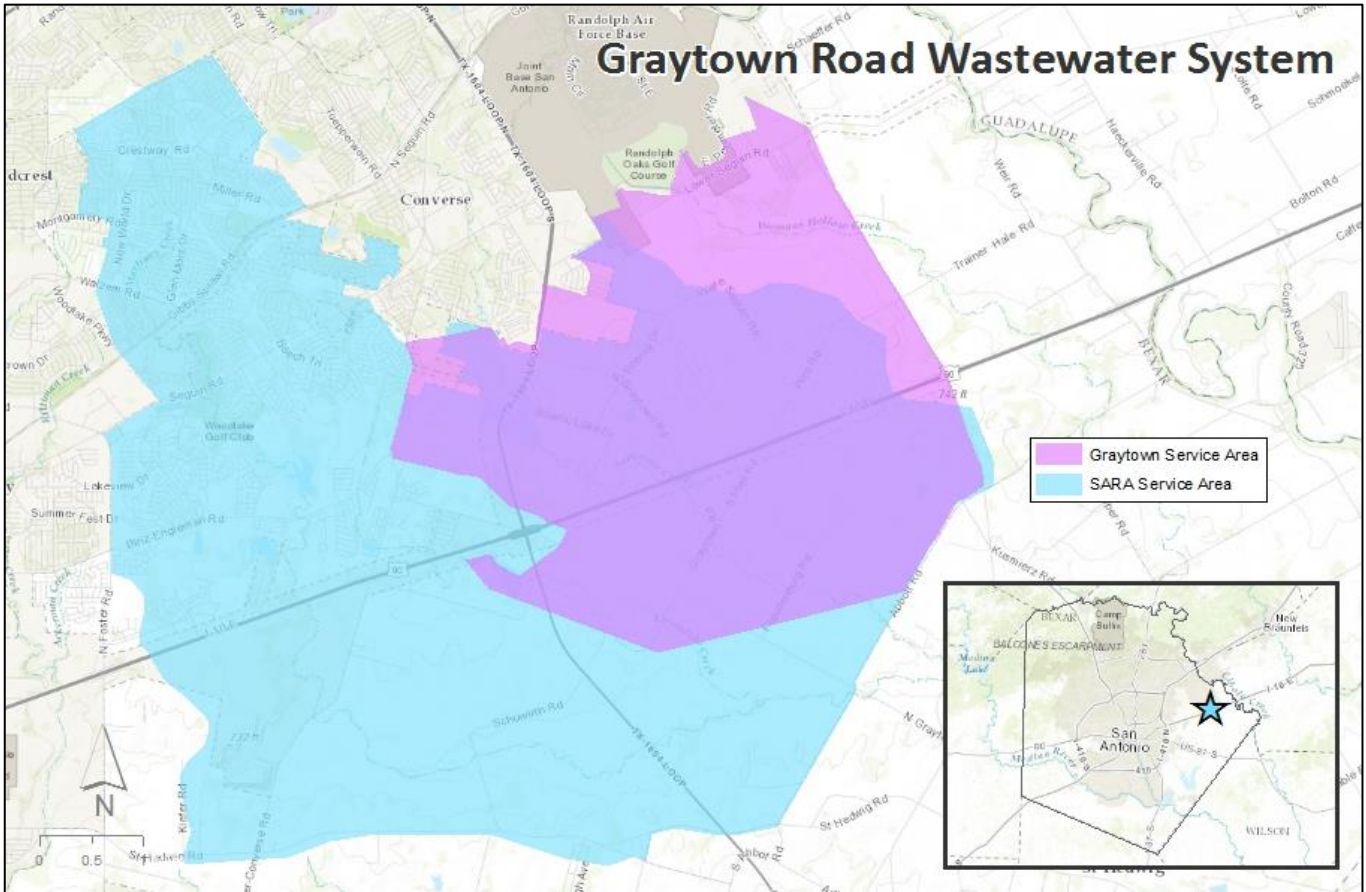
The River Authority installed meters to measure the actual wastewater flows coming from each of the cities of Universal City, Live Oak and Converse served by the Salatrillo wastewater system. The meters show not only flow rates but also any inflow or infiltration problems coming from the collection infrastructure of each city as well as River Authority facilities. In FY 2014/15, sufficient rain events occurred to begin measuring inflow and infiltration. During FY 2015/16, the River Authority worked with the cities of Universal City, Live Oak and Converse to share the data generated by the meters.

This information will be used to help identify and address inflow and infiltration issues which advances the goals of implementing watershed solutions and working with the River Authority’s partner cities, diversifying and leveraging funding.

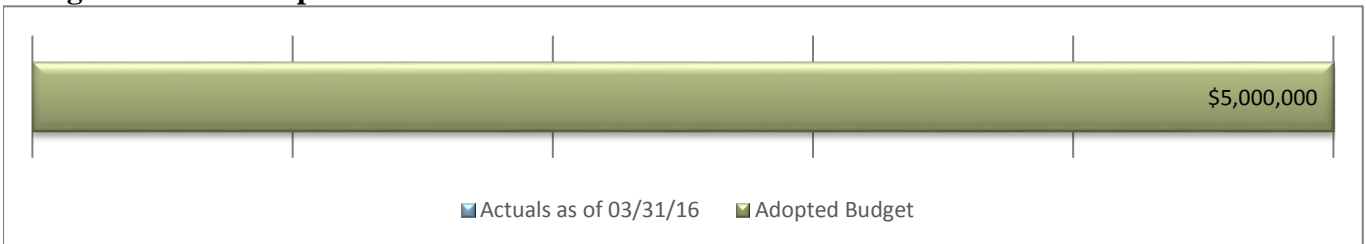
In FY 2016/17, the River Authority will continue to monitor meters to show any inflow or infiltration problems coming from these cities and River Authority facilities and work with each city to develop a plan for system improvements to reduce inflow and infiltration.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 113,672	\$ 9,727	\$ -	\$ -	\$ 123,399
Commodities	-	-	-	-	-
Contracts	325,020	69,550	-	-	394,570
<b>Total</b>	<u>\$ 438,692</u>	<u>\$ 79,277</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 517,969</u>

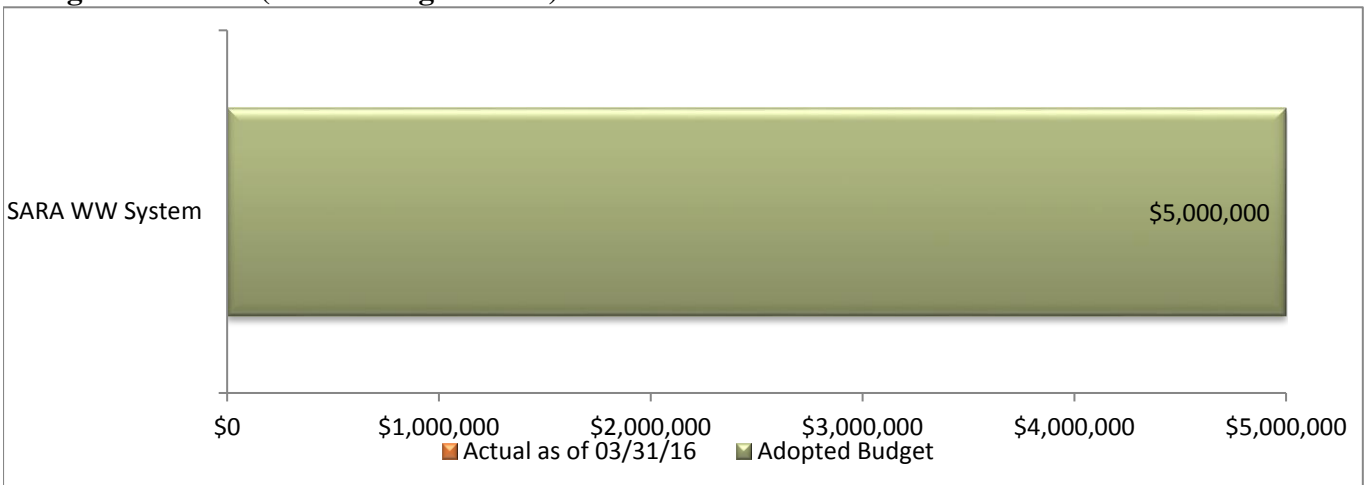




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Graytown Road Wastewater System** **Project # 0107**  
 Managing Department: Utilities

	Adopted Budget:	\$ 5,000,000
Project Start Date: 07/01/16	Unfunded Budget:	\$ -
Project Finish Date: 06/30/20	Total Project Budget:	\$ 5,000,000

The Graytown Road Wastewater System service area has received wastewater service from the Martinez III Wastewater Treatment Plant (WWTP), a temporary package treatment plant with a treatment capacity of 150,000 gallons per day (GPD). This temporary package plant is nearing capacity and with continued residential growth, it has become necessary to implement the design and construction of the Graytown Road WWTP.

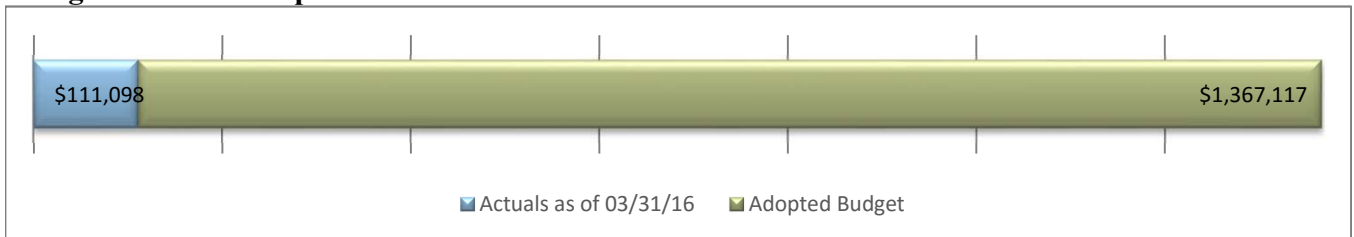
This project supports the agency goals and annual objectives, specifically for advancing watershed health and safety by ensuring that there is sufficient wastewater treatment capacity to maintain high water quality levels in the San Antonio River Basin. The system’s collection system has been constructed in segments with Phase IIa (segments 1 – 6) constructed in FY 2008/09 and Phase III (segments 11 – 12) constructed in FY 2013/14.

For FY 2016/17, the first phase (Phase IV) of the new 250,000 GPD treatment plant will be budgeted for final design and construction. The overall final permitted flow rate for the system is 2.0 million gallons per day (MGD).

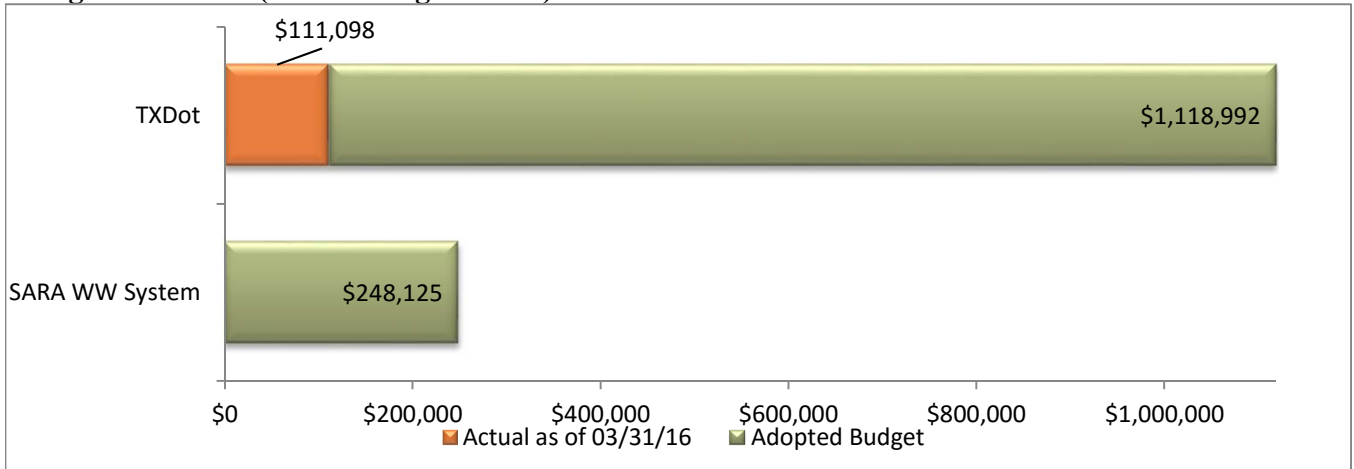
<b>Expenditures</b>	<b>Actuals as of <u>March 31, 2016</u></b>	<b>April 2016 to <u>June 2017</u></b>	<b><u>2017/18</u></b>	<b>Succeeding from <u>2018/19</u></b>	<b><u>Total</u></b>
Personnel	\$ -	\$ 87,678	\$ 86,911	\$ -	\$ 174,589
Commodities	-	1,000	-	-	1,000
Contracts	-	3,000,000	1,824,411	-	4,824,411
<b>Total</b>	<b>\$ -</b>	<b>\$ 3,088,678</b>	<b>\$ 1,911,322</b>	<b>\$ -</b>	<b>\$ 5,000,000</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: IH 10 Martinez II Wastewater Line Relocation Project**

**Project # 0522**

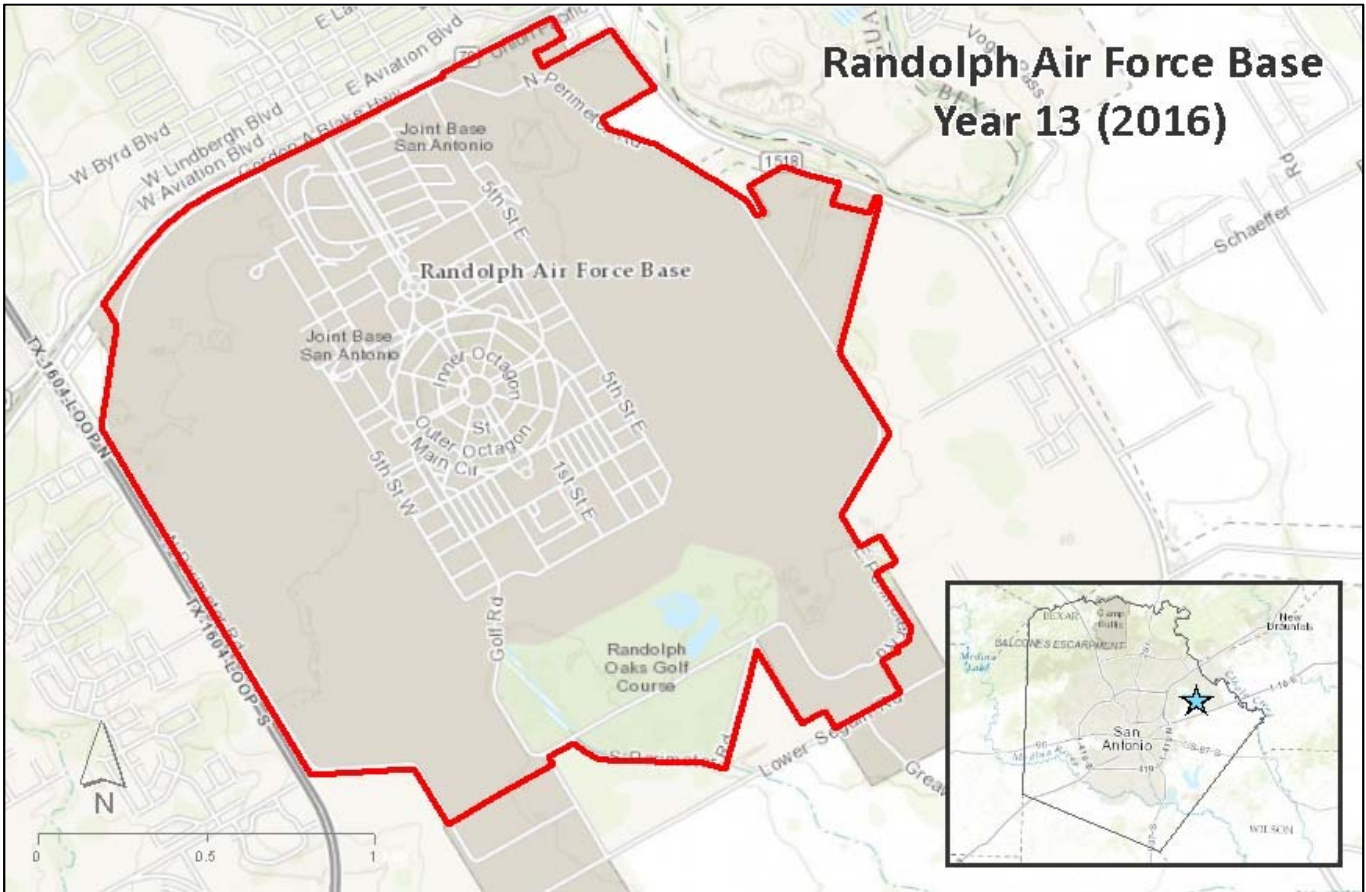
Managing Department: Utilities

Project Start Date:	07/01/15	Adopted Budget:	\$ 1,367,117
Project Finish Date:	12/30/16	Unfunded Budget:	\$ -
		Total Project Budget:	\$ 1,367,117

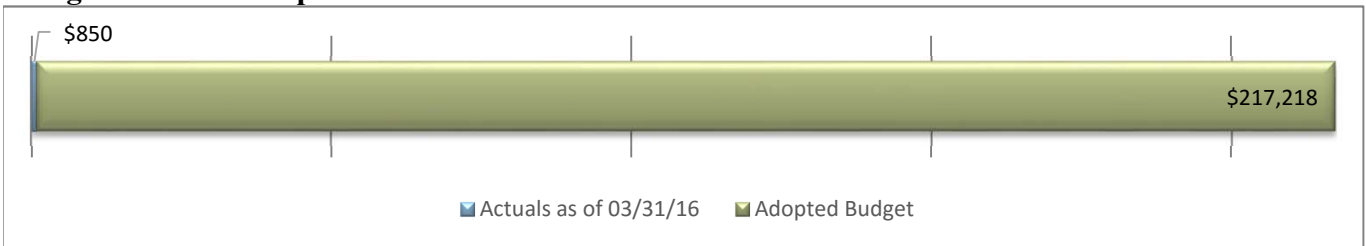
This project will relocate approximately 1,800 feet of 21 inch diameter wastewater line located along Interstate Highway (IH) 10 in the Texas Department of Transportation (TxDOT) right of way, between Martinez Creek and FM 1516. TxDOT is making improvements to IH 10 requiring the line to be moved into private easements. The River Authority will be reimbursed by TxDOT for the design and construction expenses. However, all right-of-way acquisition costs are the responsibility of the SARA Wastewater System.

In FY 2016/17, the existing wastewater line will be relocated and replaced to respond to the TxDOT project and the growing demands for wastewater service in this area.

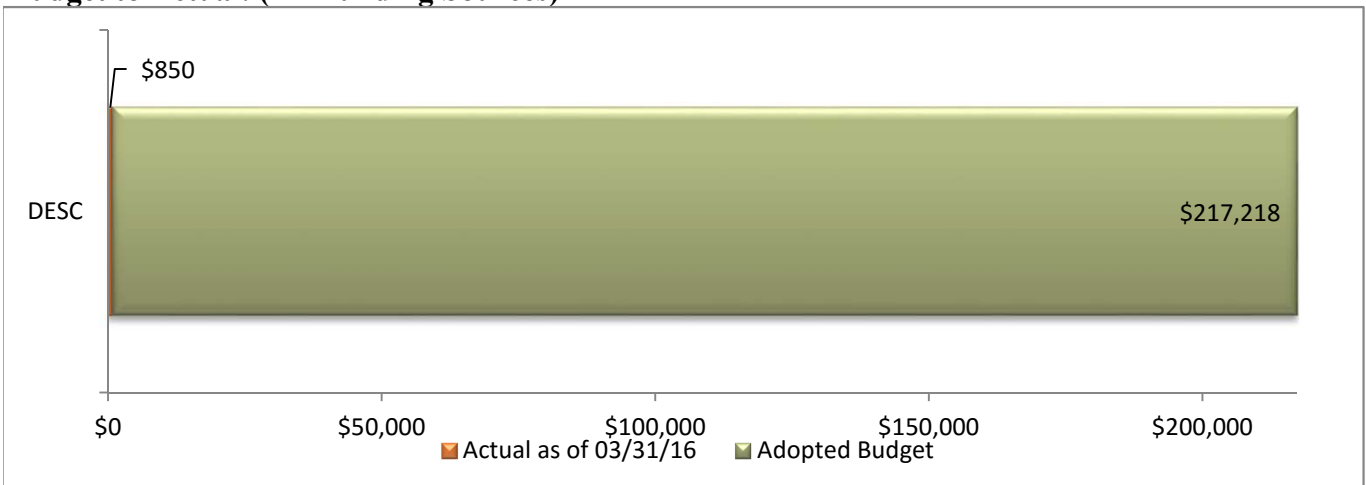
<b>Expenditures</b>	Actuals as of <u>March 31, 2016</u>	April 2016 to <u>June 2017</u>	<u>2017/18</u>	Succeeding from <u>2018/19</u>	<u>Total</u>
Labor	\$ 12,950	\$ 136,055	\$ -	\$ -	\$ 149,005
Commodities	-	727,000	-	-	727,000
Contracts	98,148	392,964	-	-	491,112
<b>Total</b>	<u>\$ 111,098</u>	<u>\$ 1,256,019</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,367,117</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Randolph Air Force Base Year 13 (2016) **Project #** 0489  
**Managing Department:** Utilities

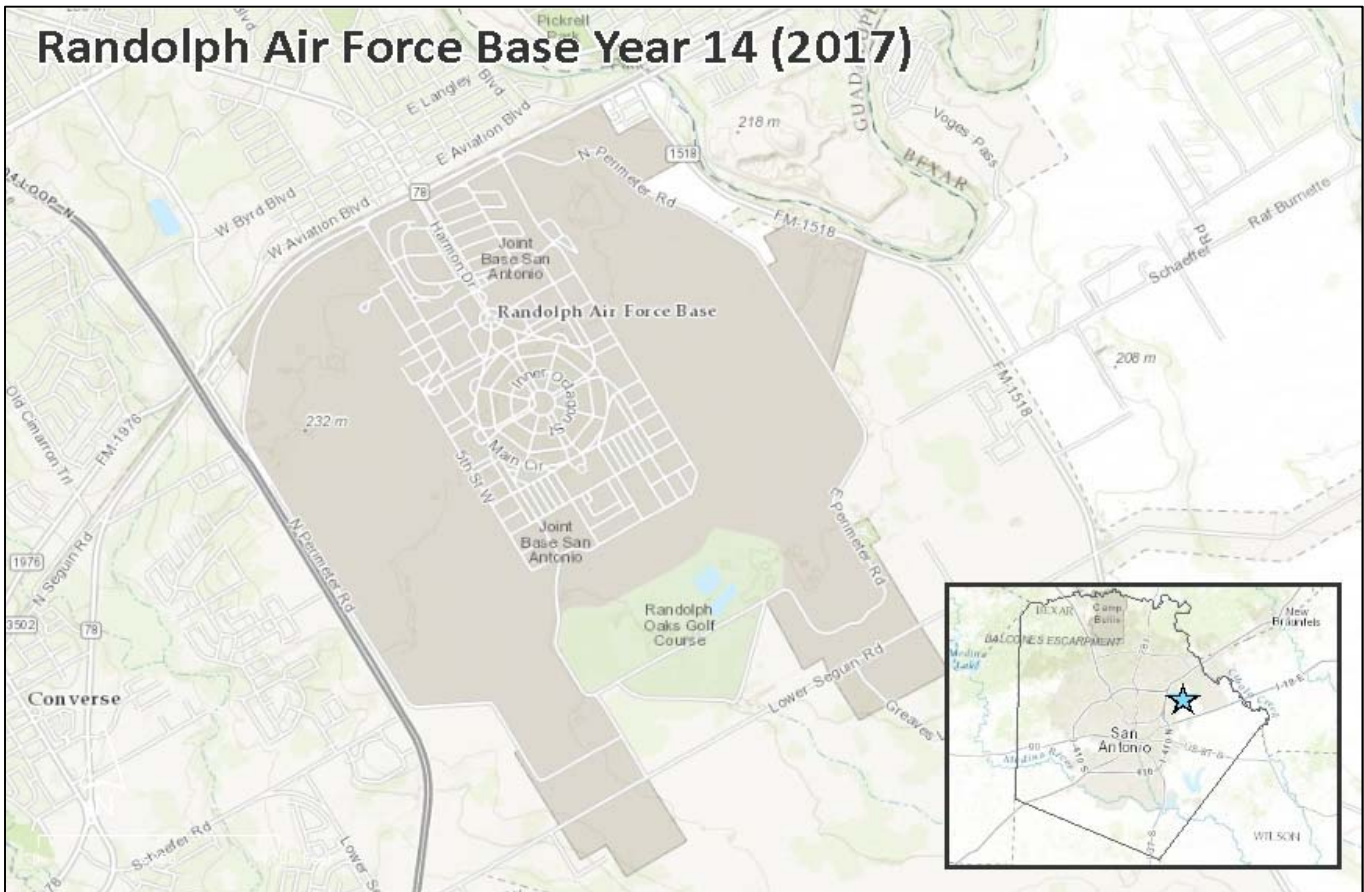
	Adopted Budget:	\$	217,218
Project Start Date: 07/01/15	Unfunded Budget:	\$	-
Project Finish Date: 09/30/16	Total Project Budget:	\$	217,218

This project consists of rehabilitating portions of the Randolph Air Force Base (RAFB) wastewater collection system based on a 50 year plan. The River Authority, working with a contractor, re-assesses the sewer lines by Closed Circuit Television (CCTV) to identify lateral locations that are in poor condition and determine the best type of rehabilitation. Repairs and improvements are then completed for the identified line, and the manholes involved are coated.

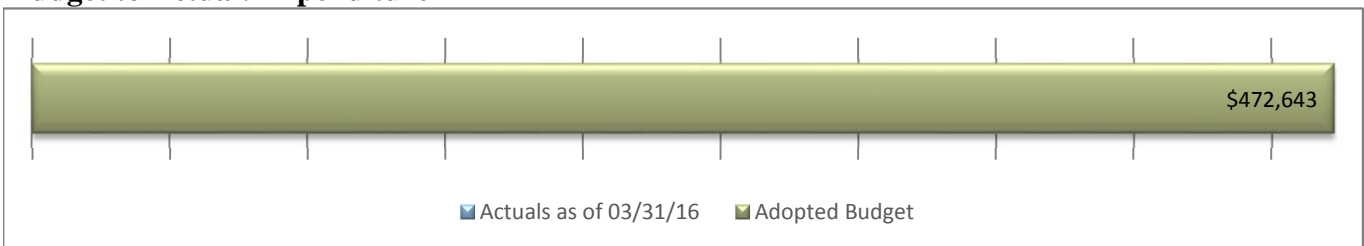
In FY 2016/17, year 13 repairs will be completed. Overall, 1,395 linear feet of pipe, 7 manholes and 2 lift stations will be improved. This includes rehabilitation of 230 linear feet of 6 inch pipe by cast in place pipe (CIPP), 1,116 linear feet of 8 inch pipe by CIPP and rehabilitation of 7 manholes by the same method. Additionally, year 13 includes rehabilitation of 2 lift stations by installing new pumps, electrical panels and spraying the interior of lift station with epoxy liner.

This project supports the goal of implementing watershed solutions by maintaining the wastewater collection system.

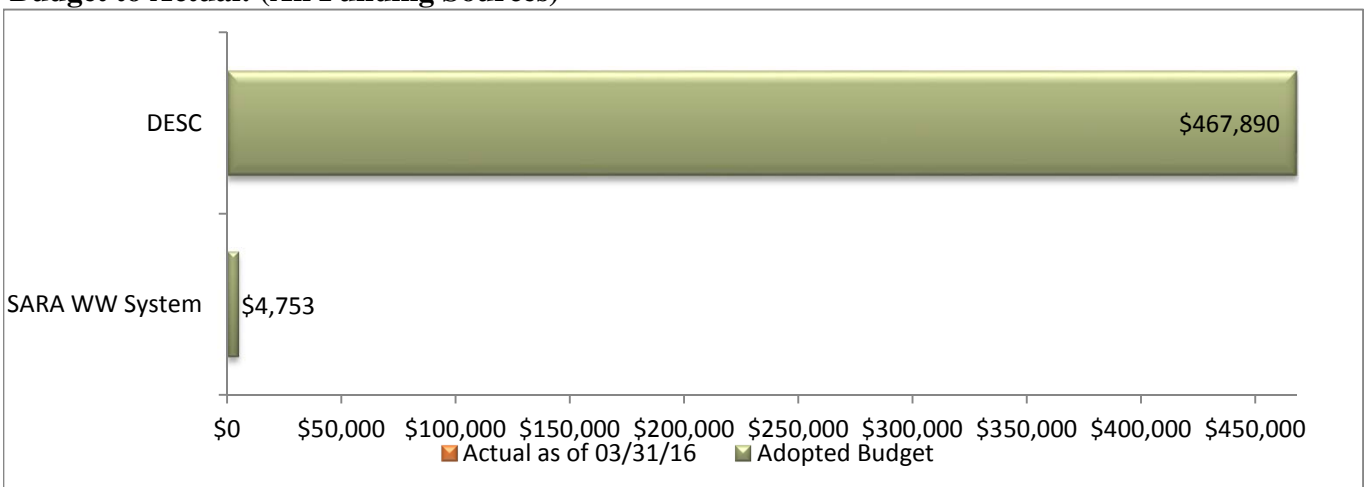
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 850	\$ 2,212	\$ -	\$ -	\$ 3,062
Commodities	-	-	-	-	-
Contracts	-	214,156	-	-	214,156
<b>Total</b>	<u>\$ 850</u>	<u>\$ 216,368</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 217,218</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Randolph Air Force Base Year 14 (2017) **Project #** 0546  
**Managing Department:** Utilities

	Adopted Budget:	\$	472,643
Project Start Date: 07/01/16	Unfunded Budget:	\$	-
Project Finish Date: 09/30/17	Total Project Budget:	\$	472,643

This project consists of rehabilitating portions of the Randolph Air Force Base (RAFB) collection system that are in great need of rehabilitation based on a 50 year plan. The project will involve the San Antonio River Authority hiring a sub contractor to re-assess the sewer line by Closed Circuit Television (CCTV) to determine any possible lateral locations which are in poor condition, as well as determining the best type of rehabilitation. Capital improvement is anticipated for the lines, and the manholes involved will be coated.

This project is capturing the activity that is scheduled to occur in in FY 2016/17, year 14 of the 50 year plan. Activities are listed in the renewal and replacement schedule approved by RAFB and the Air Force Contracting division.

FY 2016/17, includes rehabilitation of 15 inch pipe by cured-in-place pipe (CIPP) and rehabilitation of 6 manholes by installing new rings and covers and spraying the manhole’s interior with epoxy liner. Additionally, Year 14 will also include rehabilitation of 2 lift stations by installing new pumps, electrical panels and spraying the interior of the lift stations with epoxy liner.

<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Labor	\$ -	\$ 4,753	\$ -	\$ -	\$ 4,753
Commodities	-	-	-	-	-
Contracts	-	467,890	-	-	467,890
<b>Total</b>	<b>\$ -</b>	<b>\$ 472,643</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 472,643</b>

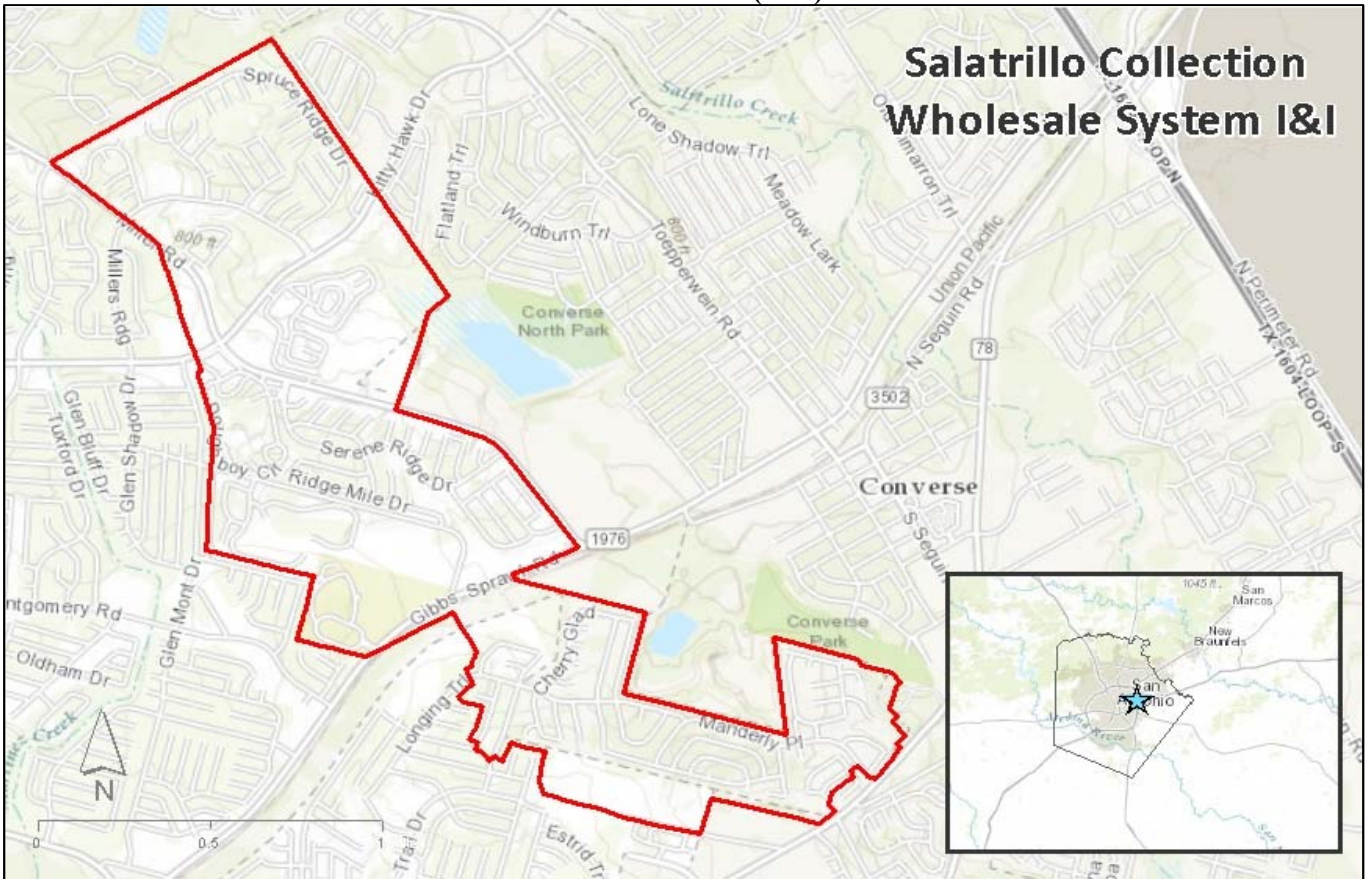


Project Name:

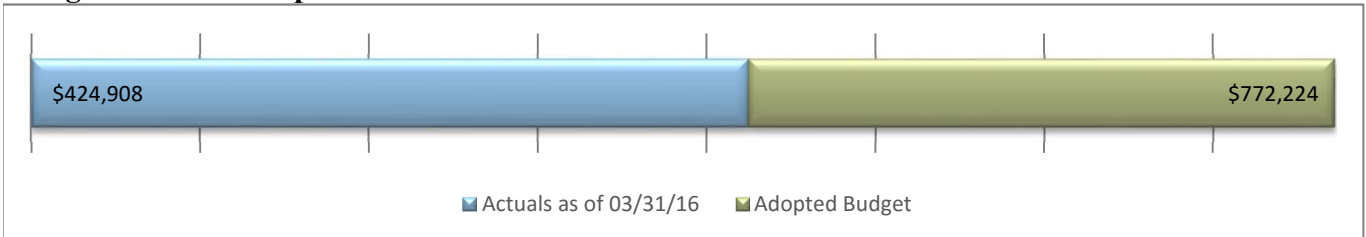
Salatrillo Collection Wholesale System  
Inflow and Infiltration (I&I)

Project #

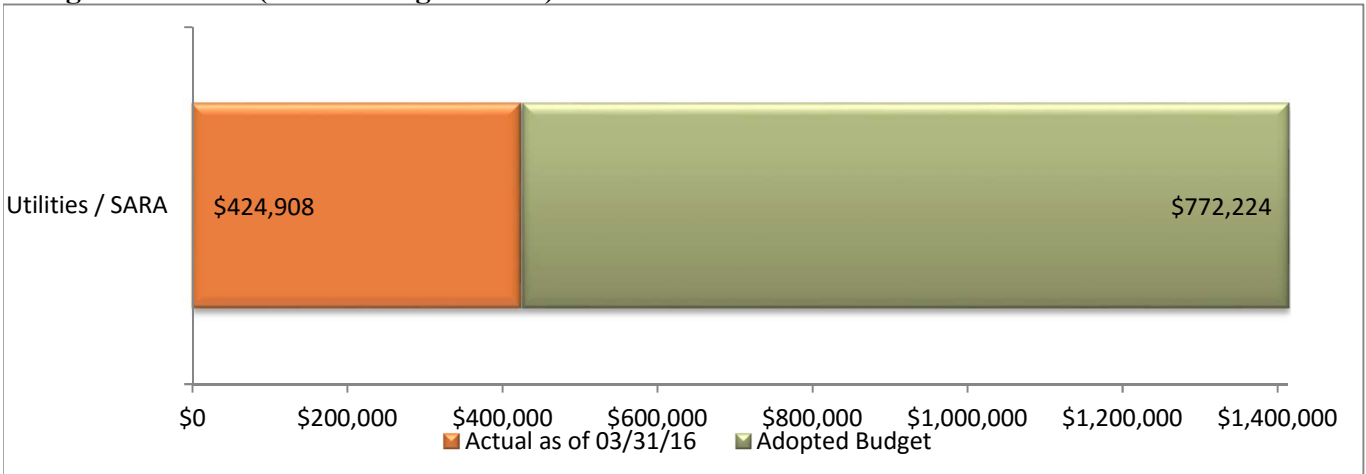
0314



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Salatrillo Collection Wholesale System Inflow and Infiltration (I&I)** **Project # 0314**

Managing Department: Utilities

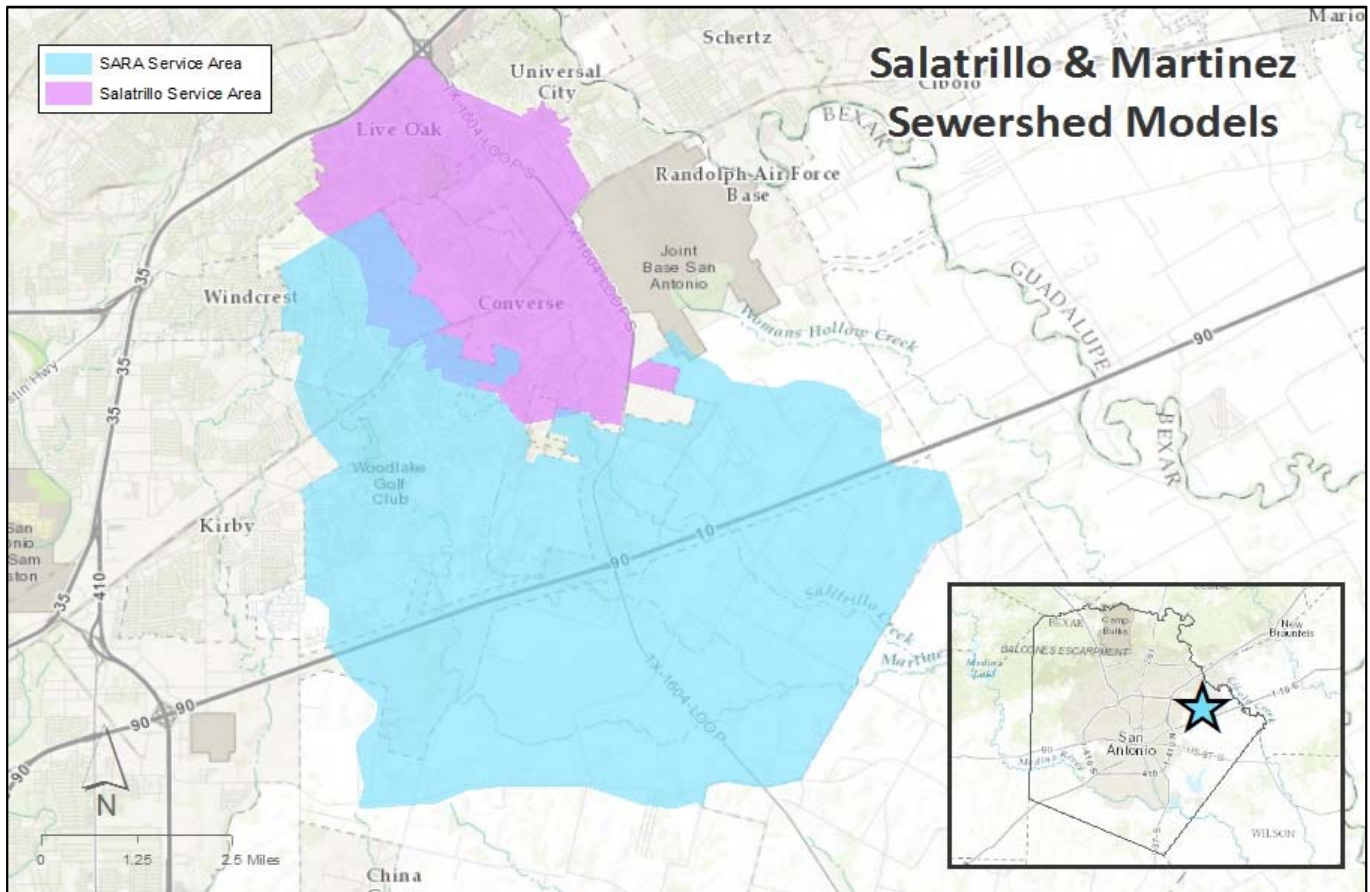
	Adopted Budget:	\$ 772,224
Project Start Date: 05/04/11	Unfunded Budget:	\$ 640,698
Project Finish Date: 06/30/21	Total Project Budget:	\$ 1,412,922

The River Authority has an on-going commitment to improve inflow and infiltration (I&I) into the various collection systems owned and operated by the River Authority. The Salatrillo Collection Wholesale System Inflow and Infiltration management project repairs defective manholes and lines in the system according to a 1 to 5 rating system, with 5 being the worst condition. Repairs throughout the system are occurring over a ten year period.

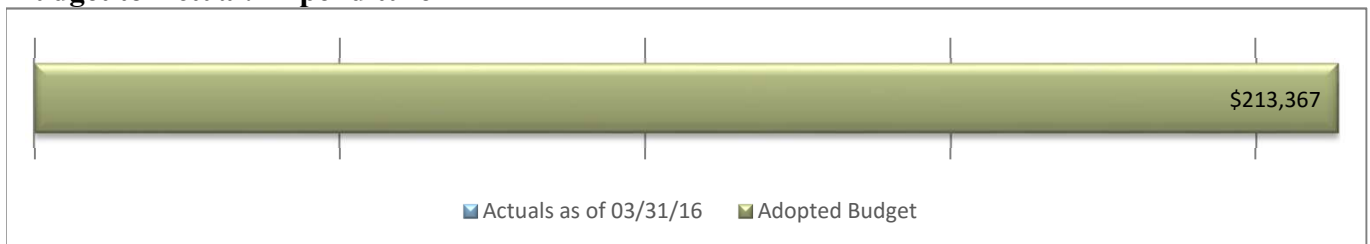
Reducing I&I, which is water that enters or exits the collection system through leaks in the pipes and manholes, reduces flow into the environment and treatment plant. The flow into the plant determines when additional treatment plant capacity is required. Therefore, investment in reducing I&I postpones plant expansion, improves service efficiencies and promotes watershed solutions by ensuring wastewater remains within the system.

In FY 2016/17, repairs will be made to ten percent of the defective lines and manholes which are all 3 rated.

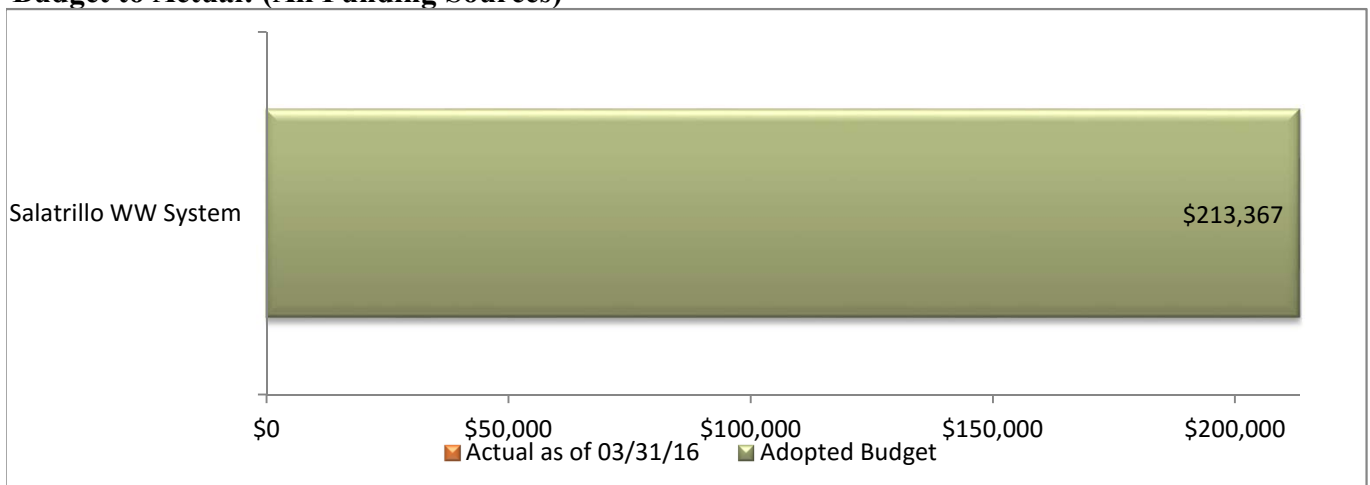
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	-	-	-	-	-
Contracts	<u>424,908</u>	<u>347,316</u>	<u>213,566</u>	<u>427,132</u>	<u>1,412,922</u>
<b>Total</b>	<b>\$ <u>424,908</u></b>	<b>\$ <u>347,316</u></b>	<b>\$ <u>213,566</u></b>	<b>\$ <u>427,132</u></b>	<b>\$ <u>1,412,922</u></b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Salatrillo & Martinez Sewershed Models **Project #** 0535  
**Managing Department:** Utilities

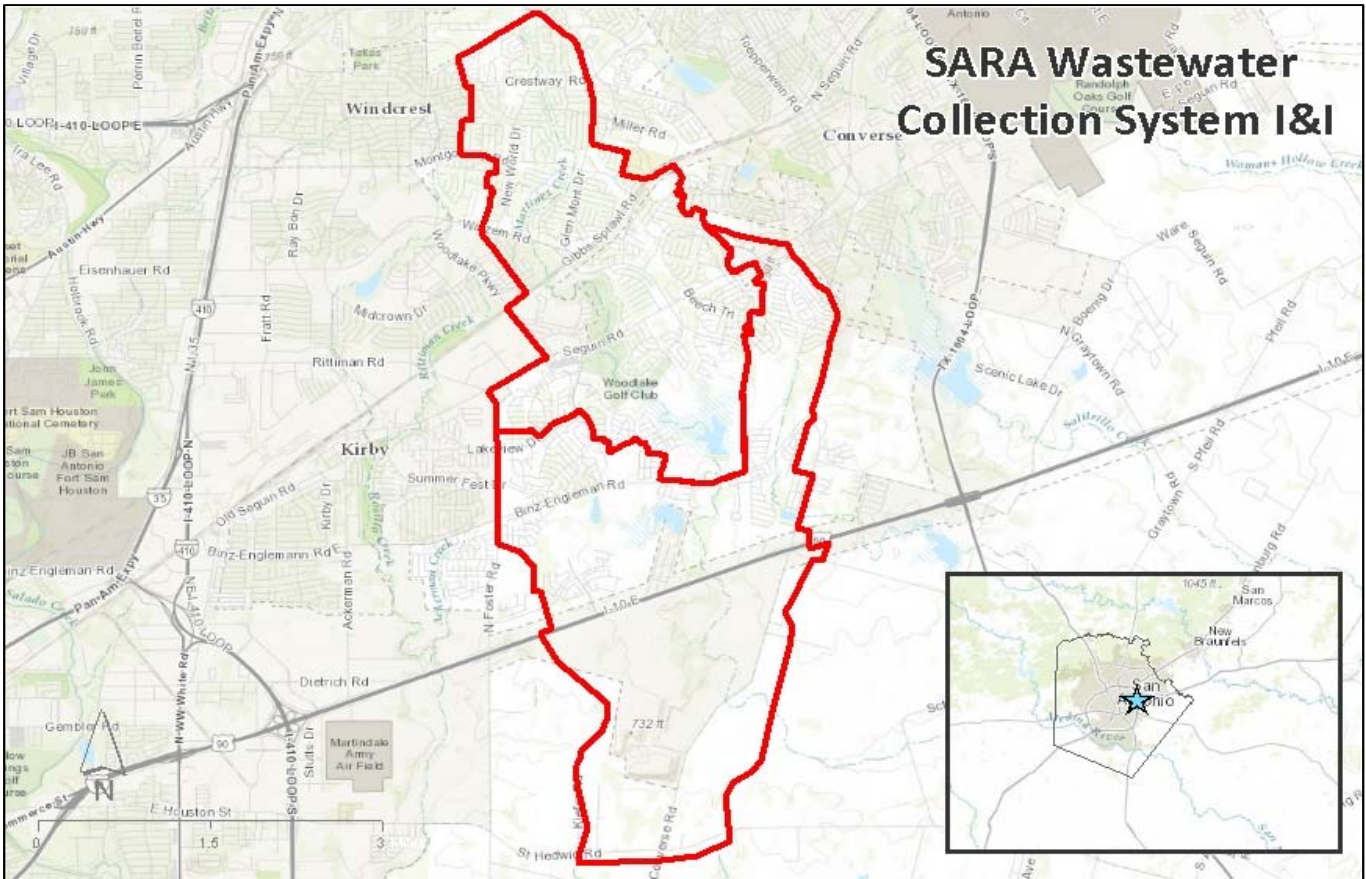
	Adopted Budget:	\$	213,367
Project Start Date: 07/01/16	Unfunded Budget:	\$	1,190,000
Project Finish Date: 06/30/21	Total Project Budget:	\$	1,403,367

The goal of this project is to develop a comprehensive and dynamic sewershed system models for the Salatrillo and Martinez WWTPs. The models will help to quantify available system capacity and identify inefficiencies that require attention. The projected 20-year growth demands will be simulated throughout the Salatrillo and Martinez WWTP wastewater collection systems and plants to identify infrastructure improvements that will be required to meet flow projections. The project focuses on providing the best services to River Authority communities and use best available science in decision making. The proposed models will provide a scientific method for monitoring the capacity of the collection system and plants with growing development and also potentially help us to address inflow/infiltration issues more realistically. This project supports the "Watershed Solutions" Agency goal.

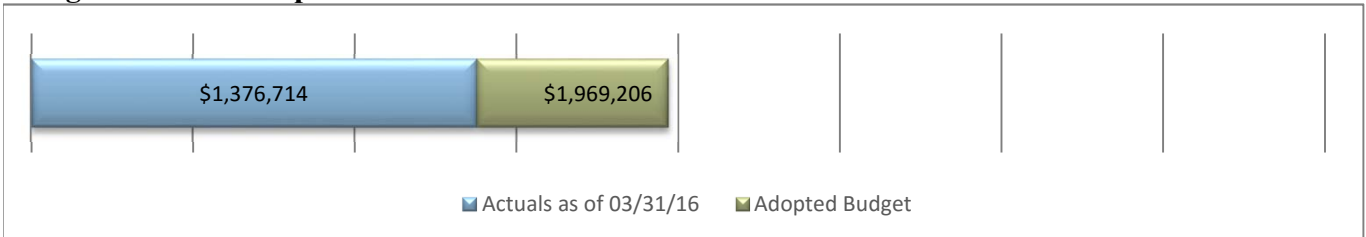
In FY 2016/17, the deliverables will be a baseline model of the collection system, associated electronic files, recommendations and a technical memorandum.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 39,837	\$ -	\$ -	\$ 39,837
Commodities	-	-	-	-	-
Contracts	-	173,530	390,000	800,000	1,363,530
<b>Total</b>	<b>\$ -</b>	<b>\$ 213,367</b>	<b>\$ 390,000</b>	<b>\$ 800,000</b>	<b>\$ 1,403,367</b>

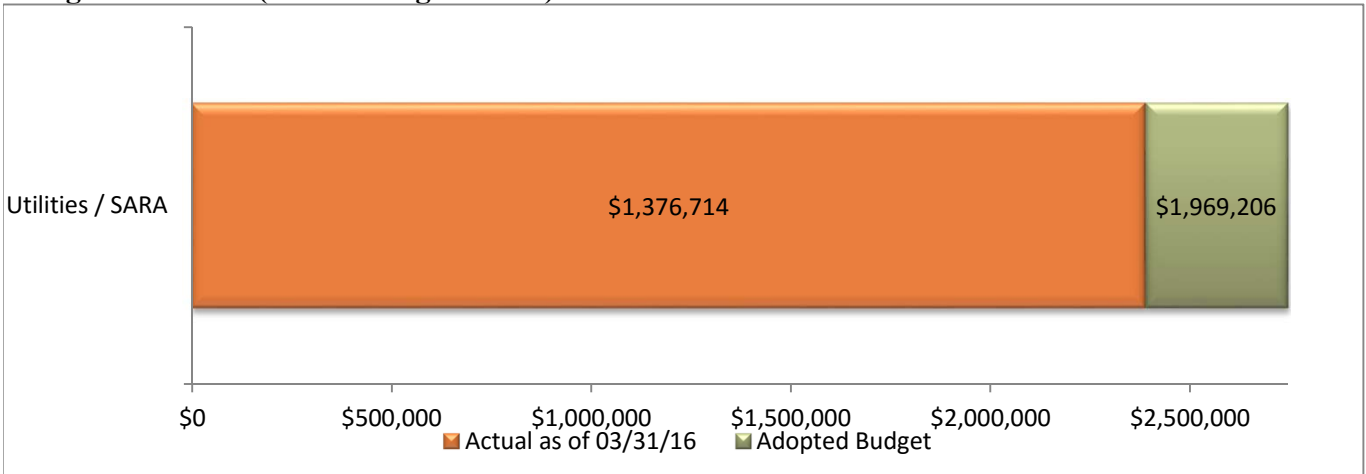
Inflow and Infiltration



Budget to Actual: Expenditure



Budget to Actual: (All Funding Sources)



**Project Name: SARA Wastewater Collection System Inflow and Infiltration** **Project # 0315**

Managing Department: Utilities

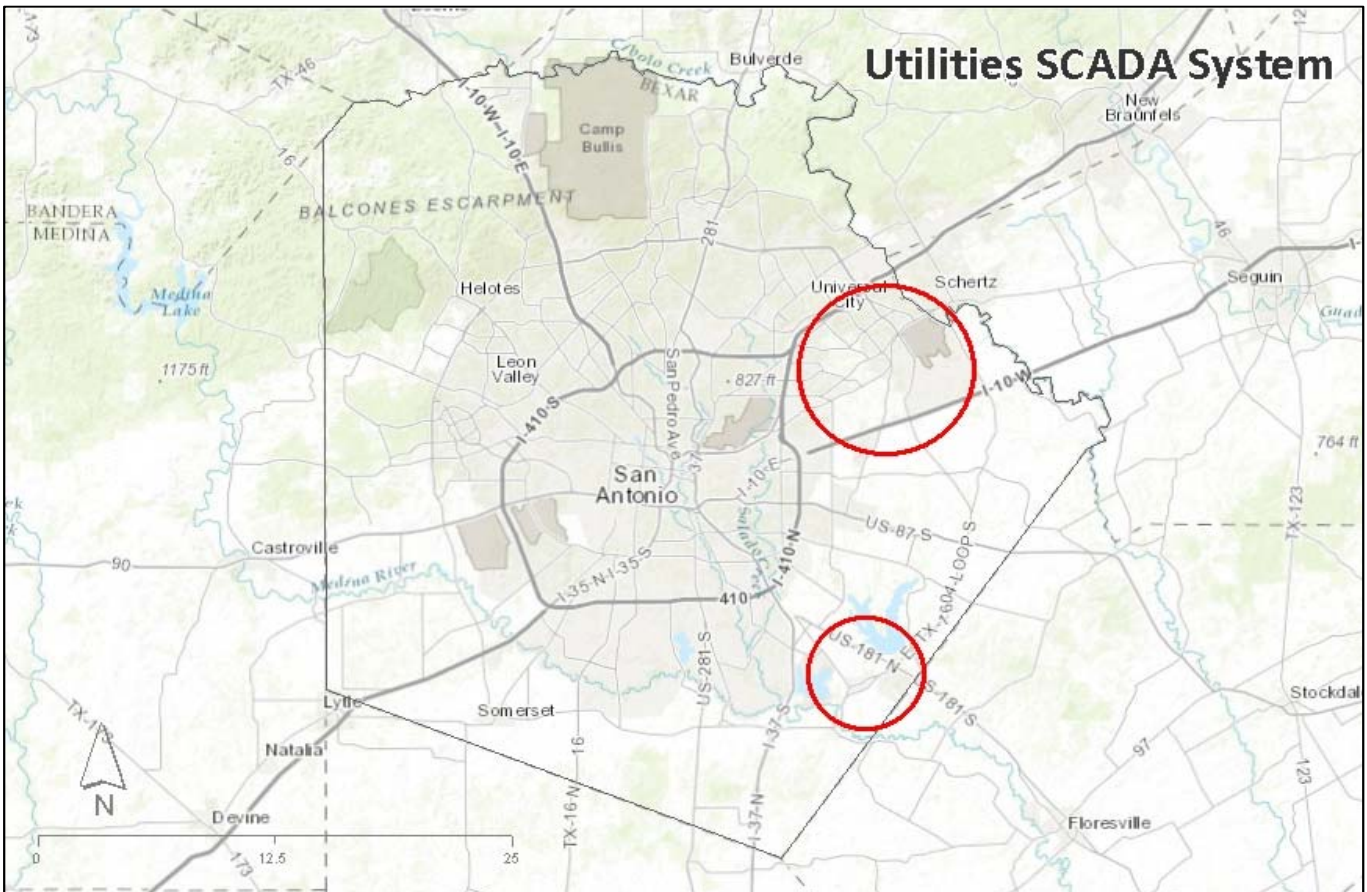
	Adopted Budget:	\$ 1,969,206
Project Start Date: 05/04/11	Unfunded Budget:	\$ 775,000
Project Finish Date: 06/30/21	Total Project Budget:	\$ 2,744,206

The River Authority has an on-going commitment to improve inflow and infiltration (I&I) into the various collection systems owned and operated by the River Authority. The San Antonio River Authority Wastewater Collection System Inflow and Infiltration management project repairs defective manholes and lines in the system according to a 1 to 5 rating system, with 5 being the worst condition. Repairs throughout the system are occurring over a ten year period.

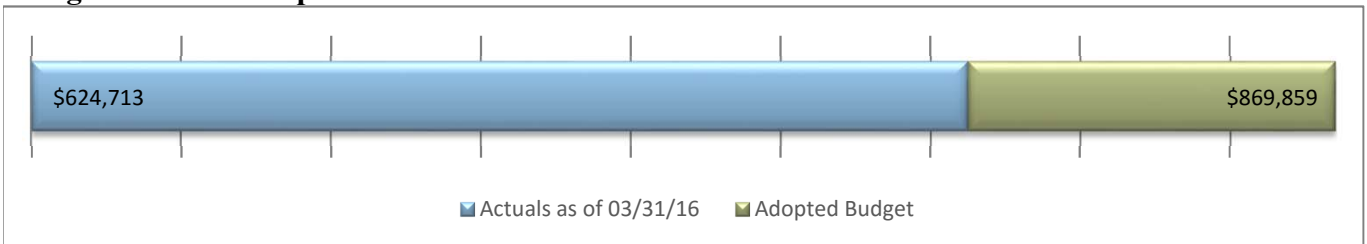
Reducing I&I, which is water that enters or exits the collection system through leaks in the pipes and manholes, reduces flow into the environment and treatment plant. The flow into the plant determines when additional treatment plant capacity is required. Therefore, investment in reducing I&I postpones plant expansion, improves service efficiencies and promotes watershed solutions by ensuring wastewater remains within the system.

In FY 2016/17, repairs will be made to ten percent of the defective lines and manholes which are all 3 rated.

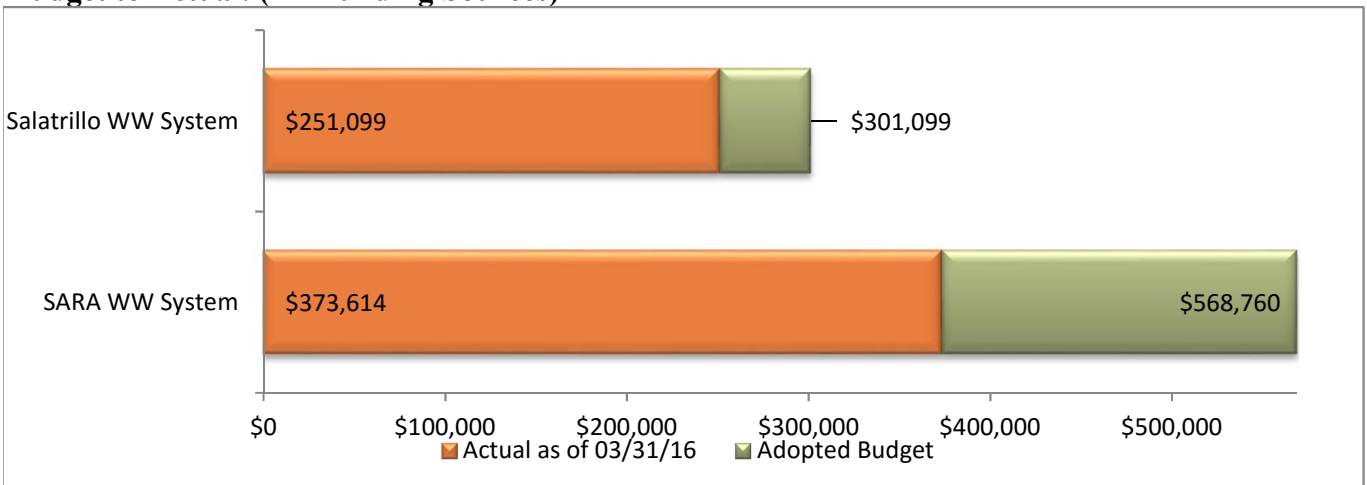
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 13,116	\$ -	\$ -	\$ -	\$ 13,116
Commodities	64	-	-	-	64
Contracts	<u>1,363,534</u>	<u>592,492</u>	<u>250,000</u>	<u>525,000</u>	<u>2,731,026</u>
Total	<u>\$ 1,376,714</u>	<u>\$ 592,492</u>	<u>\$ 250,000</u>	<u>\$ 525,000</u>	<u>\$ 2,744,206</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Utilities SCADA System**

**Project # 0101**

Managing Department: Utilities

		Adopted Budget:	\$	869,859
Project Start Date:	04/02/07	Unfunded Budget:	\$	-
Project Finish Date:	06/30/17	Total Project Budget:	\$	869,859

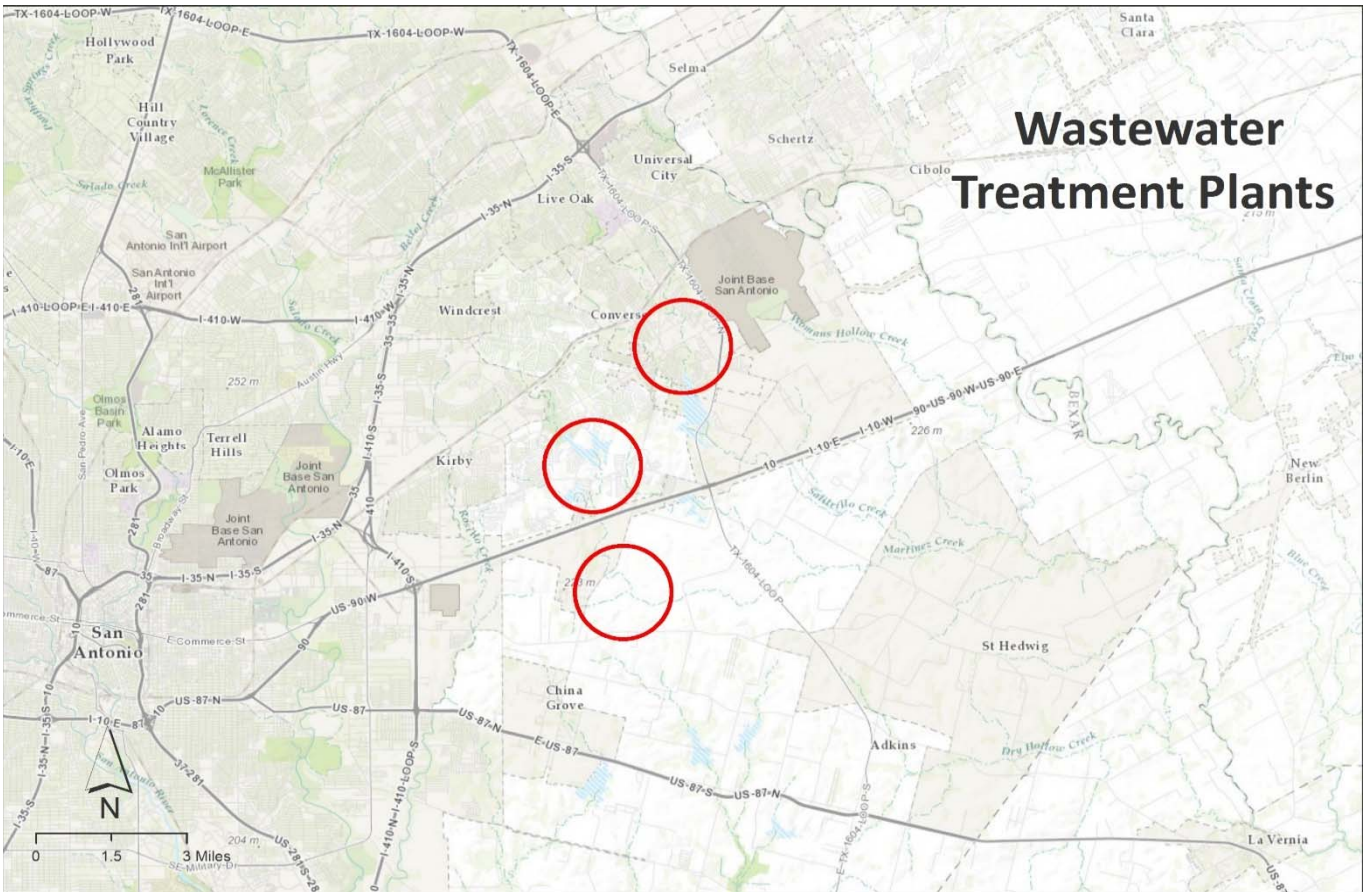
The Utilities Supervisory Control and Data Acquisition (SCADA) program provides communications and controls for the River Authority’s wastewater systems from one central computer system, creating better control over these systems. This real time monitoring and control system application improves efficiency and complies with homeland security within the region.

This project supports the agency goal of advancing watershed health and safety by providing River Authority staff with the proper tools to monitor and control wastewater treatment plant functions from a remote location.

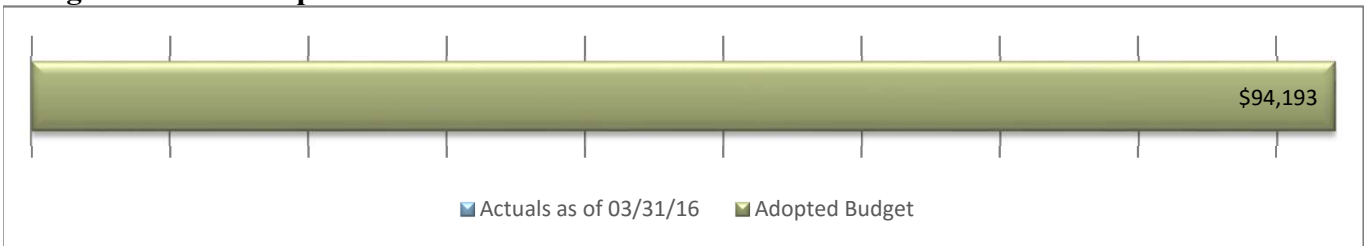
In FY 2016/17, the US 181 WWTP will connect to the SCADA system and additional improvements will be made to the Salatrillo, Upper Martinez and Martinez II WWTP SCADA systems that include real-time monitoring of clarifier sludge depths. This will provide utility operators with the ability to better monitor treatment conditions remotely.

<b>Expenditures</b>	<u>Actuals as of March 31, 2016</u>	<u>April 2016 to June 2017</u>	<u>2017/18</u>	<u>Succeeding from 2018/19</u>	<u>Total</u>
Labor	\$ 69,276	\$ 85,146	\$ -	\$ -	\$ 154,422
Commodities	205,763	-	-	-	205,763
Contracts	349,674	160,000	-	-	509,674
<b>Total</b>	<u>\$ 624,713</u>	<u>\$ 245,146</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 869,859</u>

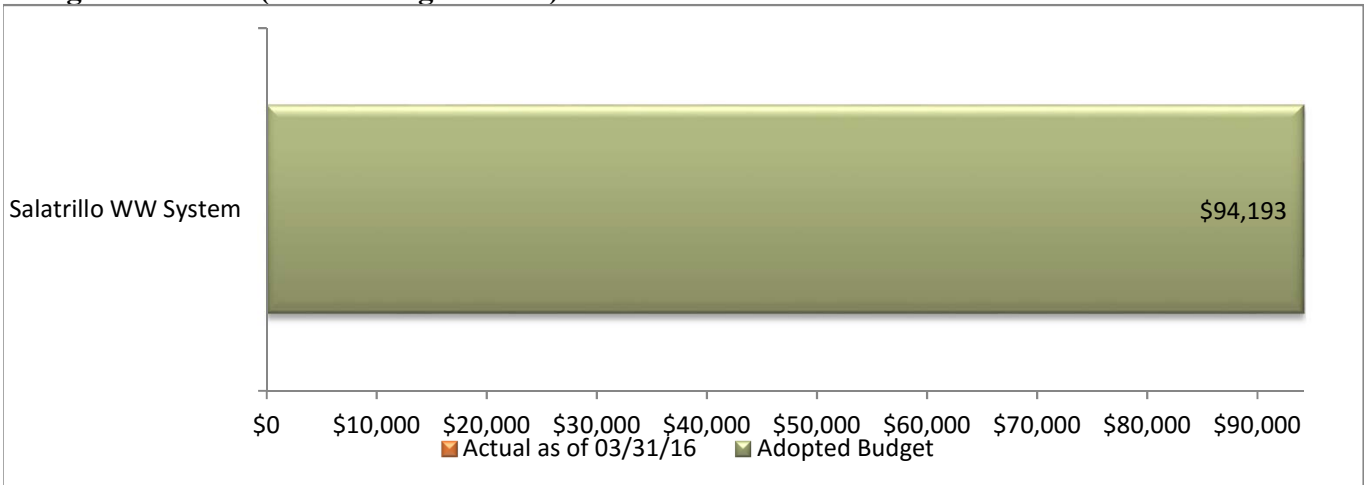




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** WWTP Subsurface Utility Exploration & Utility Mapping **Project # 0548**  
**Managing Department:** Utilities

	Adopted Budget:	\$	94,193
Project Start Date: 07/01/16	Unfunded Budget:	\$	156,924
Project Finish Date: 06/30/18	Total Project Budget:	\$	251,117

The Wastewater Treatment Plant (WWTP) Subsurface Utility Exploration (SUE) and Utility Mapping Project will provide the Utility department with better information on the existing utility lines at their treatment plants. This will support future utility projects and expansions at Upper Martinez, Martinez II and Salatrillo WWTPs. This project will support the Agency Goal to Advance Watershed Health & Safety. This mapping effort will be performed in Phases.

For FY 2016/2017, Phase 1 will be the mapping and conflict analysis of Salatrillo WWTP.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 10,705	\$ 11,080	\$ 11,467	\$ 33,252
Commodities	-	-	-	-	-
Contracts	-	83,488	92,148	42,229	217,865
<b>Total</b>	<b>\$ -</b>	<b>\$ 94,193</b>	<b>\$ 103,228</b>	<b>\$ 53,696</b>	<b>\$ 251,117</b>



SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

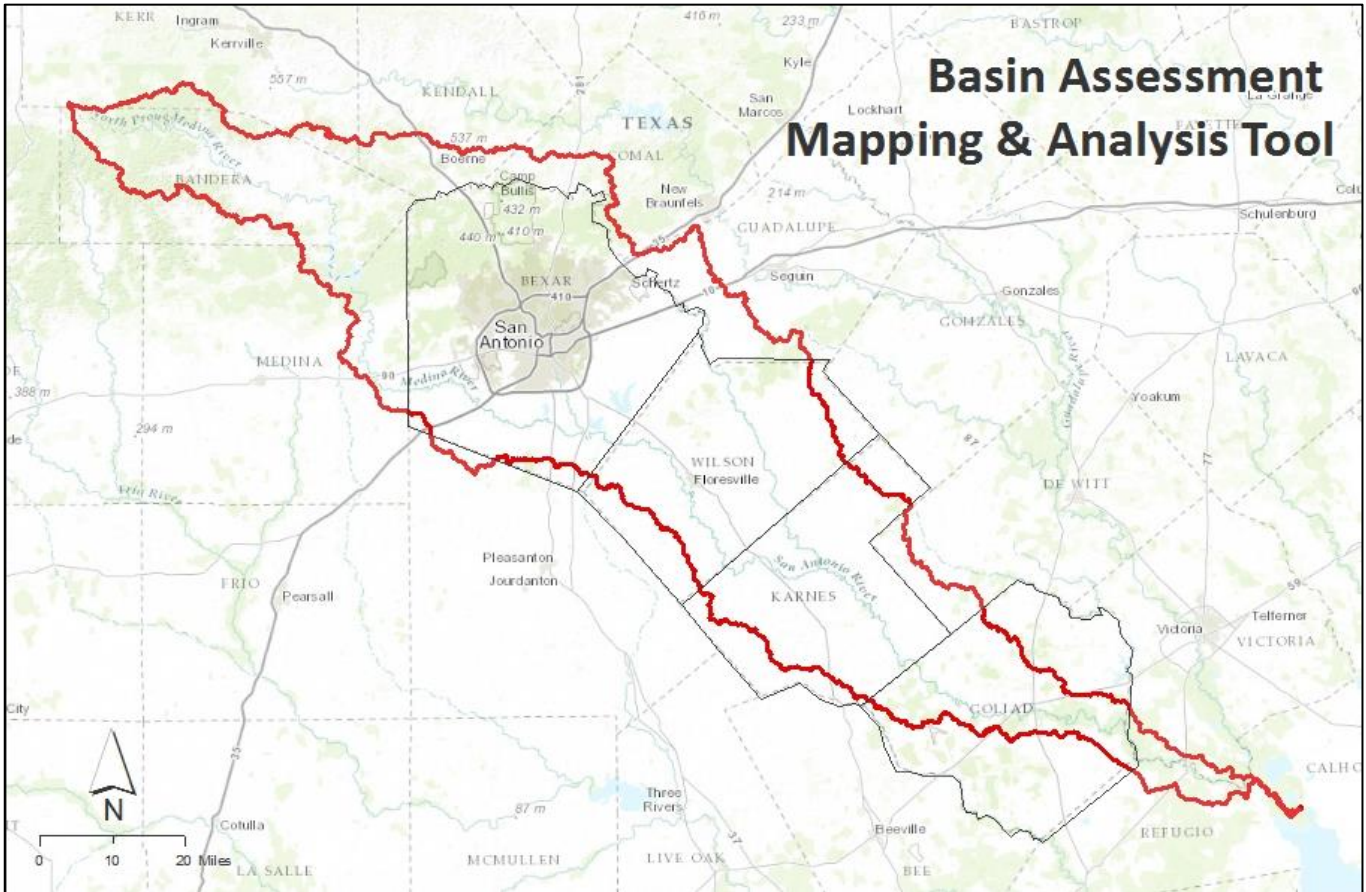


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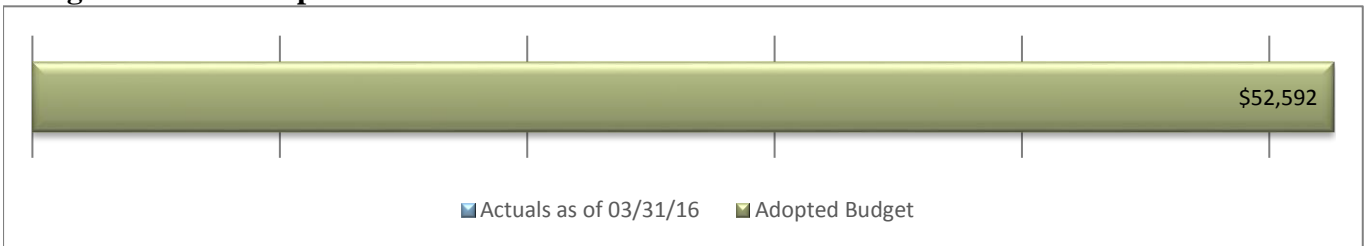
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RIVER AUTHORITY

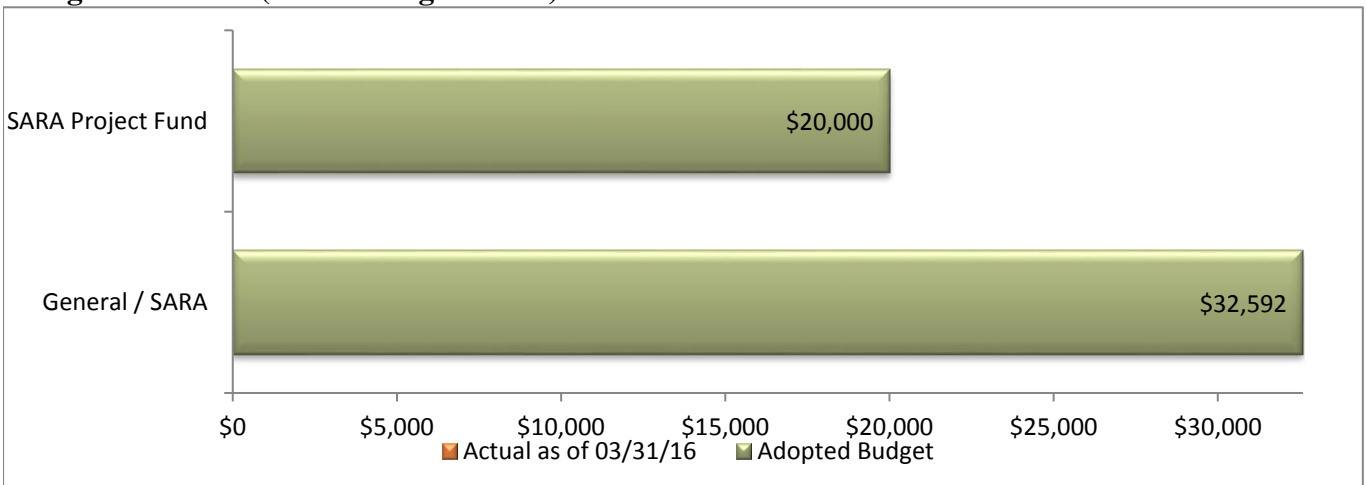
Leaders in Watershed Solutions



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Basin Assessment Mapping and Analysis Tool **Project #** 0540  
 Managing Department: Information Technology

	Adopted Budget:	\$	52,592
Project Start Date: 07/01/16	Unfunded Budget:	\$	33,353
Project Finish Date: 06/30/19	Total Project Budget:	\$	85,945

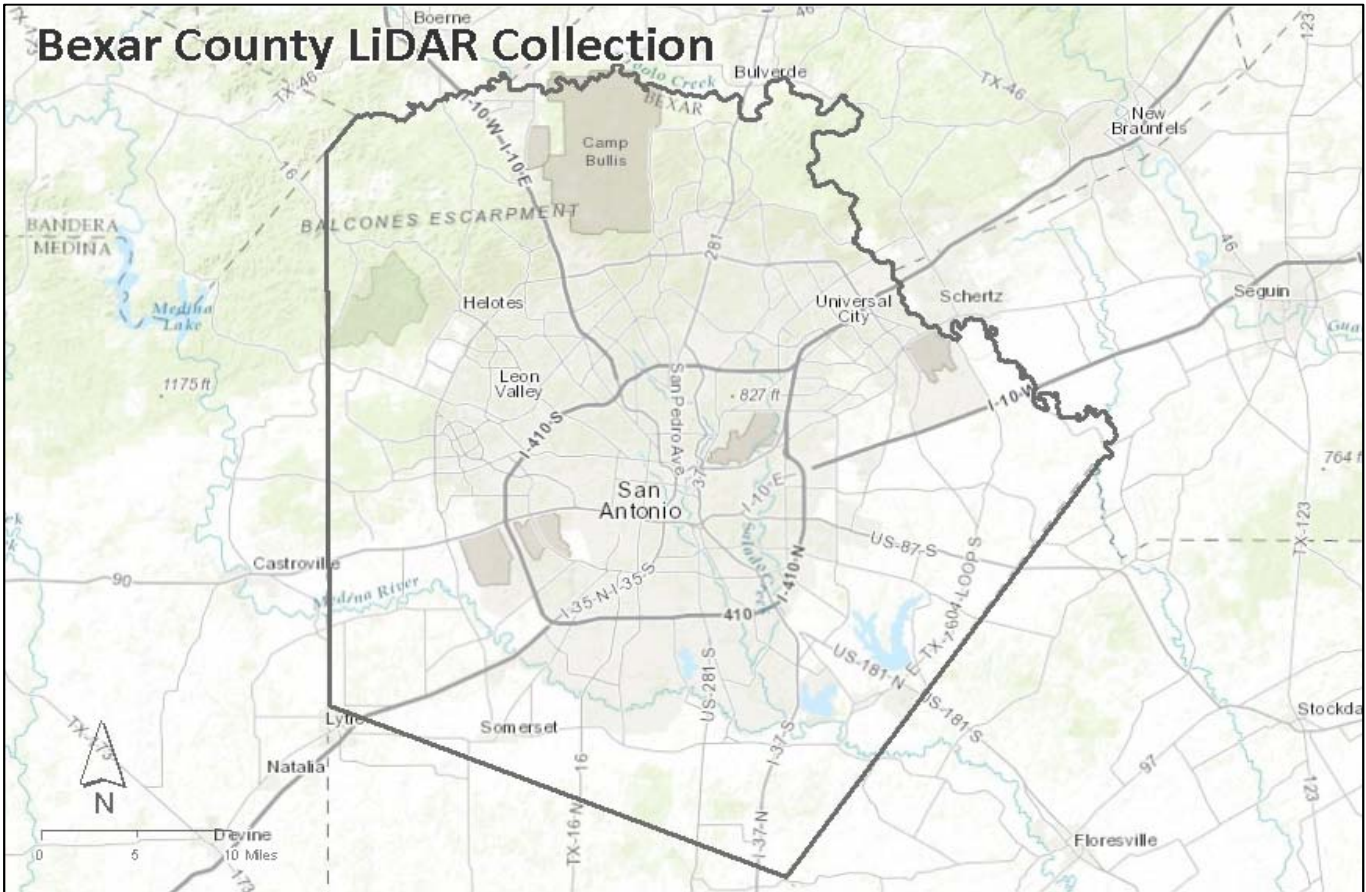
The Basin Assessment Mapping and Analysis Tool project provides a graphic display of the River Authority’s data and analysis in one comprehensive and centralized web platform. This allows River Authority staff and partners access to valuable spatial information about the watershed to support planning for the best use of River Authority resources and to answer questions and communicate information about the San Antonio River Basin.

The primary goal of this project is to compile, review and assess existing and current spatial data, models and analysis, from both River Authority and external sources, to provide key indicators of watershed condition/health. Additionally, assessment results and associated data are visualized and made available in an intuitive and interactive web mapping application, to aid in decision support and prioritization of target areas for holistic watershed improvement activities.

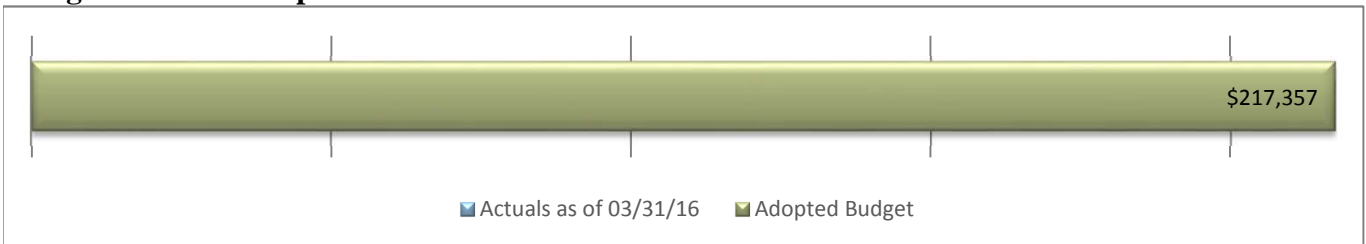
In FY 2016/17, River Authority staff will continue to collect and update relevant spatial data and finalize the assessment methodology and results. Additionally, functionality will be added to the interactive mapping application, and improvements made to ensure optimal user experience.

Of the total \$52,592 Adopted Budget, \$32,592 is estimated labor contribution through the River Authority General Fund.

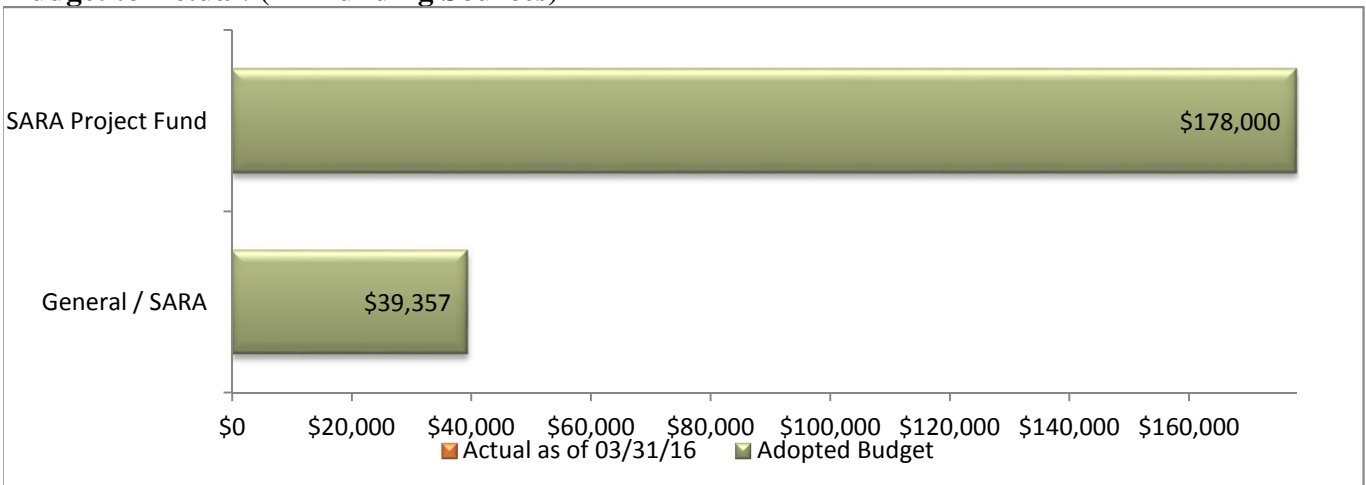
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Labor	\$ -	\$ 32,592	\$ 17,651	\$ 8,702	\$ 58,945
Commodities	-	2,000	1,000	500	3,500
Contracts	-	18,000	4,500	1,000	23,500
<b>Total</b>	<b>\$ -</b>	<b>\$ 52,592</b>	<b>\$ 23,151</b>	<b>\$ 10,202</b>	<b>\$ 85,945</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Bexar County LiDAR Collection **Project #** 0541  
 Managing Department: Watershed Engineering

		Adopted Budget:	\$	217,357
Project Start Date:	07/01/16	Unfunded Budget:	\$	-
Project Finish Date:	06/30/17	Total Project Budget:	\$	217,357

The objective of this project will be to collect high-resolution elevation data for Bexar County, Texas using Light Detection and Ranging (LiDAR) technology. This project will also include activities related to the development of several key LiDAR derived geospatial datasets that would include digital elevation models (DEM), classified LiDAR points, hydro-breaklines, and intensity imagery.

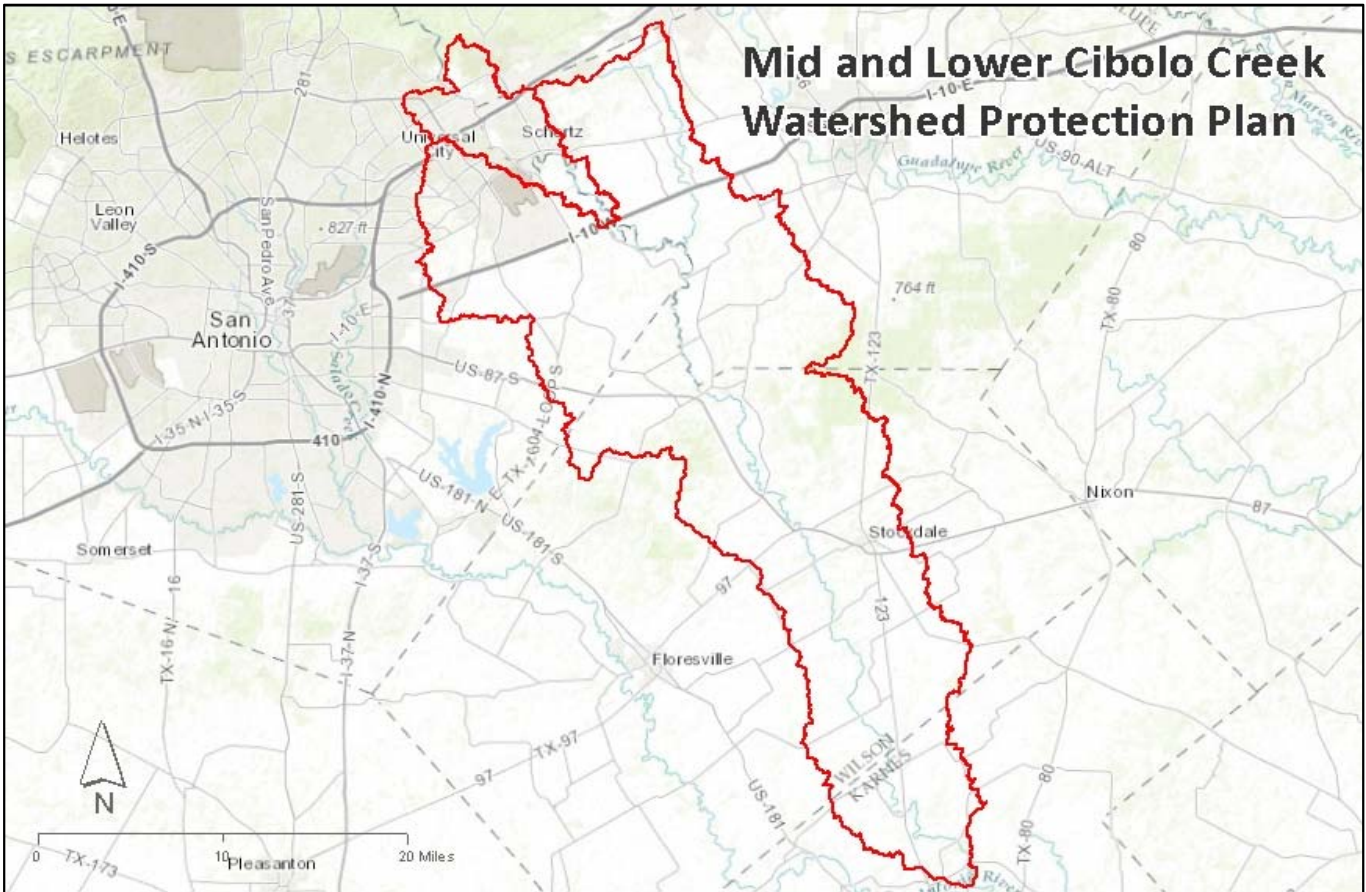
This mapping technology will support the River Authority’s efforts to develop watershed solutions within Bexar County by better understanding how land uses impact our creeks and rivers during storm events.

For FY 2016/17, this project will provide geospatial datasets that include digital elevation models (DEM), classified LiDAR points (e.g. buildings, bare earth, high-vegetation, etc.), hydrobreaklines, and intensity imagery that are used within modeling efforts.

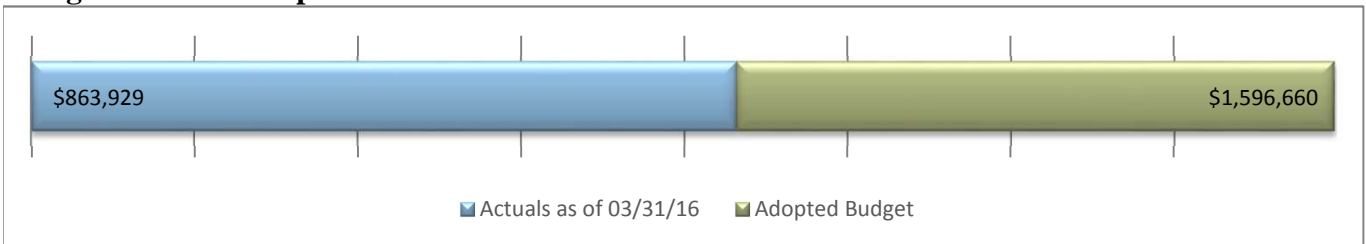
Of the total \$217,357 Adopted Budget, \$39,357 is estimated laabor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 39,357	\$ -	\$ -	\$ 39,357
Commodities	-	-	-	-	-
Contracts	-	178,000	-	-	178,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 217,357</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 217,357</b>

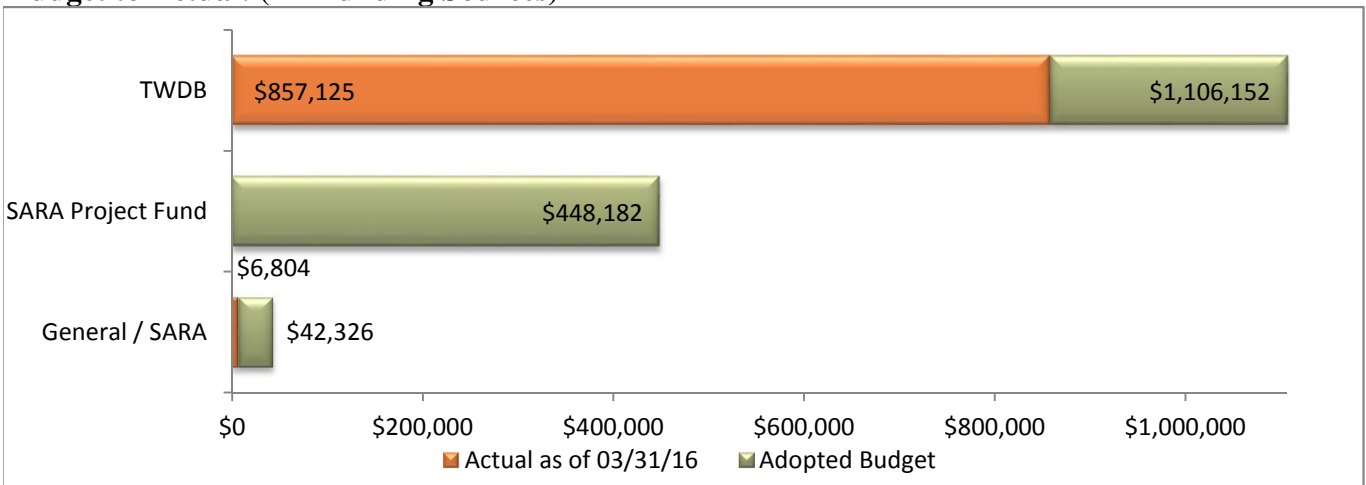




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Cibolo Creek Watershed Master Plan **Project #** 0305  
**Managing Department:** Watershed Engineering

	Adopted Budget:	\$	1,596,660
Project Start Date: 07/01/13	Unfunded Budget:	\$	21,707
Project Finish Date: 09/22/17	Total Project Budget:	\$	1,618,367

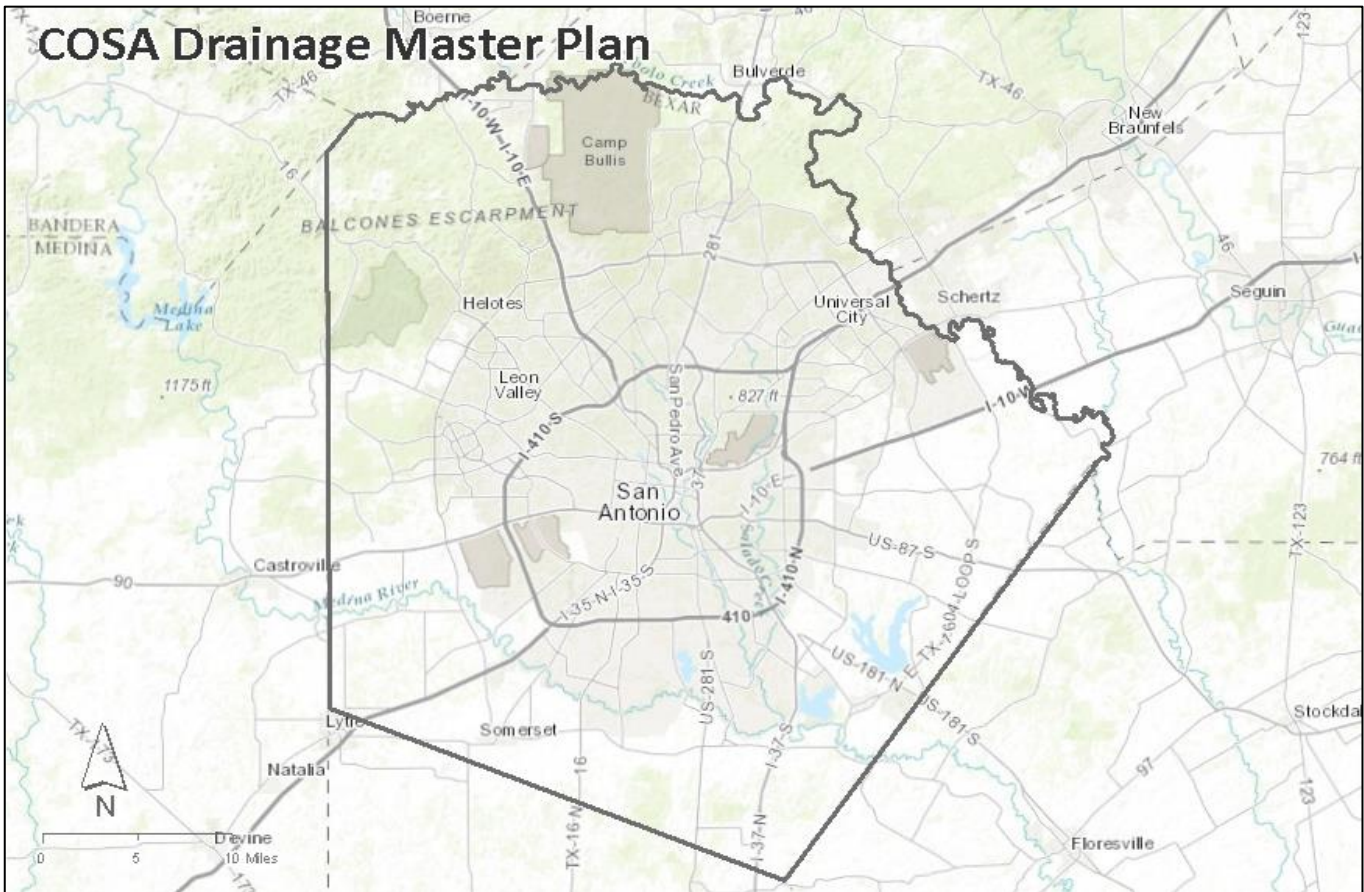
A holistic watershed master plan is being developed for the Cibolo Creek Watershed. The plan focuses on flood issues (hydrologic and hydraulic analysis), stream restoration, water quality modeling, water quality best management practices, GIS/mapping/remote sensing, low impact development, Municipal Separate Storm Water Sewer System (MS4) permitting, conservation easements, mitigation banking, and nature-based park planning.

The activities of this project include identification of major flooding reaches, stream characterization and identification of the restoration potential, point and non-point pollutant sources that impact water quality, and development of holistic solutions to address identified risk centers and to meet multiple objects and goals.

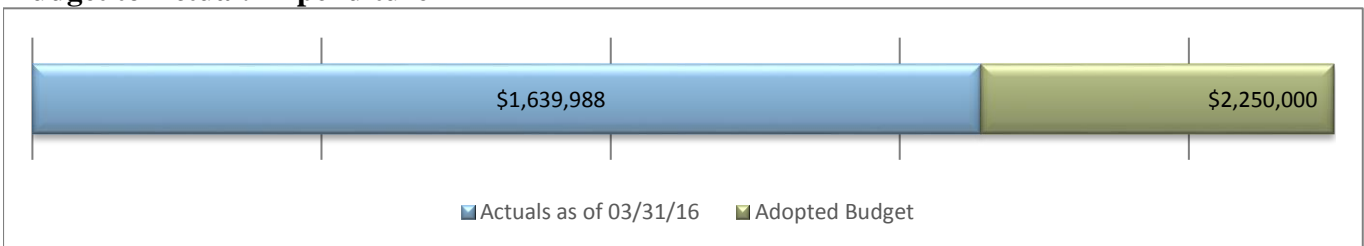
In FY 2016/17, the project will support flood modeling, water quality modeling, identification of risk centers, and development of alternative solutions.

Of the total \$1,596,660 Adopted Budget, \$42,326 is estimated labor contribution through the River Authority General Fund.

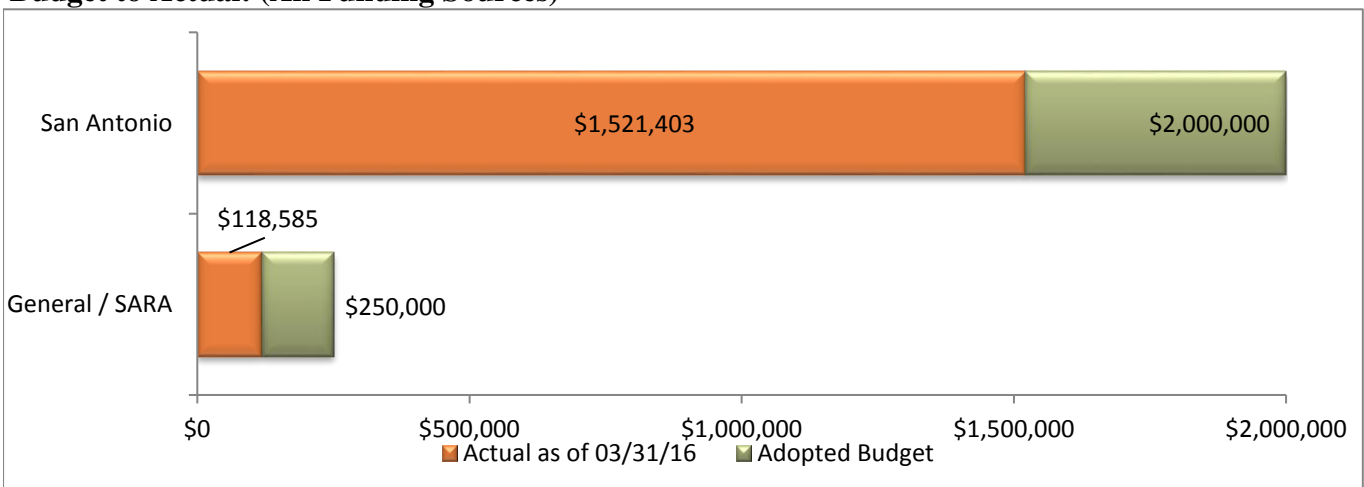
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 60,810	\$ 35,522	\$ 21,707	\$ -	\$ 118,039
Commodities	327	-	-	-	327
Contracts	802,792	697,209	-	-	1,500,001
<b>Total</b>	<b>\$ 863,929</b>	<b>\$ 732,731</b>	<b>\$ 21,707</b>	<b>\$ -</b>	<b>\$ 1,618,367</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** City of San Antonio Drainage Master Plan **Project #** 0478  
 Managing Department: Watershed Engineering

	Adopted Budget:	\$	2,250,000
Project Start Date: 03/05/15	Unfunded Budget:	\$	-
Project Finish Date: 07/01/17	Total Project Budget:	\$	2,250,000

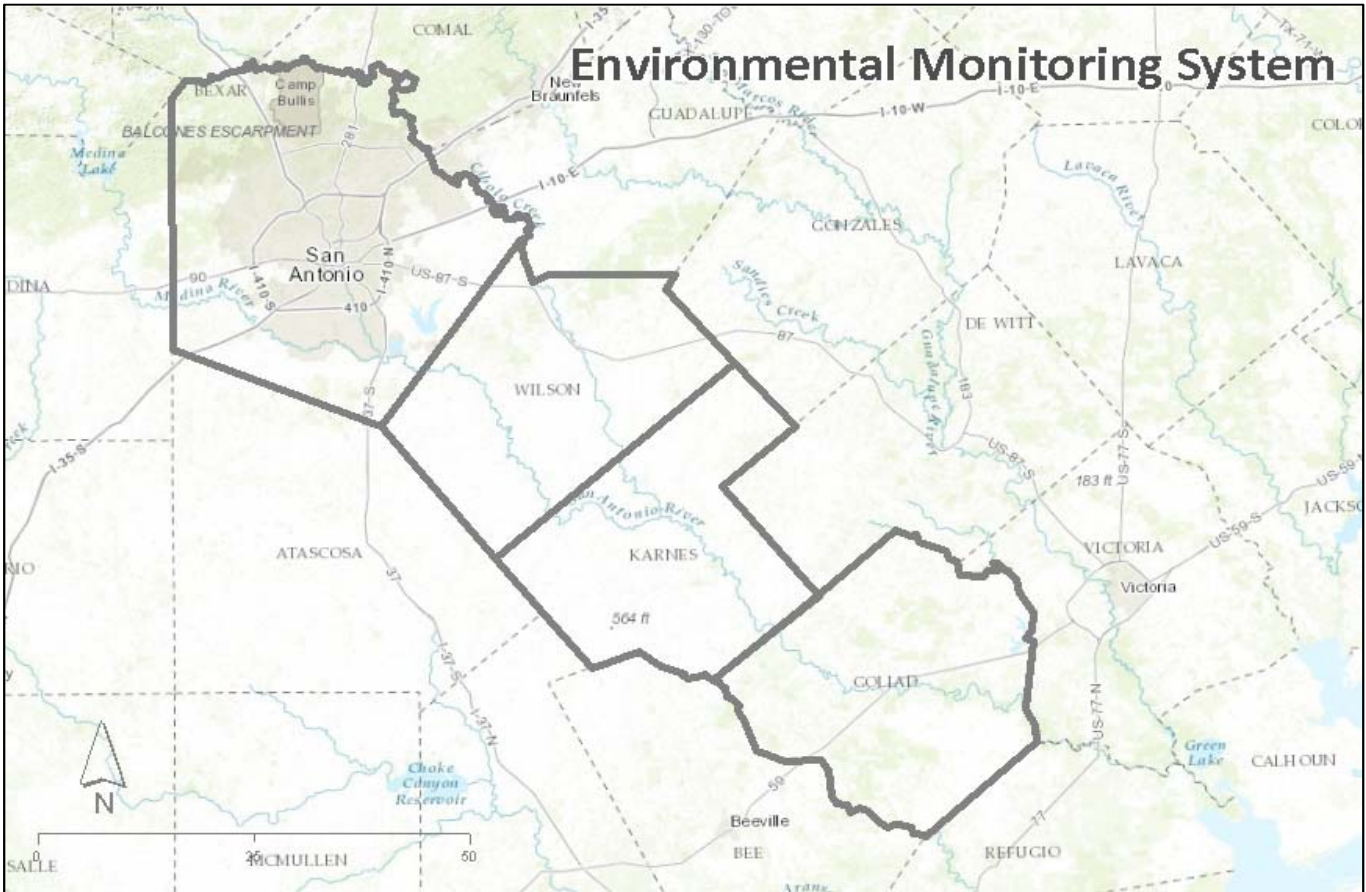
Through a contract with the City of San Antonio, the River Authority is developing a local Drainage Master Plan for the major watersheds within the San Antonio city limits, to include Leon Creek, Salado Creek, and Upper San Antonio River. In conformance with the Regional Stormwater Management Program, the Drainage Master Plan will utilize a watershed-wide approach to analyze potential flooding problems across the city. The River Authority will implement a comprehensive planning approach by comparing its Regional Watershed Master Plans with an inventory, provided by the City of San Antonio (COSA), of all known local drainage problems within each watershed. This will allow the River Authority to analyze the relationship between the regional and local drainage problems, identify the types of drainage infrastructure needed to address specific concerns, and prioritize an initial list of capital drainage projects. The River Authority will also identify applications for sustainable stormwater practices and other activities to reduce the risk to life and property from flooding, and mitigate the impact of stormwater on water quality and stream degradation.

This project will help reduce the risk to life and property from flooding and mitigate the impact of stormwater on water quality and stream degradation, thereby advancing the River Authority’s goals of advancing watershed health and safety and developing watershed solutions.

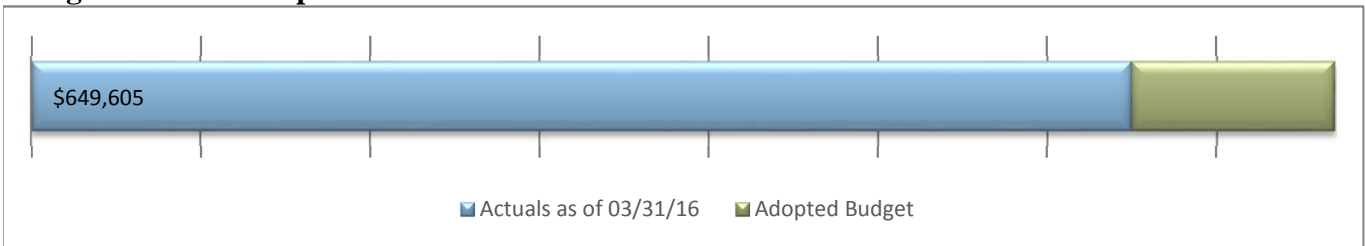
In FY 2016/17, the River Authority will continue to utilize a combination of internal labor and contracted consultant services to execute the project’s completion.

Of the total \$2,250,000 Adopted Budget, \$250,000 is estimated labor contribution through the River Authority General Fund.

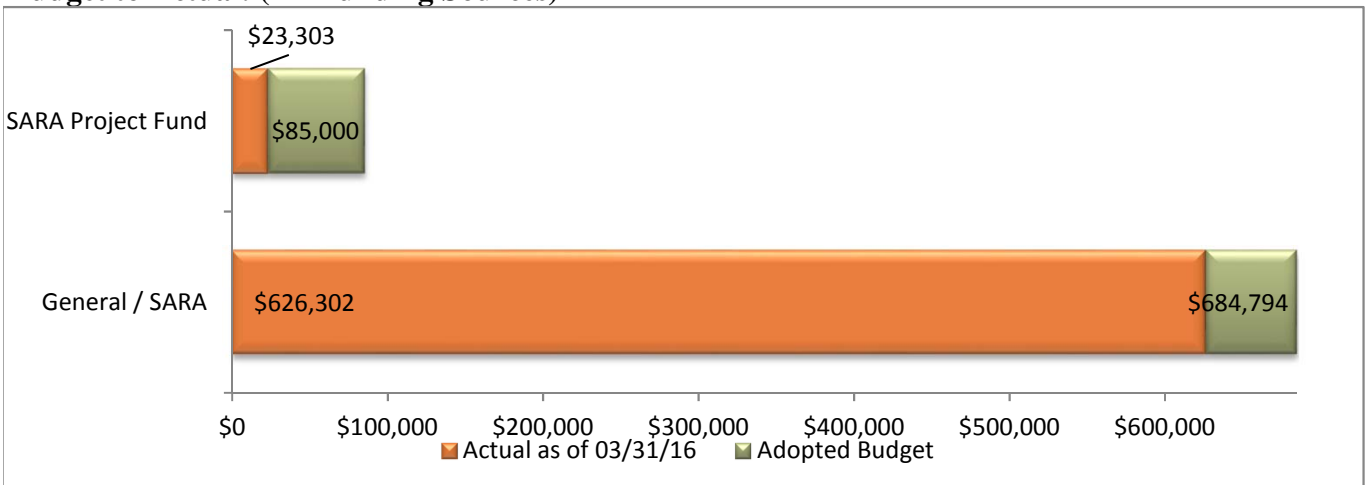
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 118,585	\$ 131,415	\$ -	\$ -	\$ 250,000
Commodities	65	0	-	-	65
Contracts	<u>1,521,338</u>	<u>478,597</u>	-	-	<u>1,999,935</u>
<b>Total</b>	<u>\$ 1,639,988</u>	<u>\$ 610,012</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,250,000</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Environmental Monitoring System** **Project # 0073**  
 Managing Department: Watershed Engineering

	Adopted Budget:	\$	769,795
Project Start Date: 03/18/08	Unfunded Budget:	\$	251,944
Project Finish Date: 11/02/18	Total Project Budget:	\$	1,021,739

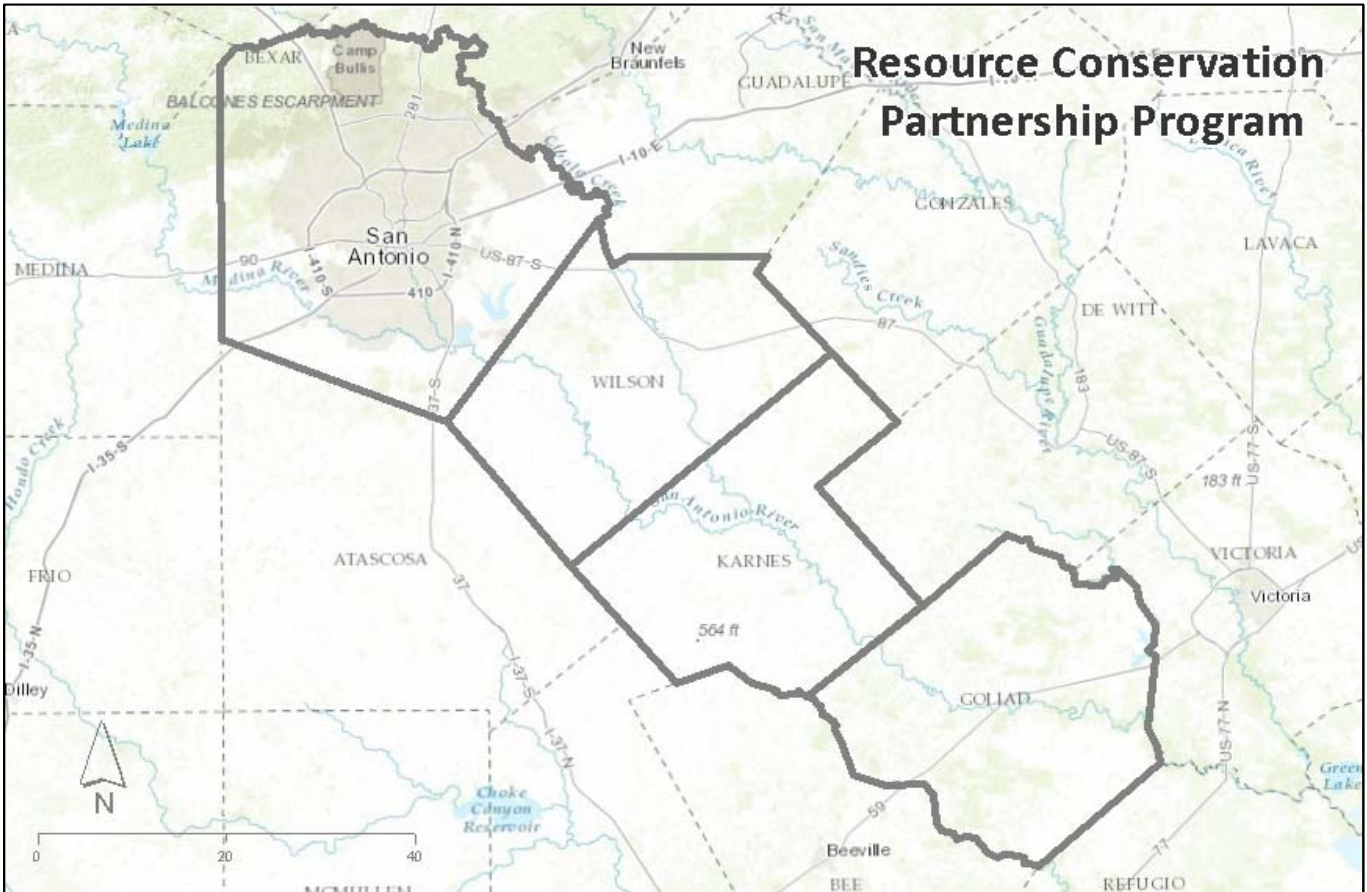
This project is building a rain gauge network that monitors rainfall and stream depth throughout the River Authority’s District. Initial efforts focused on supporting the Bexar County Flood Warning Project and providing water level data at all 41 River Authority dams. Coordination between existing rainfall monitoring systems of the City of San Antonio and the Edwards Aquifer Authority (EAA) maximizes data collection in Bexar County.

This project is utilizing technology to advance watershed health and safety and implement watershed solutions through the development and deployment of a network of sensors for precipitation and stage within the San Antonio River Basin. The network is key to successful hydrologic, hydraulic, and water quality models as well long term management of the watershed.

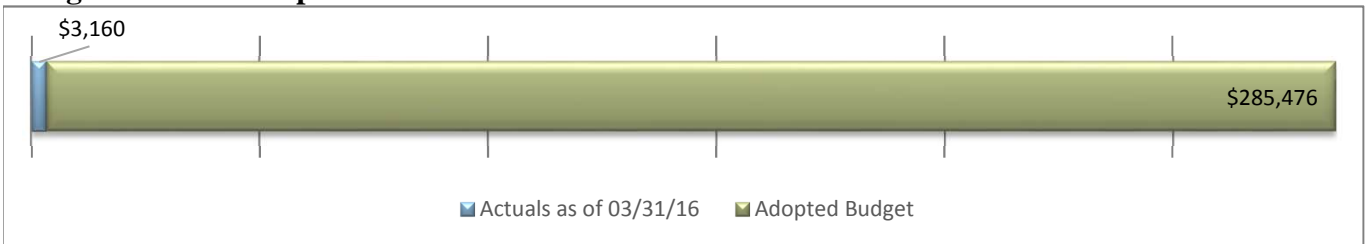
For FY 2016/17, the project will complete the expansion of the rainfall network into Wilson and Goliad Counties, fill rainfall data gaps within Bexar County and the exploration of extending the Karnes County network outside the Escondido Creek watershed. The River Authority is working with the National Weather Service and local emergency management officials to determine site locations.

Of the total \$769,795 Adopted Budget, \$206,954 is estimated labor contribution through the River Authority General Fund.

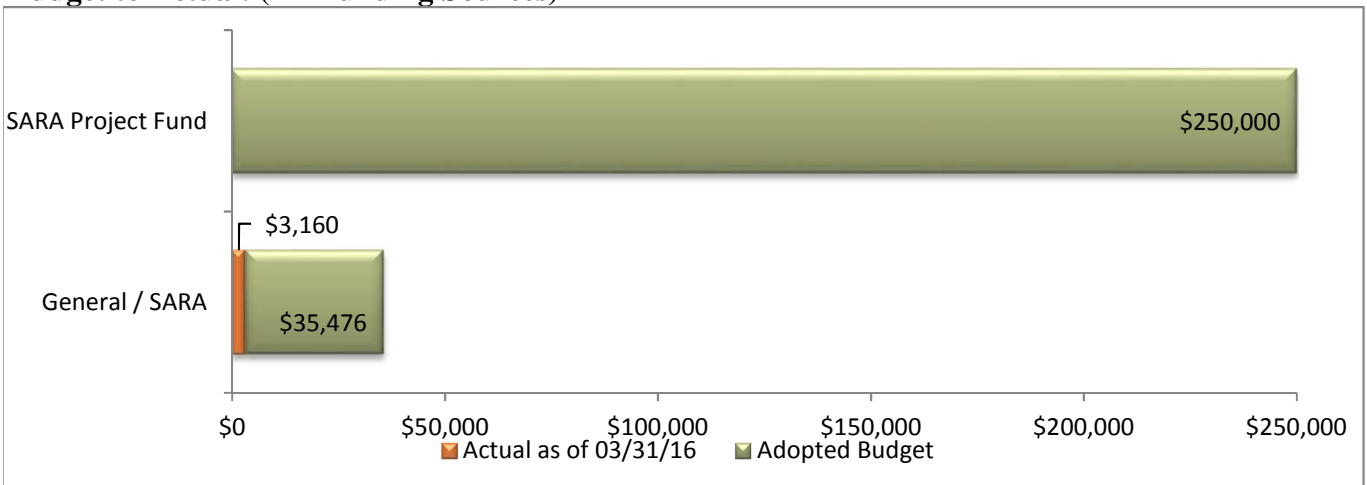
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 148,462	\$ 58,493	\$ 59,924	\$ 62,020	\$ 328,899
Commodities	485,317	61,697	110,000	20,000	677,014
Contracts	15,826	-	-	-	15,826
<b>Total</b>	<b>\$ 649,605</b>	<b>\$ 120,190</b>	<b>\$ 169,924</b>	<b>\$ 82,020</b>	<b>\$ 1,021,739</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Resource Conservation Partnership Program **Project #** 0503  
**Managing Department:** Watershed Engineering

		Adopted Budget:	\$	285,476
Project Start Date:	07/01/15	Unfunded Budget:	\$	-
Project Finish Date:	03/30/21	Total Project Budget:	\$	285,476

The River Authority is a partner in the Texas Gulf Coast Initiative (TGCI) of the U.S. Department of Agriculture Resource Conservation Partnership Program (RCPP). The TGCI is a large-scale effort to improve water quality, water quantity, and soil health throughout a 43 county area of the Texas Gulf Coast. The TCGI region is one of the fastest growing areas in the United States and nearly half of all United States coastal wetlands are located along the Gulf. The TGCI will focus on the restoration and protection of headwater stream and wetland systems on agricultural cropland, grassland, rangeland, pastureland, and forestland within the region, to improve function and provide protections to these systems against future development impacts. Sediment from stream erosion is a major source of pollution into stream and wetland systems. Funds will be used in the River Authority's four county jurisdiction for stream/wetland restoration, best management practices, and riparian/habitat enhancement, improvements to agricultural practices and other land conservation efforts. The River Authority provides matching local funds and in-kind services by coordinating efforts with the local, state, and national activities of the partnership program.

By working with landowners to restore creeks and streams on their property, the River Authority will generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries, and bays. In addition, through the River Authority's outreach activities to landowners, this project will support the annual objective to develop outreach and educational strategies to elevate public knowledge and appreciation of creeks and rivers.

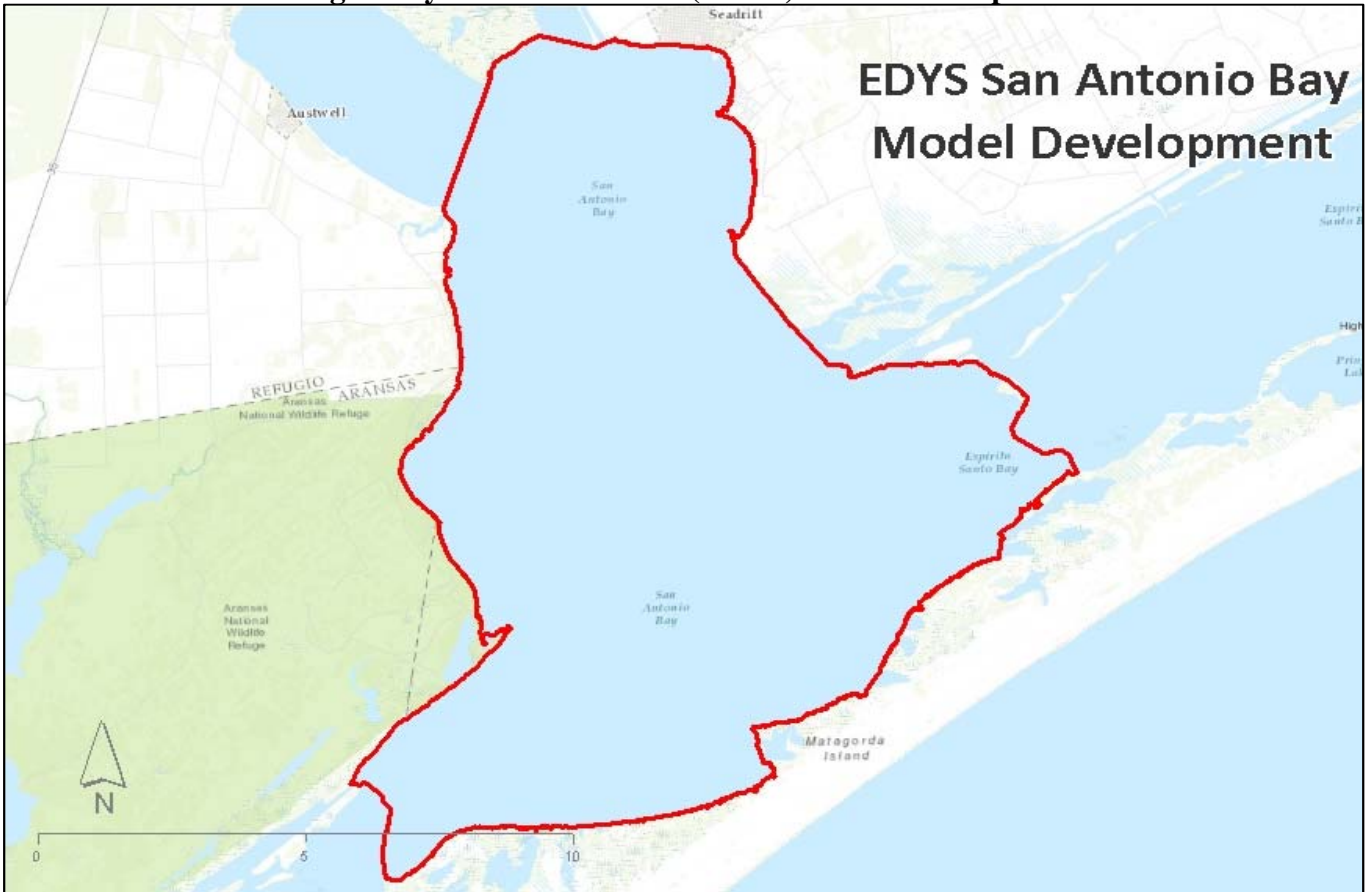
In FY 2016/17, the River Authority will identify and collaborate with potential landowners/producer participants, assist with providing public outreach services as needed, help identify potential projects, provide technical assistance and support, and collaborate with the partners to develop project activities.

Of the total \$285,476 Adopted Budget, \$35,476 is estimated labor contribution through the River Authority General Fund.

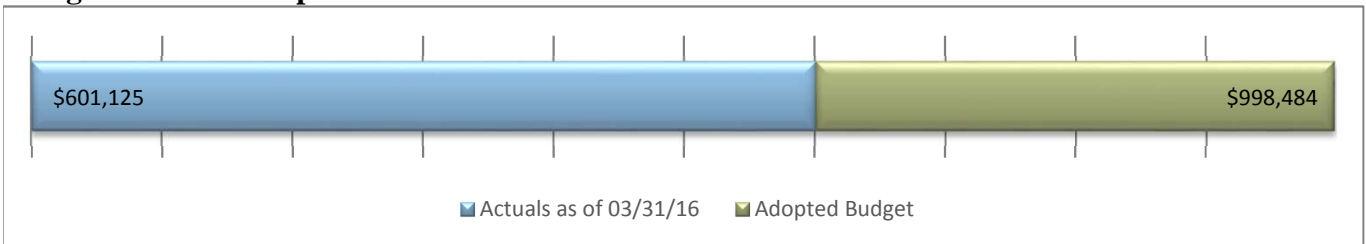
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 3,160	\$ 32,316	\$ -	\$ -	\$ 35,476
Commodities	-	-	-	-	-
Contracts	-	250,000	-	-	250,000
<b>Total</b>	<b>\$ 3,160</b>	<b>\$ 282,316</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 285,476</b>



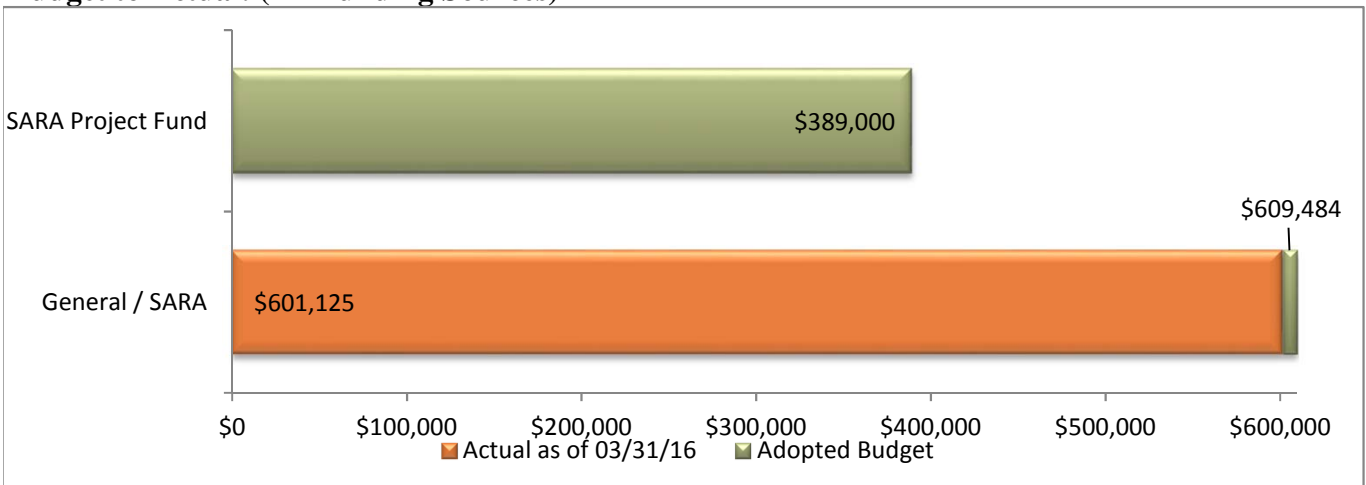
Ecological Dynamic Simulation (EDYS) Model Development



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** **San Antonio Bay** **Project #** **0296**  
**Ecological Dynamic Simulation (EDYS) Model Development**

Managing Department: Watershed Engineering

	Adopted Budget:	\$	998,484
Project Start Date: 03/31/11	Unfunded Budget:	\$	-
Project Finish Date: 06/30/17	Total Project Budget:	\$	998,484

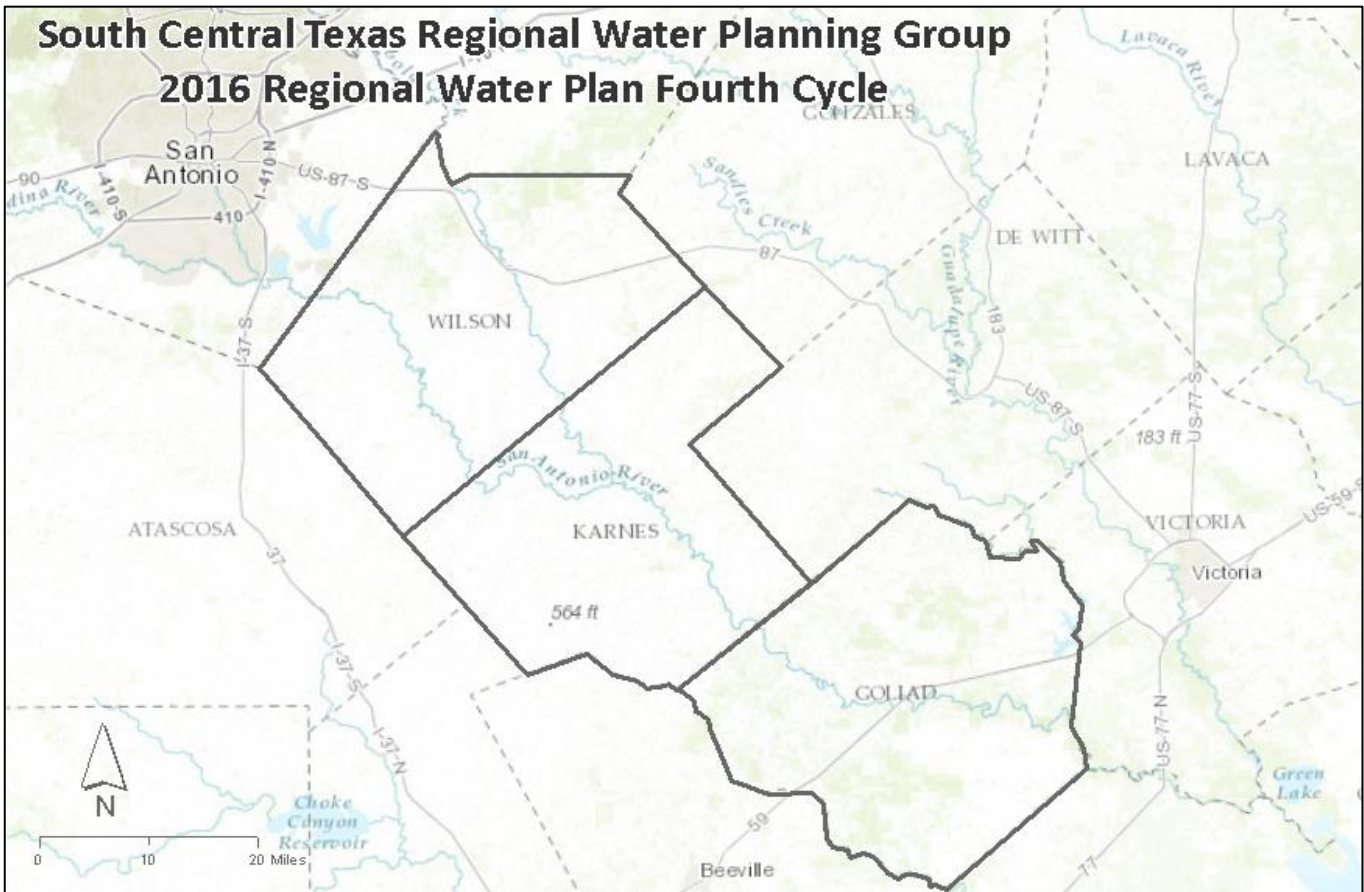
The purpose of this Ecological Dynamic Simulation (EDYS) application is to develop an integrated model for the San Antonio Bay. The model combines multiple parameters and simulates salinity and sediment gradient dynamics resulting from outflows of freshwater from the river and tidal inputs of brackish water from the bay and the effects of these gradients on the marsh vegetation. The model can serve as a tool that would be of substantial benefit for decision making in the San Antonio River-San Antonio Bay complex and is a dynamic ecological simulation model that can integrate hydrological and ecological responses in a practical and scientifically valid manner.

This ecological modeling project provides the tool to improve understanding of the complex dynamics of the San Antonio Bay system, which is a necessary component for supporting conservation efforts, namely for the whooping crane management and supports the River Authority’s strategic opportunity of providing policy and science-based leadership in support of the San Antonio Bay.

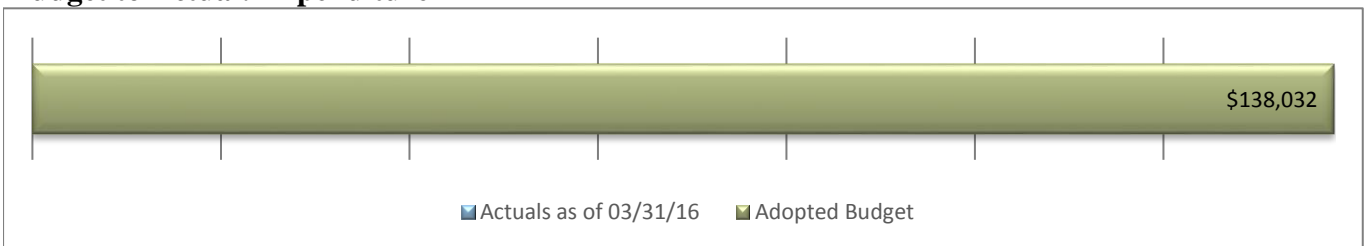
In FY 2016/17, EDYS models developed for the San Antonio Bay will be further refined to include additional animal components and continued modeling validation efforts.

Of the total \$998,484 Adopted Budget, \$17,643 is estimated labor contribution through the River Authority General Fund.

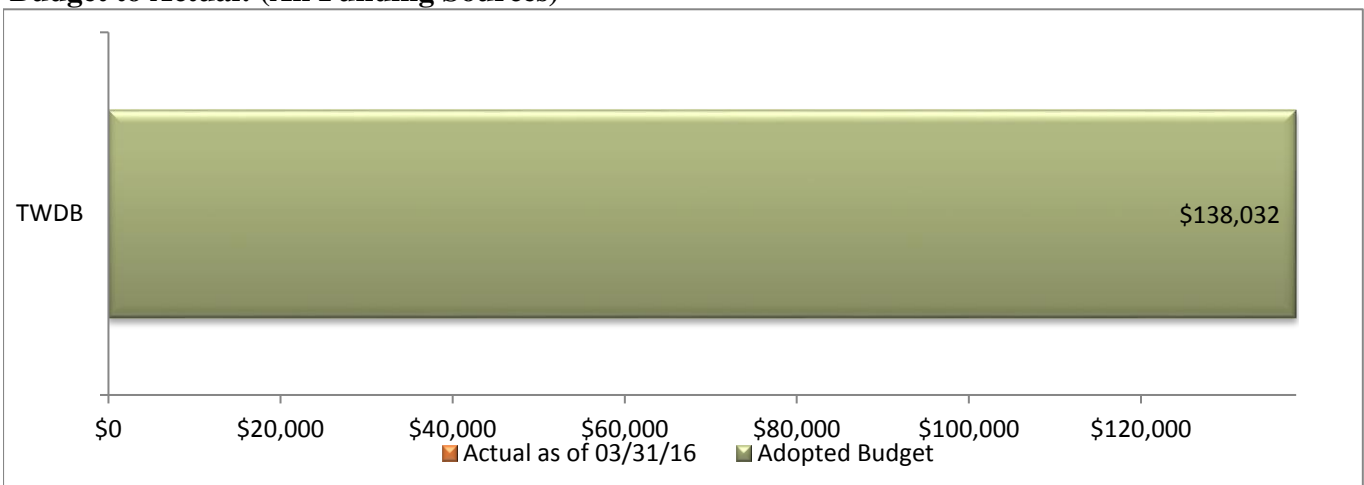
<b>Expenditures</b>	<b>Actuals as of <u>March 31, 2016</u></b>	<b>April 2016 to <u>June 2017</u></b>	<b><u>2017/18</u></b>	<b>Succeeding from <u>2018/19</u></b>	<b><u>Total</u></b>
Personnel	\$ 9,284	\$ 8,359	\$ -	\$ -	\$ 17,643
Commodities	-	-	-	-	-
Contracts	<u>591,841</u>	<u>389,000</u>	-	-	<u>980,841</u>
<b>Total</b>	<b>\$ <u>601,125</u></b>	<b>\$ <u>397,358</u></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ <u>998,484</u></b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** SCTRWPG 2021 RWP Fifth Cycle **Project #** 0524  
**Managing Department:** Intergovernmental and Community Relations

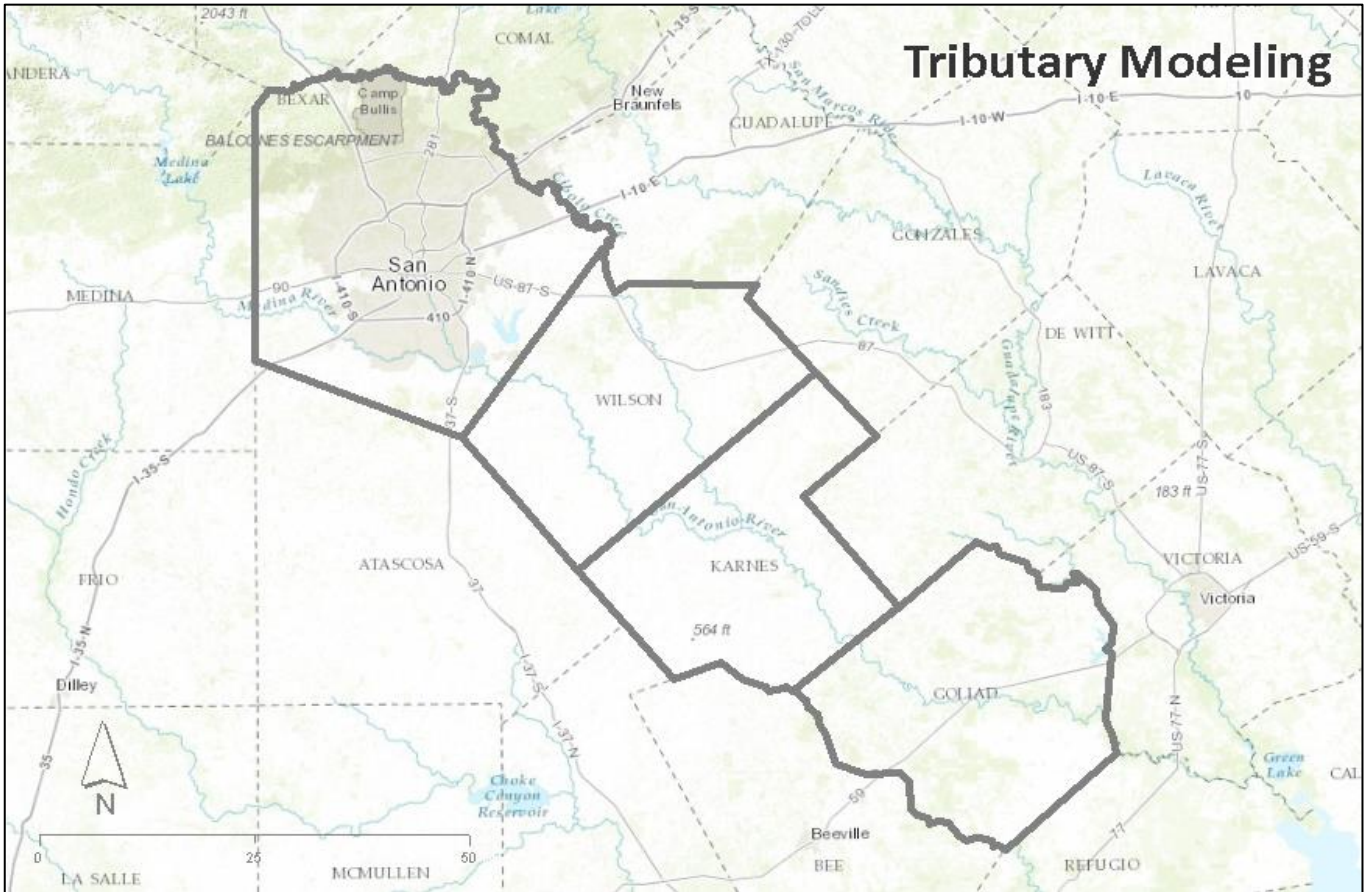
		Adopted Budget:	\$	138,032
Project Start Date:	08/31/15	Unfunded Budget:	\$	-
Project Finish Date:	03/31/21	Total Project Budget:	\$	138,032

The South Central Texas Regional Water Planning Group (SCTRWPG) is in its fifth cycle of regional water planning. Funding from the Texas Water Development Board will be used for development of the 2021 Regional Water Plan (RWP), which includes evaluation of population and population-related water demand projections through 2075; evaluation of non-population related water demand projections including irrigation, livestock, mining, steam electric, and manufacturing through 2075; assessment of existing water supplies for water user groups (WUGs) and wholesalers including impacts of recently established Managed Available Groundwater numbers; identification of water needs of WUGs and wholesale suppliers; identification of potentially feasible water management strategies for evaluation; preparation and submittal of a Technical Memorandum summarizing activities and data; and, subject to findings in the Technical Memorandum, evaluation of potential water management strategies to meet identified water needs.

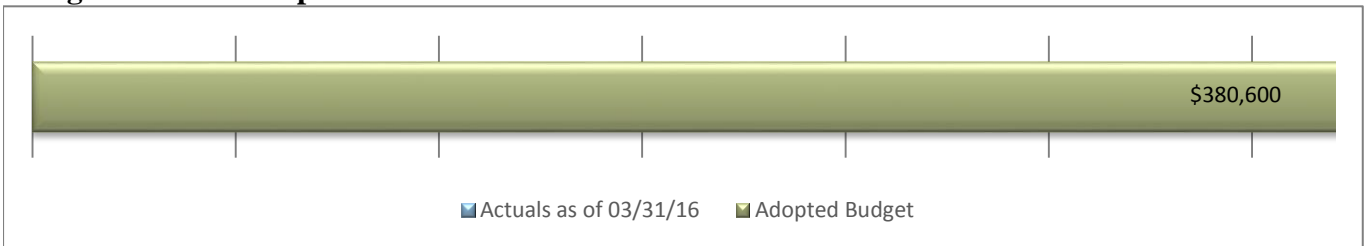
The River Authority is the administrator for the SCTRWPG and manages the consulting services and general administrative costs associated with developing the five year water plan via an interlocal agreement that sets out the governance for the group. Through this project, the River Authority is able to advance the goals of implementing watershed solutions, strengthening employee expertise and dedication, and diversifying and leveraging funding.

In FY 2016/17, the River Authority will provide administrative services to the SCTRWPG ensuring that planning tasks are performed and completed through 2021; leading to the development of the 2021 Regional Water Plan which will be incorporated into the 2022 State Water Plan.

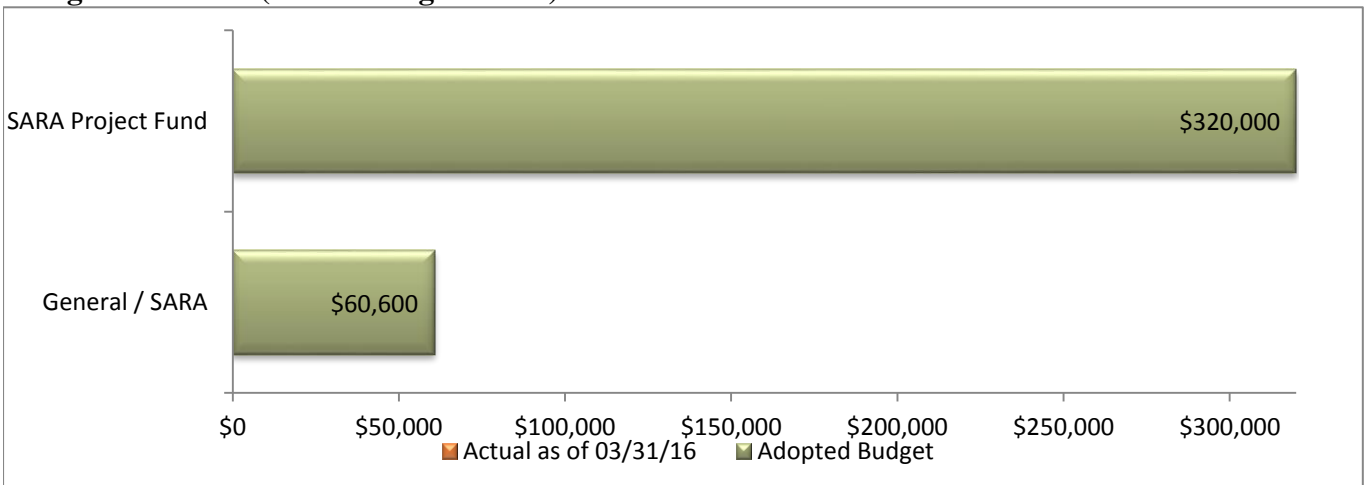
<b>Expenditures</b>	<b>Actuals as of <u>March 31, 2016</u></b>	<b>April 2016 to <u>June 2017</u></b>	<b><u>2017/18</u></b>	<b>Succeeding from <u>2018/19</u></b>	<b><u>Total</u></b>
Labor	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	-	-	-	-	-
Contracts	-	73,622	64,410	-	138,032
<b>Total</b>	<b>\$ -</b>	<b>\$ 73,622</b>	<b>\$ 64,410</b>	<b>\$ -</b>	<b>\$ 138,032</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Tributary Modeling**  
 Managing Department: Watershed Engineering

**Project # 0074**

	Adopted Budget:	\$	380,600
Project Start Date: 07/01/16	Unfunded Budget:	\$	-
Project Finish Date: 06/30/17	Total Project Budget:	\$	380,600

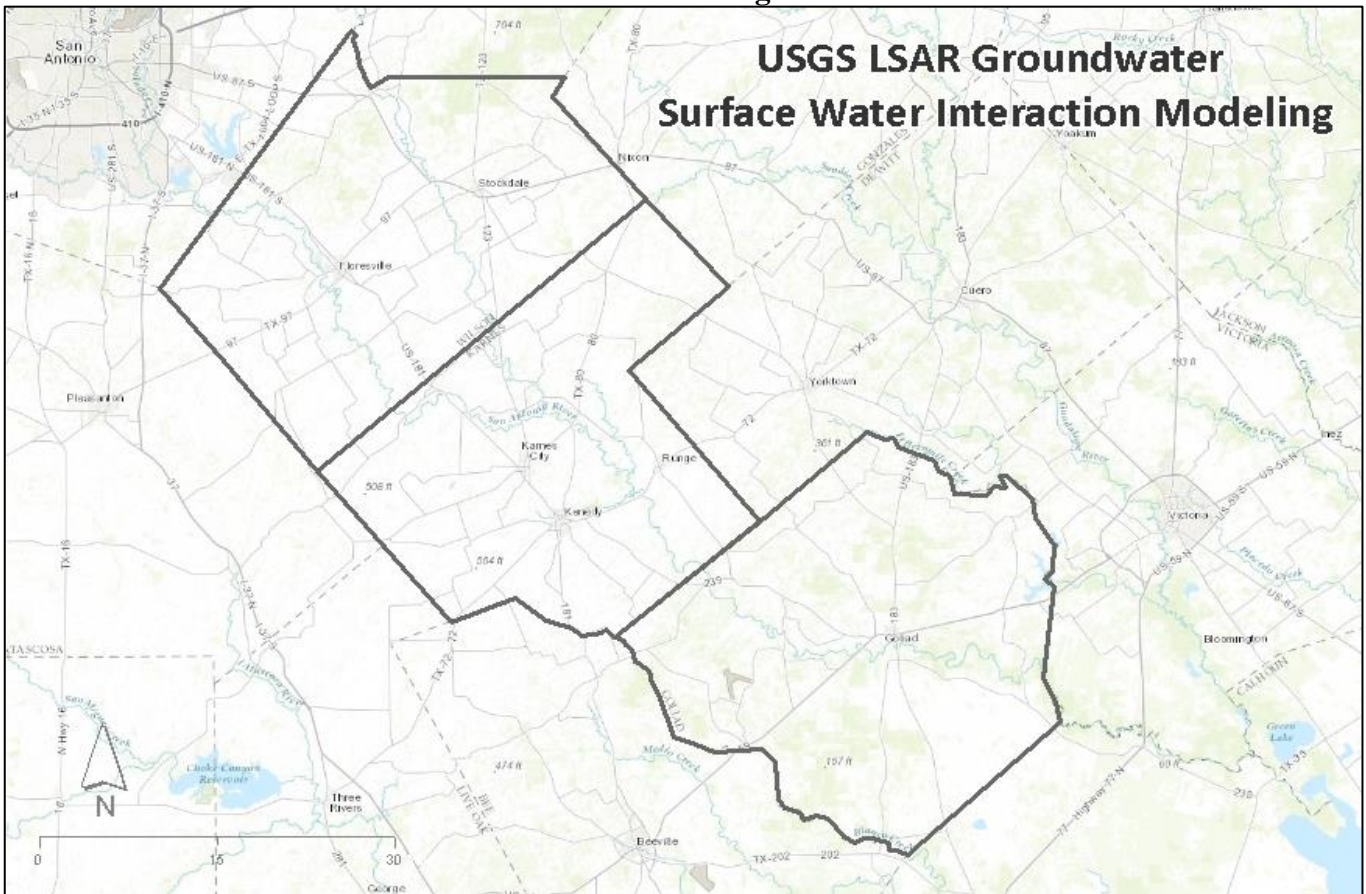
The Digital Flood Insurance Rate Map (DFIRM) effort in Bexar, Wilson, Karnes, and Goliad counties generated detailed computer models of the primary and some secondary streams within the San Antonio River Watershed. The models were used to estimate and map the 1 percent annual chance flood event. Although over 1,000 stream miles were modeled, many streams were not modeled and do not have Federal Emergency Management Agency (FEMA) DFIRM floodplains developed.

The Tributary Modeling project creates floodplain models for the unstudied streams within the River Authority’s district to serve as base models for developing "Zone A" floodplain boundaries for the unmapped areas and to serve as the basis for more detailed studies as needed. These new models integrate into the River Authority’s flood monitoring and response efforts as they become available and advance the science of watershed management by developing and using data and innovative models and analysis to impact decision making. During the past eight years the River Authority has invested over \$900,000 in modeling.

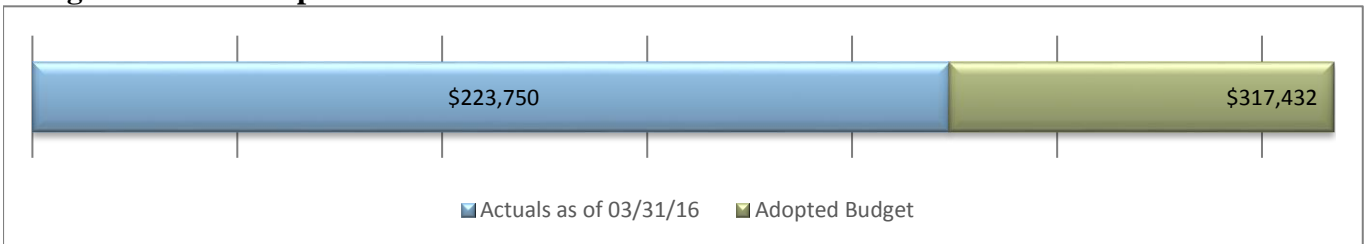
In FY 2016/17, the project will create floodplain models for eight unstudied streams.

Of the total \$380,600 Adopted Budget, \$60,600 is estimated labor contribution through the River Authority General Fund.

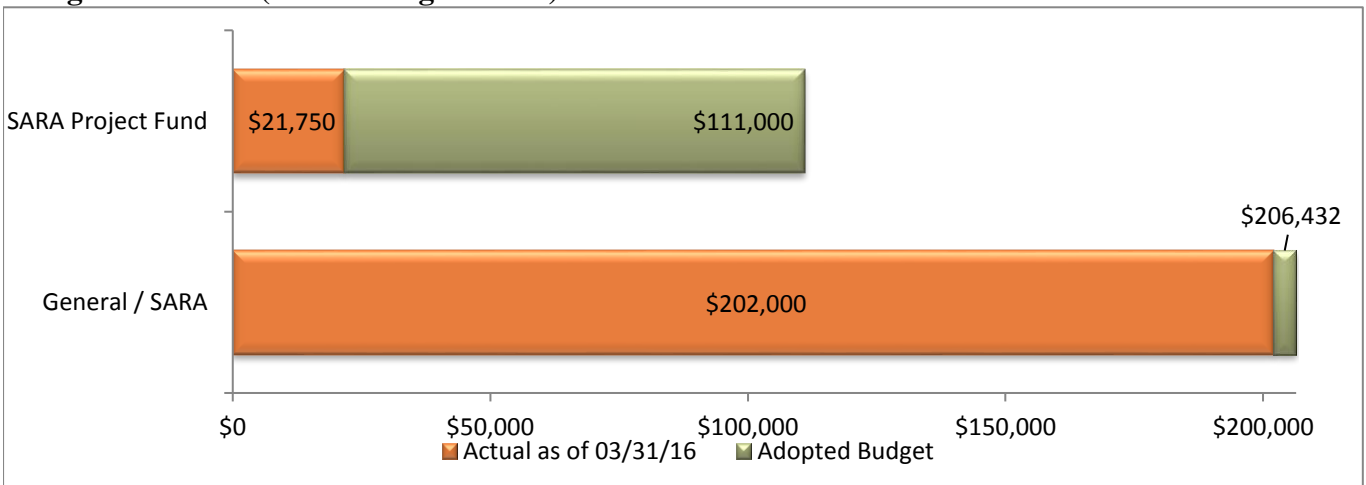
<b>Expenditures</b>	<u>Actuals as of March 31, 2016</u>	<u>April 2016 to June 2017</u>	<u>2017/18</u>	<u>Succeeding from 2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 60,600	\$ -	\$ -	\$ 60,600
Commodities	-	320,000	-	-	320,000
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ -</u>	<u>\$ 380,600</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 380,600</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: USGS LSAR Groundwater Surface Water Interaction Modeling** **Project # 0411**

Managing Department: Watershed Engineering

		Adopted Budget:	\$	317,432
Project Start Date:	10/31/13	Unfunded Budget:	\$	-
Project Finish Date:	06/12/17	Total Project Budget:	\$	317,432

This project will address the impact of groundwater exploitation and decreased recharge by compiling appropriate datasets and if sufficient data are available developing a groundwater model to simulate stream-aquifer interactions and potential contaminant pathways to surface waters. The project will be conducted in cooperation with the U.S. Geological Survey (USGS) and will produce an analysis of various scenarios that can be used for both planning and assessment purposes.

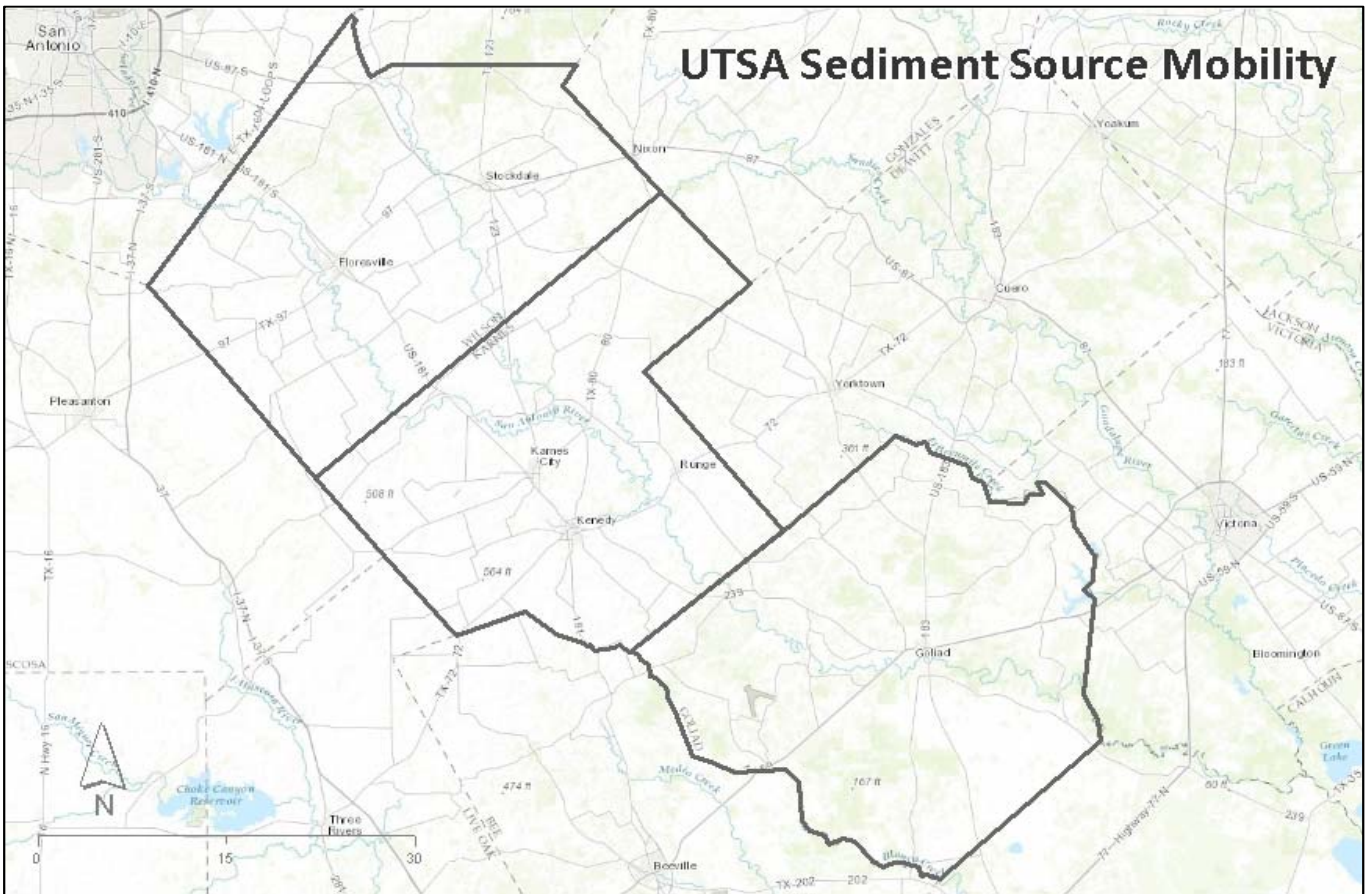
By investigating groundwater-surface water interaction and the potential for stream flow impacts, this project is supporting the River Authority's strategic objective to advance the science of watershed management by developing and using data and innovative models to impact decision making.

In FY 2016/17, the project will use the groundwater model previously developed to simulate groundwater interaction with surface water under multiple scenarios representing both changes in recharge and increases groundwater exploitation. The simulations will be analyzed in order to identify the potential impacts on the lower basin streams and river. These results will be interpreted and published in scientific literature.

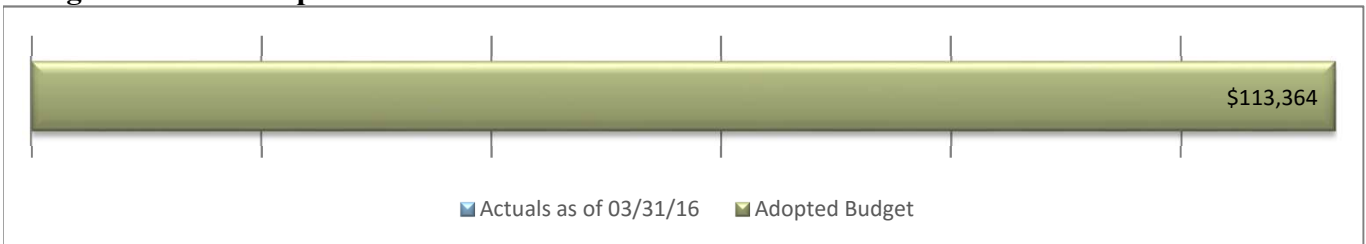
Of the total \$317,432 Adopted Budget, \$4,432 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ -	\$ 4,432	\$ -	\$ -	\$ 4,432
Commodities	-	-	-	-	-
Contracts	223,750	89,250	-	-	313,000
<b>Total</b>	<b>\$ 223,750</b>	<b>\$ 93,682</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 317,432</b>

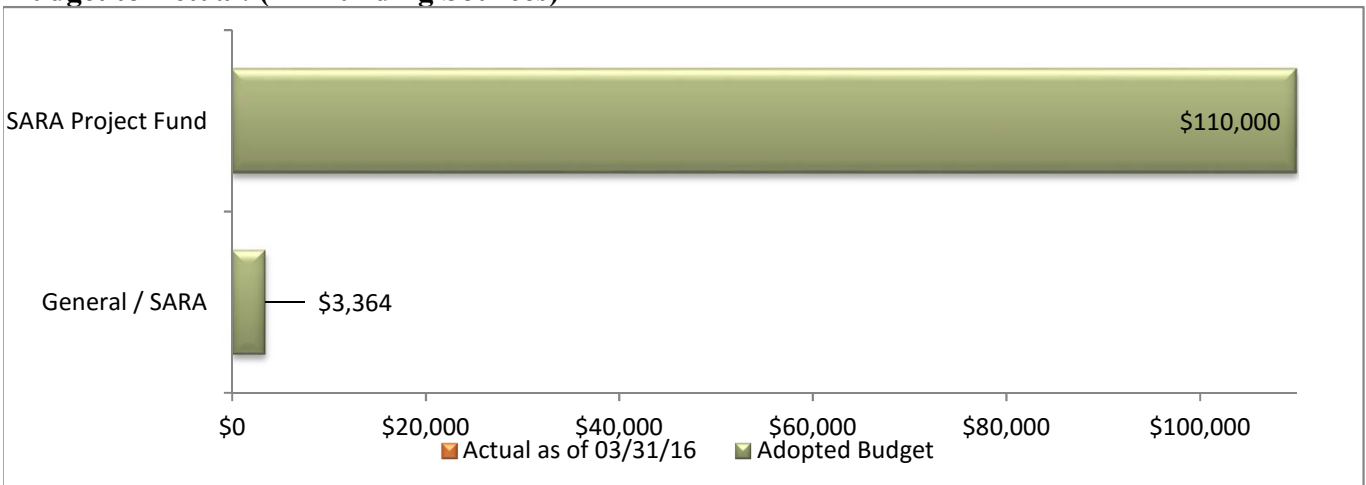




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** UTSA Sediment Source Mobility **Project #** 0499  
**Managing Department:** Watershed Engineering

	Adopted Budget:	\$	113,364
Project Start Date: 07/31/15	Unfunded Budget:	\$	-
Project Finish Date: 12/31/18	Total Project Budget:	\$	113,364

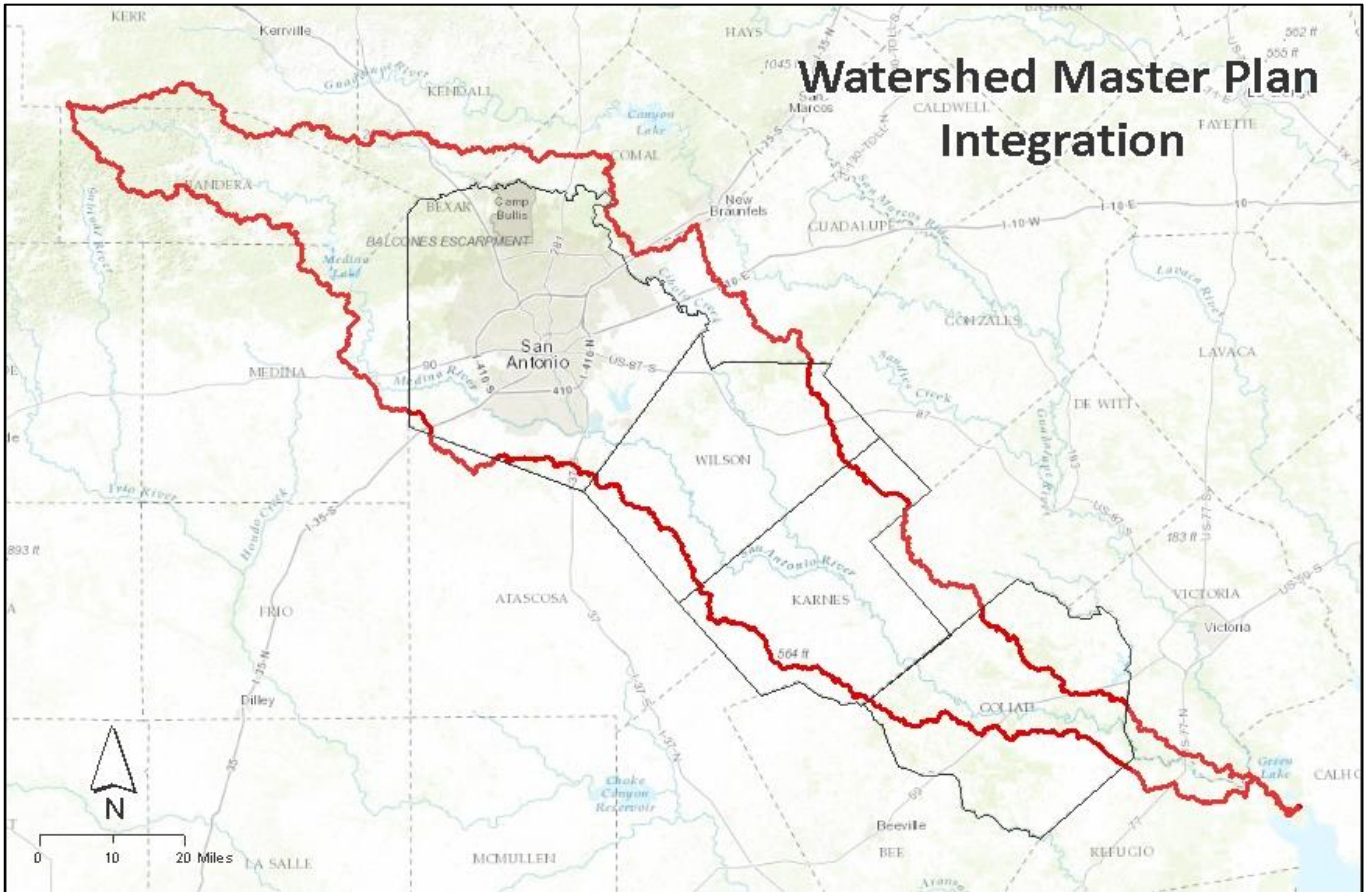
Long term river management strategies addressing channel stability and riverine habitat are dependent on understanding current and future sediment transport functions. The purpose of this project is to quantify the sources and mobility of streambed sediments in the lower San Antonio River with special attention to gravel-sized sediment. The project identifies the sources of coarse-grained material and the impact on the size distributions of streambed sediment. In addition, the study assesses the mobility and transport rates of sediment with an emphasis on the larger sediment sizes present in the streambed. The study identifies tributaries that are significant sources of bed sediments, quantifies the bed form regime occurring in the San Antonio River and its influence on sediment transport and channel stability, and evaluates the performance of predictive sediment transport functions given these new reach-specific insights. An understanding of sediment characteristics and its sources is essential as the River Authority interacts with the U.S. Fish and Wildlife Service regarding the impending listing of the Golden Orb mussel as an endangered species.

This collaborative study with the University of Texas at San Antonio (UTSA) enhances the River Authority's capability to protect and restore the basin's creeks and rivers including sustaining habitat for key species such as mussels. The project acquires data regarding sources of gravel substrates as well as parameters contributing to stream restoration potential in support of the River Authority's strategic goal of developing watershed solutions.

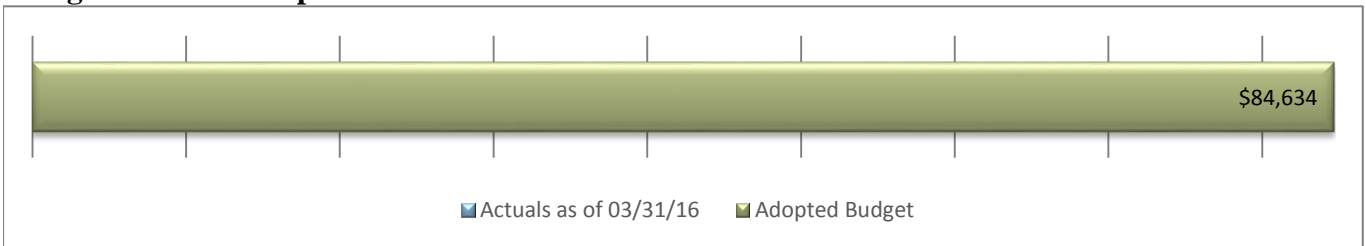
In FY 2016/17, field work consisting of identifying gravel sources and collecting samples at sedimentary structures on channel bars will commence. The amount and sizes of sediment transported as well as channel properties will be observed and computed. The resulting data will be compiled to facilitate model development for future simulation of stream sediment transport and bank erosion.

Of the total \$113,364 Adopted Budget, \$3,364 is estimated labor contribution through the River Authority General Fund.

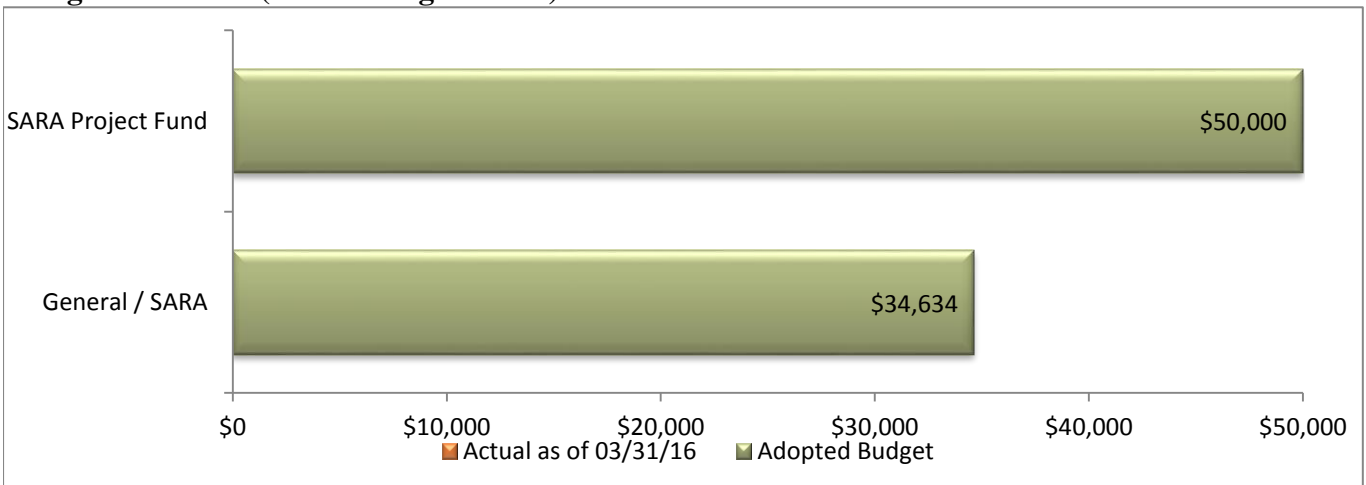
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ -	\$ 3,364	\$ -	\$ -	\$ 3,364
Commodities	-	-	-	-	-
Contracts	-	110,000	-	-	110,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 113,364</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 113,364</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Watershed Master Plans Integration **Project #** 0536  
 Managing Department: Watershed Engineering

	Adopted Budget:	\$	84,634
Project Start Date: 07/01/16	Unfunded Budget:	\$	188,300
Project Finish Date: 06/30/18	Total Project Budget:	\$	272,934

The Watershed Master Plan Integration project supports the implementation of watershed solutions and the advancement of the science of watershed management through the use of geographic information systems (GIS) tools and modeling data.

This project combines the analysis and recommendations from various watershed master plans developed by the River Authority to strategically identify and target watershed solutions. A multi-departmental team reviews the recommendations, standardizes the data, determines how to incorporate recommendations into existing initiatives, and proposes new initiatives.

In FY 2016/17, the project’s deliverables include stakeholder meetings, integrated geospatial datasets and models, and an action plan. The funding allocation for FY 2016/17 will be used mainly to acquire and enhance GIS data.

Of the total \$84,634 Adopted Budget, \$34,634 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals as of March 31, 2016</u>	<u>April 2016 to June 2017</u>	<u>2017/18</u>	<u>Succeeding from 2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 34,634	\$ 73,890	\$ -	\$ 108,524
Commodities	-	-	-	-	-
Contracts	-	50,000	114,410	-	164,410
<b>Total</b>	<u>\$ -</u>	<u>\$ 84,634</u>	<u>\$ 188,300</u>	<u>\$ -</u>	<u>\$ 272,934</u>



SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

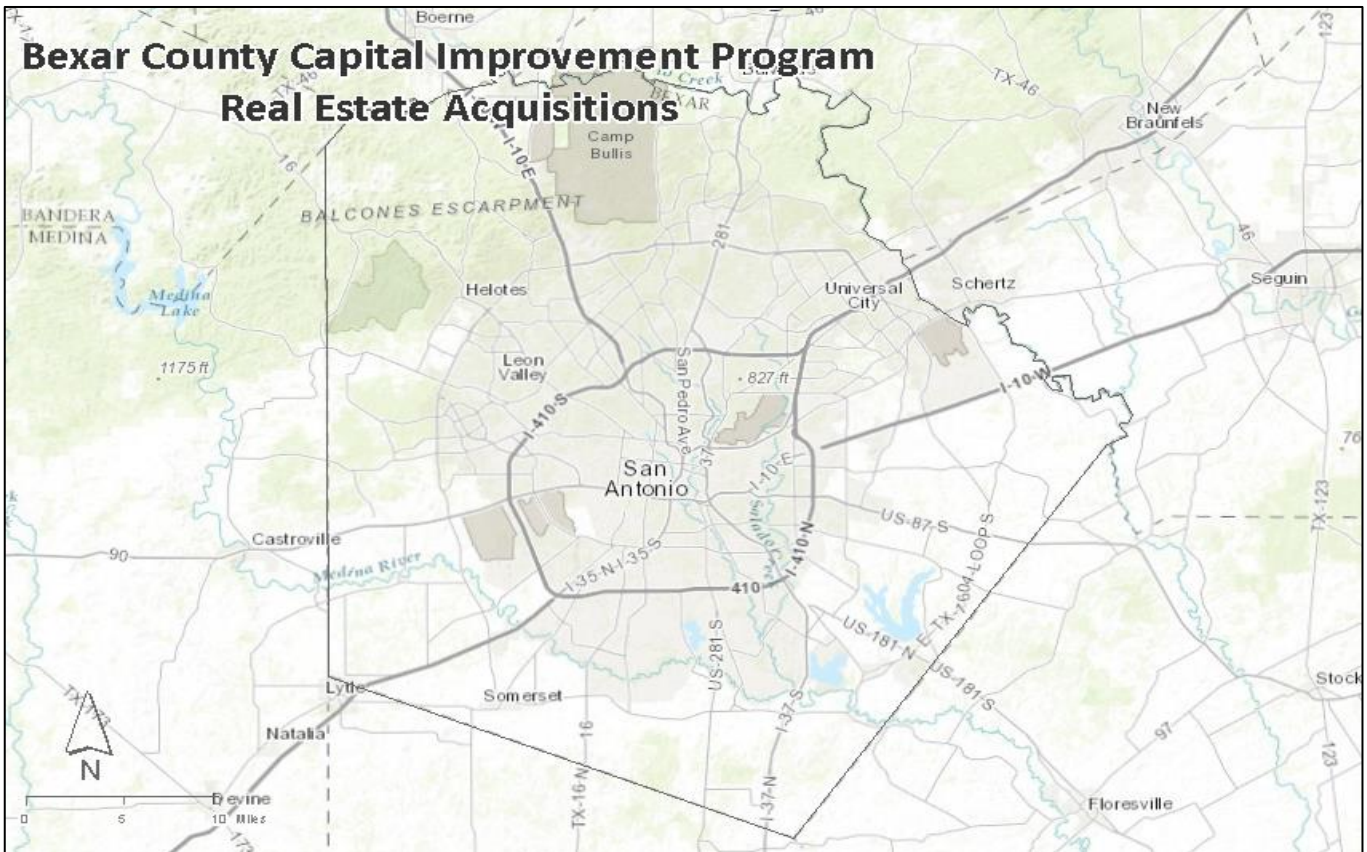


SAN ANTONIO  

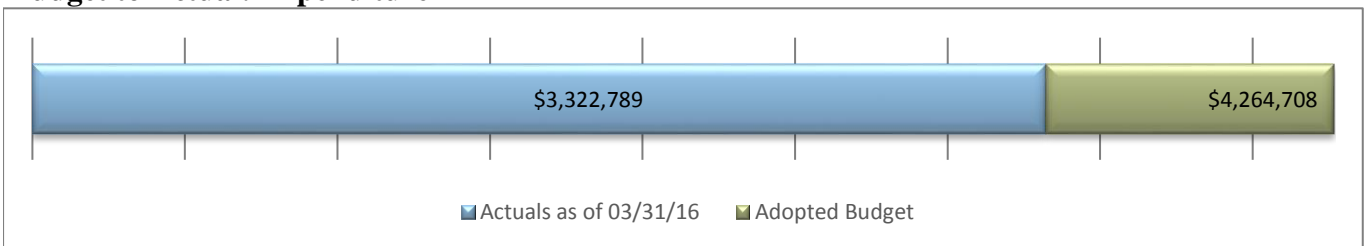
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RIVER AUTHORITY

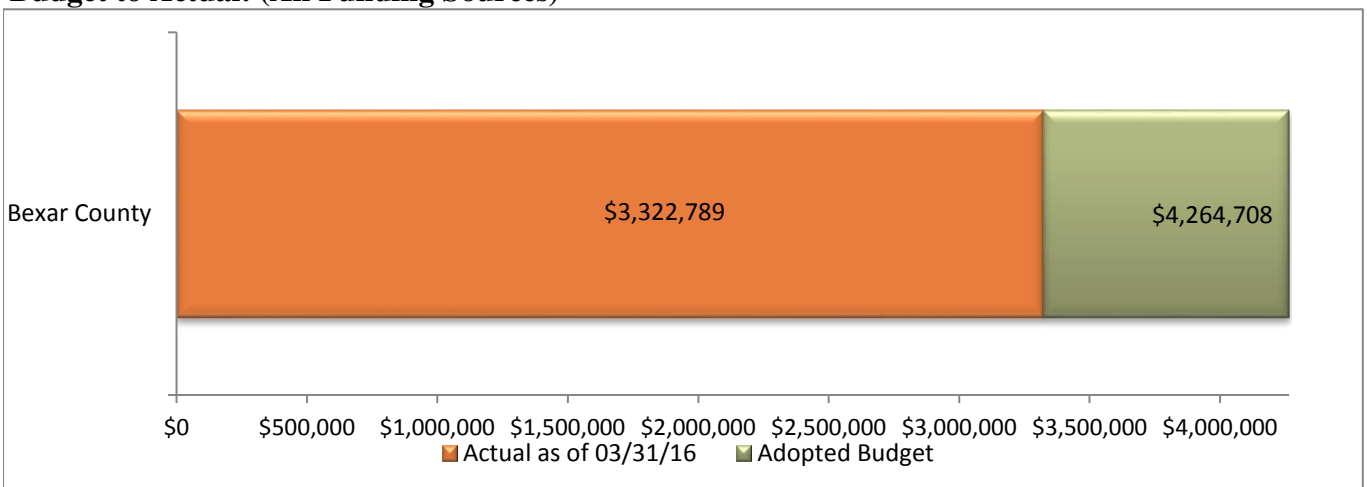
Leaders in Watershed Solutions



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Bexar County Capital Improvement Program Project # 0394**  
**Real Estate Acquisitions**

Managing Department: Real Estate

	Adopted Budget:	\$ 4,264,708
Project Start Date: 01/01/08	Unfunded Budget:	\$ -
Project Finish Date: 12/31/17	Total Project Budget:	\$ 4,264,708

In 2007, the Bexar County Commissioners Court approved a \$500 million flood control capital improvements program. Projects within this program included regional stormwater facilities, low water crossings, natural waterway conveyances (channelization), outfall structures and buyouts throughout Bexar County. The River Authority’s Real Estate staff provides real estate acquisition services for this program including negotiations for property rights and relocation with property owners. The sixth amendment to the interlocal agreement with the County identified a total of 42 projects. This includes the addition of one new project and removal of two projects included in the fifth amendment. The seventh amendment added two projects: Pecan Creek at Toutant Beauregard and Talley Road.

This project strengthens employee expertise and dedication and supports the implementation of watershed solutions.

During FY 2016/17, work will continue on these projects to complete property acquisitions and relocations.

<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 621,040	\$ 17,668	\$ 15,662	\$ -	\$ 654,370
Commodities	1,624,403	-	-	-	1,624,403
Contracts	1,077,346	520,236	388,353	-	1,985,936
<b>Total</b>	<b>\$ 3,322,789</b>	<b>\$ 537,904</b>	<b>\$ 404,015</b>	<b>\$ -</b>	<b>\$ 4,264,708</b>

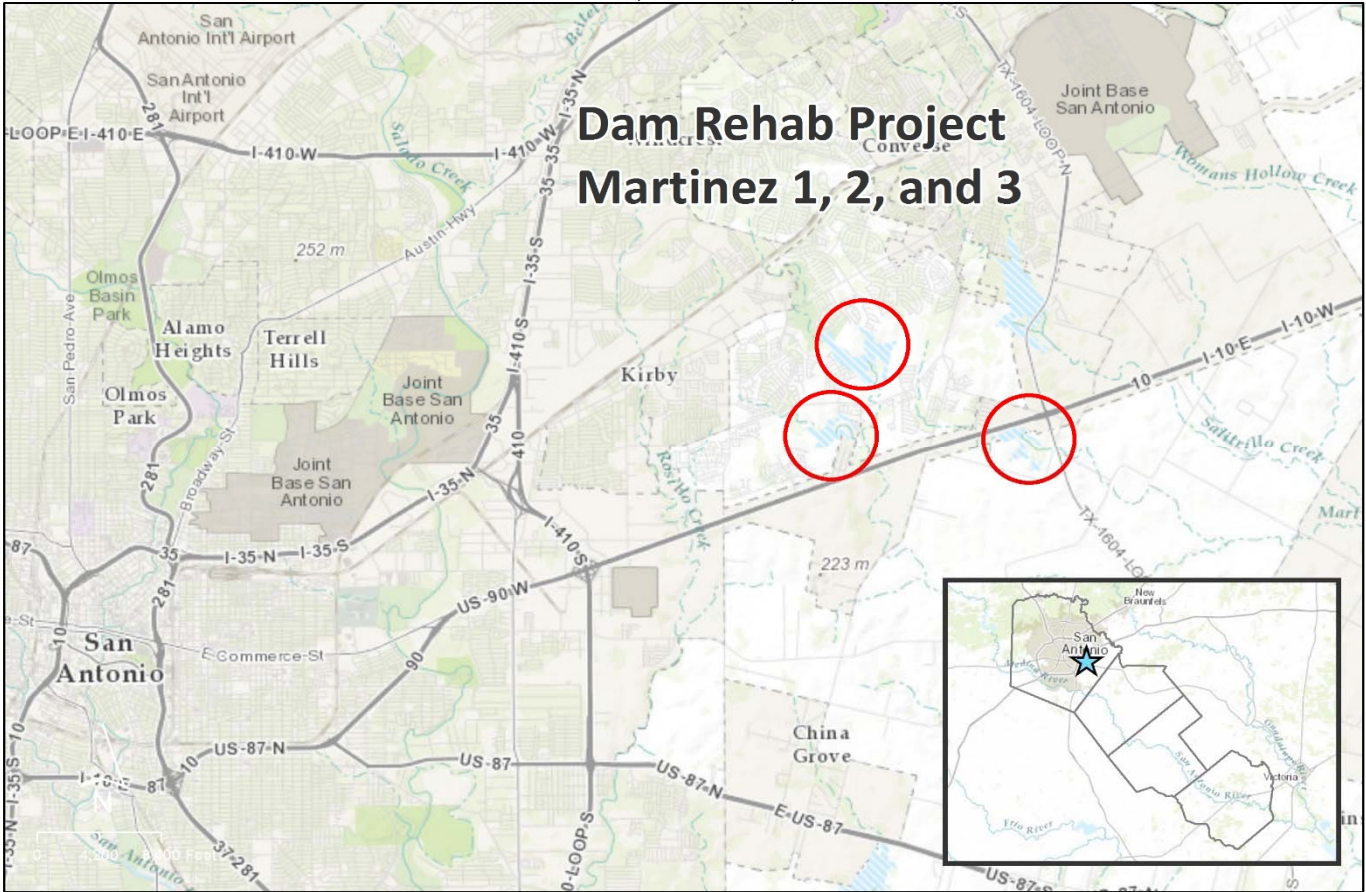


**Project Name:**

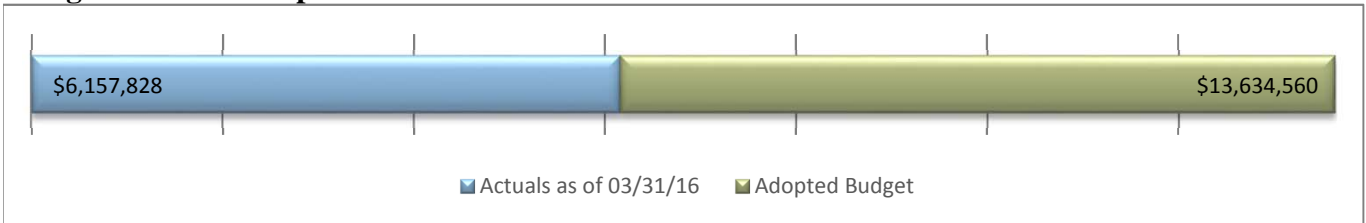
**Binz Engleman Dam (Martinez 1),  
Martinez Creek Dam (Martinez 2) and  
Escondido Creek Dam (Martinez 3) Rehabilitation**

**Project #**

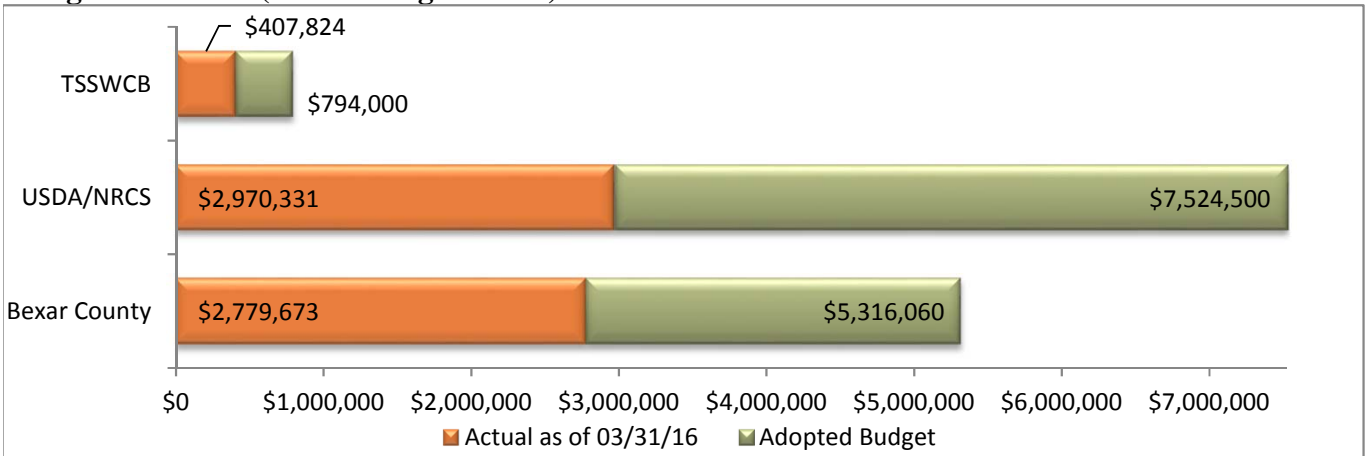
**0374**



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** **Binz Engleman Dam (Martinez 1), Martinez Creek Dam (Martinez 2) and Escondido Creek Dam (Martinez 3) Rehabilitation** **Project #** **0374**

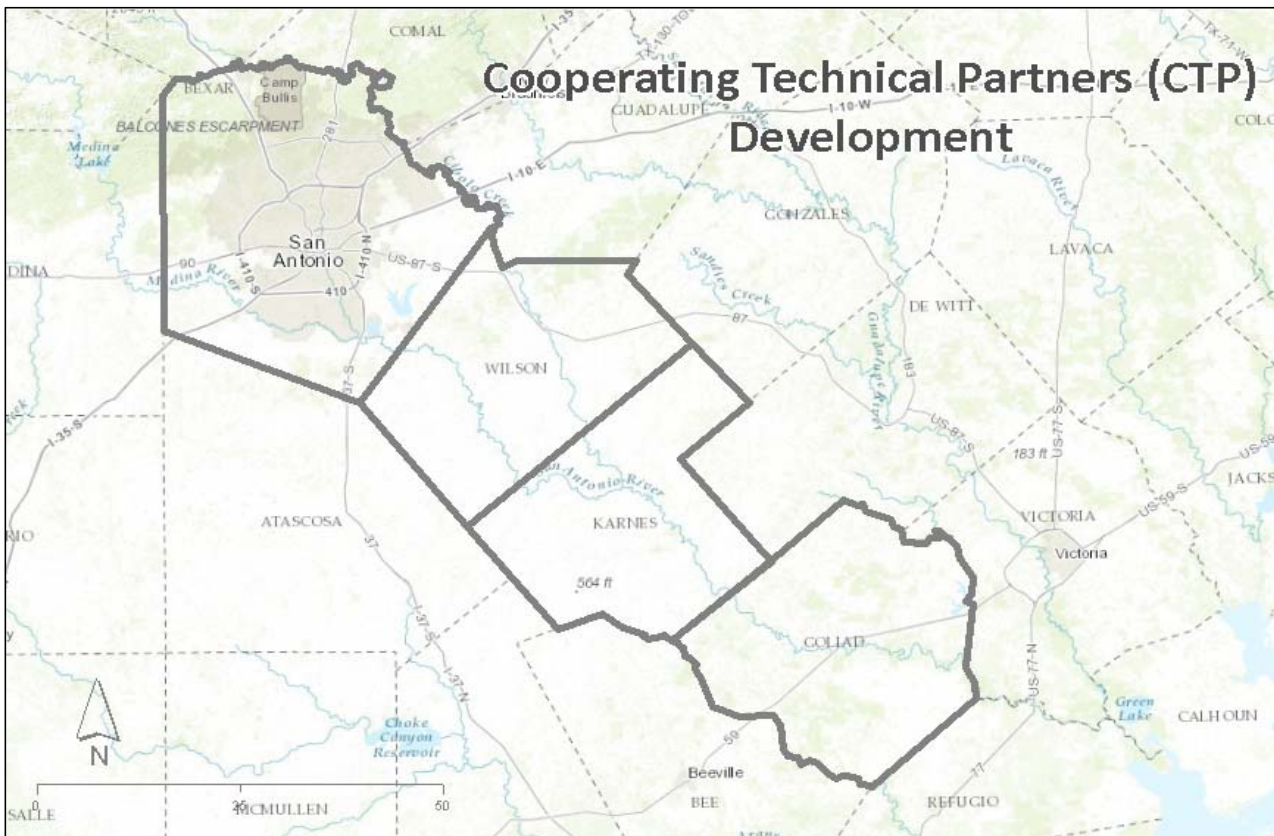
Managing Department: Watershed and Park Operations

		Adopted Budget:	\$ 13,634,560
Project Start Date:	07/27/12	Unfunded Budget:	\$ -
Project Finish Date:	01/20/17	Total Project Budget:	\$ 13,634,560

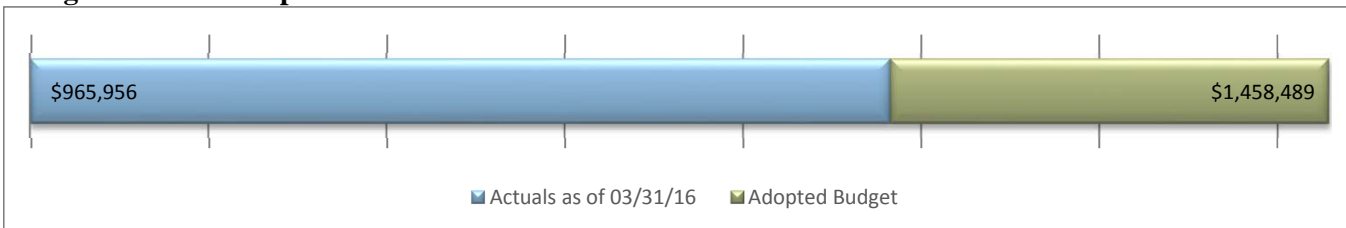
This project improves Martinez 1 (Binz-Engleman Dam), Martinez 2 (Martinez Creek Dam) and Martinez 3 (Escondido Creek Dam) to current Texas Commission on Environmental Quality (TCEQ) standards. Improvements primarily include earthwork to increase the height of the dams and to improve the auxiliary spillways. According to the project plan and the operation and maintenance agreement for the rehabilitation project, the River Authority is responsible for the operation and maintenance of the dams to assure they function as designed and constructed. This project is funded by Texas State Soil and Water Conservation Board (TSSWCB) up to 14 percent; the Natural Resources Conservation Service (NRCS) funds 65 percent; and the remainder is funded by Bexar County. The design is being administered through the River Authority. River Authority staff also provides construction administration and project management services through construction.

The dams are an important component in controlling floodwaters in the basin and protecting creeks and rivers. Construction of the improvements at all three dams is expected to be completed in FY 2016/17.

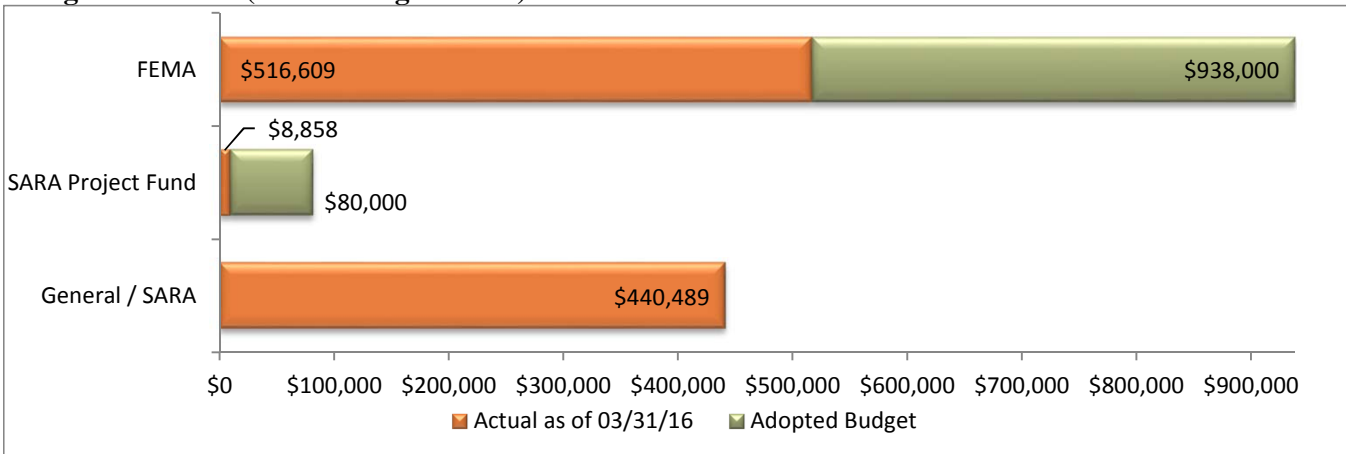
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 363,556	\$ 237,883	\$ -	\$ -	\$ 601,440
Commodities	817,687	713,809	-	-	1,531,497
Contracts	4,976,584	6,525,039	-	-	11,501,623
<b>Total</b>	<b>\$ 6,157,828</b>	<b>\$ 7,476,732</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,634,560</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Cooperating Technical Partners (CTP) Development **Project #** 0092  
 Managing Department: Watershed Engineering

Project Start Date:	07/01/09	Adopted Budget:	\$ 1,458,489
Project Finish Date:	07/03/17	Unfunded Budget:	\$ 50,000
		Total Project Budget:	\$ 1,508,489

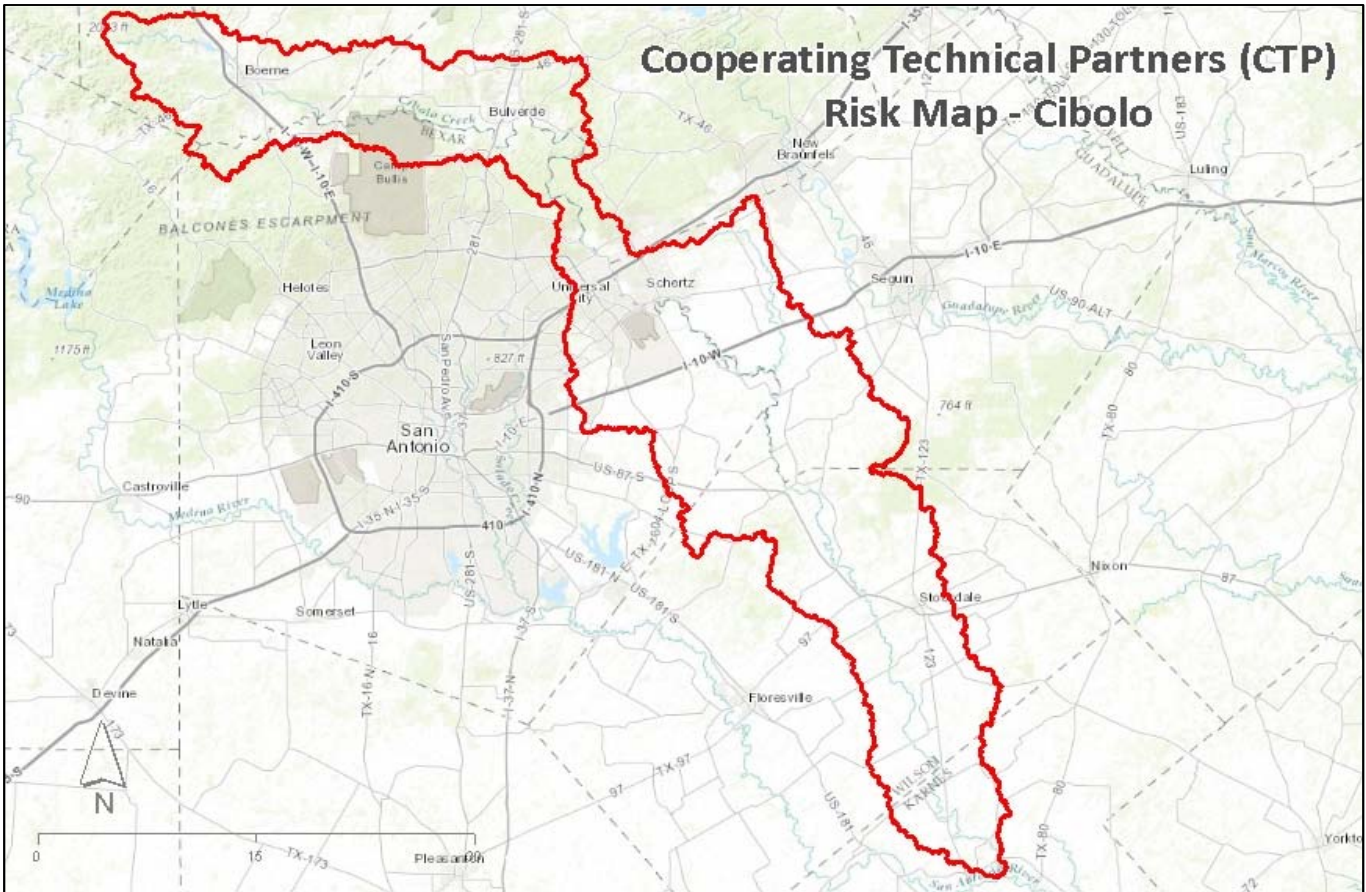
This project supports the River Authority’s Letter of Map Revision (LOMR) and Conditional Letter of Map Revision (CLOMR) delegation. The River Authority is responsibility of reviewing all LOMR and CLOMR submittals to the Federal Emergency Management Agency (FEMA). This project secures the Digital Flood Insurance Rate Maps (DFIRM) investment by developing a way to keep the new flood map information up to date and interactive.

Through partnerships, this project is advancing and applying River Authority expertise to influence, develop and implement watershed solutions. This also expands, diversifies and leverages funding sources.

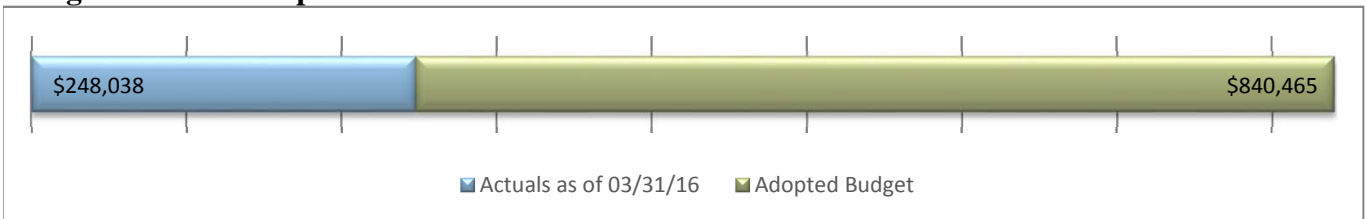
In FY 2016/17, the River Authority will continue the role of FEMA LOMR Delegation partner and will continue reviewing on behalf of FEMA all forms for Letter of Map Change (LOMC) submittals within the Bexar, Wilson, Karnes and Goliad counties.

Of the total \$1,458,489 Adopted Budget, \$68,704 is estimated labor contribution through the River Authority General Fund.

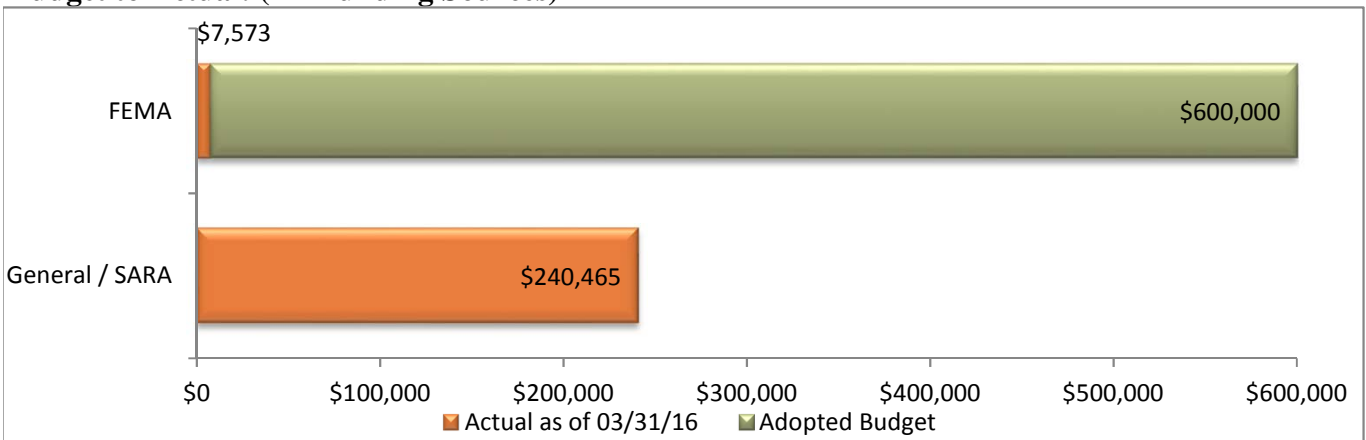
<b>Expenditures</b>	<u>Actuals as of March 31, 2016</u>	<u>April 2016 to June 2017</u>	<u>2017/18</u>	<u>Succeeding from 2018/19</u>	<u>Total</u>
Personnel	\$ 498,987	\$ 224,043	\$ 2,035	\$ -	\$ 725,064
Commodities	4,967	-	-	-	4,967
Contracts	462,003	266,455	50,000	-	778,458
<b>Total</b>	<u>\$ 965,956</u>	<u>\$ 490,498</u>	<u>\$ 52,035</u>	<u>\$ -</u>	<u>\$ 1,508,489</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Cooperating Technical Partners (CTP) Project # 0472**  
**Cibolo Creek Risk Mapping, Assessment and Planning (Risk MAP)**

Managing Department: Watershed Engineering

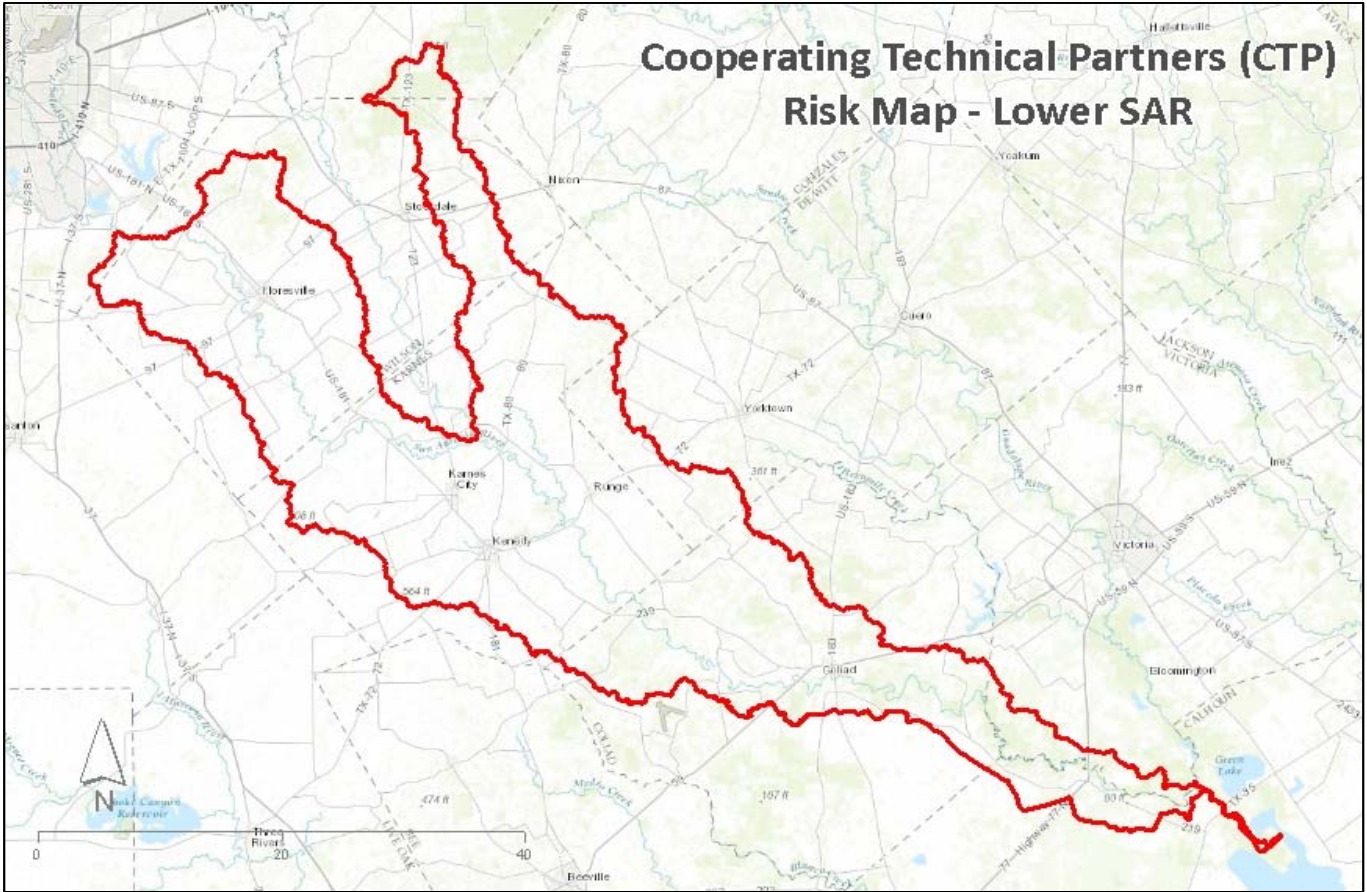
	Adopted Budget:	\$	840,465
Project Start Date: 01/01/15	Unfunded Budget:	\$	-
Project Finish Date: 12/31/16	Total Project Budget:	\$	840,465

The Federal Emergency Management Agency (FEMA) Risk Mapping, Assessment and Planning (Risk MAP) program assists communities nationwide with assessing flood risks and encouraging mitigation planning to avoid or minimize damage in the face of future disasters. Through more precise flood maps, risk assessment tools and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing risk. This project will utilize the previously developed data to develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products to increase community awareness about flooding risks and support local actions to mitigate those risks. The project will consist of two phases with the first being Discovery and the second Risk Identification and Assessment.

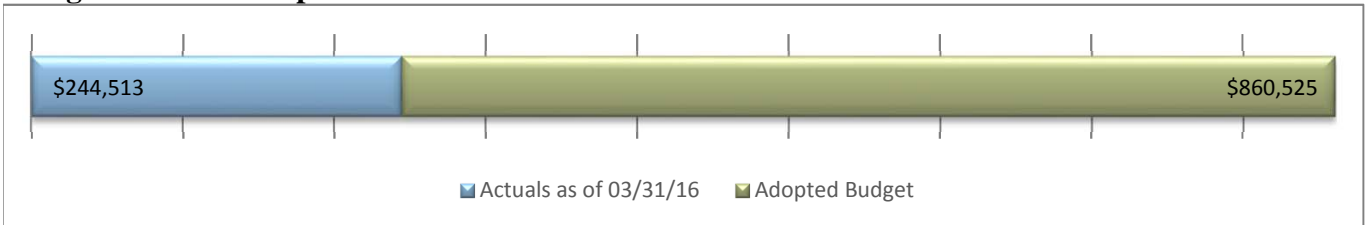
The Cooperating Technical Partners (CTP) Risk Map Cibolo project advances the River Authority’s goal of watershed health and safety as well as implementing watershed solutions.

For FY 2016/17, the Cibolo Creek project will focus on completing Phase I, Discovery activities. These activities include community engagement, data collection, needs-identification, community data gaps, and assistance with guiding specific activities for Phase II. The deliverables for Phase I will include a Discovery Report, Map, and Database as well as an initial Flood Risk Report, Map, and database. Phase II will include development of engineering models and creating flood risk products.

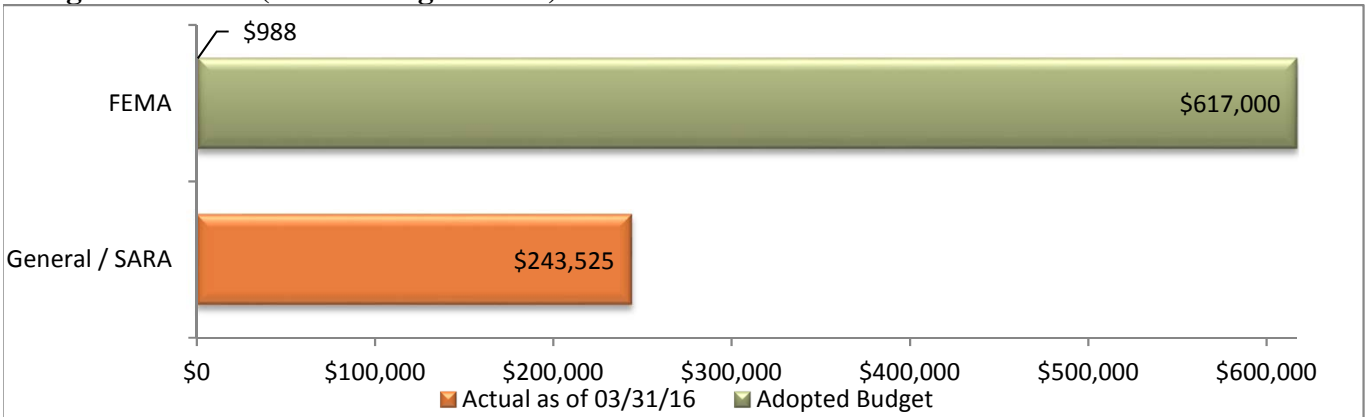
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 7,573	\$ 318,962	\$ -	\$ -	\$ 326,535
Commodities	-	5,000	-	-	5,000
Contracts	240,465	268,465	-	-	508,930
<b>Total</b>	<b>\$ 248,038</b>	<b>\$ 592,427</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 840,465</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Cooperating Technical Partners (CTP) Project # 0520**  
**Lower San Antonio River Risk Mapping, Assessment and Planning (Risk MAP)**

Managing Department: Watershed Engineering

	Adopted Budget:	\$	860,525
Project Start Date: 01/01/16	Unfunded Budget:	\$	-
Project Finish Date: 06/30/18	Total Project Budget:	\$	860,525

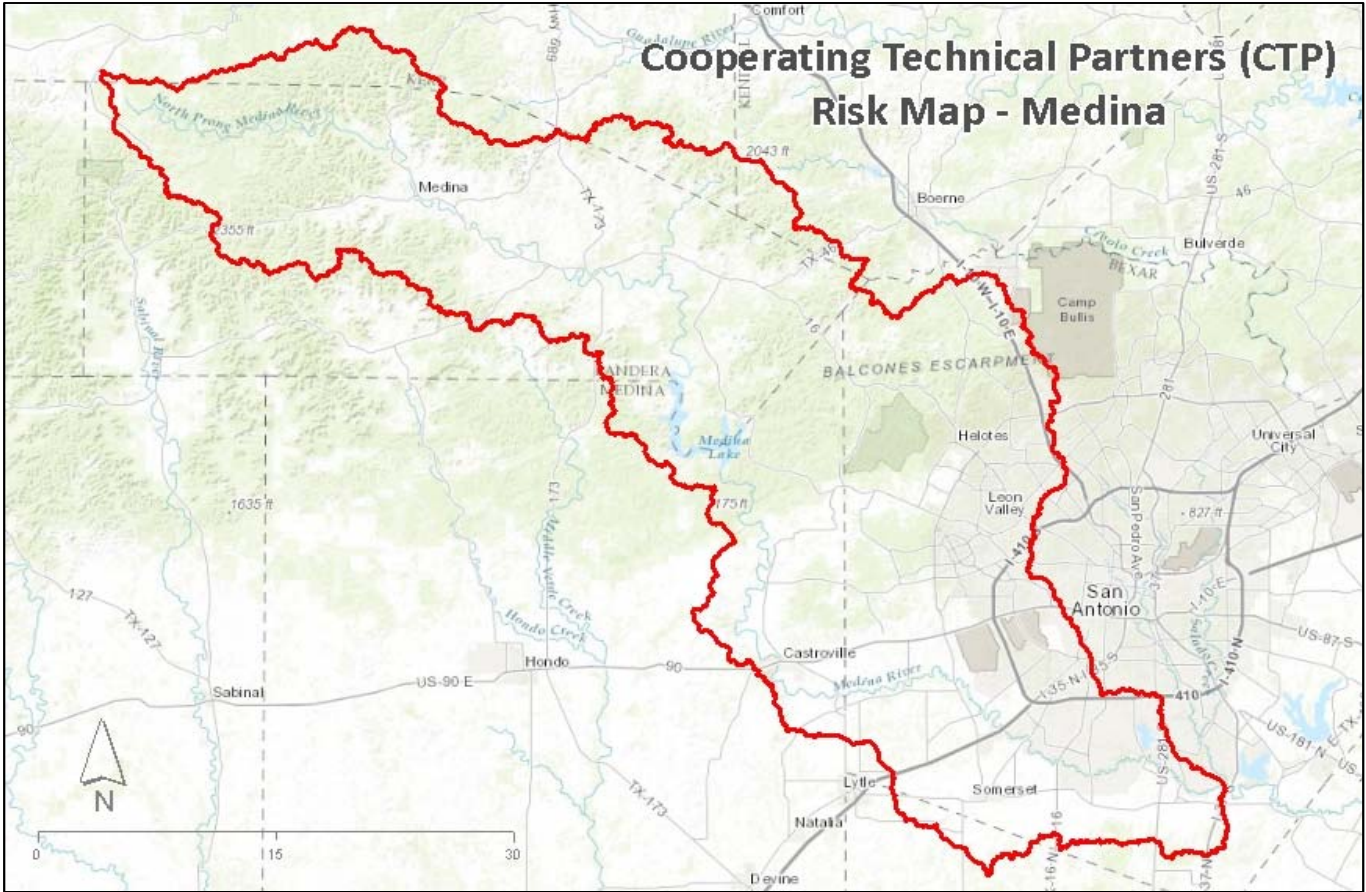
The Federal Emergency Management Agency (FEMA) Risk Mapping, Assessment and Planning (Risk MAP) program assists communities nationwide with assessing flood risks and encouraging mitigation planning to avoid or minimize damage in the face of future disasters. Through more precise flood maps, risk assessment tools and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing risk. This project will utilize the previously developed data to develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products to increase community awareness about flooding risks and support local actions to mitigate those risks. The project will consist of two phases with the first being Discovery and the second Risk Identification and Assessment.

The Cooperating Technical Partners (CTP) Risk Map Lower San Antonio River project advances the River Authority’s goal of watershed health and safety as well as implementing watershed solutions.

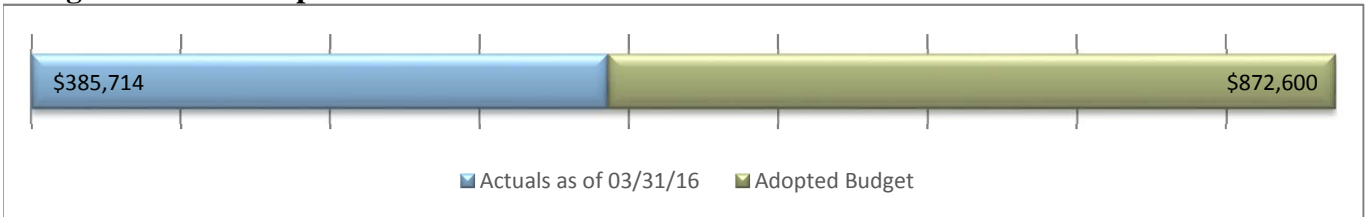
For FY 2016/17, the Lower San Antonio River project will focus on completing Phase I, Discovery activities. These activities include community engagement, data collection, needs-identification, community data gaps, and assistance with guiding specific activities for Phase II. The deliverables for Phase I will include a Discovery Report, Map, and Database as well as an initial Flood Risk Report, Map, and database. Phase II will include development of engineering models and creating flood risk products.

<b>Expenditures</b>	<b>Actuals as of <u>March 31, 2016</u></b>	<b>April 2016 to <u>June 2017</u></b>	<b><u>2017/18</u></b>	<b>Succeeding from <u>2018/19</u></b>	<b><u>Total</u></b>
Personnel	\$ 988	\$ 59,012	\$ -	\$ -	\$ 60,000
Commodities	-	-	-	-	-
Contracts	<u>243,525</u>	<u>557,000</u>	<u>-</u>	<u>-</u>	<u>800,525</u>
<b>Total</b>	<b>\$ <u>244,513</u></b>	<b>\$ <u>616,012</u></b>	<b>\$ <u>-</u></b>	<b>\$ <u>-</u></b>	<b>\$ <u>860,525</u></b>

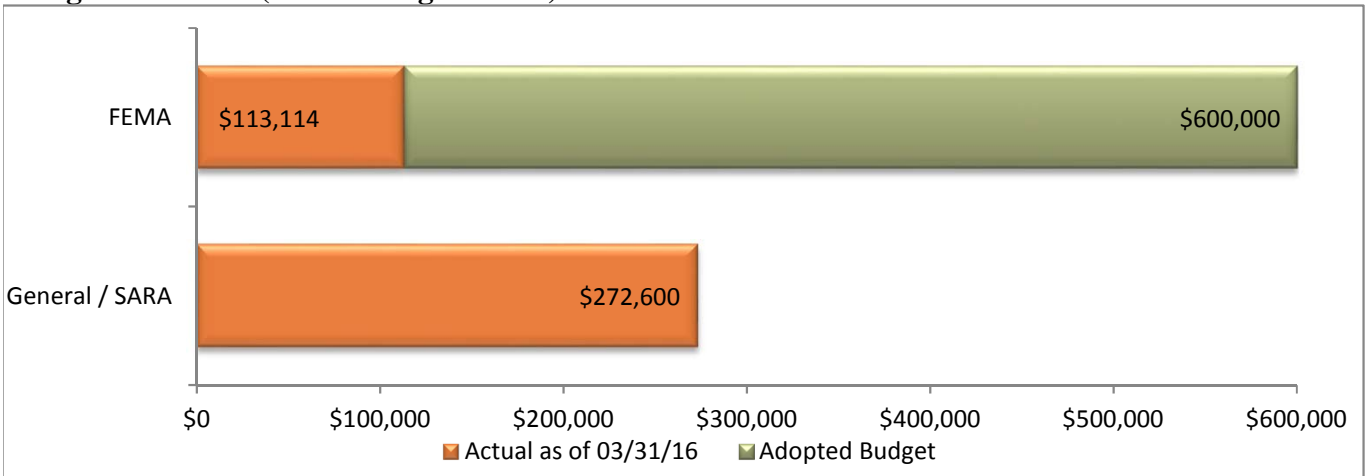




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Cooperating Technical Partners (CTP) Project # 0439**  
**Medina River Risk Mapping, Assessment and Planning (Risk MAP)**

Managing Department: Watershed Engineering

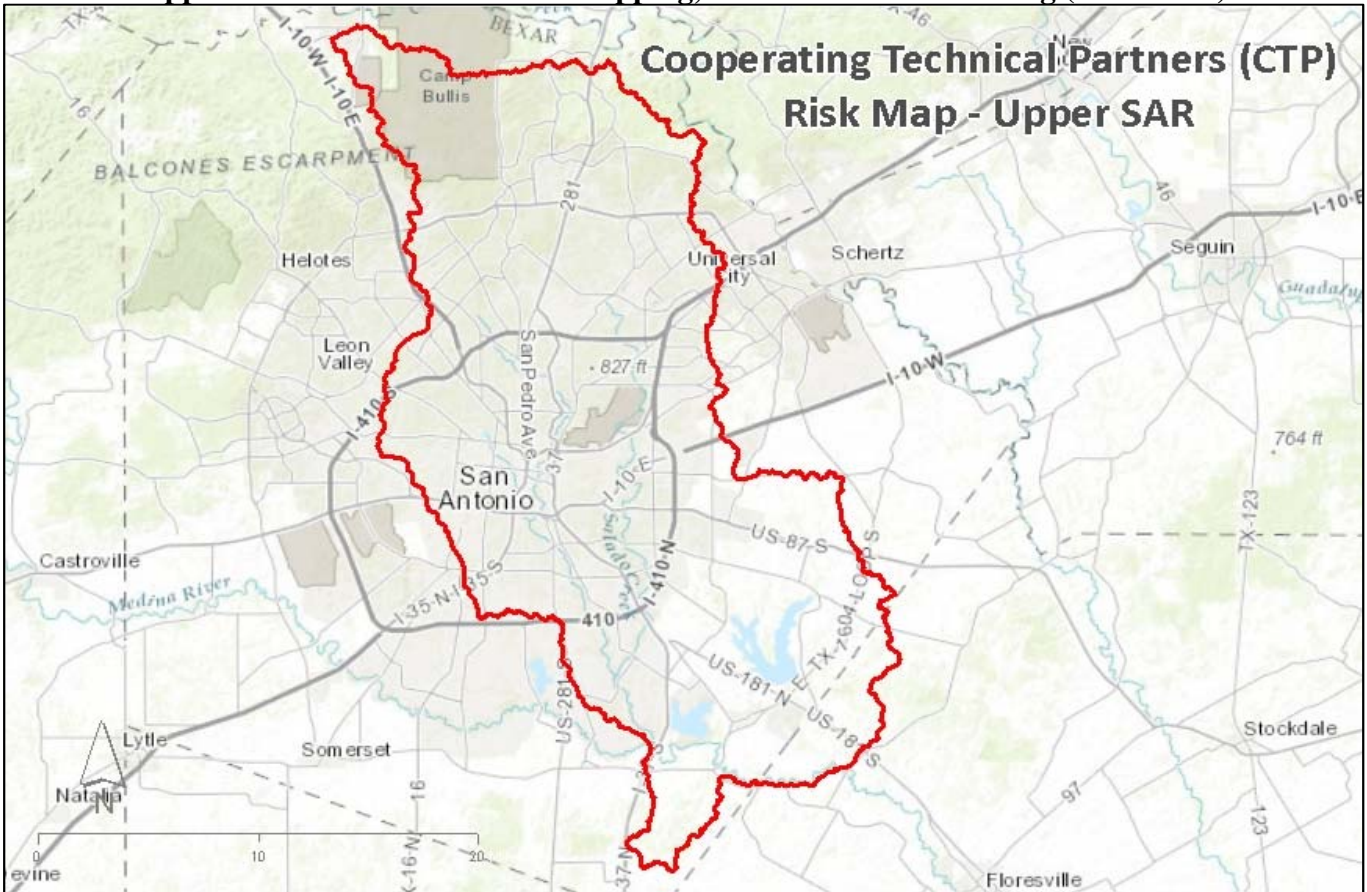
	Adopted Budget:	\$	872,600
Project Start Date: 01/01/14	Unfunded Budget:	\$	-
Project Finish Date: 12/31/16	Total Project Budget:	\$	872,600

The Federal Emergency Management Agency (FEMA) Risk Mapping, Assessment and Planning (Risk MAP) program assists communities nationwide with assessing flood risks and encouraging mitigation planning to avoid or minimize damage in the face of future disasters. Through more precise flood maps, risk assessment tools and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing risk. This project will utilize the previously developed data to develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products to increase community awareness about flooding risks and support local actions to mitigate those risks. This project has completed Phase I and will begin the second phase, Risk Identification and Assessment.

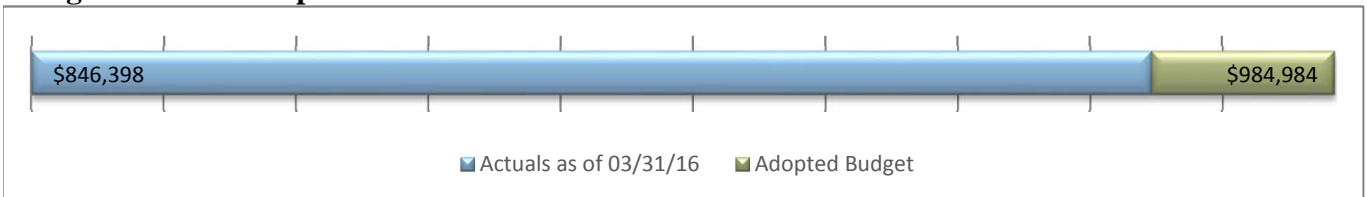
The Cooperating Technical Partners (CTP) Risk Map Medina project advances the River Authority’s goal of watershed health and safety as well as implementing watershed solutions.

For FY 2016/17, the Medina River project will focus on completing Phase II, Risk Identification and Assessment activities. These activities include developing hydrologic and hydraulic models and flood risk GIS data products. A map, report, and database will be produced at the completion of Phase II.

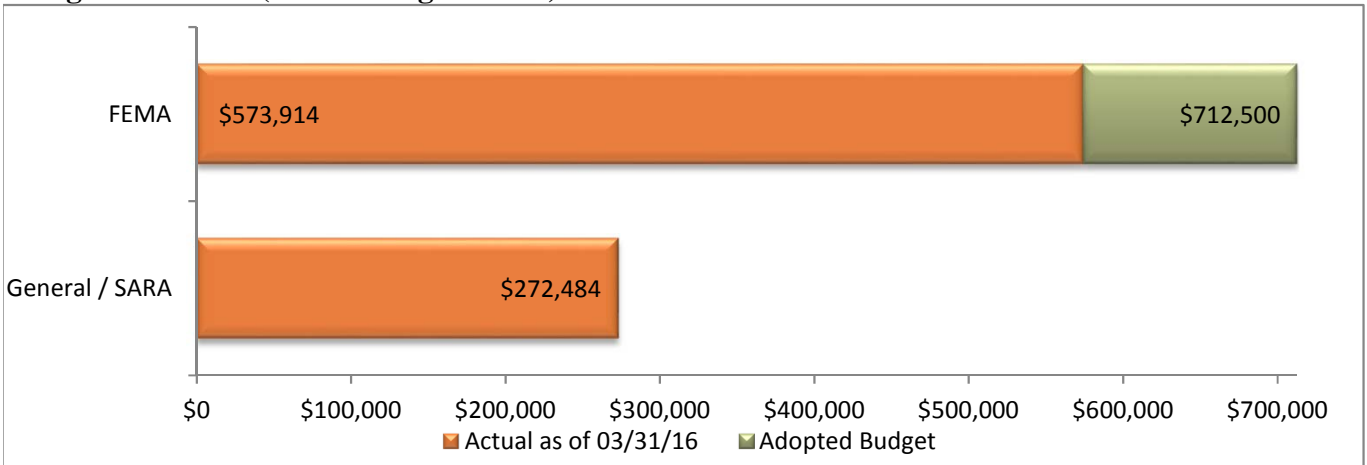
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 34,592	\$ 197,035	\$ -	\$ -	\$ 231,627
Commodities	-	5,000	-	-	5,000
Contracts	<u>351,122</u>	<u>284,851</u>	<u>-</u>	<u>-</u>	<u>635,973</u>
Total	<u>\$ 385,714</u>	<u>\$ 486,886</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 872,600</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Cooperating Technical Partners (CTP) **Project #** 0438  
**Upper San Antonio River Risk Mapping, Assessment and Planning (Risk MAP)**  
 Managing Department: Watershed Engineering

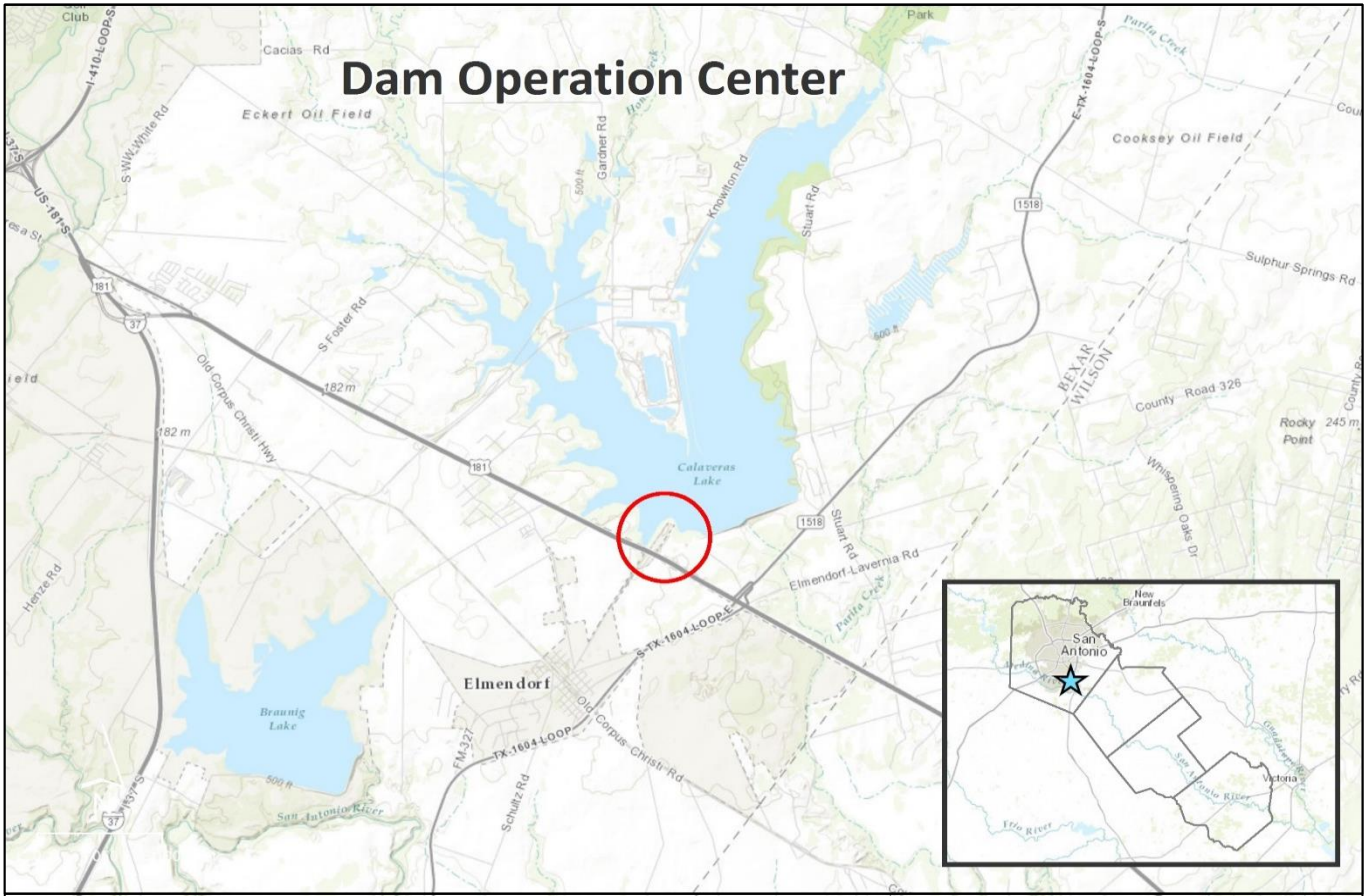
		Adopted Budget:	\$	984,984
Project Start Date:	11/01/12	Unfunded Budget:	\$	-
Project Finish Date:	12/31/17	Total Project Budget:	\$	984,984

The Federal Emergency Management Agency (FEMA) Risk Mapping, Assessment and Planning (Risk MAP) program assists communities nationwide with assessing flood risks and encouraging mitigation planning to avoid or minimize damage in the face of future disasters. Through more precise flood maps, risk assessment tools and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing risk. This project will utilize the previously developed data to develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products to increase community awareness about flooding risks and support local actions to mitigate those risks. This project has completed Phase I and will begin the second phase, Risk Identification and Assessment.

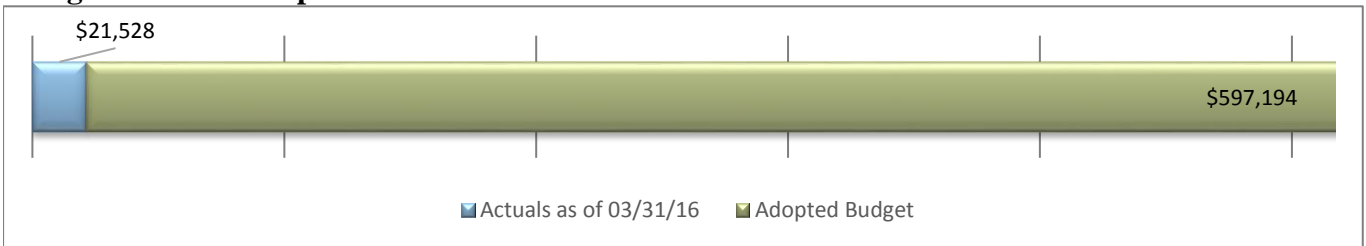
The Cooperating Technical Partners (CTP) Risk Map Upper San Antonio River project advances the River Authority’s goal of watershed health and safety as well as implementing watershed solutions.

For FY 2016/17, the Upper San Antonio River project will focus on completing Phase II, Risk Identification and Assessment activities. These activities include developing hydrologic and hydraulic models and flood risk GIS data products. A map, report, and database will be produced at the completion of Phase II.

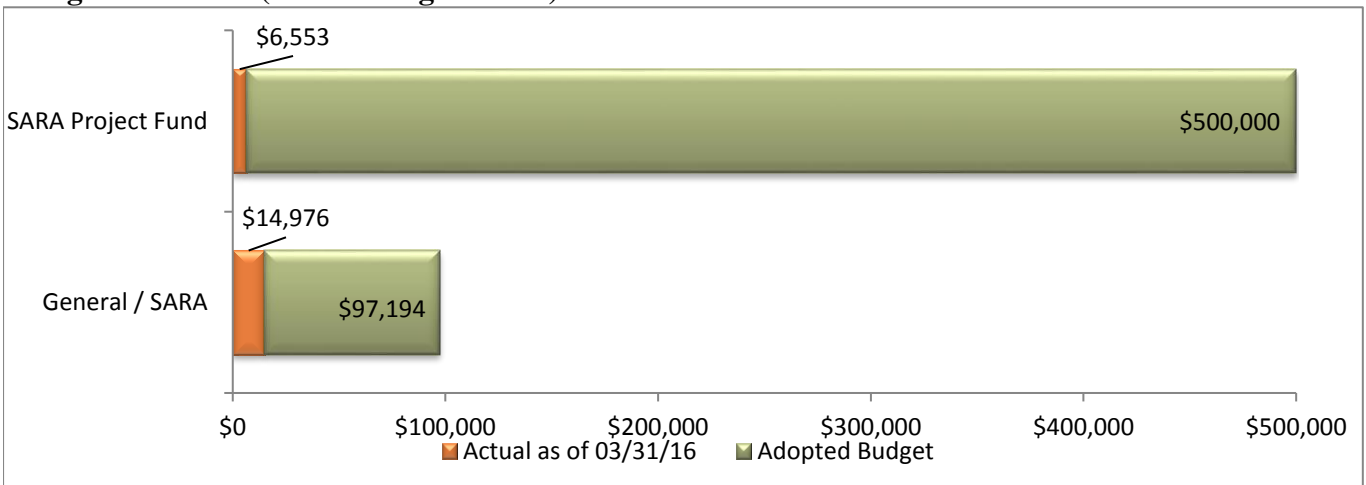
<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 181,530	\$ 59,159	\$ -	\$ -	\$ 240,689
Commodities	16,368	7,712	-	-	24,080
Contracts	648,500	71,715	-	-	720,215
<b>Total</b>	<b>\$ 846,398</b>	<b>\$ 138,586</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 984,984</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Dam Operations Center**  
 Managing Department: Watershed and Park Operations

**Project # 0509**

	Adopted Budget:	\$	597,194
Project Start Date: 07/01/15	Unfunded Budget:	\$	-
Project Finish Date: 05/31/17	Total Project Budget:	\$	597,194

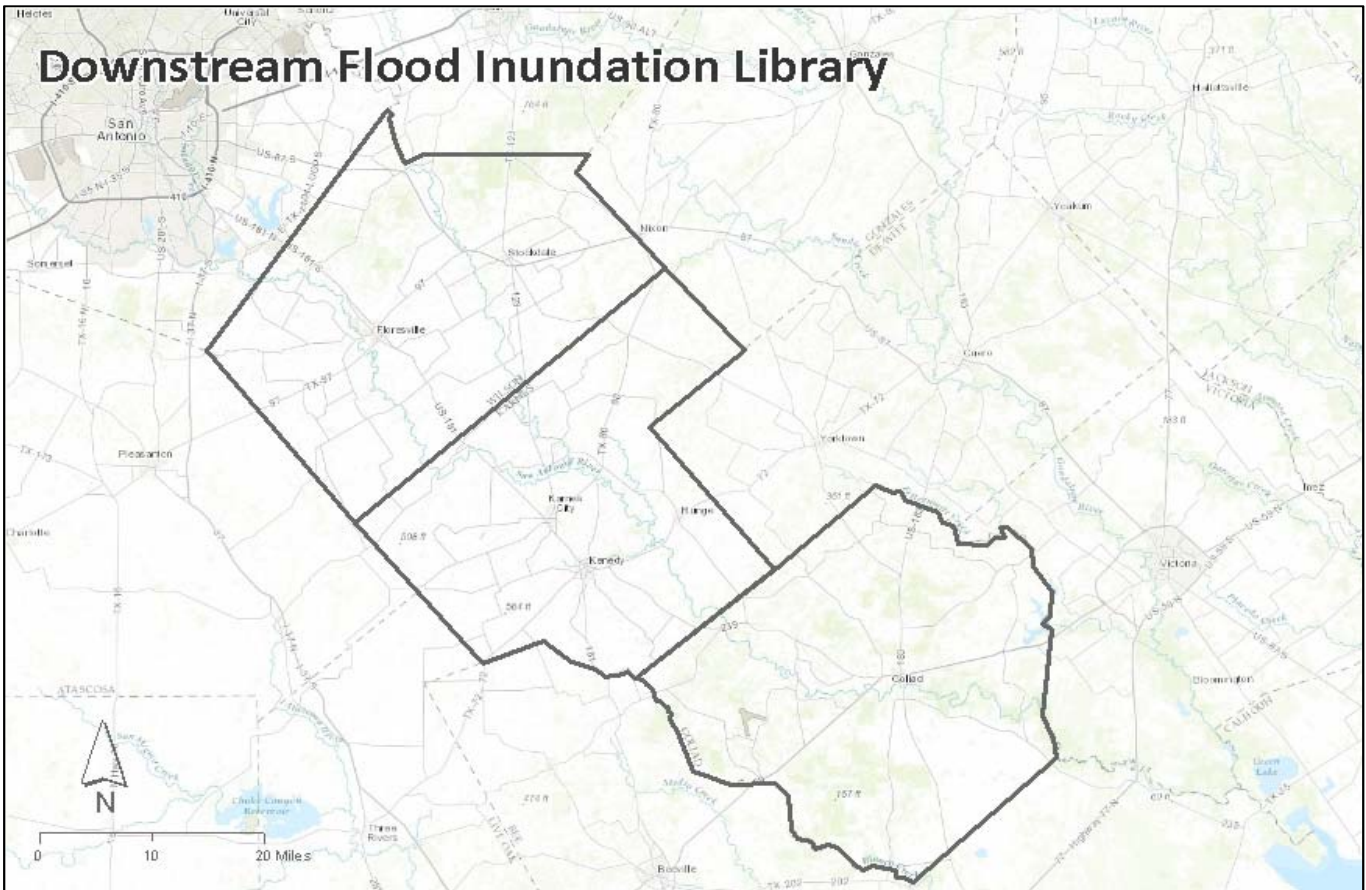
Following preliminary engineering efforts to construct a new Dam Operations Center off Binz-Engleman Road, the decision was made to renovate the existing Dam Operations Center on Laguna Road. The upgrade to the current location will include maintenance and remodeling of existing assets and a new equipment/shop building to support storage and maintenance of larger equipment. This facility supports the River Authority’s dam maintenance employees which operate and maintain 28 dams in Bexar County. By maintaining these dams to the state and federal standards, public health and safety is ensured, supporting the River Authority’s mission to protect and enhance creeks and rivers through service, leadership and expertise.

The remodeling and new construction at the Dam Operations Center supports the goal of strengthening employee expertise and dedication by improving service efficiencies and building employee dedication.

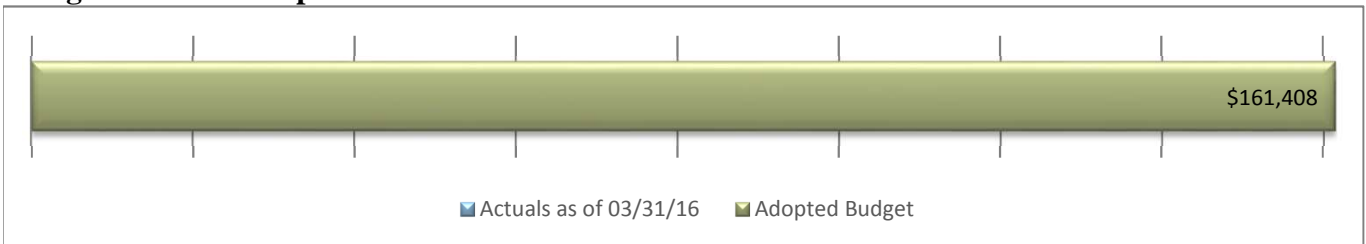
During FY 2016/17, the renovations will be completed and a new building to house and support larger equipment will be constructed.

Of the total \$597,194 Adopted Budget, \$97,194 is estimated labor contribution through the River Authority General Fund.

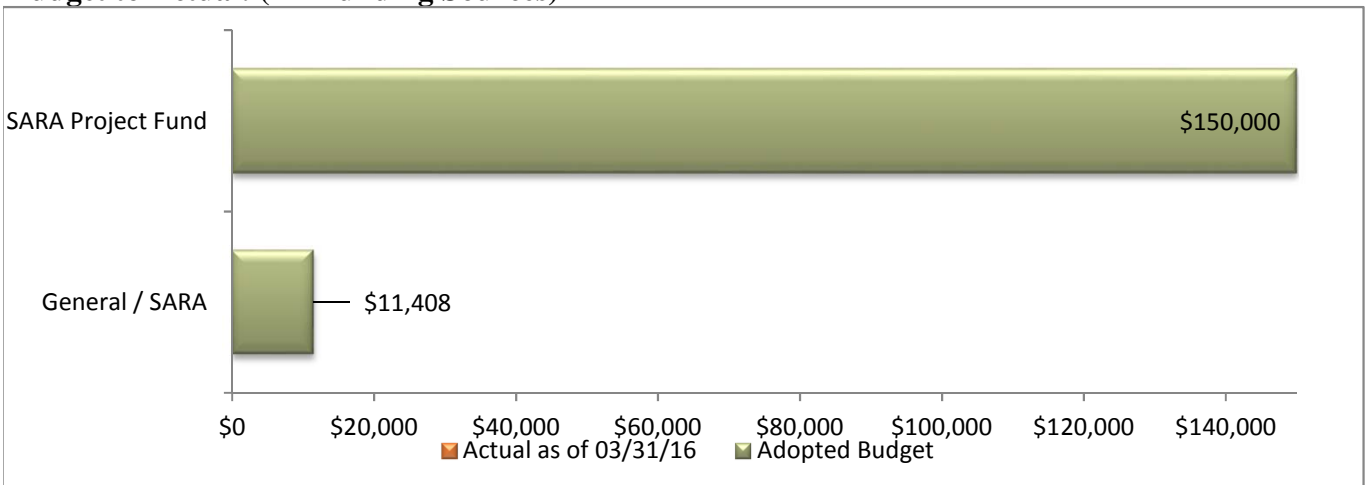
<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Personnel	\$ 14,976	\$ 82,218	\$ -	\$ -	\$ 97,194
Commodities	316	0	-	-	316
Contracts	<u>6,237</u>	<u>493,447</u>	<u>-</u>	<u>-</u>	<u>499,684</u>
<b>Total</b>	<b>\$ 21,528</b>	<b>\$ 575,666</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 597,194</b>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Downstream Flood Inundation Library **Project #** 0545  
**Managing Department:** Watershed Engineering

	Adopted Budget:	\$	161,408
Project Start Date: 07/01/16	Unfunded Budget:	\$	-
Project Finish Date: 06/30/17	Total Project Budget:	\$	161,408

The River Authority has applied to the Texas Water Development Board (TWDB) for grant funding to increase this project’s scope. The additional funding from TWDB will allow the River Authority to expand the project by developing hydraulic models, flood inundation libraries, flood impact summaries, and emergency response logs for additional areas, namely the Ecleto and Escondido Creeks. The addition of these two creeks will benefit the communities near these flood sources within Karnes County, specifically the City of Gillett and the City of Kenedy.

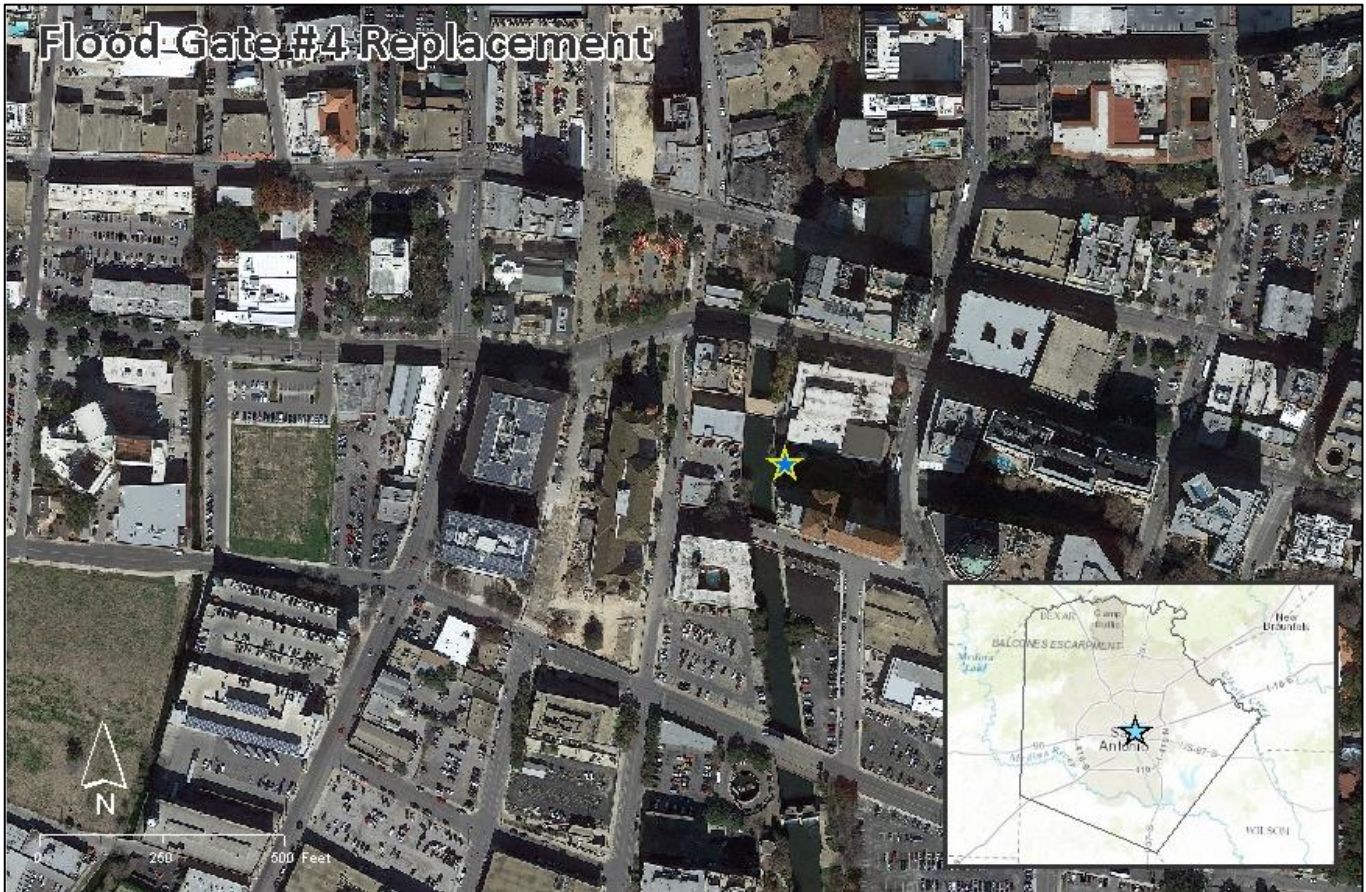
This project will advance the River Authority’s goal of implementing watershed solutions by updating, correcting, and enhancing the inundation data developed for the Downstream Flood Mapping and Response system. The project will utilize current elevation data, engineering methods, and recent engineering models to develop a library of floodplain polygons that align with USGS gauge stage elevations.

In FY16/17 this project will revisit the modeling and mapping previously conducted to update, correct, and enhance the inundation data developed for the Downstream Flood Mapping and Response system. The project will utilize more current elevation data, engineering methods, and more recent engineering models to develop a library of floodplain polygons that align with USGS gage stage elevations. The deliverables for this project will include a geospatial library of flood inundation polygons for 6 USGS gages in the downstream part of the river basin. Additional deliverables might also include floodplain map books as well as data related to floodplain impact summaries and river stage flood response tables.

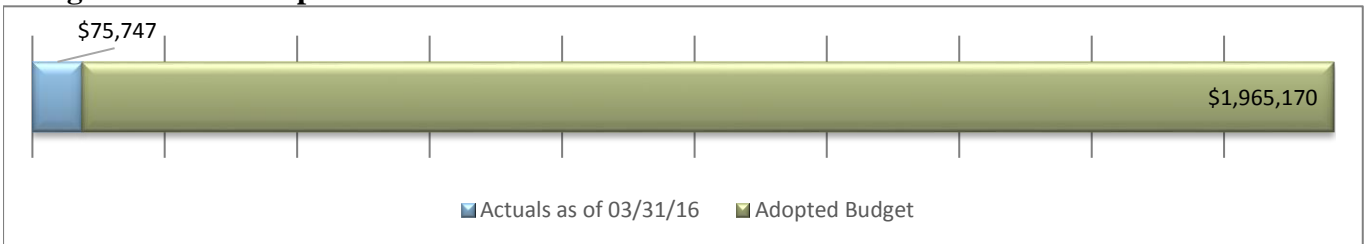
Of the total \$161,408 Adopted Budget, \$11,408 is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 11,408	\$ -	\$ -	\$ 11,408
Commodities	-	-	-	-	-
Contracts	-	150,000	-	-	150,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 161,408</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 161,408</b>

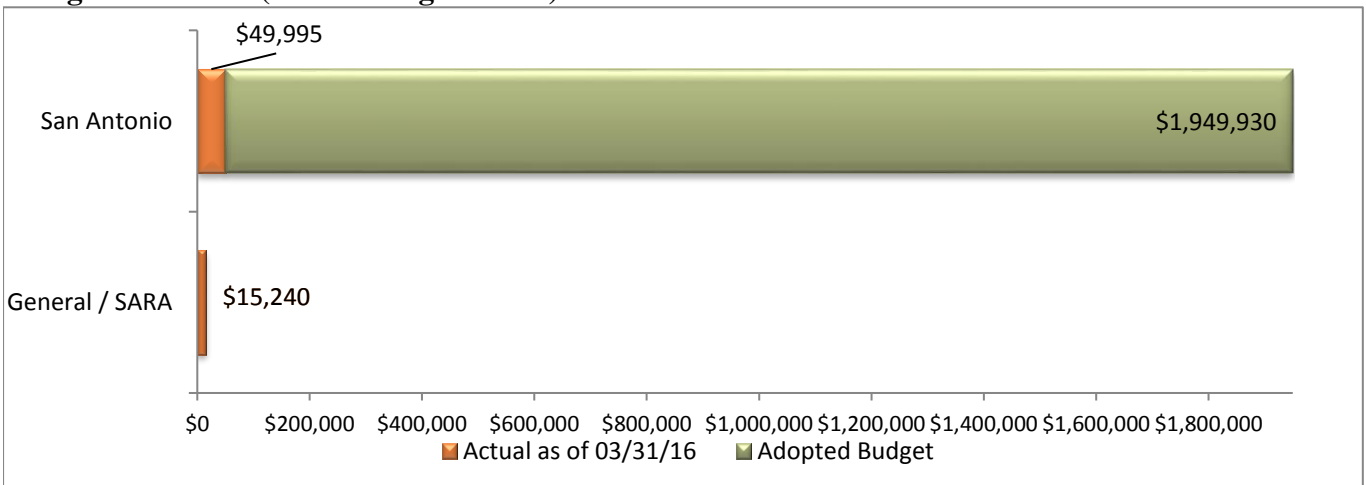




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name: Flood Gate 4 Replacement**  
 Managing Department: Watershed Engineering

**Project # 0516**

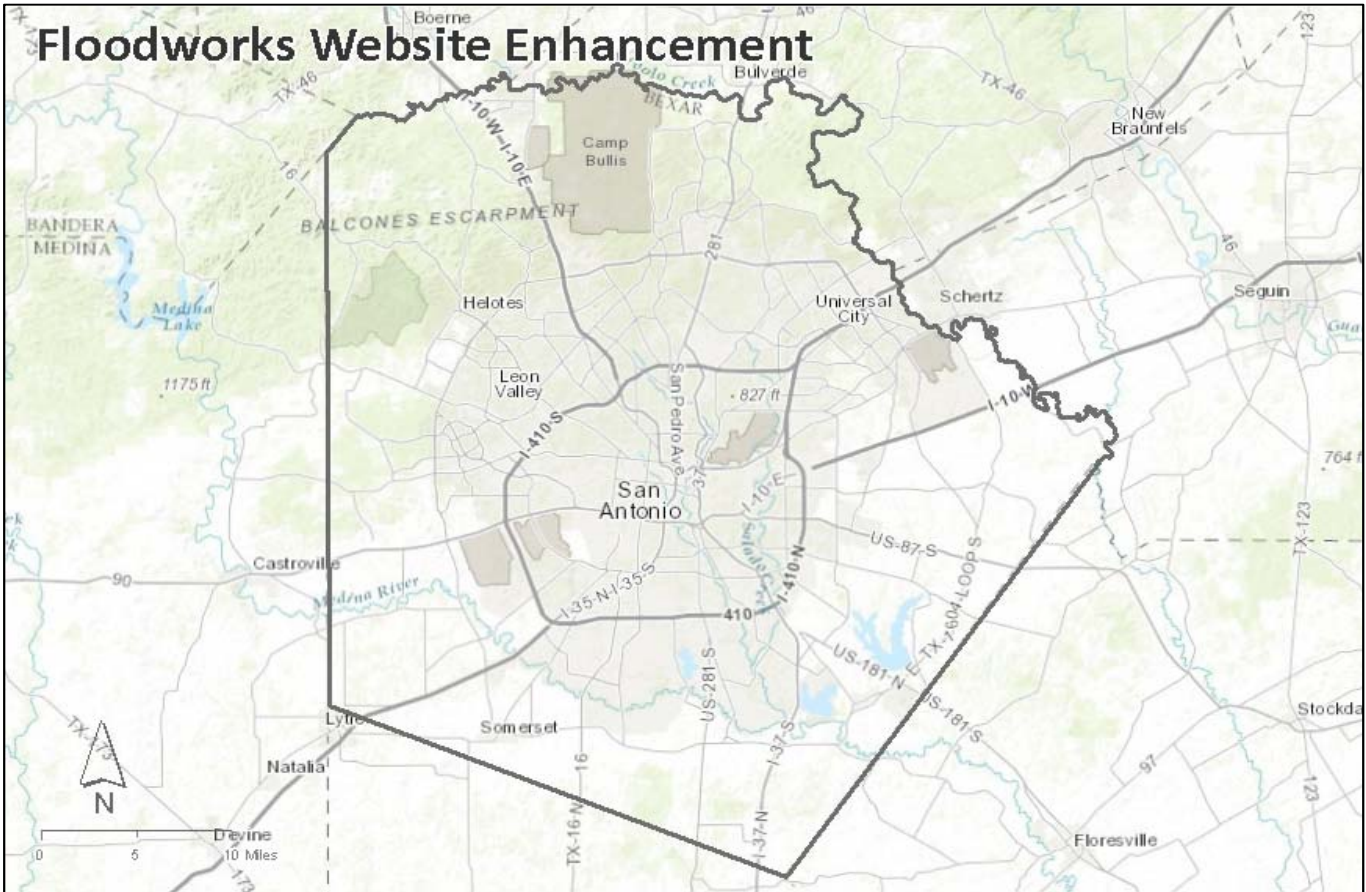
Project Start Date: 06/17/15	Adopted Budget:	\$ 1,965,170
Project Finish Date: 05/31/17	Unfunded Budget:	\$ -
	Total Project Budget:	\$ 1,965,170

The City of San Antonio, during routine maintenance on Flood Gate 4 located at the International Center, noticed the hydraulic cylinder had pulled away from the concrete vault wall and was discharging hydraulic fluid. The City recommended full replacement and contracted with the River Authority to manage the installation of a new flood gate.

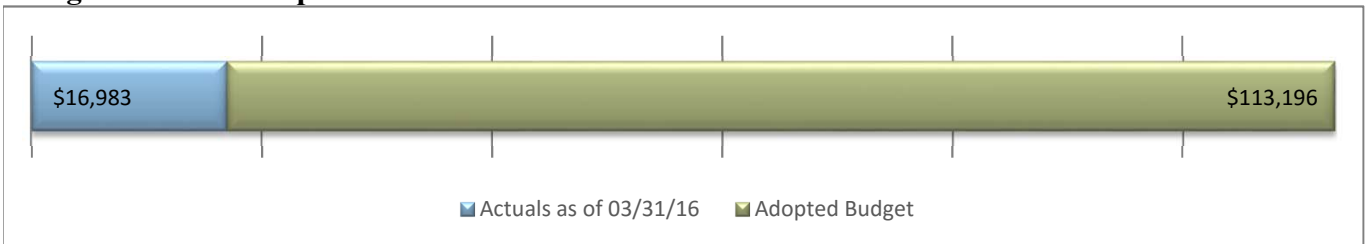
The River Authority is responsible for overseeing the removal and disposal of the old gate and installation of a new gate. The new gate and all ancillary equipment are being designed and fabricated by a gate equipment vendor to be installed by a design-build contractor. The River Authority also developed the bridging documents needed to prepare for the solicitation of a design-build contractor.

In FY 2016/17, installation and operation of the new gate will occur.

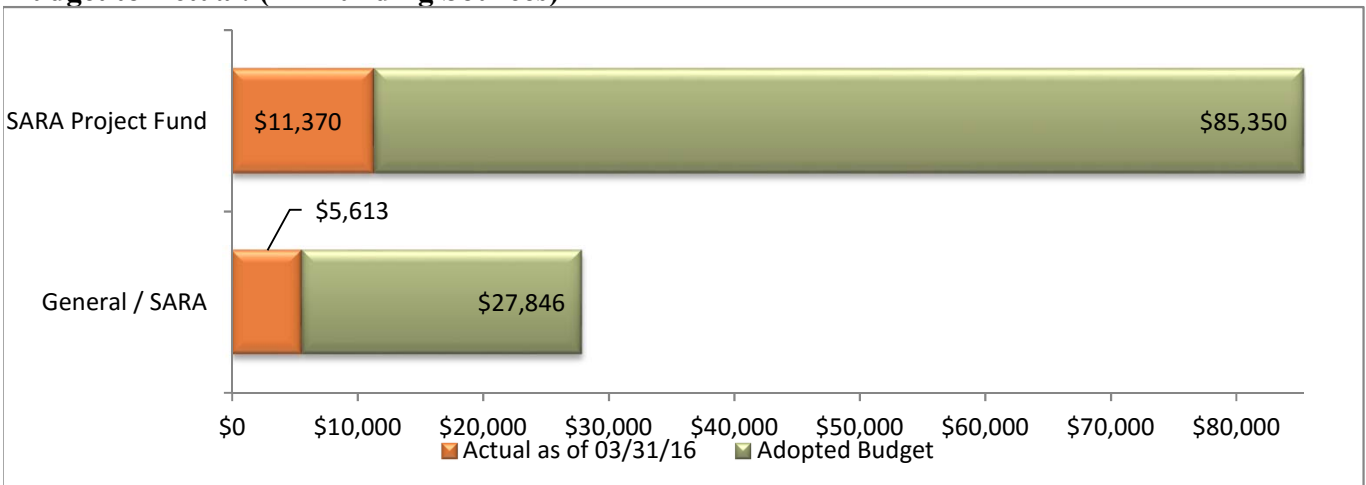
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Labor	\$ 10,513	\$ 15,422	\$ -	\$ -	\$ 25,935
Commodities	3,740	10,000	-	-	13,740
Contracts	61,495	1,864,000	-	-	1,925,495
<b>Total</b>	<u>\$ 75,747</u>	<u>\$ 1,889,422</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,965,170</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** FloodWorks Website Enhancement **Project #** 0498  
**Managing Department:** Watershed Engineering

		Adopted Budget:	\$	113,196
Project Start Date:	07/01/15	Unfunded Budget:	\$	-
Project Finish Date:	06/30/17	Total Project Budget:	\$	113,196

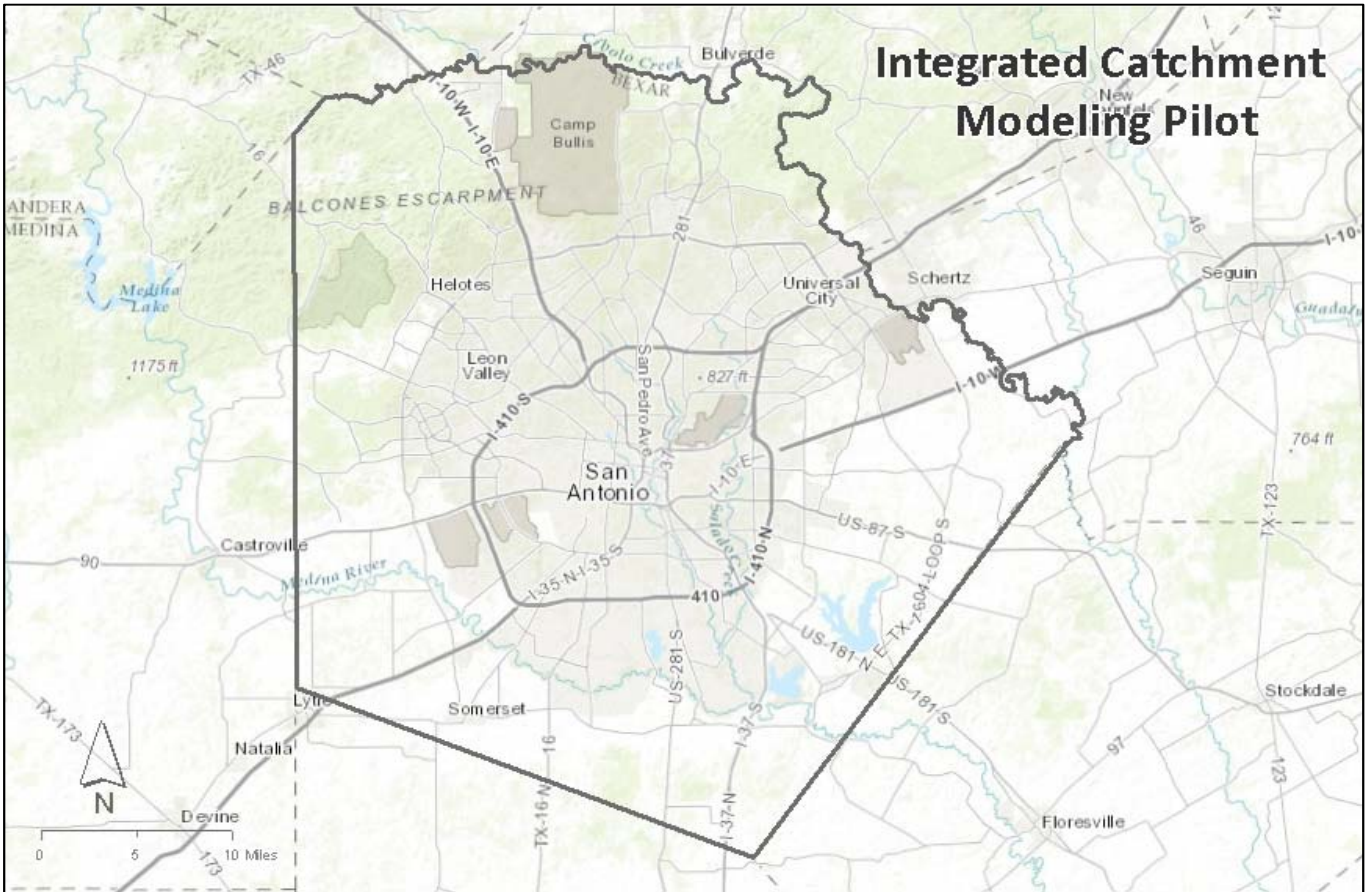
This project will enhance the current FloodWorks website to display one or many rainfall forecast results in addition to current condition results. This will strengthen the River Authority’s support role with local emergency operations and provide emergency managers and response personnel access to the best available forecasted and current flood event data to support their planning and preparation activities well in advance and during a storm event. The FloodWorks system ultimate goal is to keep citizens safe in times of high water events.

The FloodWorks website is a companion application that reads and displays simulation results from the primary FloodWorks system. The original website only displays near-real time data and doesn't allow display of future rainfall forecast simulation results. This project enhances the current web application to display one or many forecast results in addition to the current condition results advancing the goal of watershed health and safety.

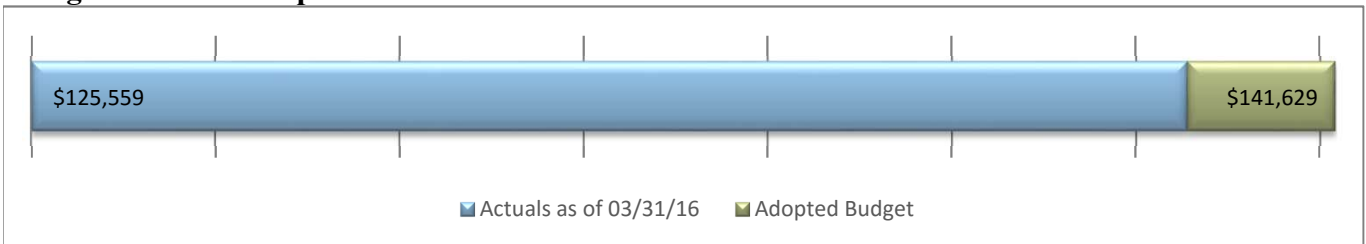
In FY 2016/17, this project will build on previous enhancements to the FloodWorks web application. Activities will include enhancing additional features and functionality within the application's map, enhanced user password retrieval, and additional system administration features.

Of the \$113,196 Adopted Budget, \$27,846 is estimated labor contribution through the River Authority General Fund.

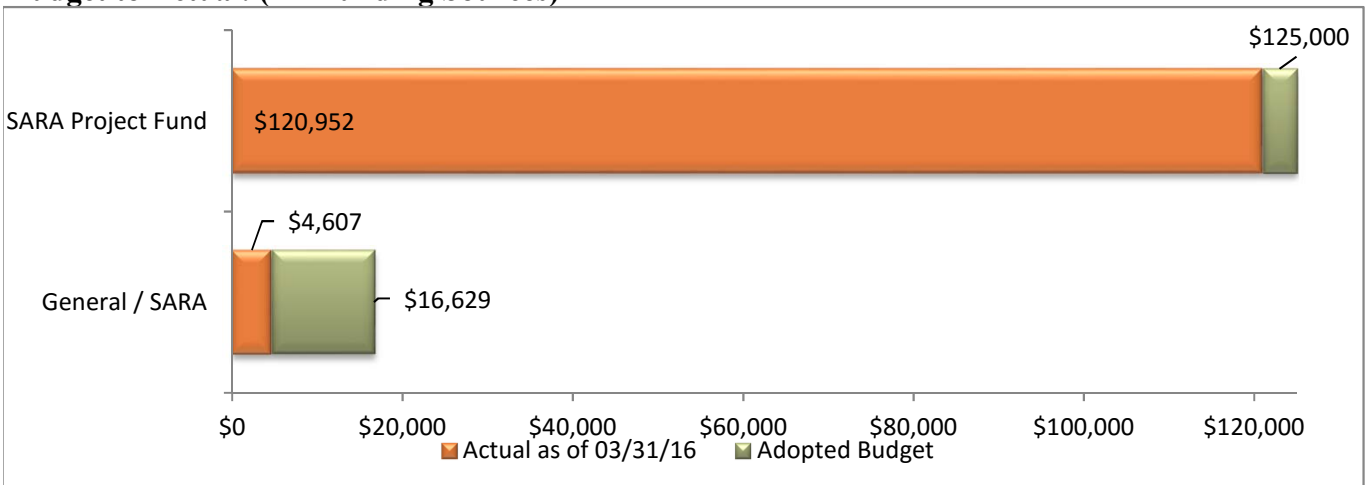
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 5,613	\$ 22,233	\$ -	\$ -	\$ 27,846
Commodities	-	-	-	-	-
Contracts	11,370	73,980	-	-	85,350
<b>Total</b>	<u>\$ 16,983</u>	<u>\$ 96,213</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 113,196</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Integrated Catchment Modeling (ICM) System Pilot **Project #** 0497  
**Managing Department:** Watershed Engineering

	Adopted Budget:	\$	141,629
Project Start Date: 07/01/15	Unfunded Budget:	\$	-
Project Finish Date: 09/30/16	Total Project Budget:	\$	141,629

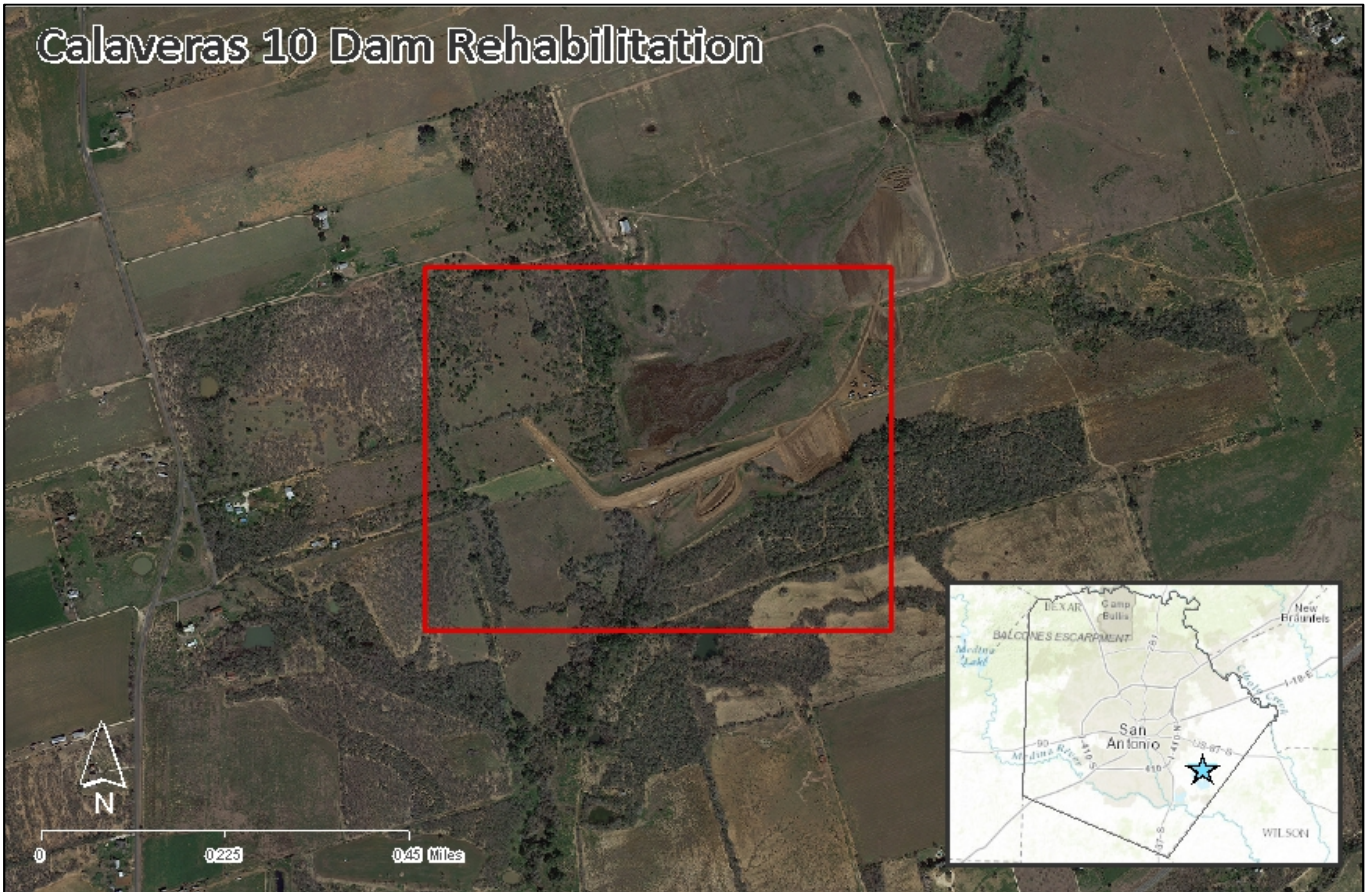
This project began in FY 2015/16 with installation and beginning configuration of the InfoWorks Integrated Catchment Modeling (ICM) Live system. The ICM Live System is the next generation operational modeling tool from Innovyze (the software vendor) and can be considered as the successor to FloodWorks but with wider capabilities that takes advantage of new data handling techniques, faster processor speeds, and smarter understanding of end user requirements. This pilot project will evaluate key areas within Bexar County to develop a small-scale ICM Live model to explore the challenges in converting existing FloodWorks models into this new application framework and evaluate the added value of conducting this migration over a larger geographic extent.

This project supports watershed health and safety by building upon the previous FloodWorks system and utilizing emerging software technology to provide better information to communities before, during, and after flood events.

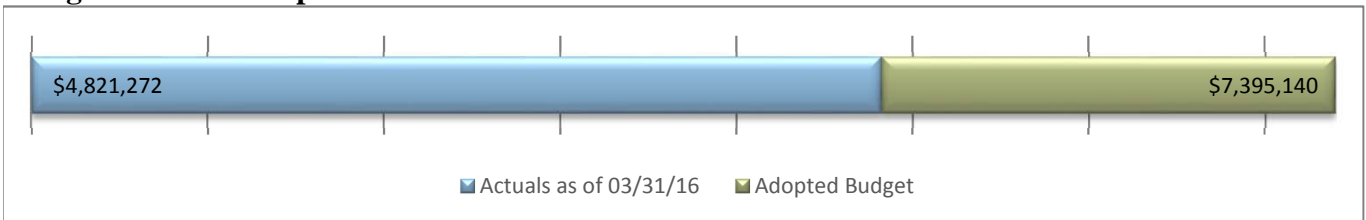
In FY 2016/17, this pilot project will complete conversion of several flooding sources in the Upper San Antonio Watershed from FloodWorks into InfoWorks ICM Live. The project will complete the evaluation of the level of effort and challenges associated with a small scale migration to assist in understanding the resource requirements for migration of larger catchment systems. Additionally, this project will identify the added value that InfoWorks ICM brings in regarding data integration, scalability, system management, complex flood modeling, and reduced simulation times. Since this tool is used by the Bexar County Operations Center, the River Authority will work with Bexar County and the City of San Antonio in the assessment of the tool’s added value.

Of the total \$141,629 Adopted Budget, \$16,629 is estimated labor contribution through the River Authority General Fund.

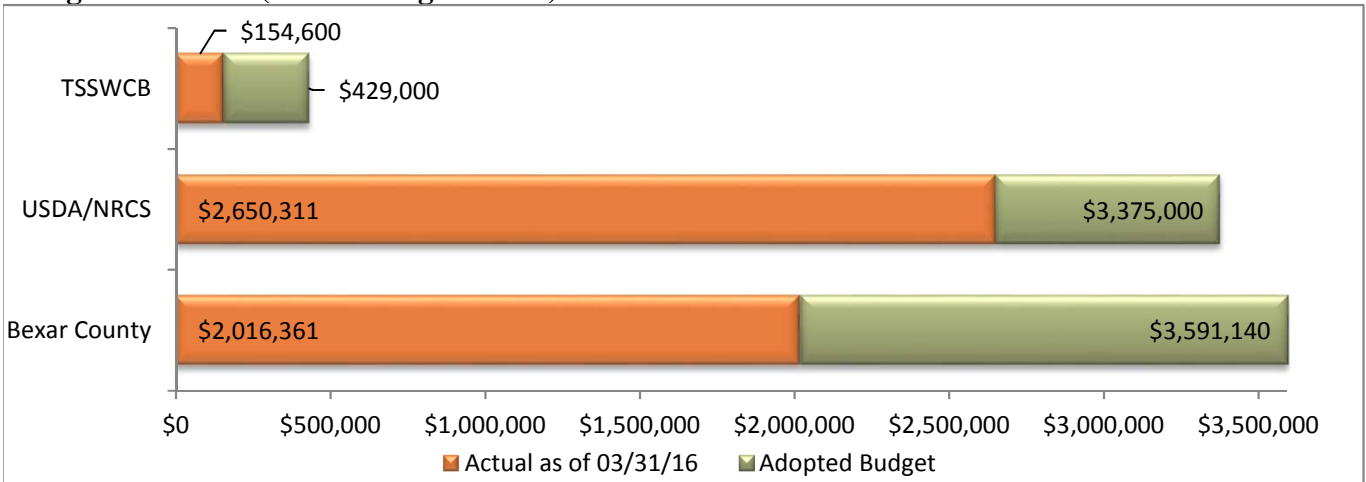
<b>Expenditures</b>	<u>Actuals</u> <u>as of</u> <u>March 31, 2016</u>	<u>April 2016</u> <u>to</u> <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> <u>from</u> <u>2018/19</u>	<u>Total</u>
Personnel	\$ 4,607	\$ 12,022	\$ -	\$ -	\$ 16,629
Commodities	-	-	-	-	-
Contracts	<u>120,952</u>	<u>4,048</u>	<u>-</u>	<u>-</u>	<u>125,000</u>
<b>Total</b>	<u>\$ 125,559</u>	<u>\$ 16,070</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 141,629</u>



**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** **Parita Creek (Calaveras 10)** **Project #** **0373**  
**Dam Rehabilitation**

Managing Department: Watershed and Park Operations

	Adopted Budget:	\$ 7,395,140
Project Start Date: 05/01/12	Unfunded Budget:	\$ -
Project Finish Date: 08/31/16	Total Project Budget:	\$ 7,395,140

The Parita Creek (Calaveras 10) Dam Rehabilitation will result in improvements that bring the dam to current Texas Commission on Environmental Quality (TCEQ) standards. Improvements include earthwork to increase the height of the dam and improve the auxiliary spillway. The River Authority is responsible for the operation and maintenance of the dam to assure it functions as designed and constructed. This project is funded from multiple sources: 14 percent by the Texas State Soil and Water Conservation Board (TSSWCB); 65 percent by the Natural Resources Conservation Service (NRCS); and the remainder from Bexar County. The NRCS and TSSWCB funding for these projects is accounted for in the Grants Fund. The design is being administered through the River Authority. River Authority staff also provides construction administration and project management services through construction. These improvements have been designed to provide control of floodwaters in the basin, thereby protecting human life and property in the downstream affected areas.

The River Authority is providing construction administration and project management services. The improvements have been designed to provide control of floodwaters in the basin, thereby protecting human life and property in the downstream affected areas.

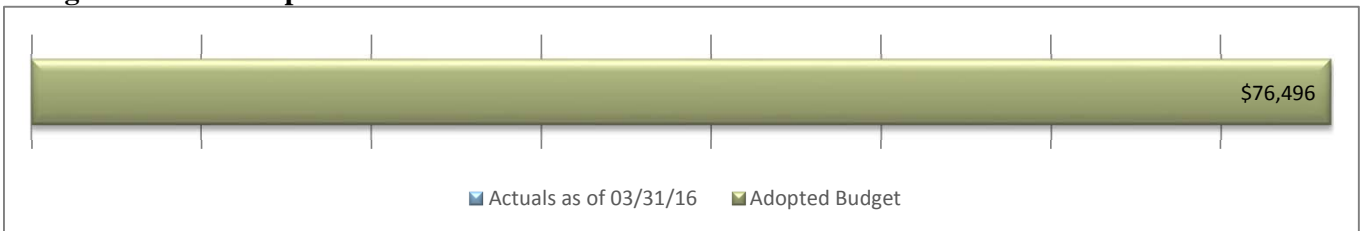
In FY 2016/17, although construction of the Parita Creek (Calaveras 10) dam improvements is substantially complete; there are remaining inundation easements to be acquired through FY 2016/17. The project will be completed under budget. Bexar County will determine the use of the remaining available funds.

<b>Expenditures</b>	<b>Actuals as of March 31, 2016</b>	<b>April 2016 to June 2017</b>	<b>2017/18</b>	<b>Succeeding from 2018/19</b>	<b>Total</b>
Personnel	\$ 327,774	\$ 165,528	\$ -	\$ -	\$ 493,302
Commodities	530,464	309,882	-	-	840,346
Contracts	3,963,034	2,098,457	-	-	6,061,492
<b>Total</b>	<b>\$ 4,821,272</b>	<b>\$ 2,573,868</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,395,140</b>

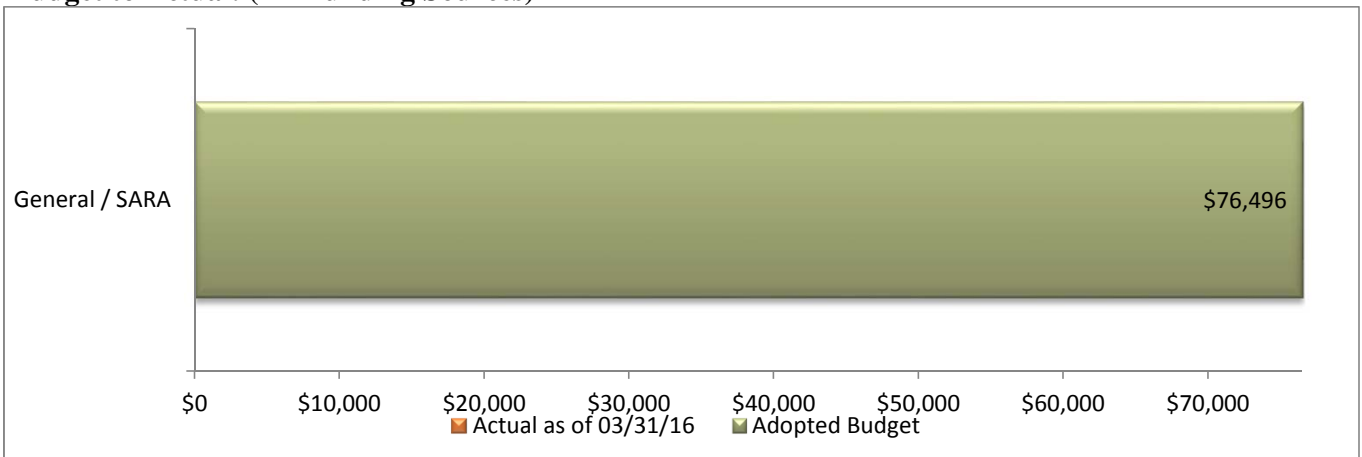




**Budget to Actual: Expenditure**



**Budget to Actual: (All Funding Sources)**



**Project Name:** Stone Oak Park Dam (Salado 8) Spillway Repair **Project #** 0531  
**Managing Department:** Watershed Engineering

		Adopted Budget:	\$	76,496
Project Start Date:	07/01/16	Unfunded Budget:	\$	-
Project Finish Date:	12/31/16	Total Project Budget:	\$	76,496

Neighboring developers deposited construction debris on the auxiliary spillway of Stone Oak Park Dam (Salado 8). The project will remove the construction debris and repair the damage caused by a road that was cut into the auxiliary spillway to deposit the debris and access the development.

This project will remediate the impact of the development activity on the Stone Oak Park Dam. The project will be funded by Bexar County and managed by River Authority staff.

In FY 2016/17, the project will remove the construction debris and repair the damage caused by a road that was cut into the auxiliary spillway and was used to deposit the debris and access the development.

Of the \$76,496 total Adopted Budget, the entire amount is estimated labor contribution through the River Authority General Fund.

<b>Expenditures</b>	<u>Actuals</u> as of <u>March 31, 2016</u>	<u>April 2016</u> to <u>June 2017</u>	<u>2017/18</u>	<u>Succeeding</u> from <u>2018/19</u>	<u>Total</u>
Labor	\$ -	\$ 76,496	\$ -	\$ -	\$ 76,496
Commodities	-	-	-	-	-
Contracts	-	-	-	-	-
<b>Total</b>	<u>\$ -</u>	<u>\$ 76,496</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 76,496</u>



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Appendix A

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Appendix B



## Abbreviations & Acronyms

AFB	–	Air Force Base
BBASC	–	Basin and Bay Stakeholder Committee
BCCIP	–	Bexar County Capital Improvement Program
BMPs	–	Best Management Practices
BRWM	–	Bexar Regional Watershed Management
BST	–	Bacterial Source Tracking
CRP	–	Clean Rivers Program
CTP	–	Cooperating Technical Partners
DFIRM	–	Digital Flood Insurance Rate Map
EAA	–	Edwards Aquifer Authority
EDYS	–	Ecosystem Dynamic Simulation
EGIS	–	Enterprise Geographical Information System
FEMA	–	Federal Emergency Management Agency
FWRS	–	Flood Warning and Response System
GIS	–	Geographic Information System
GPD	–	Gallons per Day
GWSW	–	Ground Water Surface Water
HEC	–	Hydrologic Engineering Center
IBI	–	Index of Biotic Integrity
ICM	–	Integrated Catchment Modeling
IGCR	–	Intergovernmental/Community Relations
ILA	–	Interlocal Agreement
LEED	–	Leadership in Energy and Environmental Design
LID	–	Low Impact Development
LIDAR	–	Light Detection and Ranging
LOMR	–	Letter of Map Revision
LSAR	–	Lower San Antonio River
MGD	–	Million Gallons per Day
MROC	–	Mission Reach Operations Center
NCD	–	Natural Channel Design
NPS	–	National Park Service
NRCS	–	Natural Resources Conservation Service
O&M	–	Operations and Maintenance
PCB	–	Polychlorinated biphenyls
QA/QC	–	Quality Assurance/Quality Control
RFP	–	Request for Proposal
RFQ	–	Request for Qualifications
RO	–	Reverse Osmosis
RWRDG	–	Regional Water Resource Development Group
SACIP	–	San Antonio Capital Improvement Projects
SAHA	–	San Antonio Housing Authority
SAR	–	San Antonio River
SARA	–	San Antonio River Authority (the River Authority)
SARB	–	San Antonio River Basin
SARIP	–	San Antonio River Improvements Project
SCADA	–	Supervisory Control and Data Acquisition
SCTRWPG	–	South Central Texas Regional Water Planning Group
SR	–	Stream Restoration
TBL	–	Triple Bottom Line
TCEQ	–	Texas Commission on Environmental Quality
TIF	–	Tax Increment Financing
TIRZ	–	Tax Increment Reinvestment Zone
TWDB	–	Texas Water Development Board
TxDOT	–	Texas Department of Transportation
UDC	–	Unified Development Code
USACE	–	US Army Corps of Engineers
USDA	–	US Department of Agriculture
USGS	–	US Geological Survey
WSC	–	Water Supply Corporation
WSM	–	Watershed Management
WSMP	–	Watershed Master Plan
WSO	–	Watershed Operations
WW	–	Wastewater
WWTP	–	Wastewater Treatment Plant





SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

Appendix C

# PROJECT MANAGEMENT CENTER OF EXPERTISE

## INITIAL RECOMMENDATION

January 7, 2016

### PM COE TEAM

Patricia Carvajal

Erin Cavazos

Rudy Farias

Michelle Garza – Lead

Chris Giambernardi

Terry Ploetz

Austin Snell

Rick Trefzer

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## Executive Summary

In an effort to build on and fine tune project management processes for the River Authority a cross functional team, identified as the Project Management Center of Expertise (COE), was established. After extensive review and consideration of existing conditions several initial recommendations have been developed that are intended to bring greater consistency, clearer understanding, and improved work-flow processes for project management to the River Authority.

The Project Management COE has placed its focus on striking a balance between recognized project management principles, such as those recognized by The Project Management Institute (PMI), and principles that are easily understandable and executable for staff members with various levels of experience managing projects.

## Project Ideas and Overview

The River Authority is a project intensive organization with a constant flow of ideas and thoughts that contribute to better serving our river basin. Given the limited resources the River Authority makes available to projects each fiscal year it is important that project ideas are aligned with the annual strategic plan and its objectives. The Project Management COE believes that project ideas should be evaluated and compared to the strategic plan, prior to moving through the established review and approval process. The proposed process requires a fair amount of additional effort from those submitting ideas for consideration. With this change, it will be increasingly important for decision makers (i.e. department managers, Executive Team sponsors) to provide constructive feedback with regards to whether an idea is consistent with the strategic objectives and if the idea is likely to receive support for priority consideration in order to prevent unnecessarily spending time and effort further developing an idea.

There are typically project ideas that are ‘unfunded’ after the budget review cycle and there is currently no clear process for determining the next steps for these ideas to evolve. In coordination with Program Leaders, department managers and Executive Team sponsors, it is recommended that the River Authority rethink the suggestion that new projects are only developed during the formal budget process. While approving/adopting project will continue to happen with the budget process, establishing practices that manage a pipeline of project ideas that result in proposals being developed throughout the year, facilitating the carry forward of previously developed ideas, and closing ideas that are no longer supported or seen as a priority will benefit departments across the organization.

Having clear documentation and guidance for the entire project lifecycle is a key objective of the Project Management COE. This will be achieved by providing a clearly documented Process Flow Chart, Project Classification Tool, Project Management Checklists (multiple levels) as well as other tools and templates to assist those that develop and propose project ideas.

## Documentation

Documentation and its importance has been a consistent topic of discussion during COE meetings. Improving the content, standardizing the format and making information available to

project managers is a priority. SARA's project management documentation resources include: the processes and procedures, lessons learned from previous projects, the financial system (ONESolution), project management tools and templates used during the initiating, planning, executing, monitoring and the closing processes. Project management documentation resources guide and influence project managers by instilling consistency, making past project experiences available for review, and assist in further developing ideas. Completion of these documents should increase the likelihood of a successful project and create a more comprehensive historical record.

In support of the work completed by the COE, continuing effort should be made to improve project documentation and the access to that information. In addition, effort is currently being made to reestablish a project management presence on SARAnet and research will continue on how we can better utilize 'lessons learned' produced by project managers through existing tools. As discussions continue other ideas and opportunities will likely present themselves.

### Reporting

Subsequent to putting processes and documentation resources in place the Project Management COE is proposing to look closer at reporting and performance monitoring for SARA projects. Making information available in a presentation that is most relevant for the audience will be examined. The Project Dashboard will slowly adapt to provide more accurate and comprehensive snapshot of project information but will still serve as the tool that conveys the project's overall health, performance and direction at a high level. Working with Information Technology, it will be refreshed in a way to limit the need to contact the Project Manager for interpretation. Collaboration between project managers and finance will continue to increase the transparency and accuracy of project information stored within the financial system (ONESolution). Standard monthly project status updates will be used to convey the projects progress and when appropriate significant issues and concerns that happened in the previous month. For additional project details and more granularity refer to the project files, financial system (ONESolution), or contact the Program Leader or Project Manager.

### Next Steps

Now that consensus has been built on the foundation for project management at SARA, our team will direct its attention to the templates and 'tools'. As the Project Management COE continues to complete items described above a focus will be placed on working with the appropriate stakeholders to finalize project management templates that correspond to the Process Flow Chart and Project Management Checklist, where applicable. In addition, the Project Management COE plans to meet with CA Technologies (Clarity) in January to review enhancements to our currently licensed project and share our needs based on the direction of project management at SARA with our vendor. Finally, the COE will develop the supplemental resources and plan for training SARA staff on the revisions to our project management practices. The goal is to have this work completed by March with the intention of having all recommendations in place prior to the beginning of the new fiscal year.

## Appendix A.

### ROLES AND REPONSIBILTIES

#### PROJECT MANAGER (PM)

##### Day-To-Day

- Monitors project scope, schedule and budget
- Determines and reviews project goals and priorities
- Coordinates with Program Leader (PL) (if his/her project is under a program) to provide necessary information and support for successful program delivery
- Manages relationships with project participants, including internal and external participants/stakeholders and vendors, keeping stakeholders informed of progress and issues in order to manage expectations on all project requirements and deliverables
- Communicates with Program Leader and Project Managers (PM) under the same program
- Ensures a healthy progress of the project from start to finish and ensures all deliverables have been met as the project comes to a close
- Maintains “lessons-learned”
- Uses a formal Change Request (CR) process to communicate changes that effect the project's scope, budget and schedule
- Reviews project team members and their time allocations
- Reviews and if necessary, updates the project schedule and milestones (if there is a change in tasks, communicates this with project participants/stakeholders
- Reviews project budget and actuals.
- Takes necessary action to adjust (using CR process) the budget if there is a need
- Analyzes the actual progress and performance against the baseline schedule and makes adjustments
- Ensures the use of project management tools and that the information is up-to-date
- Reviews, communicates and updates project related Annual Objectives with Program Leader and Department Manager (DM)
- Communicates with Executive Team Sponsor, Support Departments and Budget Analyst (BA) as necessary

##### Tactical

- When dealing with a project idea:
  - Discuss project idea with Department Manager and Division Director as appropriate
  - Gains endorsement for the project idea by identifying if the idea is consistent with the Strategic Plan or responding to a specific need
  - Develops a project charter in coordination with project sponsor; Project charter includes a scope summary, deliverables, stakeholders/customers, estimated start and finish dates, order of magnitude budget, possible funding partners, and high level risks

- When planning the project:
  - Completes the project classification tool to determine the project idea's level (I, II, or III) and required documentation
  - Completes budget planning tool; estimates project team resources, contracts, and commodities
  - Completes required project proposal documentation
  - Receives endorsement for the project proposal and creates required project work breakdown structure documentation
  - Completes project reviews and incorporates review suggestions
  - Gains endorsement to formally execute the project and completes the project management plan
  - Identifies and documents potential risks and impacts
- When executing and monitoring a project:
  - Sets up file folders, coordinates with Finance to finalize project budget and KRONOS codes, and coordinates with Purchasing Agent for the procurement of goods and services
  - Conducts kick-off meeting, assigns resource assignments and ensures tasks are executed
  - Evaluates and responds to risks, documents lessons learned, monitors contracts
  - Ensures project deliverables/results conform to project quality guidelines
  - Captures and documents lessons learned throughout the project's execution
  - Tracks, reviews, and regulates the progress and performance of the project
  - Documents project changes through a change request as necessary
  - Monitors contractual requirements to ensure requirements are being met
  - Ensures invoices are reviewed and paid appropriately
  - Monitors project scope, budget and schedule
  - Conducts project progress meetings
  - Manages and updates project files and records
  - Documents overall project performance
  - Reviews and updates project status and project milestone percent completed on a monthly basis to ensure the project's dashboard is accurately reflecting the project's status
  - Monitors identified risks and documents new risks as necessary
  - Performs quality control and quality assurance for project deliverables
  - Identifies ways to eliminate causes of unsatisfactory deliverables/results
  - Communicates scope, budget, and schedule changes to program leader and support departments
  - Re-baselines project when changes to project scope, budget, and/or schedule occur
- When closing a project:
  - Finalizes all activities across the project management process groups to formally close the project
  - Requests final financials 30 – 45 days after contract work is completed

- Closes contract
- Requests the closure of Kronos and accounting codes from Finance
- Coordinates close-out with the support departments
- Conducts close-out/review meeting
- Finalizes and reviews all lessons learned with project team
- Archives appropriate project files and distribute to the designated archiving personnel
- Recognizes/celebrates project team upon completion of the project

#### Strategic

- Assists Program Leaders in annual proposed list of projects
- During the annual budgeting process, for ongoing projects, coordinates with the Program Leader/Project Managers in the budgeting process and decisions

### **PROGRAM LEADER (PL)**

#### Day-To-Day

- Provided guidance and assistance to assigned Program, Project Managers and projects as needed

#### Tactical

- When dealing with a project idea:
  - Assist Project Manager, as necessary, in discussing project idea with Division Director
  - Gains endorsement for the project idea by identifying if the idea is consistent with the Strategic Plan or responding to a specific need
- When planning the project:
  - Participates in annual scoring and prioritizing of projects
- When executing and monitoring a project:
  - Meets with Executive Team (ET) sponsor at least quarterly to provide project(s') status updates
  - Ensures the accuracy of the project dashboard information
  - Monitors project(s') performance
- When closing a project:
  - Recognizes/celebrates project team upon completion of the project
- Other:
  - Coordinates assignment of projects and efforts into and out of programs
  - Becomes familiar with all SARA projects and their influence on other projects and programs



- Works effectively with internal and/or external participants/stakeholders, third party vendors, department managers and the executive team in accomplishing program objectives
- Advocates for program goals throughout organization by ensuring teamwork, communication and multidisciplinary approach to projects
- Keeps all PMs under the program informed of issues that may affect each project
- Ensures that prior coordination is performed among PM, DM and BA prior to the any adjustments to the program's overall budget
- Ensures compliance with the documented Project Management processes and procedures
- Provides training and guidance to Project Managers

### Strategic

- Assists department manager(s) in the development of scopes, budgets, schedules, and resources for new projects and efforts
- Helps to determine whether proposed project ideas align with SARA's strategic plan
- Provides projects and efforts oversight and review to ensure goals and strategic plan are met to effect program success
- Conducts reviews of individual project budget and project dashboard
- Serves as a mentor/advisor/facilitator to PMs for issues related to internal and external relations, customer relations, governmental regulation, project quality, project risk, and safety
- Meets with ET to seek out and assist in the development of projects that support SARA's strategic plan
- Works closely with the Program Mentor/ET Sponsor to facilitate decisions necessary for successful program development and delivery
- Participates and assists in the development of the strategic plan
- Reviews contracting documents
- Notifies Department Manager of project deficiencies
- Escalates to ET Sponsor if there is no action
- Works across departments to ensure communication between Program Leaders and Department Managers

### **DEPARTMENT MANAGER (DM)**

#### Day-To-Day

- Encourages and ensures all Project Managers in their department follow the SARA Project Management process and procedures
- Provides training and mentoring for their staff regarding effective project management
- Ultimately, responsible for the department project budgets

## Tactical

- When dealing with a project idea:
  - Discusses project idea with Project Manager and Division Director
- When planning the project:
  - Endorses, in coordination with ET Sponsor, project proposal
- When executing and monitoring a project:
  - Participates in kick-off meeting
  - Assists in vendor relations and procurement related to the projects
  - Ensures the availability of the resources to the approved active programs/projects
  - Coordinates with Program Leaders and Project Managers in case of resource unavailability
  - Provides support to the Program Leader/Project Managers throughout the life of programs and projects
  - Reviews change requests regarding project scope, budget, and/or schedule
- When closing a project:
  - Recognizes/celebrates project team upon completion of the project

## Strategic

- Assists Program Leaders in annual proposed list of projects (during and outside of the budget process)
- During the annual budgeting process, for ongoing projects, coordinates with the Program Leader/Project Managers in the budgeting process and decisions
- Responsible for resource planning and allocation for their department
- Participates and assists in the development of the strategic plan
- Examines/vets project's potential in regards to the strategic plan or in response to a specific need or regulation

## **EXECUTIVE TEAM SPONSOR (ET)**

### Day-To-Day

- Provided guidance and assistance to Program Liaisons, Project Managers and projects as needed

### Tactical

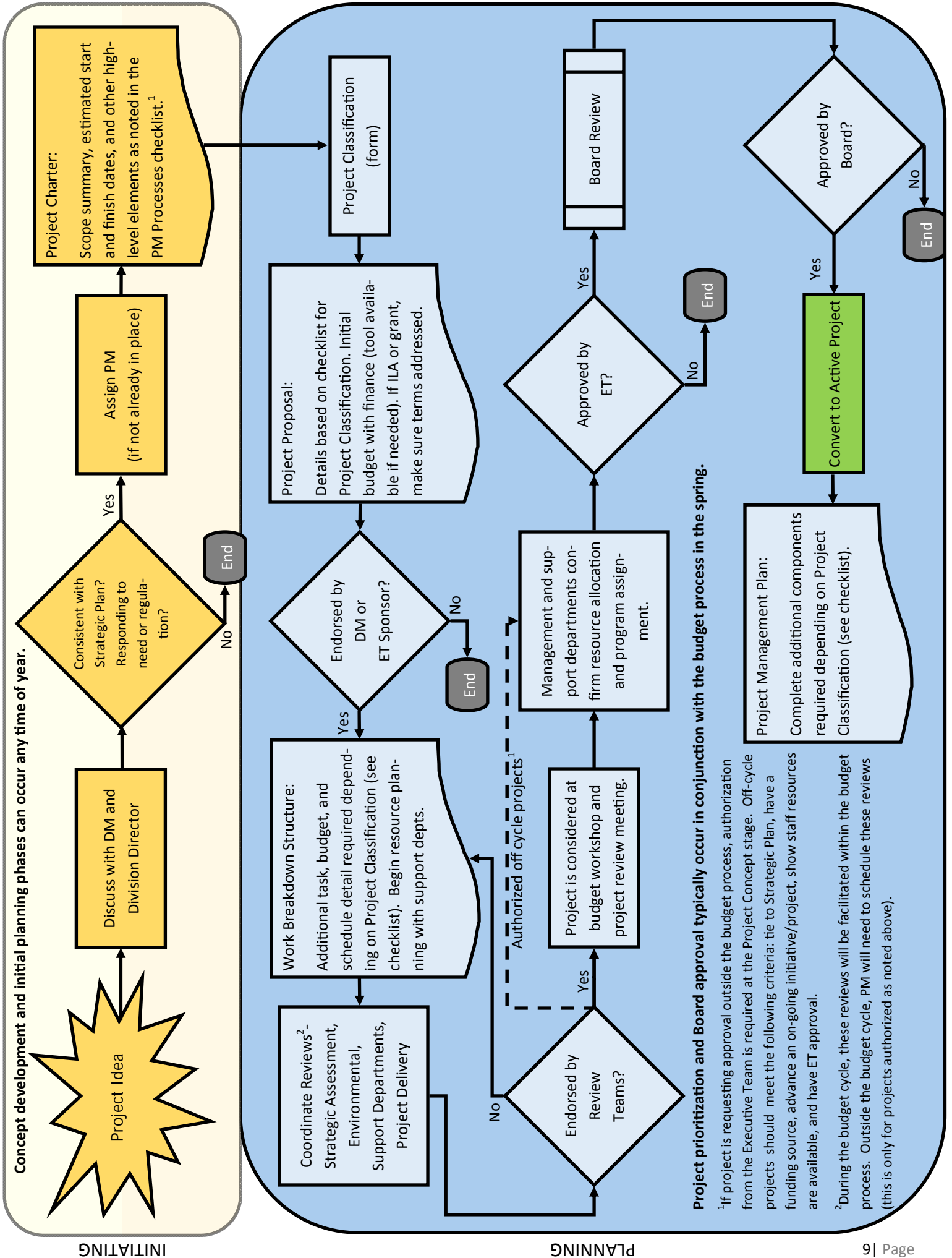
- When dealing with a project idea:
  - Provides assistance to Department Manager through discussions on project ideas
  - Provides endorsement for the project idea by identifying if the idea is consistent with the Strategic Plan or responding to a specific need
- When planning the project:
  - Endorses project proposal which allows the Project Manager to begin development of a Work Breakdown Structure

- Following the budget workshop, review meetings, and confirmation of resources, ET Sponsor endorses the project for Board consideration
- When executing and monitoring a project:
  - Participates in kick-off meeting
  - Reviews change requests regarding project scope, budget, and/or schedule
  - Reviews program dashboard to see general health of project budgets and schedules
- When closing a project:
  - Recognizes/celebrates project team upon completion of the project
  - Receives, reviews, and accepts project deliverables

### Strategic

- Coaches PLs on how to interface effectively with Department Managers and Project Managers
- Shares institutional and professional wisdom, critiques performance, makes suggestions
- Supports, listens and serves as an advisor in SARA's cultural expectations and acknowledges challenges and opportunities
- Helps PL to keep sight of SARA's strategic plan
- Mediates disagreements between PLs and Department Managers
- Meets at least quarterly with PL

**PROJECT MANAGEMENT PROCESS FLOWCHART**

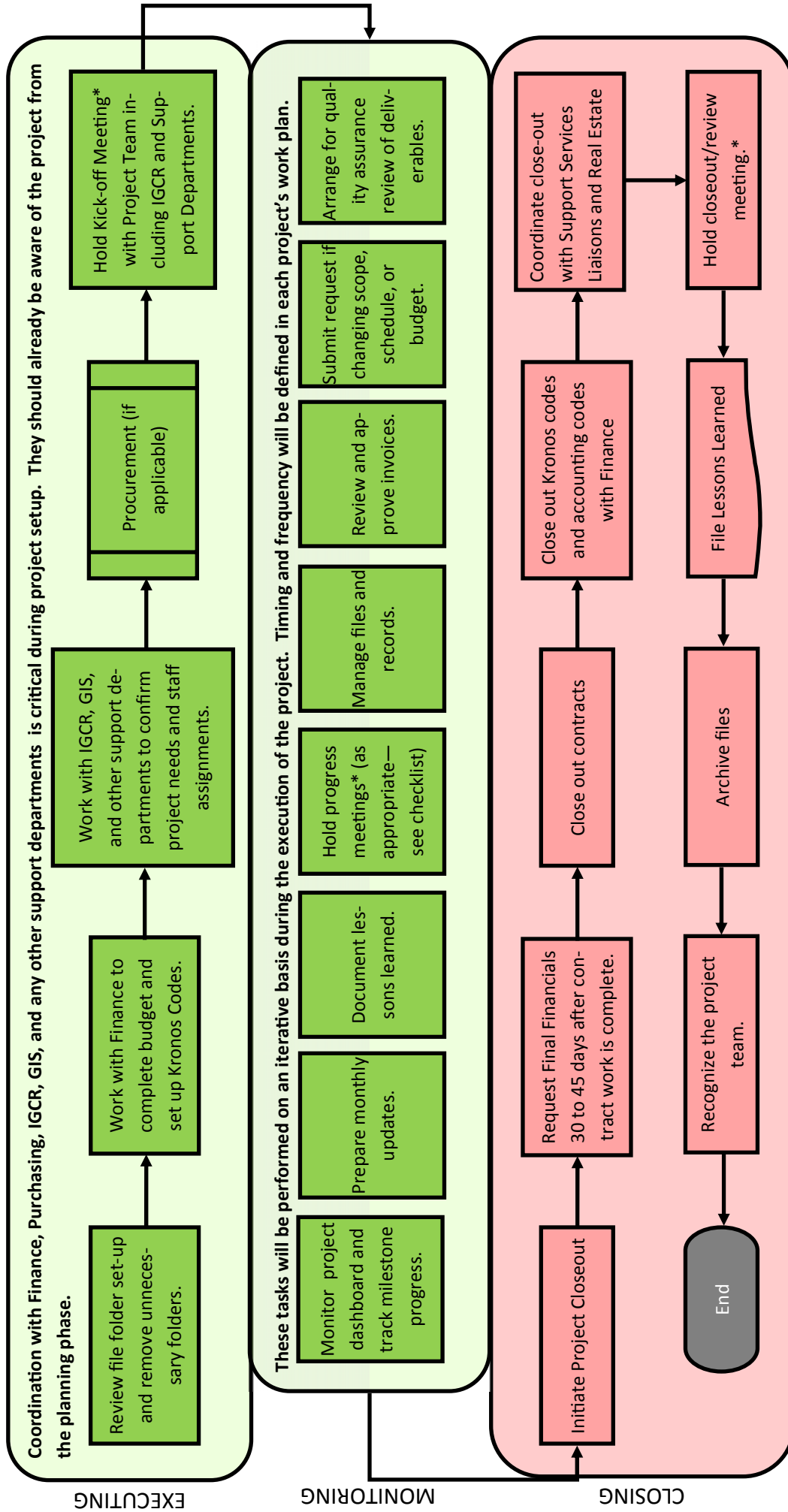


**Project prioritization and Board approval typically occur in conjunction with the budget process in the spring.**

<sup>1</sup>If project is requesting approval outside the budget process, authorization from the Executive Team is required at the Project Concept stage. Off-cycle projects should meet the following criteria: tie to Strategic Plan, have a funding source, advance an on-going initiative/project, show staff resources are available, and have ET approval.

<sup>2</sup>During the budget cycle, these reviews will be facilitated within the budget process. Outside the budget cycle, PM will need to schedule these reviews (this is only for projects authorized as noted above).

See checklist for more details and requirements based on Project Level classification.



\*Meeting recommendations are based on project classification. Meetings may be combined with regularly scheduled program meetings if appropriate. See checklist for guidance.

Symbol Key:

DM Department Manager

ET Executive Team

PL Program Leader

PM Project Manager

Process Step

Decision

Document

Terminator

## SAN ANTONIO RIVER AUTHORITY PROJECT MANAGEMENT PROCESSES CHECKLIST

### **PROJECT INITIATION (Initiating Process)**

Initiating a project can occur at any time of the year by anyone within the organization. The process entails defining a new project or a new phase of an existing project and obtaining authorization to move into the project planning phase. The process begins by:

#### ***Project Idea***

- Discuss project idea with Department Manager and Division Director as appropriate.

#### ***Gain Endorsement***

- Identify if the project idea is consistent with the Strategic Plan or responding to a specific need.
  - If there is support for the project idea, develop a Project Charter. Otherwise, project idea ends.

#### ***Project Charter Documentation Requirements\****

- A project manager and project sponsor are identified to develop the project charter.
- Project charter shall include a scope summary, deliverables, stakeholders/customers, estimated start and finish dates, order of magnitude budget, possible funding partners, and high level risks.

### **PROJECT PLANNING (Planning Process)**

Following support for a project idea, the project moves into the planning process. This planning process establishes the scope of the project, refines the objectives, and defines the course of action required to attain the objectives the project is seeking to achieve. Authorization to start the project is received within this process group. The process begins by taking the approved project idea and:

#### ***Project Classification***

- Project manager completes project classification tool
  - Tool's output determines the project's level (Level I, II, or III) and required project documentation

#### ***Project Proposal Documentation Requirements\* (Levels I, II, or III)***

- Confirm project manager and project sponsor. (I, II, III)
- Project manager documents project proposal:
  - Identify and document which program the project will be under. (I, II, III)
    - Confirm with the appropriate Program Leader.
  - Obtain (from the Finance Department) and complete budget planning tool. (I, II, II)
    - Tool helps estimate cost for project team, contracts (professional services) and/or commodities (supplies and equipment). If procuring services, coordinate with purchasing personnel (I, II, III)
  - Develop high level project schedule. (I, II, III)
  - Identify and document project milestones. (I, II, III)
  - Identify and document expected outcomes and benefits. (I, II, III)
  - Refine and validate project scope and objectives. (I, II, III)
  - Identify and document critical success factors. (I, II, III)
  - Identify and document stakeholder needs and requirements. (II, III)
  - Identify and document customer needs and requirements. (II, III)
  - Identify and document project goals and deliverables. (I, II, III)
  - Identify and document potential risks and impact to the project. (II,III)
  - Gather and evaluate all relevant background information. (III)

#### ***Gain Endorsement (Levels I, II and III)***

- Project manager obtains endorsement for the project proposal from Department Manager or ET Sponsor, and updates the Program Leader and Budget Analyst. (I, II, III)

#### ***Project Work Breakdown Structure Documentation Requirements\* (Levels II and III)***

- Project manager identifies and documents personnel needed to complete Work Breakdown Structure (WBS). The WBS is completed in coordination with the project team and support departments and includes:
  - Develop and document a detailed schedule. (II, III)
  - Refine budget based upon detailed schedule. (II, III)

- Confirm personnel resources and obtain approval from necessary department managers and support departments (i.e. IGCR, GIS, IT, HR, Finance.) (II, III)
- Develop and document detailed scope of work and obtain approval from department manager and program leader. (II, III)
- Identify and document organization and/or project constraints. (II, III)
- Document all project assumptions. (III)
- Develop and document Risk Response Plan. (III)
- Develop and document Quality Management Plan (III)

Note: Components of the WBS may be completed following Board approval.

**Reviews/Endorsements (Levels I, II and III)**

- Complete project reviews and incorporate suggestions as appropriate.
  - Environmental Review (I, II, III)
  - Strategic Assessment Tool (I, II, III)
  - Project Delivery Review, if necessary. (Applies to studies, and design and construction projects.) (I, II, III)
  - Support Department Review (I, II, III)
- Based upon the reviews, communicate any changes to scope, cost or schedule to department manager, support departments, program leader, and Finance. Changes to scope, cost or schedule will require an update to the WBS. (I, II, III)

**Review Team and Management Reviews (Levels I, II and III)**

- In Budget Cycle – Projects are considered at the budget workshop and project review meetings (Levels I, II, III)
- Confirm staffing availability and program assignment with department manager(s) and support departments. (I, II, III)
- Out of Budget Cycle – The project must tie to the strategic plan, have a funding source, advance an on-going initiative, show staff resources are available, and have Executive Team approval. The project manager will also need to schedule and complete the project reviews. (I, II, III)

**Gain Endorsement (Levels I, II and III)**

- In and Out of Budget Cycle - Obtain final approvals from Executive Team to move to the Board for project and budget approval. (I, II, III)
- Board/Budget approval obtained.
  - If yes, convert Proposed Project to an Active Project. (I, II, III)
  - If no, all information gathered up to this point should be saved on the G: drive for possible future use. (I, II, III)

**Project Management Plan (Levels II and III)**

- If not complete, project manager with the project team completes components of the project WBS and finalizes Project Management Plan. (Levels II and III)

**PROJECT EXECUTING (Execution Process)**

The execution processes are those processes performed to complete the work defined in the Project Management Plan to satisfy the project specifications. ONESolution is the system for all financials.

**Project Set Up (Levels I, II and III)**

Project manager coordinates with Finance, Purchasing, IGCR, GIS and any other support departments to:

- Set up project file folders. Project manager removes unnecessary folders. (I, II, III)
- Contact Finance to finalize budget and set up Kronos codes. (I, II, III)
- Request Finance give project team access to Kronos codes. (I, II, III)
- Prior to procuring goods and services, project manager works with Purchasing Agent and reviews and follows SARA's policies (FN 001 and FN 009). (I, II, III)

**Project Activity (Levels I, II and III)**

- Project manager conducts kick-off meeting
  - Include project team, ET sponsor, program leader, department manager, and support departments. (I, II)
  - Include project team, ET sponsor, program leader, department manager, support departments, and external participants. (III)
- Assign resources to project tasks as identified by schedule. (I, II, III)
- Ensure team members are executing task as assigned. (I, II, III)
- Identify and document new risks. (I, II, III)
- Execute risk response plans, as necessary. (III)

- Ensure project deliverables/results conform to project quality guidelines. (III)
- Capture and document lessons learned throughout the project's execution. (I, II and III)

### **PROJECT MONITORING (Monitoring Process)**

The monitoring processes includes those processes require to track, review, and regulate the progress and performance of the project. During this process, areas requiring change are identified. Changes are initiated and documented through a change request. These tasks will be performed on an iterative basis during the execution of the project.

#### ***Project Activity (Levels I, II and III)***

- Monitor contractual requirements to ensure requirements are being met. (I, II, III)
  - Ensure invoices are reviewed and paid appropriately. (I, II, III)
- Monitor project scope, budget and schedule. (I, II, III)
- Conduct project progress meetings. (II, III)
- Manage and update project files and records. (I, II, III)
- Document overall project performance.
  - Review and update project status, project dashboard, and project milestone percent completion monthly. (I, II, III)
- Monitor identified risks and document new risks monthly. (III)
- Perform quality control and quality assurance for project deliverables. (I, II, III)
  - Identify ways to eliminate causes of unsatisfactory deliverables/results. (III)
- Communicate scope, budget, and schedule changes to program leader and support departments. (I, II)
- Communicate changes that effect project scope, budget, and schedule to project team, program leader, ET sponsor, support departments, and external participants as determined appropriate by project manager. (III)
- Initiate a change request to document changes to project scope, budget, and/or schedule. (I, II, III)
- Re-baseline project when changes to project scope, budget, and/or schedule occur. (II, III)

### **PROJECT CLOSING (Closing Process)**

The closing processes finalize all activities across the project management processes groups to formally close the project.

#### ***Project Closure (Levels I, II and III)***

- Sponsor receives, reviews, and accepts project deliverables. (I, II, III)
- Project manager requests final financials 30 – 45 days after contract work is completed. (I, II, III)
- Project manager closes contract. (I, II, III)
- Project manager requests the closure of Kronos and accounting codes from Finance. (I, II, III)
- Project manager coordinates close-out with the support departments. (I, II, III)
- Project manager conducts close-out/review meeting. (II, III)
- Project manager finalizes and reviews all lessons learned with project team. (I, II, III)
- Project manager finalizes and reviews lessons learned with project participants. (III)
- Project manager archives appropriate project files and distribute to the designated archiving personnel. (I, II, III)
- Project team is recognized for the completion of the project. (I, II, III)

**\* Elements of the Project Charter, Project Proposal and Project Work Breakdown Structure make up the Project Management Plan.**



## GLOSSARY

**Clarity** – The River Authority’s project management system for routing and capturing scope, time, monthly updates, change requests and lessons learned.

**Customer** – The person or organization that will use the project’s product or service or result.\*

**Executive Team (ET)** – The River Authority’s General Manager, Assistant General Manager, and Division Directors.

**Kronos** – The River Authority’s time keeping system for staff.

**ONESolution** – The River Authority’s financial accounting system and system of record. All financial reporting must be derived from ONESolution.

**Project Charter** – A document issued by the project sponsor Executive Team sponsor that formally authorizes the planning of a project, and provides the project manager with the authority to apply organizational resources to project activities. (Adapted from *A Guide to the Project Management Body of Knowledge (PMBOK)* – Third Edition)

**Project Classification** – The River Authority’s tool for determining a project’s level of complexity and required documentation. Levels are I, II and III with III being the most complex.

**Project Dashboard** – Located on SARANet under SARA Goals and Reporting, the dashboard illustrates project spending, milestone status, start and end dates, monthly project updates, and captures the project scope.

**Project Management Plan** – It is a formal, approved document that defines how the project is executed, monitored and controlled. It may be summary or detailed and may be composed of one or more subsidiary management plans and other planning documents.\*

**Project Manager** – The person assigned by the performing organization to achieve the project objectives.\*

**Project Scope** – The work that must be performed to deliver a product, services, or result with the specified features and functions.\*

**Project Sponsor** – The Executive Team sponsor that advocates for the financial resources, in cash or in kind, for the project. (Adapted from *A Guide to the Project Management Body of Knowledge (PMBOK)* – Third Edition)

**Quality Management Plan** – The quality management plan is a component of the project management plan. The quality management plan may be formal or informal, highly detailed, or broadly framed, based on the requirements of the project. It defines the level of quality of deliverables.

**Risk Assessment** – Also referred to as Risk Identification in the PMBOK, it is the process of determining which risks might affect the project and documenting their characteristics and potential impacts.\*

**Risk Response Plan** – The process of developing options and actions to enhance opportunities and to reduce threats to project objectives.\*

**Scope of Work** – See Project Scope.

**Stakeholder** – Person or organization (e.g., customer, sponsor, performing organization, or the public) that is actively involved in the project, or whose interests may be positively or negatively affected by execution or completion of the project. A stakeholder may also exert influence over the project and its deliverables.\*

**Work Breakdown Structure (WBS)** – A deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables. It organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of the project work. The deliverable orientation of the hierarchy includes both internal and external deliverables.\*

**Work Plan** – See Project Management Plan.

\* As defined in *A Guide to the Project Management Body of Knowledge (PMBOK)* – Third Edition

Appendix D.

**PROJECT CLASSIFICATION TOOL**

What kind of project is it?		Organizational or Asset Improvement
What is the estimated project cost?		<= \$300,000
What is the duration of the project?	Longer projects are more likely to drift off schedule and budget.	< 24 months
Is the project part of an Inter-Local Agreement (ILA) or outside funding?	Sponsor may have additional expectations, and legal agreements may be involved.	no
Was the project requested by an executive or a board member?	Sponsor may have additional expectations.	no
Does the project require cross-departmental support?	Extra coordination effort needed. Risk of schedule delay and/or rework.	no
How many SARA staff are on the project team?	Extra coordination effort needed. Risk of schedule delay and/or rework.	<= 5
Does the project involve a consultant and/or a contractor?	Legal agreement.	no
Does the project have any State or Federal reporting?	Penalties may be imposed if in non-compliance.	no
Does the project require permits?	Penalties may be imposed if in non-compliance.	no
Does the project team have experience with the proposed means and methods?	Effort and needs may be underestimated.	yes
Does the project involve field work?	Additional safety concerns. Also weather may impact schedule and budget.	no
What impact would going over schedule have?		None
<b>Project Classification</b>		<b>I</b>

All Green  
 One to Three Yellow  
 Four or more Yellow and/or Any Orange  
 Level I  
 Level II  
 Level III

	Organizational or Asset Improvement			Study			Activity			Engineering Design and/or Construction		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
	<= \$300,000 < 24 months no	\$300,000 to \$1,000,000 24 to 60 months yes	>\$1,000,000 > 60 months	<= \$300,000 < 24 months no	\$300,000 to \$1,000,000 24 to 60 months yes	>\$1,000,000 > 60 months	<= \$300,000 < 24 months no	\$300,000 to \$1,000,000 24 to 60 months yes	>\$1,000,000 > 60 months	<= \$800,000 < 24 months no	\$800,000 to \$5,000,000 24 to 60 months yes	>\$5,000,000 > 60 months
What is the estimated project cost?												
What is the duration of the project?												
Is the project part of an Inter-Local Agreement (ILA) or outside funding?												
Was the project requested by an executive or a board member?												
Does the project require cross-departmental support?												
How many SARA staff are on the project team?												
Does the project involve a consultant and/or a contractor?												
Does the project have any State or Federal reporting requirements?												
Does the project require permits?												
Does the project team have experience with the proposed means and methods?												
Does the project involve field work?												
What impact would going over schedule have?												

**Additional Criteria**

*Design/Construction*

Does the project involve survey?  
Does the project require local, state, or federal permits?

experience with methods/software/equipment/this kind of project?  
familiarity with relevant codes & regulations?  
stakeholder timeline/budget realistic?  
negative consequences for going over schedule/budget?  
successful experience with contractor/consultant in the past?  
field work, travel?