SAN ANTONIO
RIVER AUTHORITY
Leaders in Watershed Solutions

A political subdivision of the State of Texas.

PROJECT BUDGETS

Fiscal Year 2018-2019

Vision

Inspiring Actions for Healthy Creeks and Rivers

Mission

Committed to Safe, Clean, Enjoyable Creeks and Rivers

SAN ANTONIO
RIVER AUTHORITY

Leaders in Watershed Solutions

SAN ANTONIO RIVER AUTHORITY
TEXAS

PROJECT BUDGETS

July 1, 2018 - June 30, 2019

Presented to the
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Hector R. Morales		Bexar County, At-Large
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H.B. “Trip” Ruckman III		Karnes County

Management Team

Name	Title
Suzanne B. Scott	General Manager
Stephen T. Graham, P.E.	Assistant General Manager
John A. Chisholm III	Director of Operations
Allison Elder	Director of Legal Services
Bruce E. Knott, MHR	Director of Human Resources
Steven J. Raabe, P.E.	Director of Technical Services
Steven Schauer	Director of Government and Public Affairs
Rick Trefzer, CMA	Director of Support Services
Melissa Bryant, P.E.	Environmental Sciences Manager
John Gomez	Utilities Manager
Kristen Hansen	Watershed and Park Operations Manager
Brian Mast	Intergovernmental Manager
Patrice Melancon, P.E.	Watershed Engineering Manager
Connie Real	Real Estate Manager
Alexander Rodriguez	Information Technology Manager
Jennifer Skiver, CPA, CMA	Accounting and Budget Services Manager

PREPARED BY:
FINANCE DEPARTMENT

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Jennifer Skiver, Accounting and Budget Services Manager
Rick Trefzer, Director of Support Services
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SAN ANTONIO
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Leaders in Watershed Solutions

Project Goals Overview

Mission Reach, South of Theo Avenue
San Antonio, Bexar County

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Overview

The San Antonio River Authority (River Authority) manages and completes projects under a wide range of activities including scientific studies, park improvements, major infrastructure initiatives for flood control, stormwater management and community amenitites. 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 federal, state and local grants also helps the River Authority support its mission of safe, clean, enjoyable creeks and rivers.

The objective of this Project Budgets book is to provide a comprehensive look at the projects the River Authority has authorized and budgeted for Fiscal Year (FY) 2018/19. Information on established organization goals, the 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 'SARA Contribution' amount. This amount for River Authority labor is not specifically included in the project's budget shown in the Annual Budget Detail book for River Authority funded projects.

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, Museum Reach, and San Pedro Creek improvements along the San Antonio River are maintained by the River Authority. The approved operating budget provides sufficient funding for this effort.

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. Recommendations were developed to bring greater consistency, clearer understanding, and improved work-flow processes for project management to the River Authority.

The implementation of the Project Management COE recommendations is still ongoing. Improvements to our enterprise project management system occurred in FY 2017/18 and are again supported in the annual budget for FY 2018/19. The focus for next year's efforts involve improving the ease of use, user education, and incorporating resource planning information.

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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.

In FY 2018/19, the River Authority will continue to focus on human capital management (capacity planning) and work prioritization to establish a means by which funded projects can be prioritized so that staffing resources are targeted in those activities. This process will also help set realistic timelines and expectations for projects' start and completion dates.

Seventy seven (77) projects are recognized in the FY 2018/19 Adopted Budget. These projects are assigned to one of five Strategic Plan Goals that are managed by a Goal Leaders with authority to direct the projects within their portfolio. Goal Leaders will be responsible for developing annual objectives, reporting progress and are responsible to the River Authority management staff for achieving programmatic results. These five Strategic Plan Goals include:

- **Advance Science and Engineering Expertise and Data**
- **Enable Policy, Projects, and Actions**
- **Enhance Community Appreciation and Recreation**
- **Maximize Strategic Use of Resources**
- **Inspire Employees and Build Expertise**

Pyrrhuloxia, Bexar County

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Definitions

The River Authority's portfolio of work for FY 2018/19 falls under five organization Strategic Plan Goals, and includes seventy seven (77) authorized projects and numerous efforts. These terms – goals, 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.

Goal

A Goal refers to one of five Strategic Plan Goals that are established to advance the vision and mission of the River Authority. Projects and efforts are assigned to Goals that are managed and monitored by selected Goal Leaders to obtain benefits not available from managing them individually. Goal Leaders typically manage multiple projects and efforts that align to a particular agency Goal and help facilitate collaboration and coordination that may result in benefits for activities that overlap one another.

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 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. Efforts are included in the department narratives within the Annual Budget Detail book.

Processes

Consistent and effective project management lends to efficient fiscal stewardship of public funds and excellent 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. The following describes the current processes.

Escondido Creek Parkway Project Rendering, Karnes County

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Project Proposal and Evaluation Process

River Authority projects can start in various ways: 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 undergo 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.

Goal 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 Directors' consideration and adoption.

Project Management Process

The River Authority's portfolio of projects involve 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 have been in place since early FY 2016/17. The section gives a brief overview description of these updated processes and procedures. Appendix 1 to this document provides much greater detail regarding the refined and enhanced project management process for the River Authority.

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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 an enterprise Project Portfolio Management (PPM) software application that has enabled transparency and efficiency. The PPM software was last upgraded in FY 2016/17 to capture the latest product enhancements and implement the recommendations of the Project Management COE. Additional software upgrades that potentially increase collaboration capabilities are under evaluation for FY 2018/19.

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.

John William Helton San Antonio River Nature Park Pavilion Floresville, Wilson County

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SAN ANTONIO RIVER AUTHORITY
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STRATEGIC PLAN
FISCAL YEAR 2018/19

VISION:
INSPIRING ACTIONS FOR HEALTHY CREEKS AND RIVERS

MISSION:
COMMITTED TO SAFE, CLEAN, ENJOYABLE CREEKS AND RIVERS

WHAT SETS US APART:
- Action oriented, engaged and informed elected Board of Directors.
- Innovative, sustainable, collaborative, and results-oriented solutions.
- Experts in watershed management and ecology.
- Caring, dedicated and passionate people providing responsive public service.

WE SERVE:


JUNE 20, 2018

CORE VALUES
STEWARDSHIP **INTEGRITY** **EXCELLENCE**

AGENCY GOALS

Advance Science and Engineering Expertise and Data – Through research data, tools and models, SARA will continue to serve as the lead agency providing technical and science based information and solutions to advance our mission.

Enable Policy, Projects, and Actions – Apply SARA's expertise and resources to influence, develop, and implement recognized and sustainable improvements to the health and safety of our creeks, rivers, estuaries and bays.

Enhance Community Appreciation and Recreation – Enhance community appreciation by firmly supporting engagement with our creeks and rivers to ensure that these resources contribute to the quality of life of all residents.

Maximize Strategic Use of Resources – Diversify and leverage funding, technology, and people (employees, partners, community) to strengthen business processes and SARA service delivery.

Inspire Employees and Build Expertise – Emphasize the value SARA places on its employees, focus on people services, improve service efficiencies and the expertise that sets us apart from other organizations.

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ANNUAL OBJECTIVES

Advance Science and Engineering Expertise and Data

- Target investments to maintain SARA's technical leadership in flood management and water quality and ecosystem management modeling, mapping and analysis and watershed master planning.
- Advance the capability for consumers to easily access and use models, data and master plans through development of tools.

Enable Policy, Projects, and Actions

- Target investments in projects and incentives that result in quantifiable water quality benefits.
- Promote healthy ecosystems through proactive ecological restoration projects.
- Proactively address the threats to creeks and rivers.
- Drive adoption of sustainable design and development policy.

Enhance Community Appreciation and Recreation

- Increase public awareness of and engagement with SARA.
- Expand and enhance infrastructure improvements in SARA Parks and trails.

Maximize Strategic Use of Resources

- Pursue implementation of the facilities improvement and expansion plan.
- Increase and improve service delivery of the utility enterprise.
- Review and update business processes and practices that mitigate organization risk.

Inspire Employees and Build Expertise

- Improving employee resiliency through programs that support employees personally and professionally.
- Develop and implement a SARA training program that improves ease of use and employee experience of technology and other resources.
- Implement organization wide processes that assist with human capital management (capacity planning) and work prioritization.

STRATEGIC OPPORTUNITIES

1. Capitalize on SARA's water quality data expertise and tools to influence and prepare for future changes to federal, state and local regulations as they relate to water quality and quantity management.
2. Define SARA's role in the Smart Cities initiative and explore open data initiatives.
3. Make SARA's data more accessible and usable (expanding the basin assessment strategy) with the ultimate goal of all data being accessed from a single entry point.
4. Achieve trash-free waters through education, advocacy and mitigation projects.
5. Advocate for the creation of the national estuary program for the San Antonio Bay.
6. Pursue implementation of the facilities expansion plan.
7. Continue to advance SARA's role and influence in capital projects along creeks and rivers including, but not limited to, Westside Creeks Restoration Project, linear creekway projects and City of San Antonio bond projects.
8. Explore opportunities to apply SARA's expertise and expand programs within all watersheds, with consideration given to the Upper Cibolo and Salado watershed projects.

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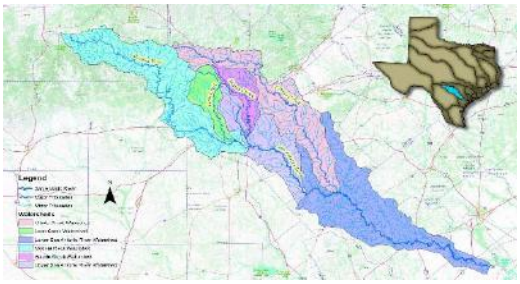
Strategic Plan Goals and Objectives

Advance Science and Engineering Expertise and Data



Through research data, tools and models, SARA will continue to serve as the lead agency providing technical and science based information and solutions to advance our mission.

San Antonio River Watershed

1.1 Target investments to maintain SARA's technical leadership in flood management and water quality and ecosystem management modeling, mapping and analysis and watershed master planning.

- Clean Rivers Program 2017/SARA Stream Monitoring
- Cooperating Technical Partners (CTP) - FY17 Medina Phase II / (Tributary Modeling – Grant Match)
- CTP Development
- CTP Risk Map Cibolo
- CTP Risk Map LSAR
- CTP USAR FY2016 / (Tributary Modeling – Grant Match)
- Floodplain (FP) Remap - Leon, Salado, and Medina
- Green Stormwater Infrastructure Master Plan: Upper SAR Watershed
- H&H Study - Borrego to Medio
- Inflow Scenarios for San Antonio Bay Modeling 2018
- Laboratory Management Software Replacement
- Site-Scale Model Development
- USGS LSAR Groundwater Surface Water Interaction Modeling
- USGS Oil & Gas Production Constituents Phase I
- Tributary Modeling

ENDING BETWEEN 3/31/18 & 9/30/18

- Bexar County LiDAR Collection
- EDYS San Antonio Bay Model Development

1.2 Advance the capability for consumers to easily access and use models, data and master plans through development of tools.

- Basin Assessment Mapping & Analysis Tool
- Digital Data and Model Repository (D2MR)
- Predictive Flood Modeling
- Mid/Lower Cibolo Creek WPP
- SCTRWPG 2021 RWP Fifth Cycle
- Stormwater Training and Tools

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- Watershed Master Plans Integration

ENDING BETWEEN 3/31/18 & 9/30/18

- Cibolo Creek Watershed Master Plan
- Downstream Flood Inundation Library
- Water Quality Data Analytics

Enable Policy, Projects, and Actions

Mission Reach, Bexar County

Apply SARA's expertise and resources to influence, develop, and implement recognized and sustainable improvements to the health and safety of our creeks, rivers, estuaries and bays.

2.1 Target investments in projects and incentives that result in quantifiable water quality benefits.

- Edwards Aquifer Watershed Protection
- Watershed Wise Rebate Program
- Watershed Wise School Grant

ENDING BETWEEN 3/31/18 & 9/30/18

- Feral Hog Management

2.2 Promote healthy ecosystems through proactive ecological restoration projects.

- BRWM Stream Mitigation Bank
- Freshwater (FW) Mussel Propagation
- Mission Reach
- Mission Reach Avian Study
- Olmos Creek Aquatic Ecosystem Restoration
- Panther Springs Creek Restoration
- Resource Conservation Partnership Program
- River Road Stream Restoration
- Huebner Creek Flood Remediation and Aquatic Ecosystem Restoration Project

2.3 Proactively address the threats to creeks and rivers.

- Bexar County Capital Improvement Program - Real Estate Acquisition
- Concepcion Creek Outfall Repair
- Mission Reach Erosion Repairs
- Stone Oak Park Dam (Salado 8) Spillway Repair
- Trash and Floatables Mitigation - Olmos Creek

ENDING BETWEEN 3/31/18 & 9/30/18

- Flood Gate 4 Replacement
- Martinez 1, 2 and 3 Dam Rehabilitation
- Trash and Floatables Mitigation

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2.4 Drive adoption of sustainable design and development policy.

- Broadway Underpass
- Guenther/Euclid Stormwater Retrofit
- Impervious Cover Mitigation
- CoSA Bond LID Match

Enhance Community Appreciation and Recreation

Saspamco Paddling Trail, Wilson County

Enhance community appreciation by supporting engagement with our creeks and rivers to ensure that these resources contribute to the quality of life of all residents.

3.1 Increase public awareness of and engagement with SARA.

- Nature Park Signage Development
- Watershed Wise River Discovery

3.2 Expand and enhance infrastructure improvements in SARA Parks and trails.

- Brooks City Base - Mission Reach Linkage Project
- Escondido Creek Parkway
- John William Helton San Antonio River Nature Park
- Mann's Crossing Park on the Medina River
- San Antonio River Accessibility
- Trueheart Park
- Westside Creeks San Pedro Creek
- WSC Linear Creek Trails and Elmendorf Lake Park
- River Walk Sculpture Garden

ENDING BETWEEN 3/31/18 & 9/30/18

- Graytown Park on the San Antonio River

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Maximize Strategic Use of Resources

Diversify and leverage funding, technology, and people (employees, partners, community) to strengthen business processes and SARA service delivery.

Martinez II Wastewater Treatment Plant, Bexar County

4.1 Pursue implementation of the facilities improvement and expansion plan.

- Facilities Acquisition and Improvements Project

4.2 Increase and improve service delivery of the utility enterprise.

- Martinez II Screw Pump Replacement
- Martinez IV CIP
- Martinez IV WWTP and Phase IV WW Line
- Randolph Air Force Base All Years
- Salitrillo Collection Wholesale System Inflow and Infiltration
- Salitrillo WW Capital Improvement Program
- Salitrillo WWTP Expansion
- SARA Wastewater Collection System Inflow and Infiltration

4.3 Review and update business processes and practices that mitigate organization risk.

- Network File/Folder Re-structure
- Salitrillo & Martinez Sewershed Models
- WWTP Subsurface Utility Exploration & Utility Mapping

ENDING BETWEEN 3/31/18 & 9/30/18

- Cooperating Technical Partners (CTP) Business Plan Update

Inspire Employees and Build Expertise

Emphasize the value SARA places on its employees, focus on people services, improve service efficiencies and the expertise that sets us apart from other organizations.

Watershed and Park Operations, John William Helton
San Antonio River Nature Park Pavilion, Wilson County

5.1 Improve employee resiliency through programs that support employees personally and professionally.

5.2 Develop and implement a SARA training program that improves ease of use and employee experience of technology and other resources.

5.3 Implement organization wide processes that assist with human capital management (capacity planning) and work prioritization.

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Projects Goal #1

Lower Cibolo Creek
Stockdale, Wilson County

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AGENCY GOAL #1

Advance Science and Engineering Expertise and Data – Through research data, tools and models, SARA will continue to serve as the lead agency providing technical and science based information and solutions to advance our mission.

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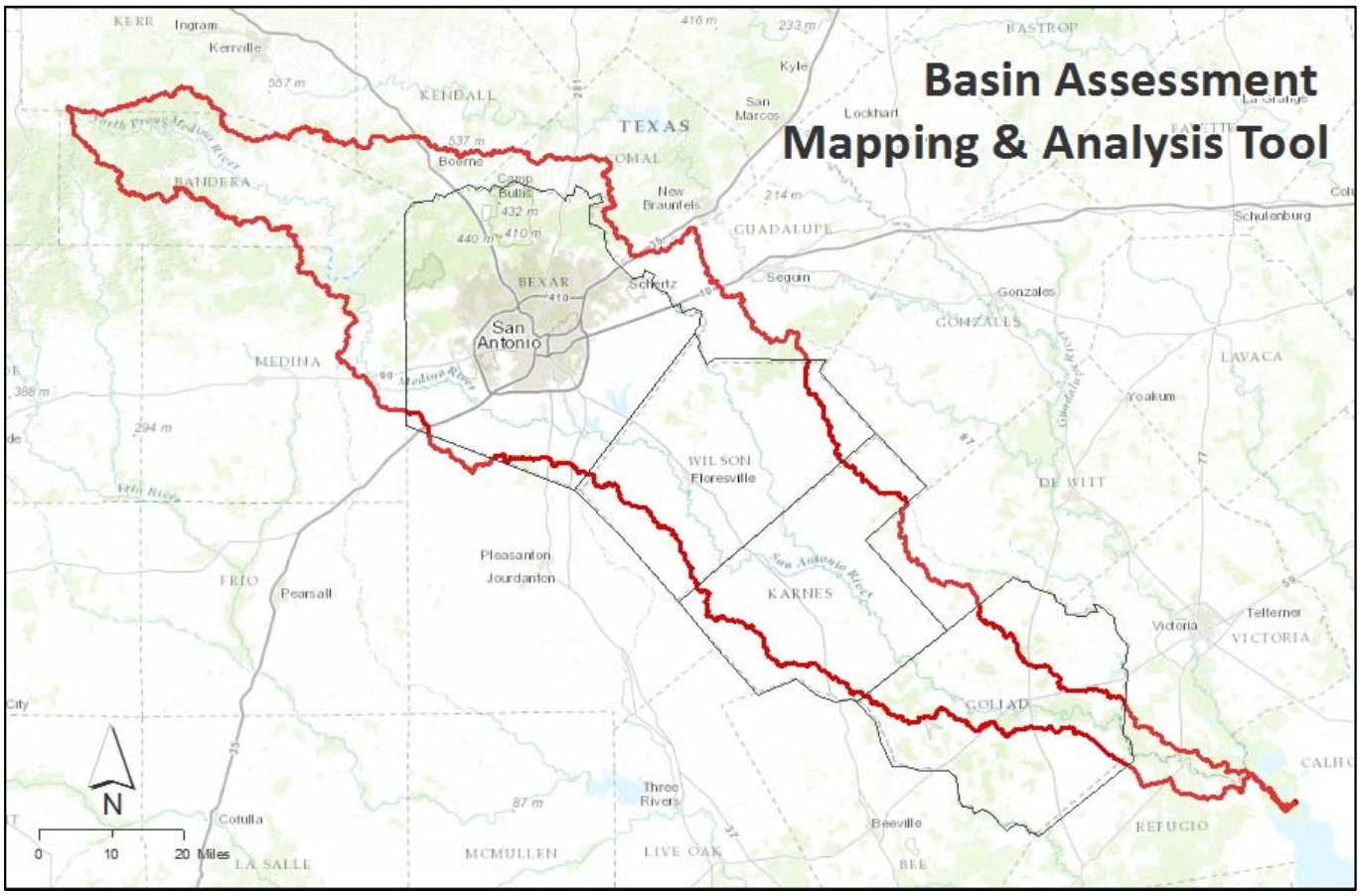
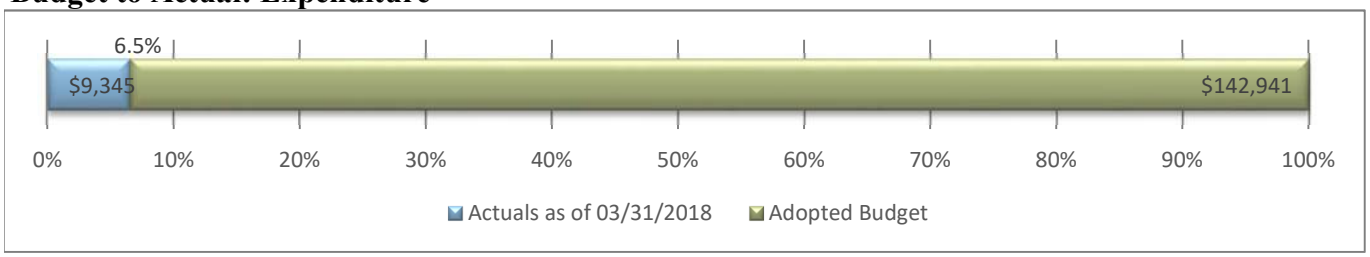
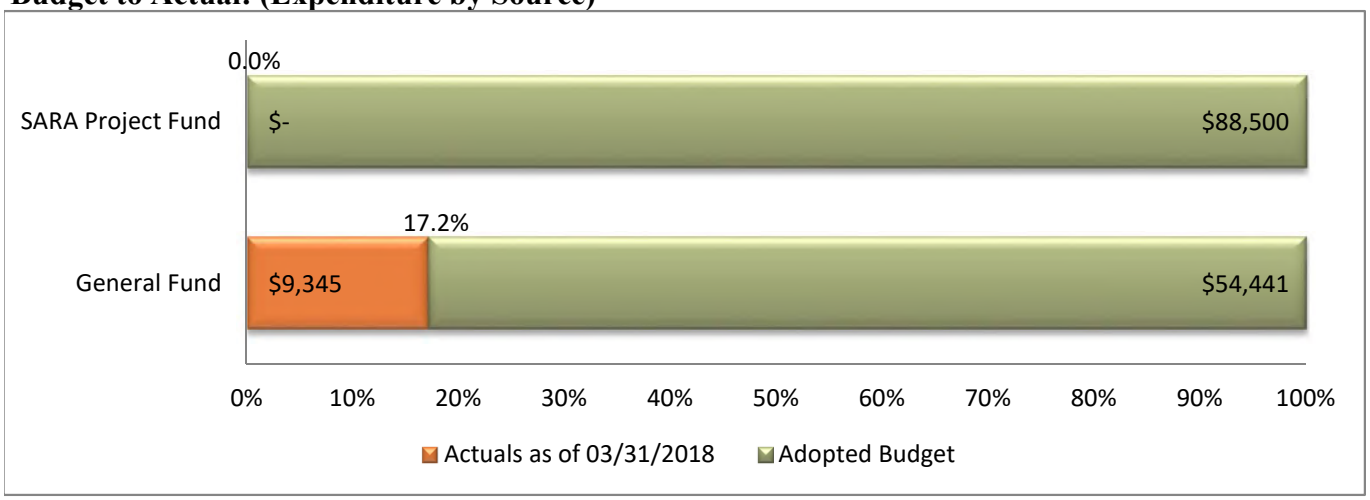
Project Name: **Basin Assessment Mapping & Analysis Tool** **Project #** **0540**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Basin Assessment Mapping & Analysis Tool**	**Project #**		**0540**
Managing Department:	Information Technology			
		Adopted Budget:	$	88,500
		SARA Contribution:	$	54,441
Project Start Date:	7/1/2016	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	142,941

The primary goal of the Basin Assessment and Analysis Tool is to compile, review and assess existing and current spatial data, models and analysis from both the River Authority and external sources to provide key indicators of watershed condition/health. Additionally, assessment results and associated data are being 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.

This project supports the strategic plan by providing a graphic display of the River Authority's data and analysis in one comprehensive and centralized web platform allowing River Authority staff 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 project also provides data and guidance to help conservation partners identify appropriate areas within the basin for preservation or restoration activities.

This project started in FY 2016/17 with collecting and updating spatial data, and finalizing the assessment methodology and results. In FY 2018/19, the Basin Assessment Mapping and Analysis Tool will be finalized by River Authority staff and released for public and River Authority use. Training will be provided on use of the tool, and input gathered to identify additional functionality or data needs that would continue to make use of the mapping application more intuitive for everyone. Several key datasets will be developed for the basin, and an index will be created highlighting key target areas for both River Authority and other watershed stakeholders. In addition, the conservation portion will be expanded to develop a regional green infrastructure plan with workshops for stakeholder engagement. The tool will continue to be marketed and advanced visualizations, such as 3D, and other imagery data products will be incorporated as they become available. To facilitate stakeholder use the tool will be enhanced to incorporate decision support tools and scenario building. Operation and maintenance will be similar to other GIS data and applications, and will be accomplished through regular GIS maintenance activities by existing staff.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 9,345	$ 45,095	$ -	$ -	$ 54,441
Professional Services	-	88,500	-	-	88,500
Total	$ 9,345	$ 133,595	$ -	$ -	$ 142,941

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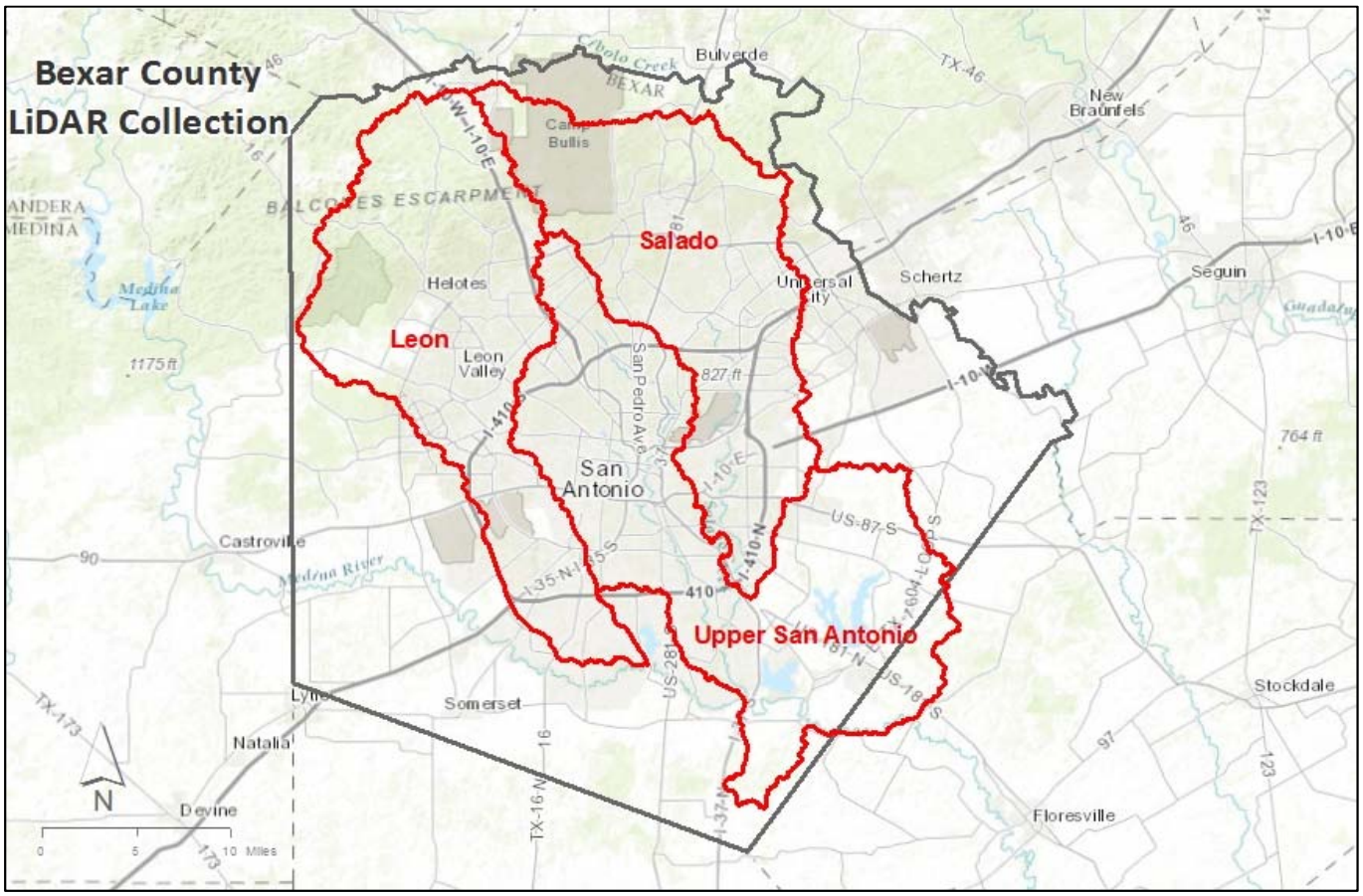
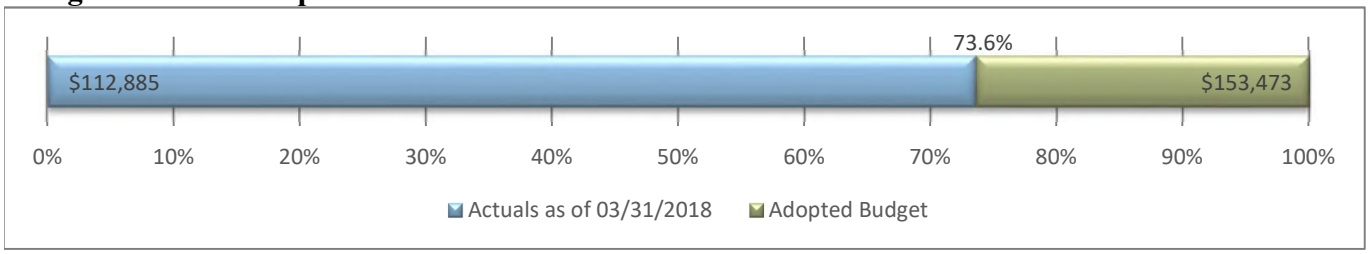
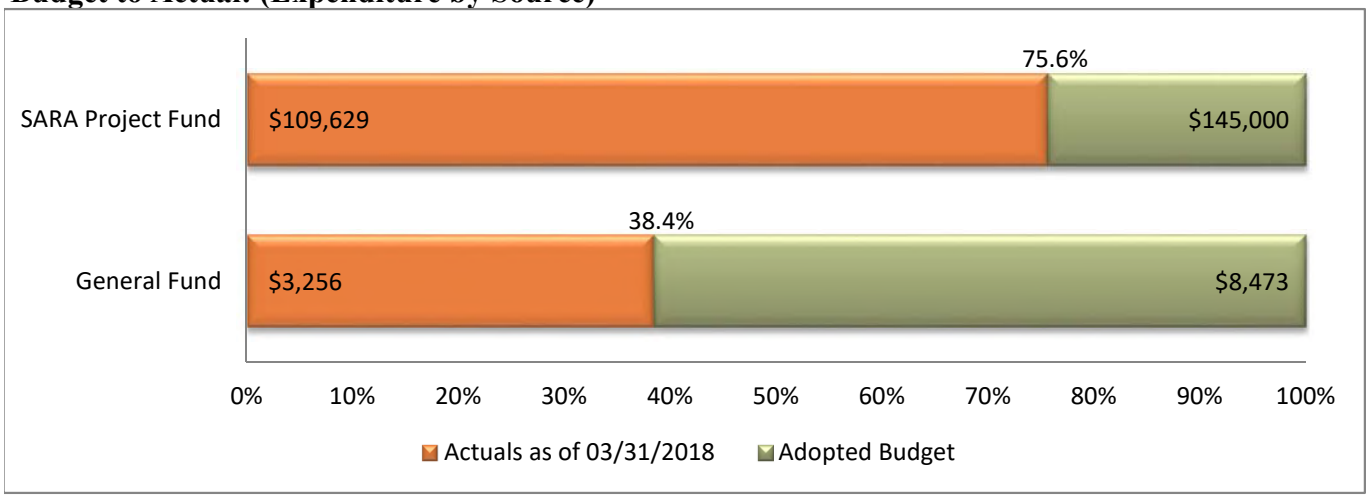
Project Name: **Bexar County LiDAR Collection** **Project #** **0541**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Bexar County LiDAR Collection**		**Project #**	**0541**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	145,000
		SARA Contribution:	$	8,473
Project Start Date:	6/20/2016	Unfunded Plan:	$	-
Project Finish Date:	4/30/2018	Total Project:	$	153,473

Light Detection and Ranging (LiDAR) is a surveying technology used to make high-resolution maps. This mapping technology supports the River Authority's efforts to advance science and engineering expertise and data within Bexar County by better understanding how land uses impact our creeks and rivers during storm events.

This project collects high-resolution elevation data for Bexar County, Texas. The data supports hydraulic and hydrologic modeling, water quality modeling, flood modeling and other uses.

This two year project began in FY 2016/17 through a contract with Texas Natural Resources Information System (TNRS). A vendor was selected to collect, process, and provide independent quality assurance/quality control reviews. Phases I and II were completed, which consisted of pre-flight planning and LiDAR aerial images collection. In FY 2017/18, this project focused on completing Phases III and IV which include aerial imaging data processing and final product development. The final product will include digital elevation models (DEM), classified LiDAR points (e.g. buildings, bare earth, high-vegetation, etc.), hydrobreaklines, and intensity imagery that are used to support the River Authority's various modeling efforts. Operation and maintenance will be similar to other GIS data and applications, and will be accomplished through regular GIS maintenance activities by existing staff.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 3,256	$ 5,217	$ -	$ -	$ 8,473
Professional Services	109,629	35,371	-	-	145,000
Total	$ 112,885	$ 40,588	$ -	$ -	$ 153,473

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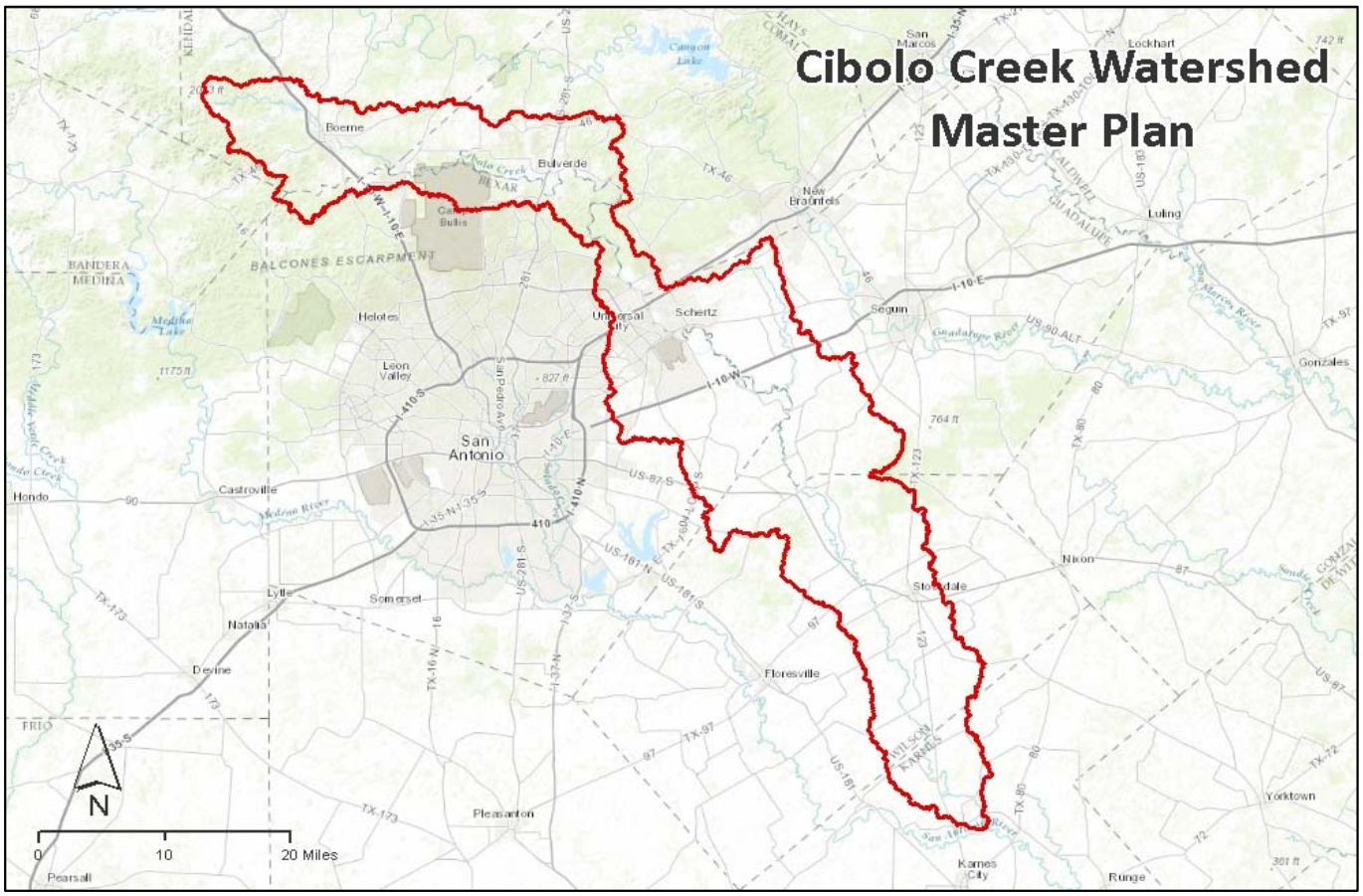
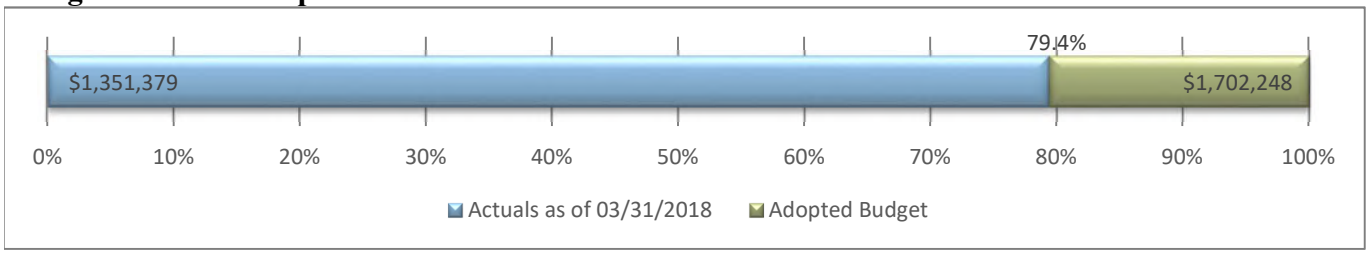
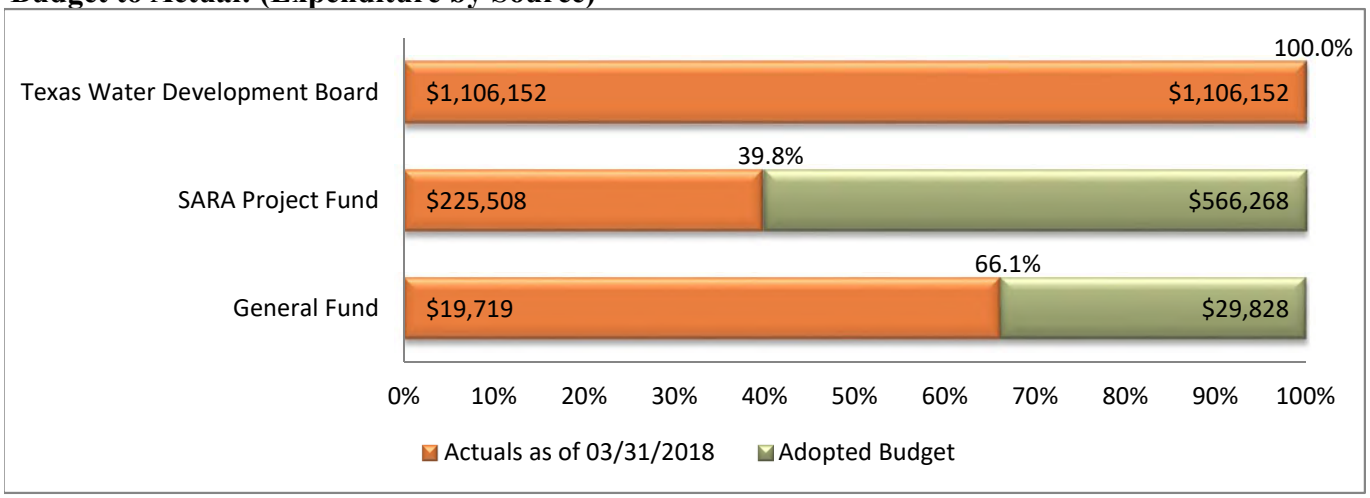
Project Name: Cibolo Creek Watershed Master Plan **Project #** 0305



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Cibolo Creek Watershed Master Plan**		**Project #**	**0305**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	1,672,420
		SARA Contribution:	$	29,828
Project Start Date:	7/1/2013	Unfunded Plan:	$	-
Project Finish Date:	6/30/2018	Total Project:	$	1,702,248

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 2012/13, Phase I of the project was scoped and consisted of data collection and stakeholder engagement meetings. In FY 2013/14, Phase I was completed and Phase II started consisting of hydrologic and hydraulics (H&H) modeling, water quality modeling and identifying nature-based park and stream restoration sites. Phase II was completed in FY 2016/17 and results were reviewed and shared with stakeholders for input. In FY 2017/18, the mitigation action plan was developed based on modeling results, risk identification, and stakeholder input. In FY 2018/19, the project will close when all contractual items are completed.The master plan has no operations and maintenance cost impact.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 73,725	$ 10,109	$ -	$ -	$ 83,834
Professional Services	1,277,654	340,760	-	-	1,618,414
Total	$ 1,351,379	$ 350,869	$ -	$ -	$ 1,702,248

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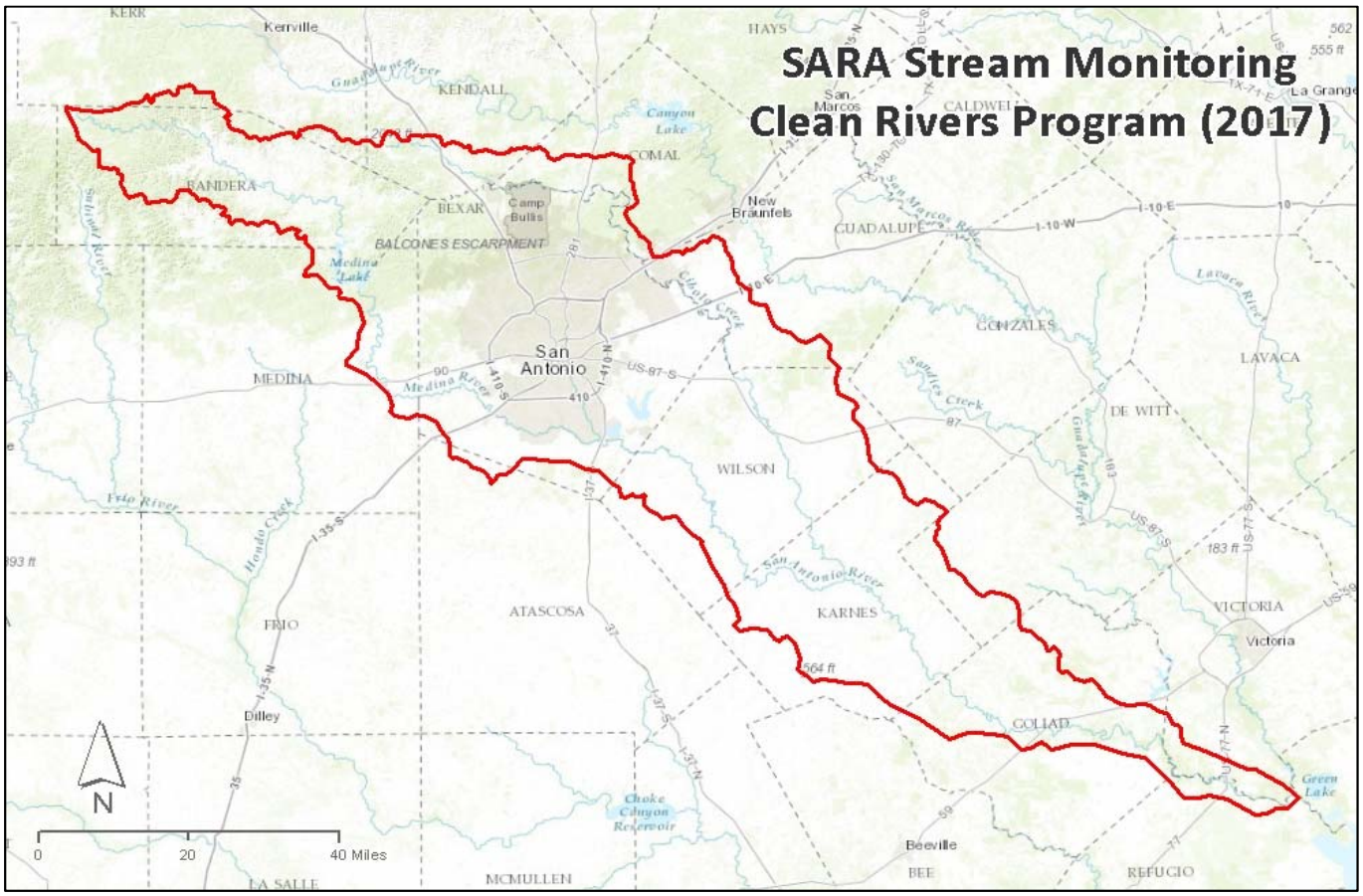
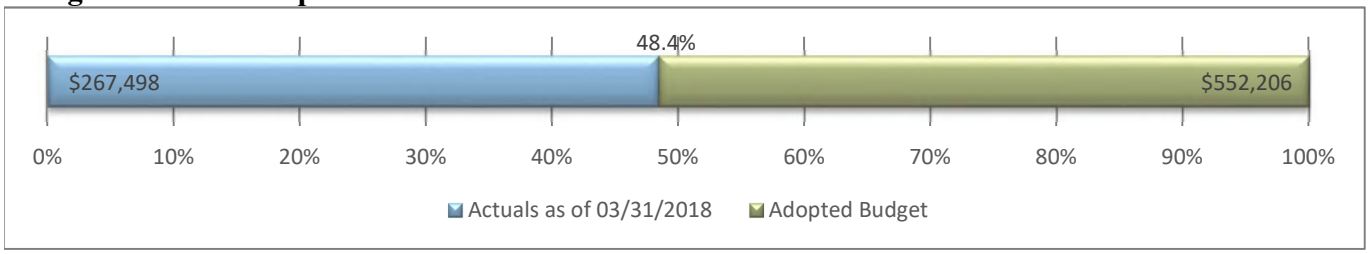
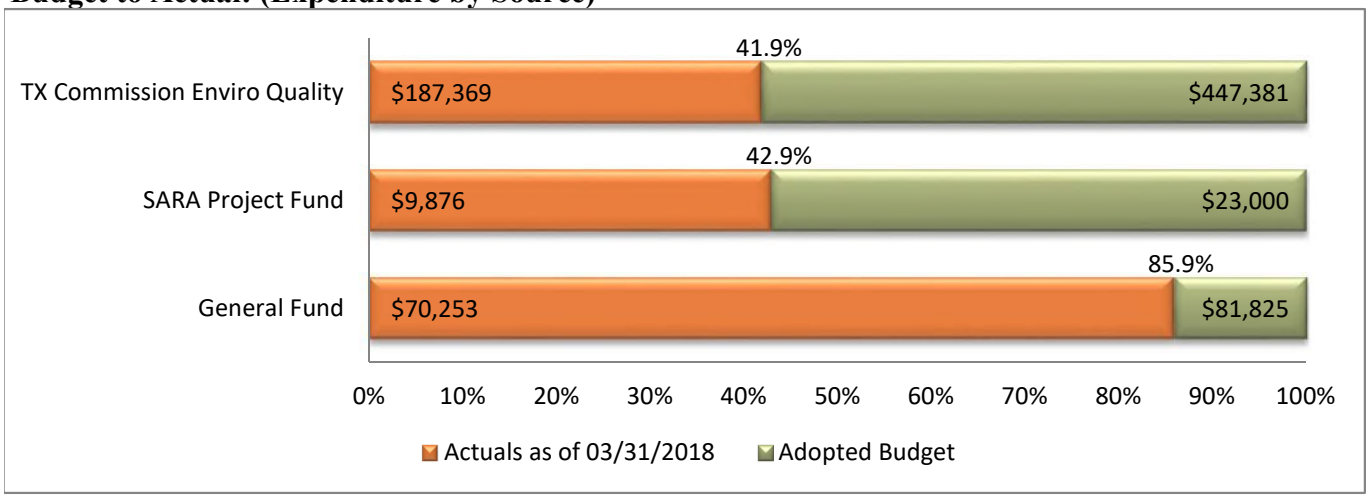
Project Name: **Clean Rivers Program 2017** **Project #** **0569**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Clean Rivers Program 2017**		**Project #**	**0569**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	470,381
		SARA Contribution:	$	81,825
Project Start Date:	9/1/2017	Unfunded Plan:	$	-
Project Finish Date:	12/31/2019	Total Project:	$	552,206

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 2018/19, the CRP will collect, analyze, and manage surface water quality data collected throughout the San Antonio River basin. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 243,879	$ 211,365	$ 11,121	$ -	$ 466,365
Equipment	23,620	62,221	-	-	85,841
Total	$ 267,498	$ 273,587	$ 11,121	$ -	$ 552,206

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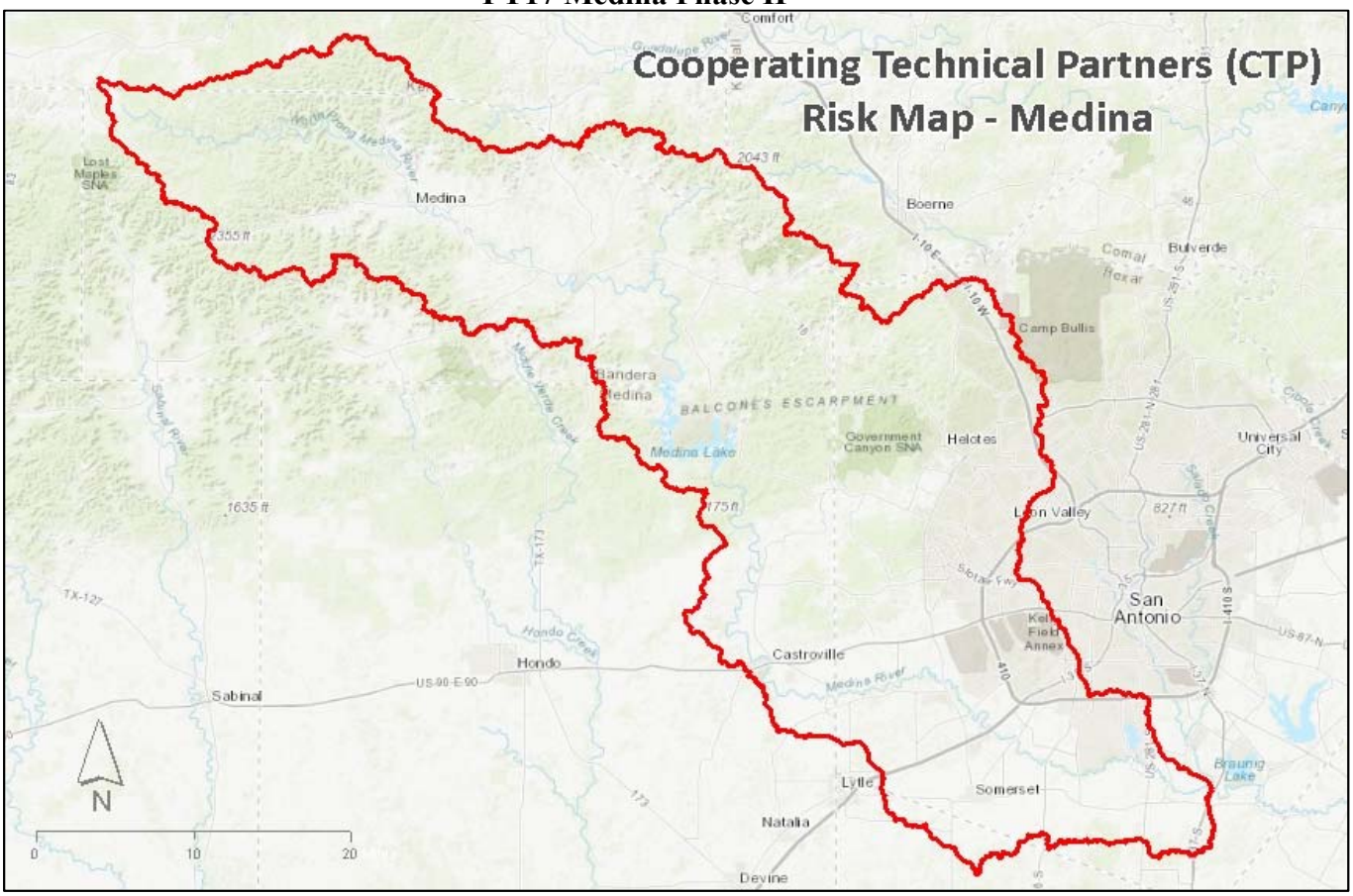
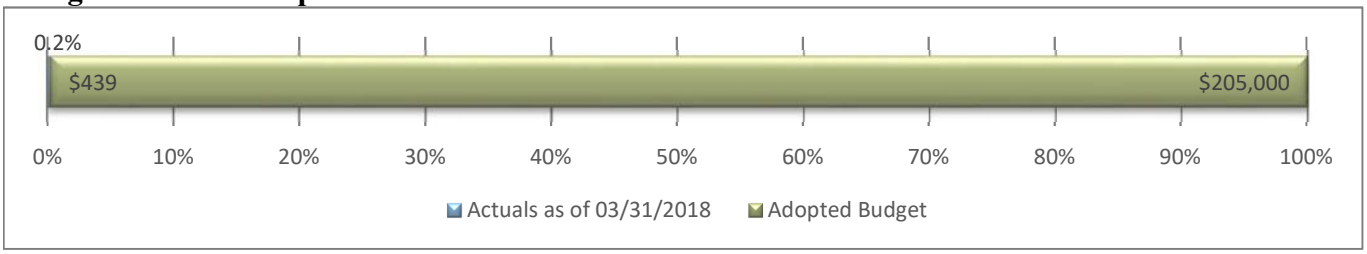
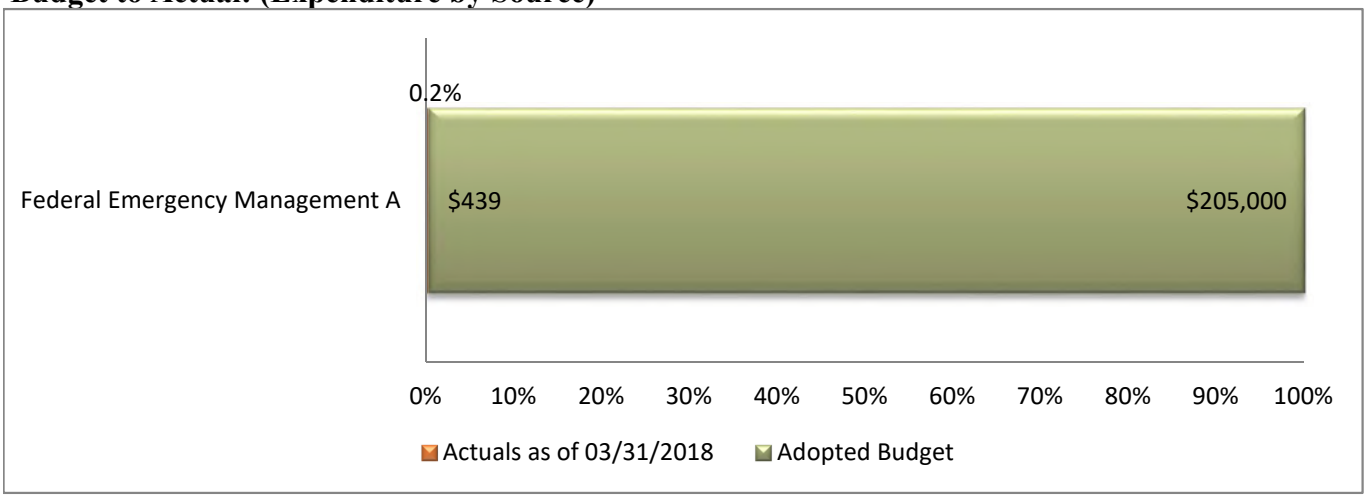
Project Name: Cooperating Technical Partner (CTP) - FY17 Medina Phase II **Project #** 0597



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Cooperating Technical Partner (CTP) - FY17 Medina Phase II**	**Project #**		**0597**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	205,000
		SARA Contribution:	$	-
Project Start Date:	10/1/2017	Unfunded Plan:	$	-
Project Finish Date:	9/30/2020	Total Project:	$	205,000

The Cooperating Technical Partner (CTP) - FY17 Medina Phase II project focuses on advancing science and engineering expertise and flood data by completing phase II, to include flood risk identification and assessment activities within the Medina River watershed. These activities include floodplain mapping, generating a report, and producing a database for the streams studied under the Federal Emergency Management Agency's (FEMA) Mapping Activity Statement No. 15.

The objective of this project is to develop and support flood hazard data and program-related tasks through completing technical risk analysis and mapping activities within the Medina River watershed. Tools developed from this project will provide communities with flood information and tools they can use to enhance their mitigation plans and strengthen their ability to make informed decisions about reducing flood risk.

Deliverables for FY 2018/19 include development of hydrologic and hydraulic models for the streams listed in FEMA's Mapping Activity Statement No. 15. Development of these models is in collaboration with the River Authority's Tributary Modeling project #0074 which serves as the matching funding commitment of $155,000.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 439	$ 18,127	$ 15,415	$ 2,139	$ 36,120
Professional Services	-	124,680	44,200	-	168,880
Total	$ 439	$ 142,807	$ 59,615	$ 2,139	$ 205,000

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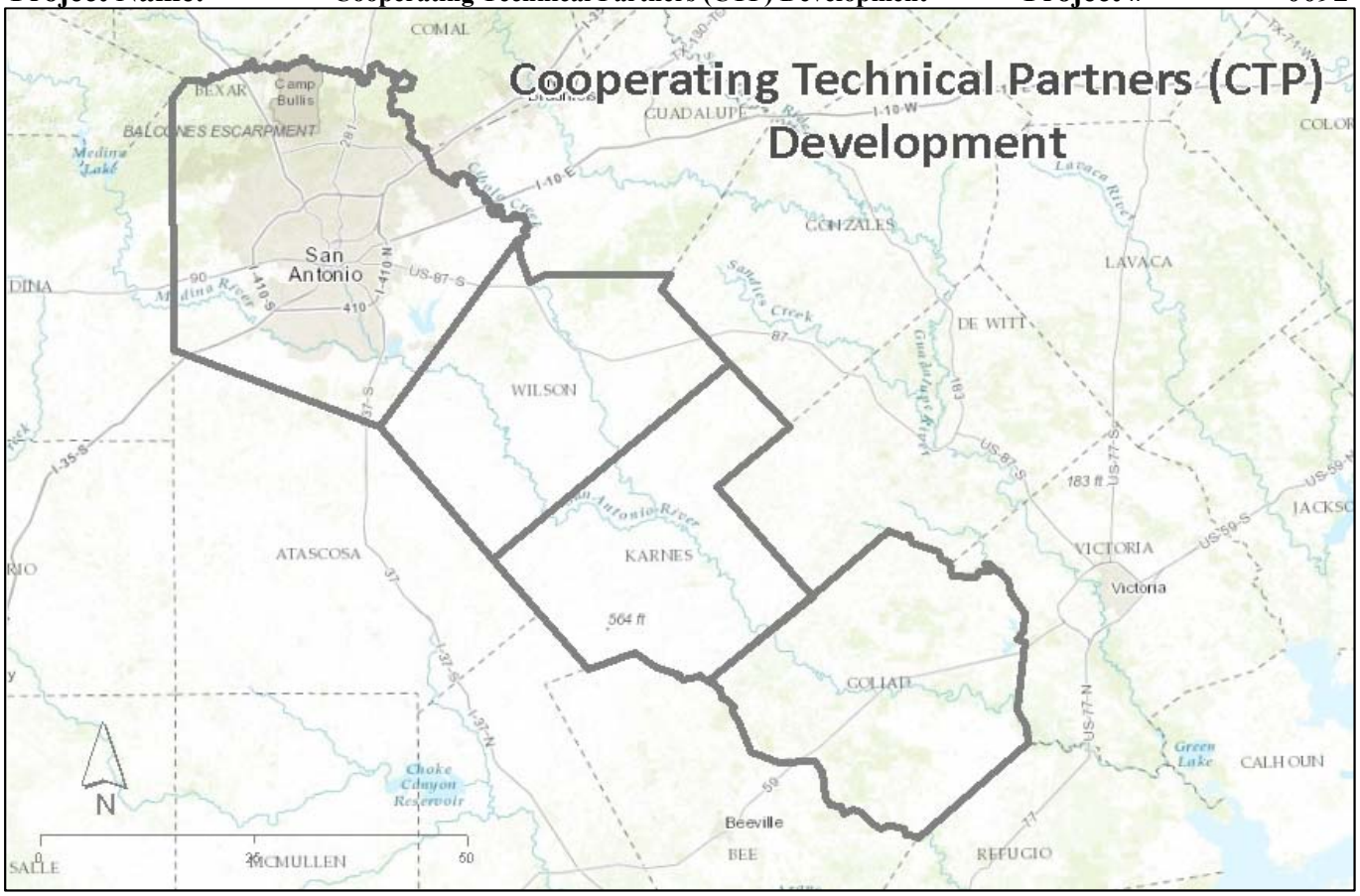
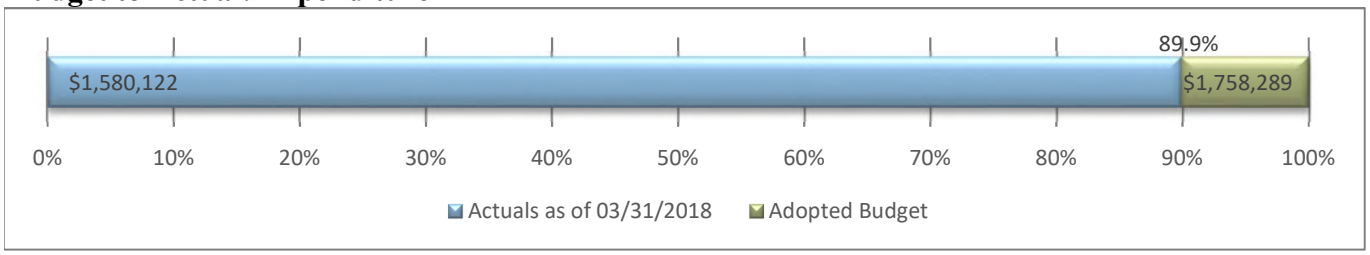
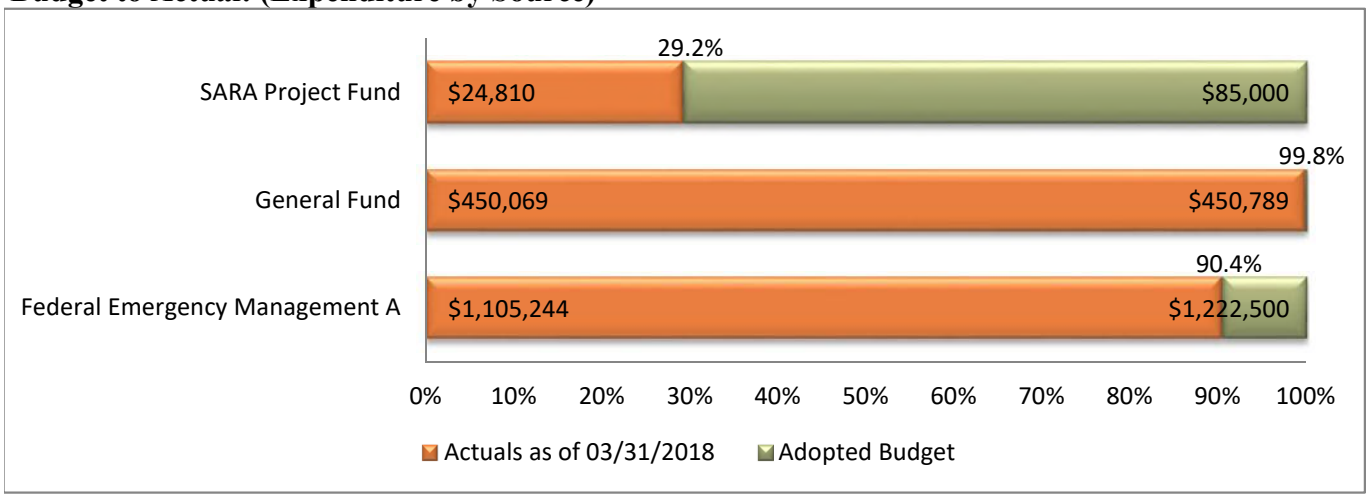
Project Name: Cooperating Technical Partners (CTP) Development **Project #** 0092



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Cooperating Technical Partners (CTP) Development**		**Project #**	**0092**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	1,307,500
		SARA Contribution:	$	450,789
Project Start Date:	7/1/2009	Unfunded Plan:	$	-
Project Finish Date:	7/31/2020	Total Project:	$	1,758,289

The Cooperating Technical Partner (CTP) Development project supports the River Authority's Letter of Map Revision (LOMR) and Conditional Letter of Map Revision (CLOMR) reviews. The River Authority is responsible for 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, the River Authority shares flood protection and floodplain management responsibilities with communities located within the River Authority's district. Through the River Authority's technical capabilities and dedicated resources, flood data will be improved and the collection of data expanded to identify and evaluate flood hazards.

In FY 2018/19, the River Authority will continue the role of FEMA LOMR review partner and will continue reviewing, on behalf of FEMA, all forms for LOMRs and CLOMRs, also referred to as MT 2 submittals by FEMA, within Bexar, Wilson, Karnes and Goliad counties.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 974,630	$ 48,552	$ -	$ -	$ 1,023,181
Professional Services	605,493	129,615	-	-	735,108
Total	$ 1,580,122	$ 178,167	$ -	$ -	$ 1,758,289

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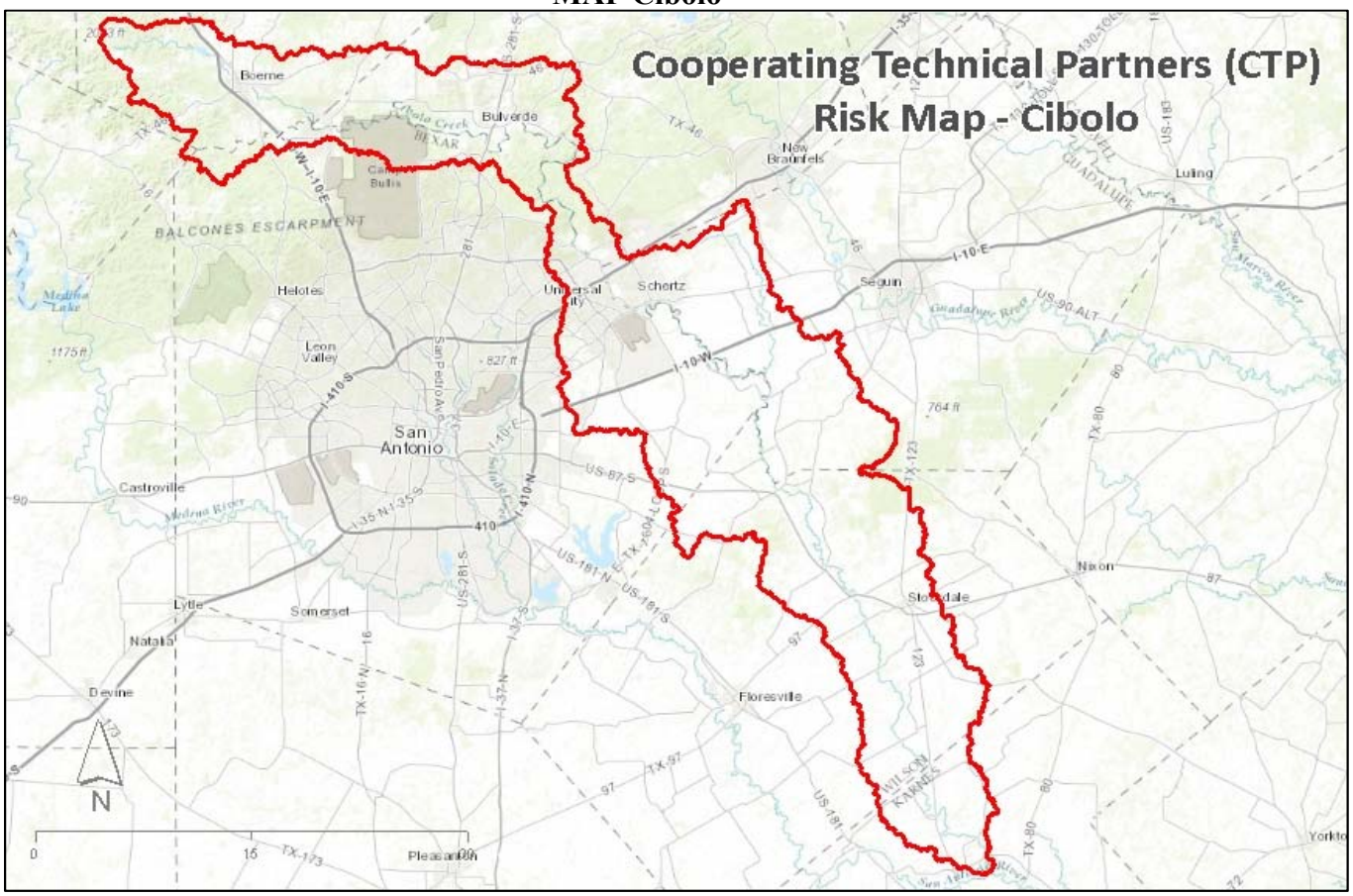
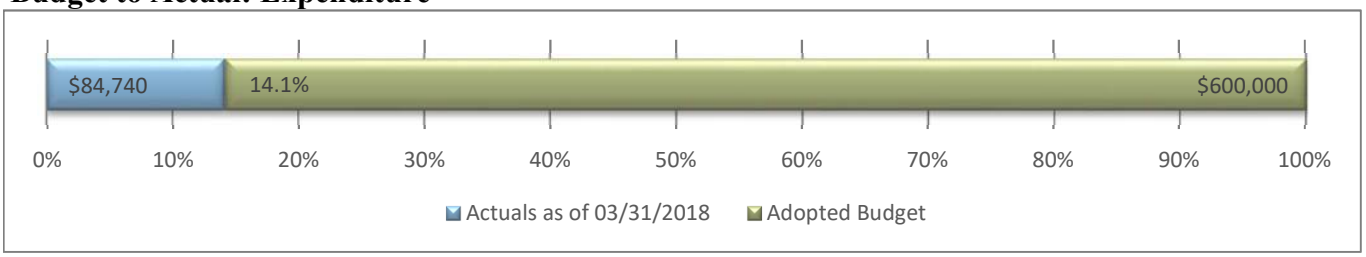
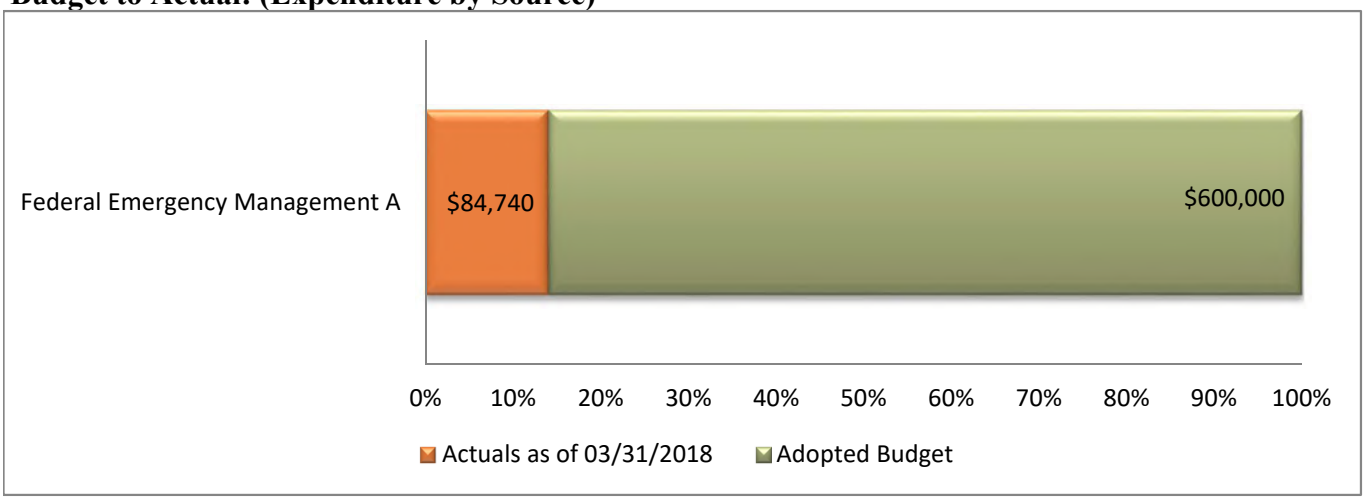
Project Name:	Cooperating Technical Partners (CTP) Risk MAP Cibolo	Project #	0472



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Cooperating Technical Partners (CTP) Risk

Project Name:	**MAP Cibolo**	**Project #**	**0472**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 600,000
		SARA Contribution:	$ -
Project Start Date:	1/1/2015	Unfunded Plan:	$ -
Project Finish Date:	9/30/2020	Total Project:	$ 600,000

The FEMA Risk Mapping, Assessment and Planning (Risk MAP) program assists communities with assessing flood risks, and encouraging mitigation planning to avoid or minimize damage from future disasters. Through more precise flood maps, risk assessment tools and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing flood risks and advances the River Authority's data and staff expertise.

Utilizing available data, the project will develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products within the Cibolo Creek watershed. The project consist of two phases, with the first being Discovery and the second Risk Identification and Assessment.

In FY 2018/19, the Cibolo Creek Risk MAP project will continue development of hydraulic models and create revised floodplains and flood risk products.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 16,149	$ 50,849	$ 47,958	$ 6,794	$ 121,750
Professional Services	68,591	271,789	127,322	10,548	478,250
Total	$ 84,740	$ 322,638	$ 175,280	$ 17,342	$ 600,000

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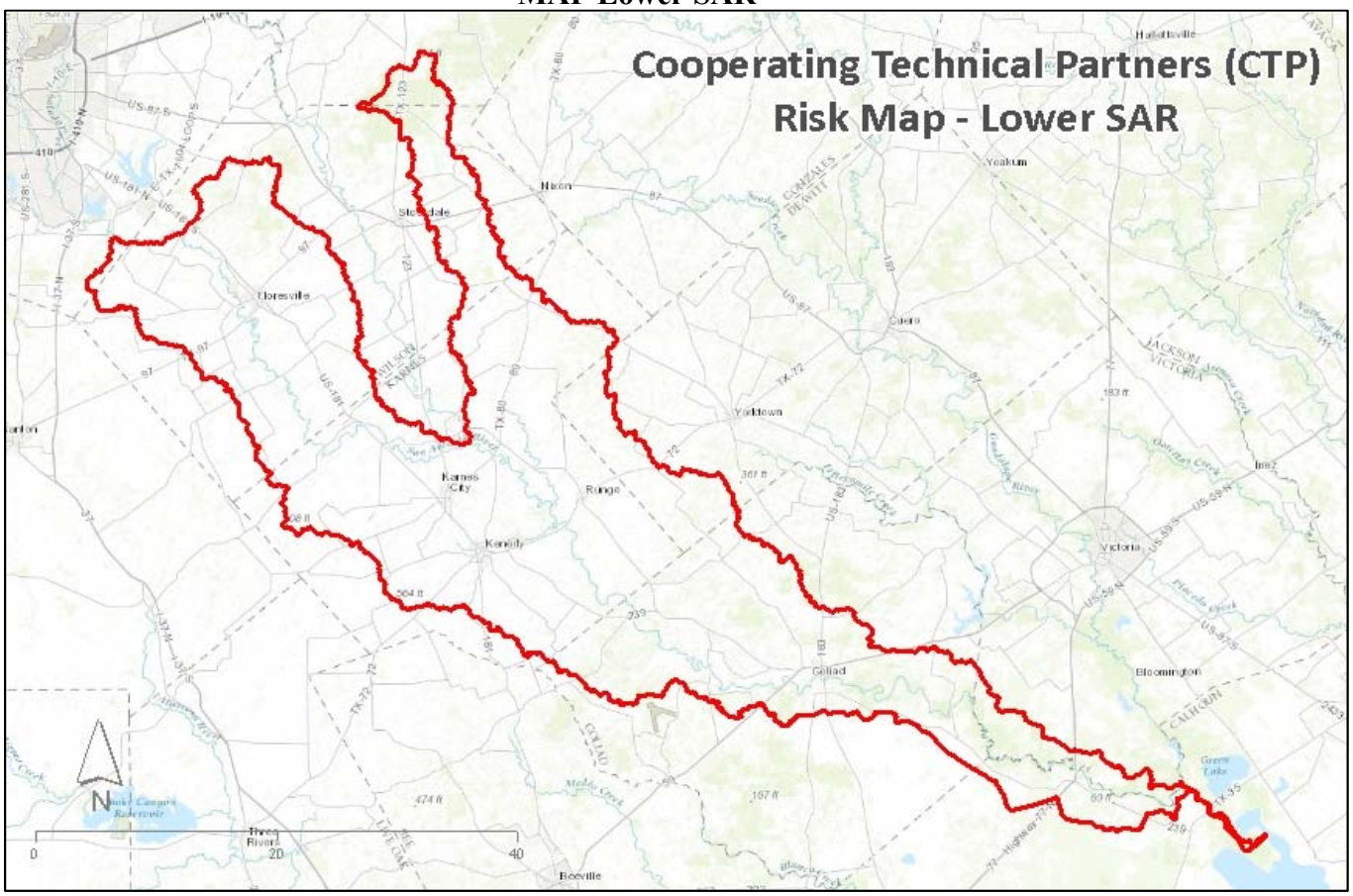
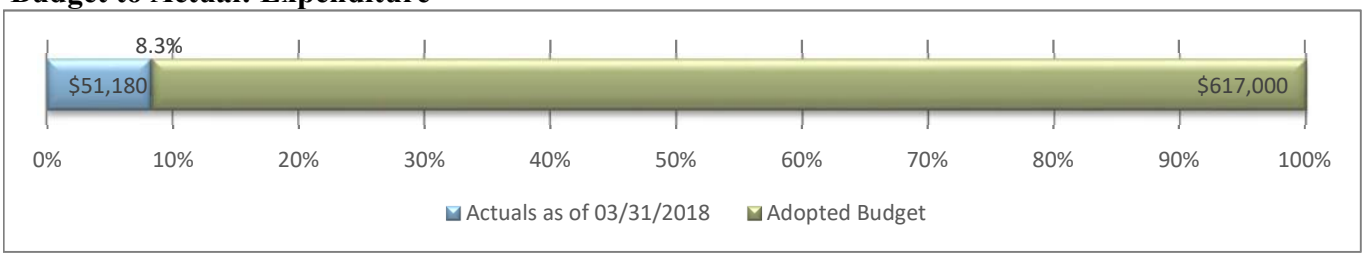
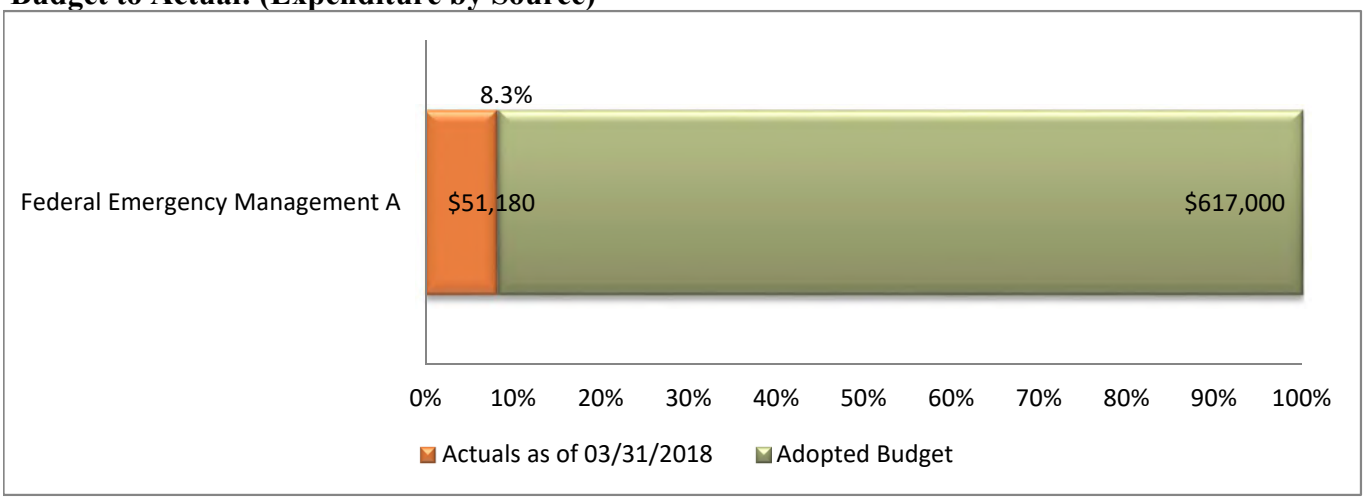
Project Name: Cooperating Technical Partners (CTP) Risk MAP Lower SAR **Project #** 0520



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Cooperating Technical Partners (CTP) Risk

Project Name:	**MAP Lower SAR**	**Project #**		**0520**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	617,000
		SARA Contribution:	$	-
Project Start Date:	1/1/2016	Unfunded Plan:	$	-
Project Finish Date:	9/30/2020	Total Project:	$	617,000

The FEMA Risk Mapping, Assessment and Planning (Risk MAP) program assists communities with assessing flood risks, and encouraging mitigation planning to avoid or minimize damage from future disasters. Through more precise flood maps, risk assessment tools and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing flood risks and advances the River Authority's data and staff expertise.

Utilizing available data, the project will develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products within the Lower San Antonio River watershed. The project consist of two phases, with the first being Discovery and the second Risk Identification and Assessment.

In FY 2018/19, the Lower San Antonio River Risk MAP project will continue the development of hydrologic and hydraulic models and create revised floodplain maps and flood risk products.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 5,289	$ 29,450	$ 18,152	$ 7,110	$ 60,000
Professional Services	45,891	208,631	288,078	14,400	557,000
Total	$ 51,180	$ 238,081	$ 306,230	$ 21,510	$ 617,000

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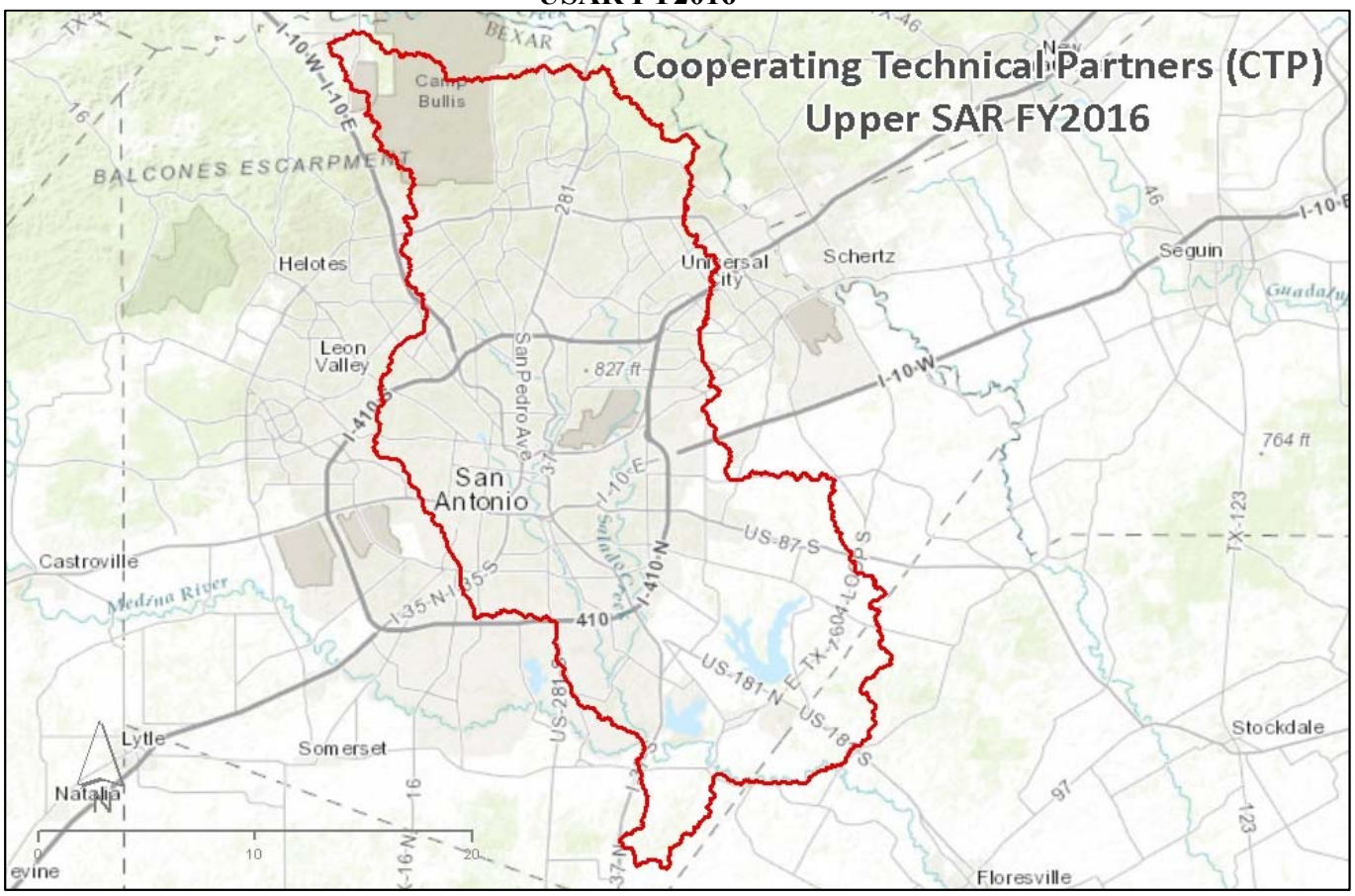
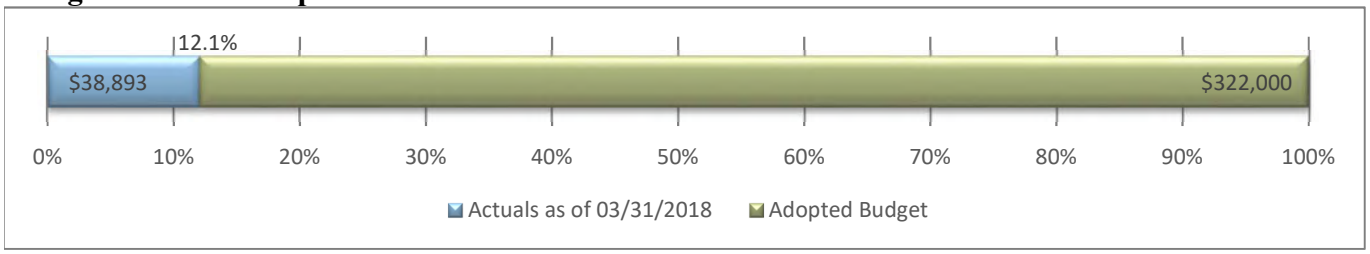
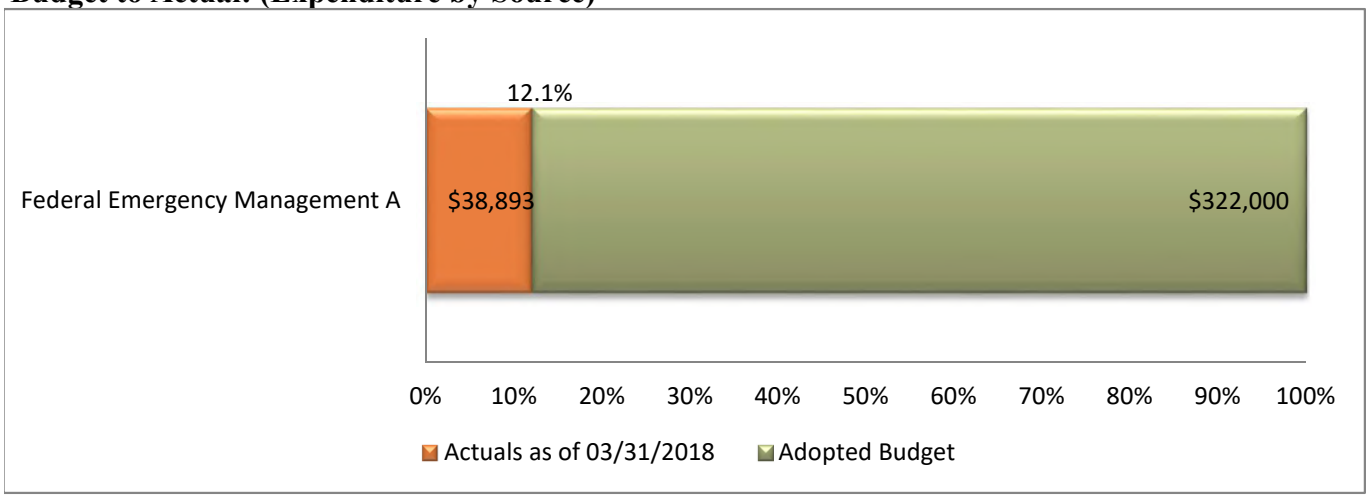
Project Name: Cooperating Technical Partners (CTP) USAR FY2016 **Project #** 0563



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Cooperating Technical Partners (CTP)

Project Name:	**USAR FY2016**		**Project #**	**0563**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	322,000
		SARA Contribution:	$	-
Project Start Date:	10/1/2016	Unfunded Plan:	$	-
Project Finish Date:	12/31/2019	Total Project:	$	322,000

The Cooperating Technical Partner (CTP) USAR FY2016 project focuses on advancing science and engineering expertise and flood data by completing phase II, to include flood risk identification and assessment activities within the Upper San Antonio River watershed. These activities include floodplain mapping, generating a report, and producing a database for the streams studied under the Federal Emergency Management Agency's (FEMA) Mapping Activity Statement No. 13.

The objective of this project is to develop and support flood hazard data and program-related tasks through completing technical risk analysis and mapping activities within the Upper San Antonio River watershed. Tools developed from this project will provide communities with flood information and tools they can use to enhance their mitigation plans and strengthen their ability to make informed decisions about reducing flood risk.

Deliverables for FY 2018/19 include development of hydrologic and hydraulic models for the streams listed in FEMA's Mapping Activity Statement No. 13. Development of these models is in collaboration with the River Authority's Tributary Modeling project #0074 which serves as the matching funding commitment of $173,479.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 1,938	$ 19,151	$ 14,044	$ -	$ 35,133
Contracted & Other Services	26,188	11,012	-	-	37,200
Professional Services	10,768	158,299	78,400	2,200	249,667
Total	$ 38,894	$ 188,462	$ 92,444	$ 2,200	$ 322,000

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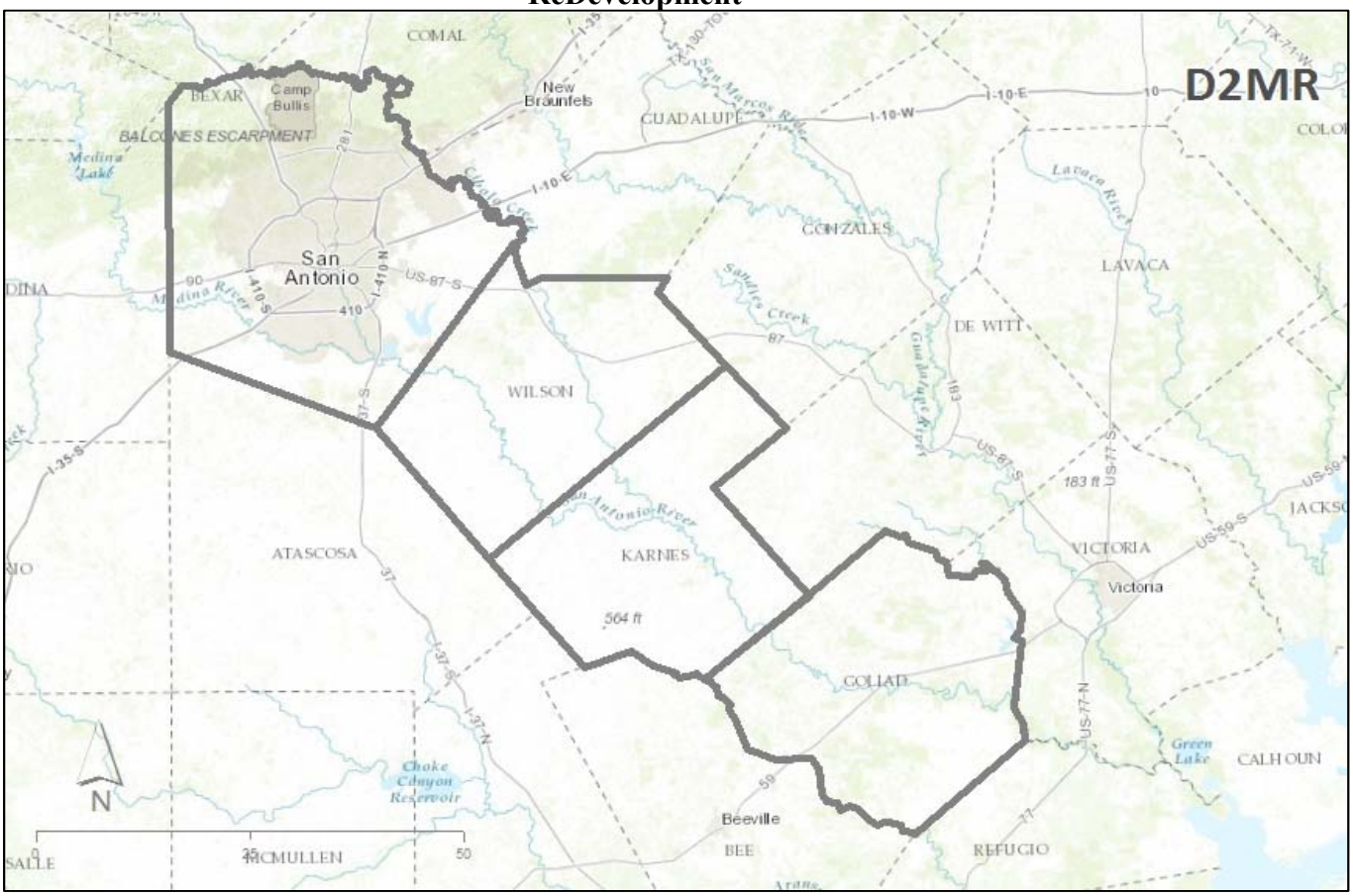
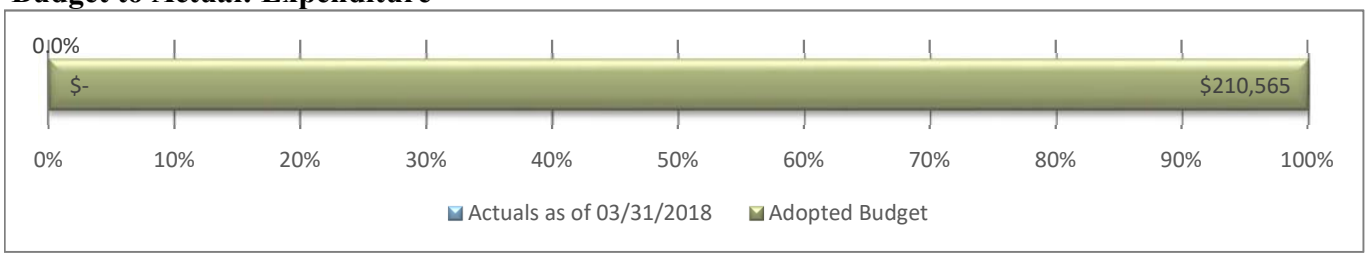
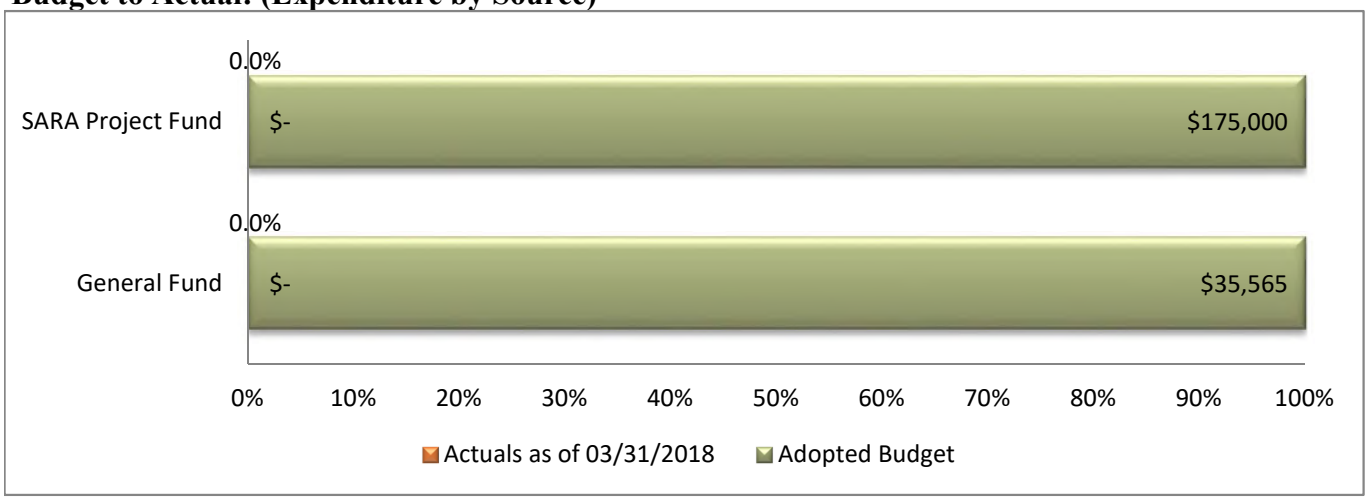
Project Name: Digital Data and Model Repository (D2MR) - ReDevelopment **Project #** 0578



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Digital Data and Model Repository (D2MR) - ReDevelopment**	**Project #**	**0578**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 175,000
		SARA Contribution:	$ 12,754
Project Start Date:	7/1/2017	Unfunded Plan:	$ 22,811
Project Finish Date:	6/30/2020	Total Project:	$ 210,565

The Digital Data & Model Repository (D2MR) Redevelopment project focuses on building a new web application for discovery and accessibility to the River Authority's hydraulic and hydrology modeling data in support of the River Authority's LOMR Delegation Program and OpenData initiatives. The engineering community will be able to easily download the required models and supporting data to begin the FEMA C/LOMR process, upload a FEMA C/LOMR study for FEMA review, inform users of overlapping studies based on information provided at the time of a request, and allow for the storage and distribution of the baseline model and all the required models for a C/LOMR in the study area.

The project will revisit the storage solutions, modeling data organization, and available data technologies that would allow for optimized storage and reduce long-term management. The project will also seek to decouple core components so they become focused and tuned for performance and optimal functionality. This will allow for widespread integration through the web and desktop environments. The key technology objectives of this project include: increasing accessibility to our modeling data, enhancing search-ability of our modeling repository, optimizing web performance for mobile and tablet devices, and reengineering the user experience for external users and SARA administrators. The key business objectives of the project will include: enhanced administrative features for tracking, reporting specifically in support of LOMR delegation and SARA's modeling activities, integration with ArcGIS Online infrastructure for streamlined geospatial data management, and development of new enhanced features that would allow end-users to explore and utilizing our data through RESTful data services.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Contracted & Other Services	$ -	$ 175,000	$ -	$ -	$ 175,000
Personnel	-	12,754	22,811	-	35,565
Total	$ -	$ 187,754	$ 22,811	$ -	$ 210,565

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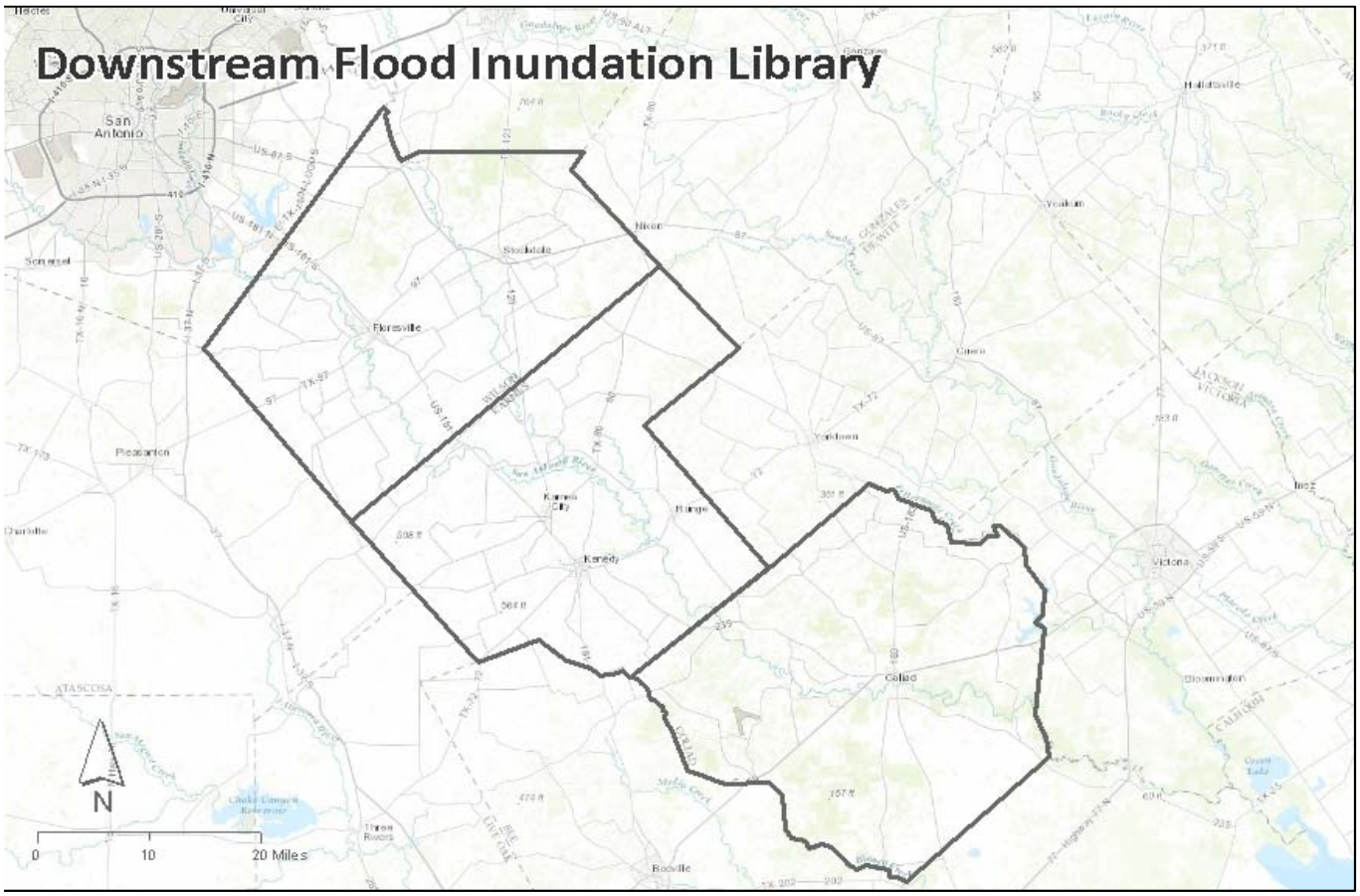
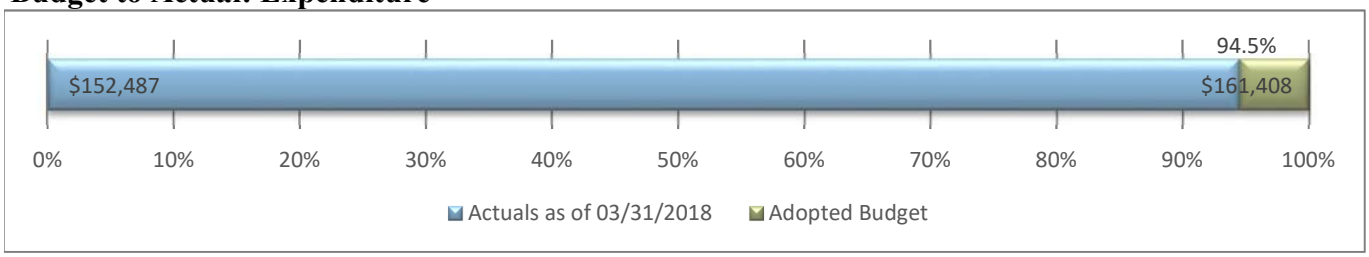
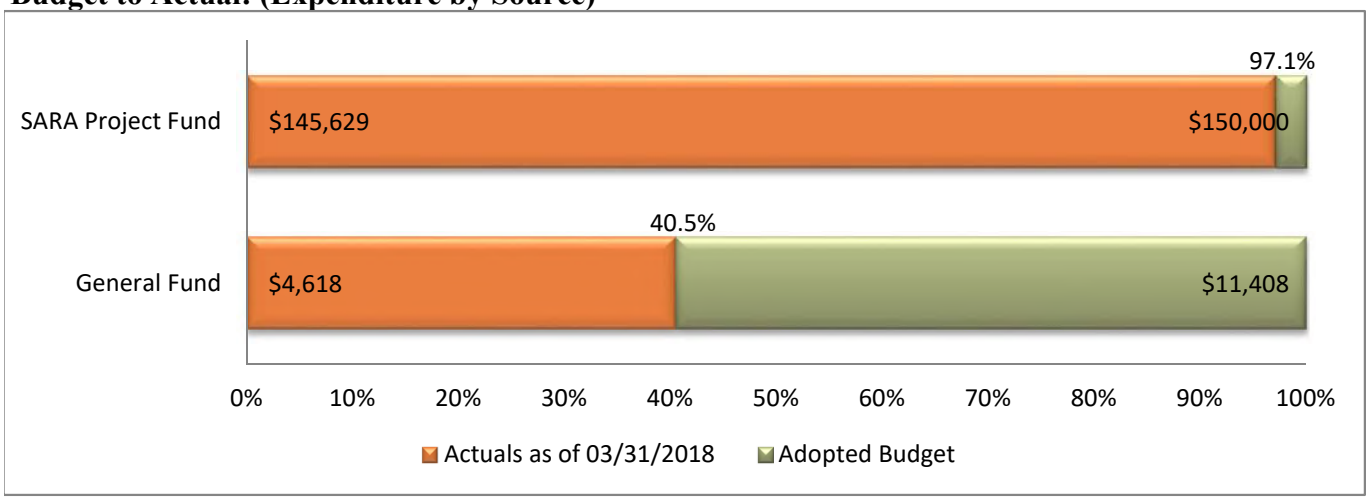
Project Name: **Downstream Flood Inundation Library** **Project #** **0545**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Downstream Flood Inundation Library**		**Project #**	**0545**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	150,000
		SARA Contribution:	$	11,408
Project Start Date:	4/25/2016	Unfunded Plan:	$	-
Project Finish Date:	6/30/2018	Total Project:	$	161,408

The Downstream Flood Inundation Library project will produce flood maps using River Authority models and data. The project builds on the Downstream Flood Mapping and Response system and will depict flood prone areas associated with a rising river stage.

The project will update the Downstream Flood Mapping and Response system models and data. The result will be improved flood inundation libraries for the downstream United States Geological Survey (USGS) stream gages. These updates will assists Wilson, Karnes and Goliad counties with flood responsiveness.

The Downstream Flood Inundation Library project will produce flood maps using River Authority models and data. The project builds on the Downstream Flood Mapping and Response system and will depict flood prone areas associated with a rising river stage.

The project is complete and will close in FY 2018/19 when all contractual obligations are fulfilled.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 4,618	$ 6,790	$ -	$ -	$ 11,408
Professional Services	145,628	4,372	-	-	150,000
Total	$ 150,246	$ 11,162	$ -	$ -	$ 161,408

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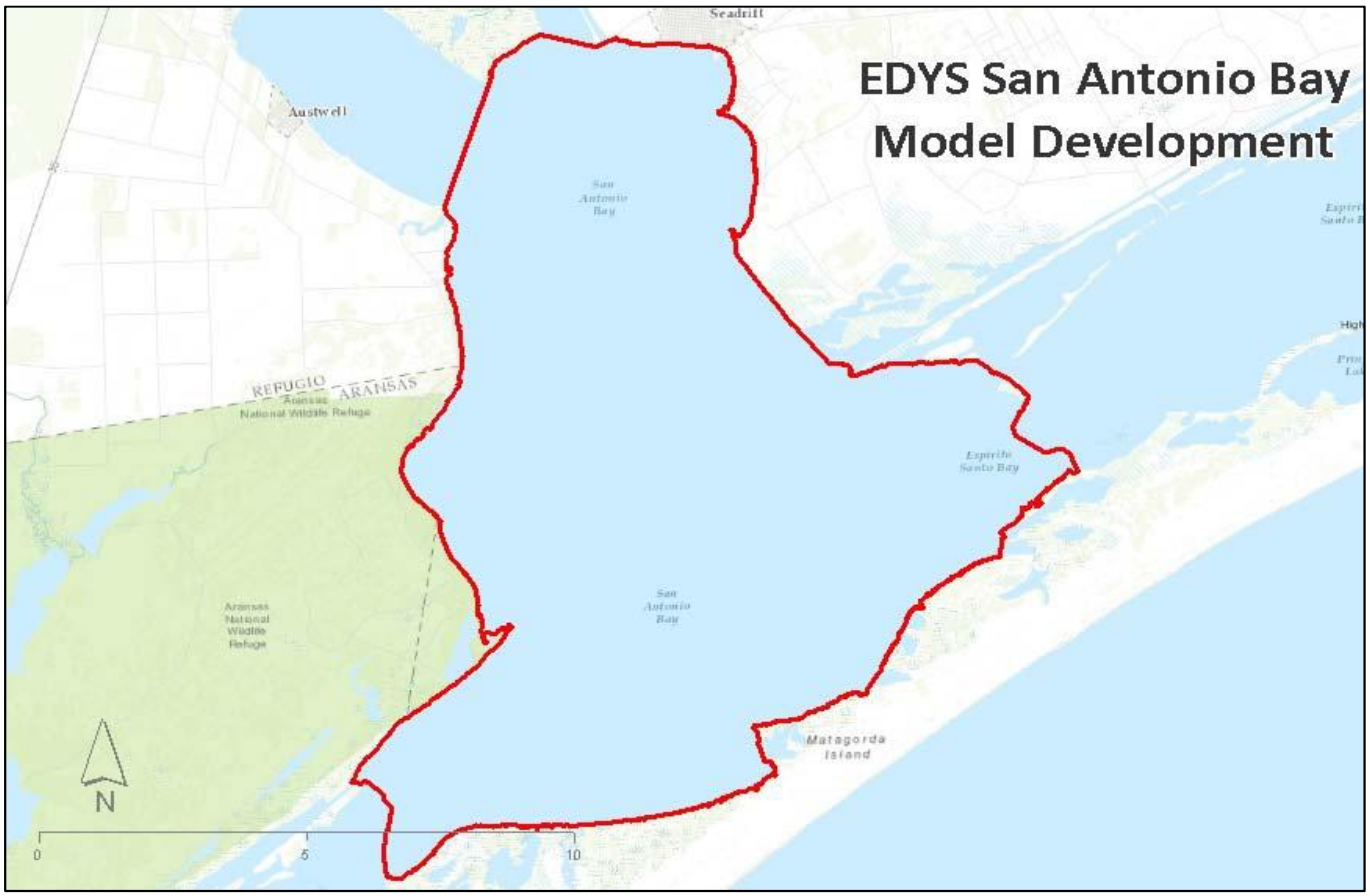
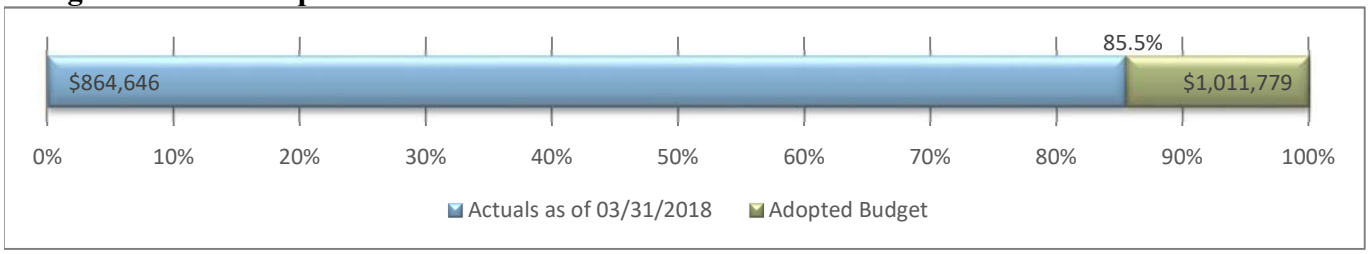
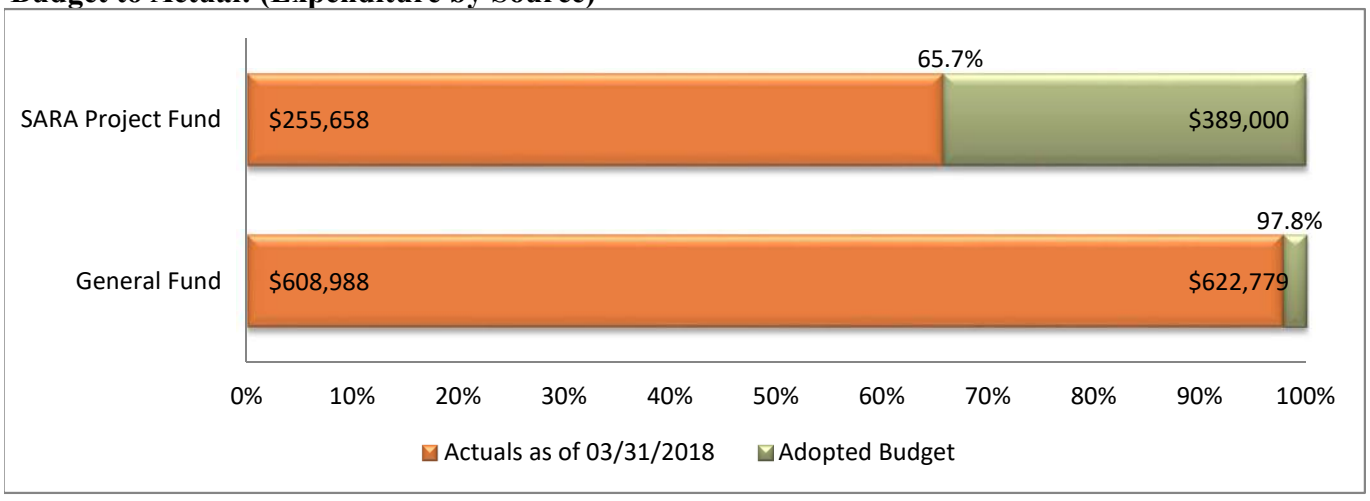
Project Name: EDYS San Antonio Bay Model Development **Project #** 0296



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**EDYS San Antonio Bay Model Development**		**Project #**	**0296**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	389,000
		SARA Contribution:	$	622,779
Project Start Date:	3/31/2011	Unfunded Plan:	$	-
Project Finish Date:	9/30/2018	Total Project:	$	1,011,779

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.

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.

In FY 2011/12, contracts were negotiated and efforts began to develop the integrated model. Over the ensuing fiscal years, a spatial footprint of the San Antonio Bay and surrounding area was created, plant communities' data collected, the hydrology aspects including river discharge, tidal and wind action on bay waters collected, as well as data on salinity, sediment, and climate fluctuations. A second phase then added data on saltwater, freshwater, and terrestrial animal components, followed by nutrients, water chemistry, pollutants and microbial components. In FY 2017/18, sampling on the validation sites for vegetation and salinity data and running up to eight environmental and management practices to see the changes in the marshes and adjacent communities based on inundation and salinity of the Bay ecosystem was continued. In FY 2018/19, the model will be developed. Upon completion of the project data from the marsh vegetation validation sites will continue to be collected and analyzed to calibrate/validate the EDYS model. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 15,831	$ 13,791	$ -	$ -	$ 29,622
Professional Services	848,815	133,342	-	-	982,157
Total	$ 864,646	$ 147,133	$ -	$ -	$ 1,011,779

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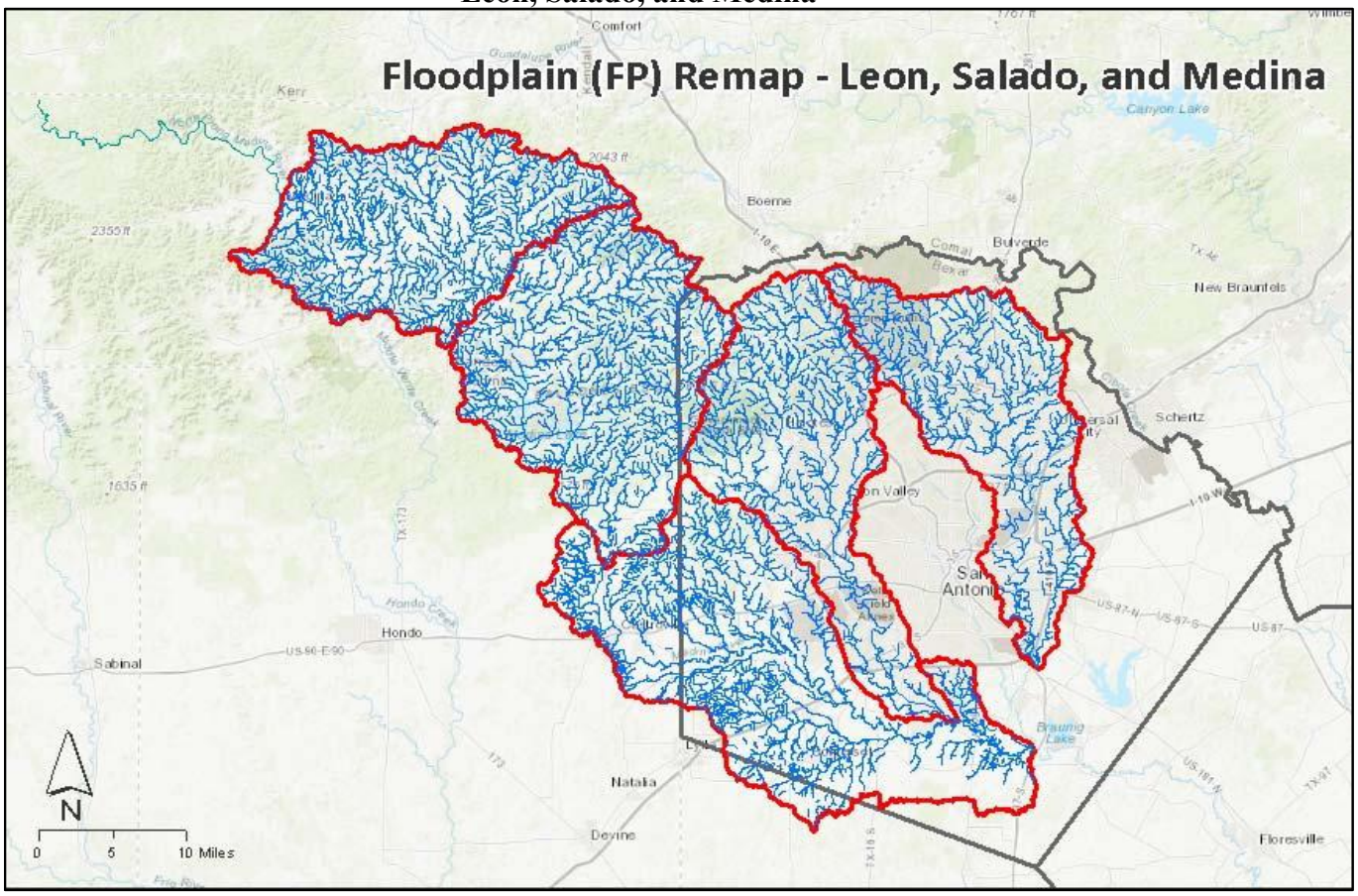
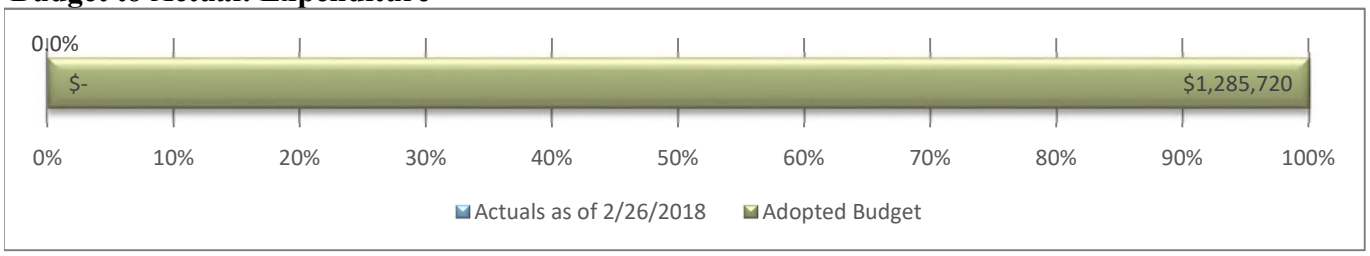
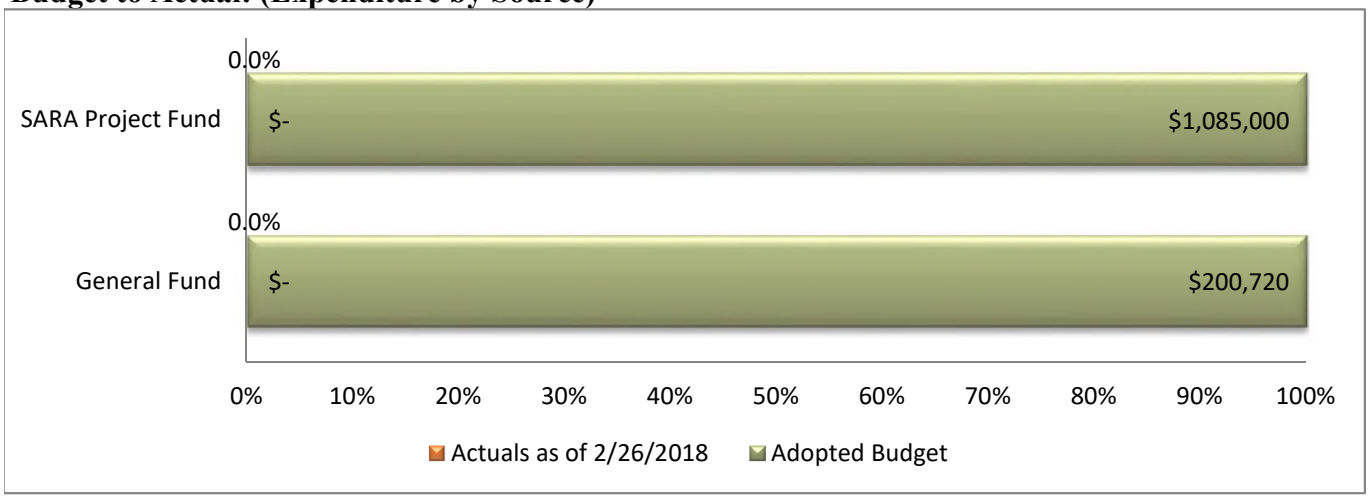
Project Name: **Floodplain Remapping (2018) Leon, Salado, and Medina** **Project #** **0600**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Floodplain Remapping (2018) Leon, Salado, and Medina**	**Project #**	**0600**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 1,085,000
		SARA Contribution:	$ 200,720
Project Start Date:	8/6/2018	Unfunded Plan:	$ 2,915,000
Project Finish Date:	6/30/2021	Total Project:	$ 4,200,720

The Floodplain Remapping (2018) project will restudy and update floodplain maps for Leon, Salado, and selected Medina Tributaries within Bexar County. The reinvestment in floodplain mapping will incorporate current land use and topographic data, newer technology and current FEMA standards to update the inventory of models developed as part of FEMA's Map Modernization Program.

With updated floodplain modeling and mapping, the River Authority is better equipped to communicate flood risk to the community and support its partners with project planning and prioritization.

In FY 2018/19, revised hydrologic and hydraulic models, updated floodplain maps, flood risk products, and supporting documents will be developed for the Leon Creek watershed.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 62,763	$ 67,792	$ 70,165	$ 200,720
Professional Services	-	1,085,000	1,078,000	1,837,000	4,000,000
Total	$ -	$ 1,147,763	$ 1,145,792	$ 1,907,165	$ 4,200,720

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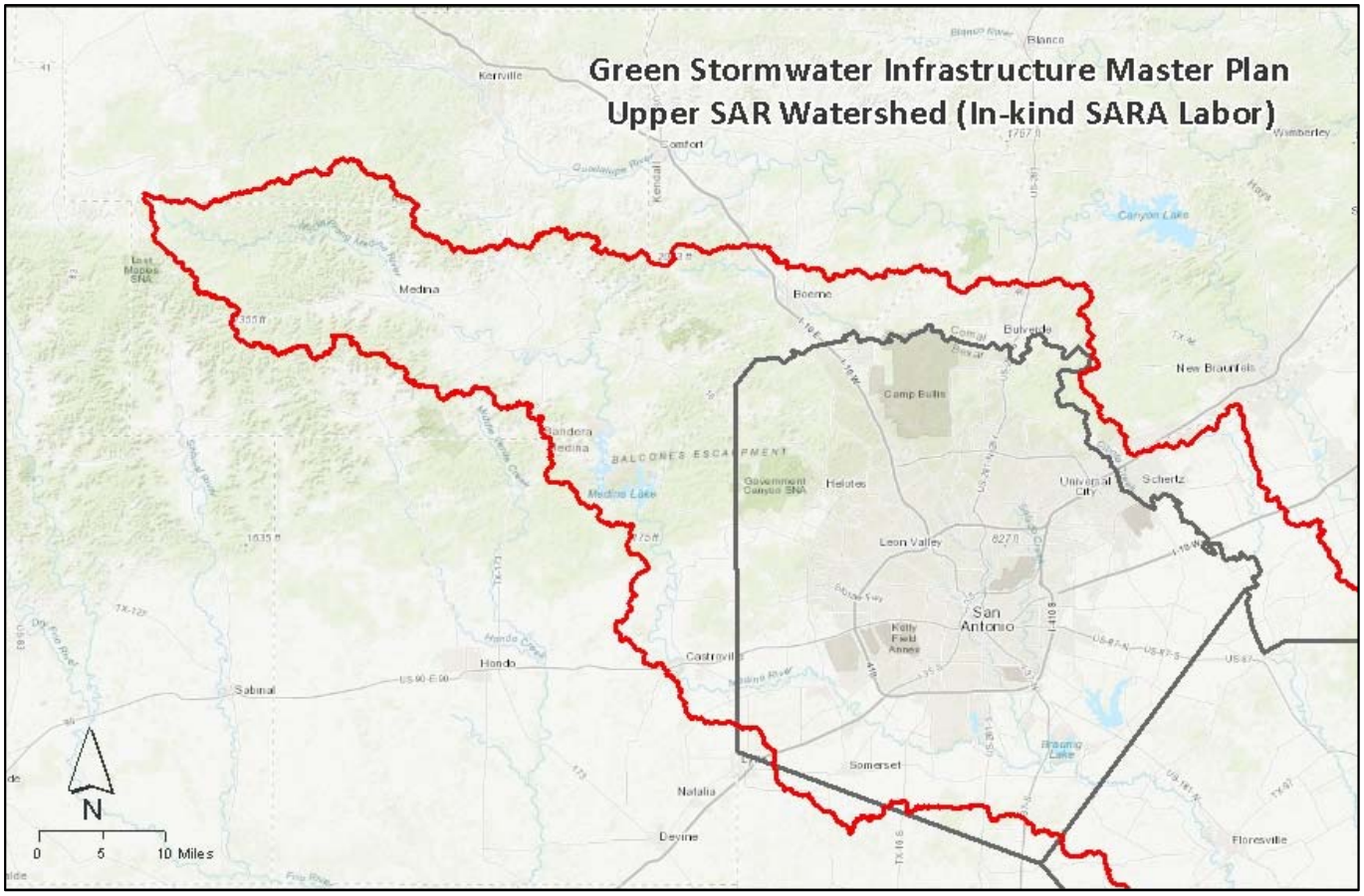
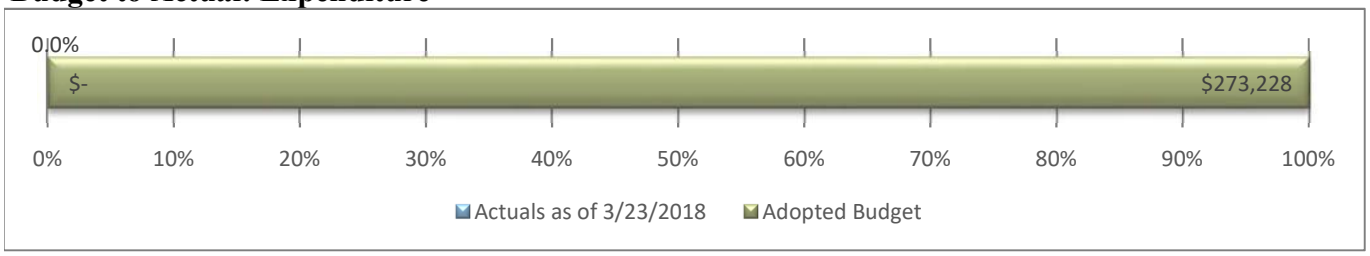
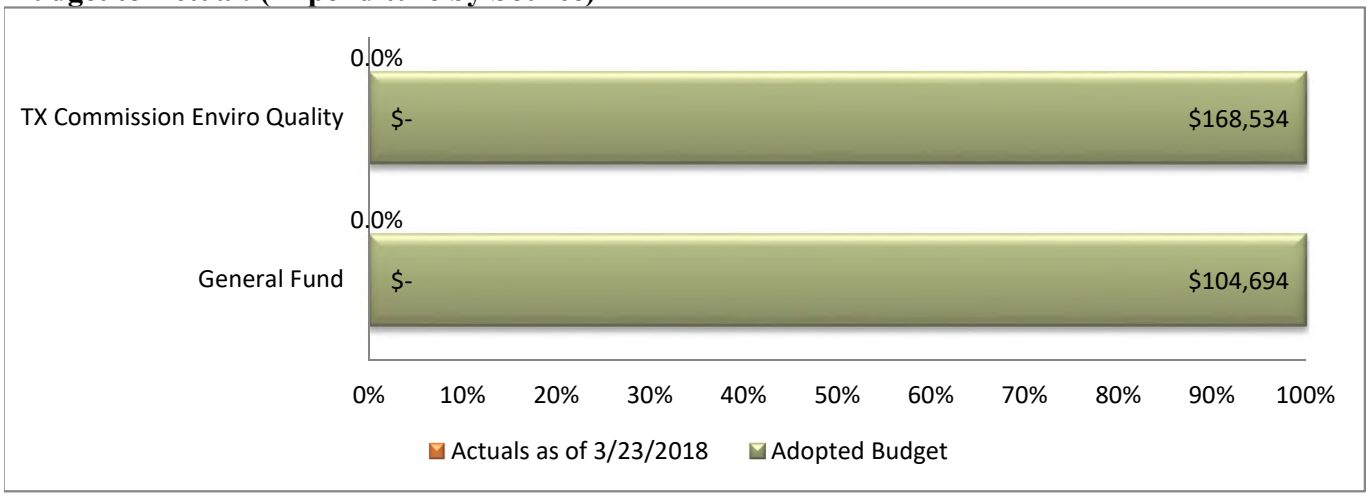
Project Name: Green Stormwater Infrastructure Master Plan: Upper SAR Watershed **Project #** 0601



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Green Stormwater Infrastructure Master Plan: Upper SAR Watershed**		**Project #**		**0601**
Managing Department:	Environmental Sciences				
		Adopted Budget:		$	168,534
		SARA Contribution:		$	104,694
Project Start Date:	10/1/2018	Unfunded Plan:		$	-
Project Finish Date:	8/31/2021	Total Project:		$	273,228

The River Authority has led the creation of a Texas Commission on Environmental Quality (TCEQ) Upper SAR Watershed Protection Plan (WPP), watershed Master Plans, and the Watershed Master Plan Integration project. This Environmental Protection Agency (EPA) 319 Clean Water Act grant aims to build on recommendations made in these plans to develop a Green Stormwater Infrastructure (GSI) Master Plan for the Upper SAR Watershed. This focused water quality master plan will build off River Authority investments in modeling and watershed master planning and will direct decision-makers on where and how to apply limited resources in the upcoming years to maximize water quality benefits. The plan will integrate water quality with water quantity concerns, providing recommendations on best practices that can achieve both.

A focused water quality master plan, the GSI Master Plan will build off significant River Authority investments in modeling and watershed master planning and will direct decision-makers on where and how to apply limited resources in the upcoming years to maximize water quality benefits. The plan will also integrate water quality with water quantity concerns, providing recommendations on best practices that can achieve both results in all watersheds in the River Authority's basin.

In FY 2018/19, this project estimates spending $32,398 of the $104,694 in SARA staff labor to match TCEQ/EPA grant funding to do the following activities: Project Administration, Quality Assurance, Analysis and Stakeholder Engagement. Project administration work will begin with TCEQ/River Authority contract discussions and development of an action plan for the GSI grant. Quality assurance work will be done by establishing data quality objectives (DQOs) and quality assurance/quality control (QA/QC) activities that ensure data of known and acceptable quality are generated by this project. Finally, analysis of the River Authority's existing data and modeling tools to identify water quality hot spots, GSI opportunities, costs of those opportunities, and GSI prioritization based on criteria will be done.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 32,398	$ 52,100	$ 20,196	$ 104,694
Contracted & Other Services	-	91,879	55,478	21,177	168,534
Total	$ -	$ 124,277	$ 107,578	$ 41,373	$ 273,228

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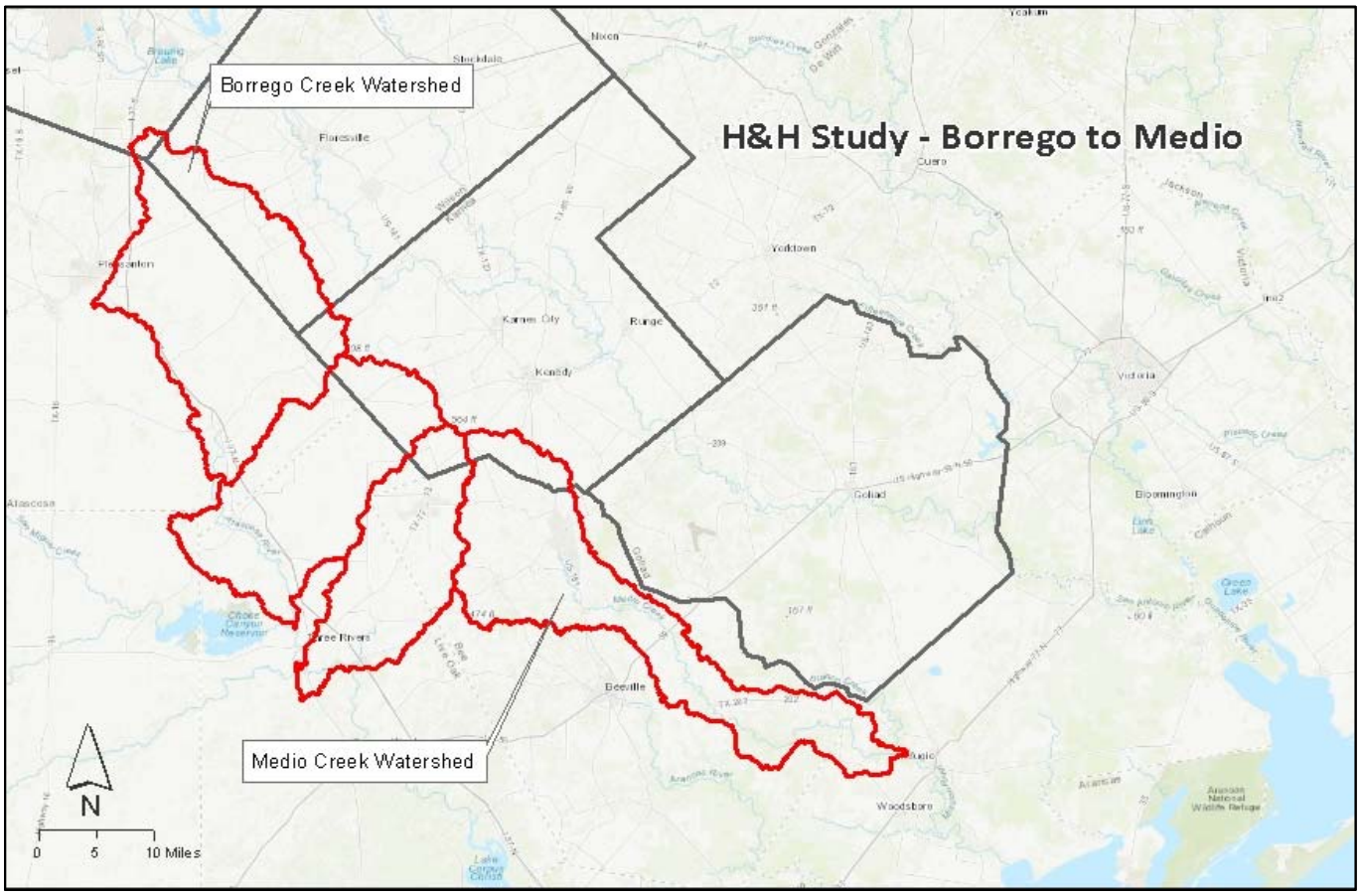
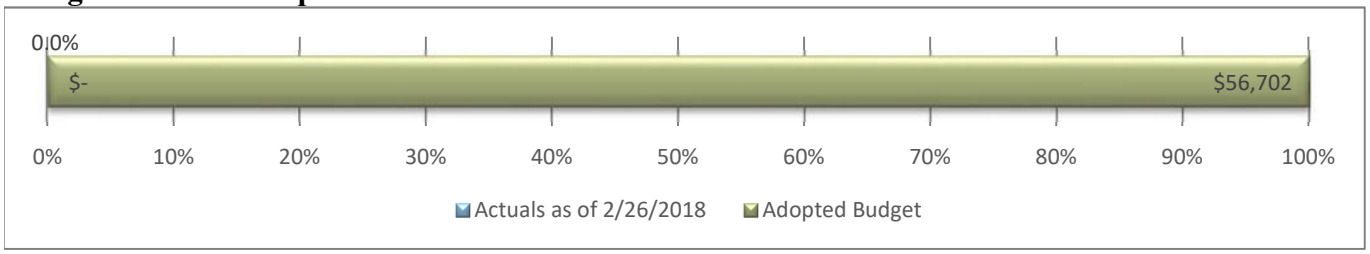
Project Name: **H&H Study - Borrego to Medio** **Project #** **0604**



Budget to Actual: Expenditure



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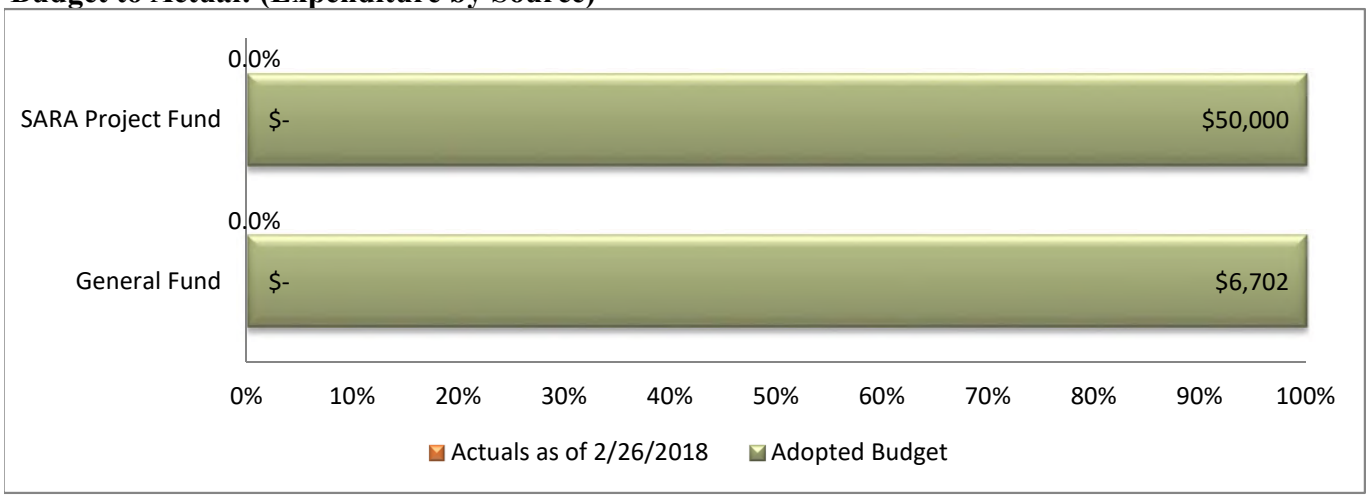

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Project Name:	**H&H Study - Borrego to Medio**		**Project #**	**0604**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	50,000
		SARA Contribution:	$	6,702
Project Start Date:	10/1/2018	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	56,702

The H&H Study will perform base level engineering studies of streams in areas of Wilson and Karnes Counties outside of the San Antonio River Basin. These include tributaries to Borrego, Weedy, Sulphur and Medio Creeks.

With basic hydrology and hydraulics based on current terrain data, we will produce estimates of a revised floodplain to compare with the effective floodplain. Areas with significant differences can be prioritized for more detailed study and mapping updates.

In FY 2018/19, base-level engineering hydraulic models and draft floodplains will be developed for streams in the Borrego, Weedy, Sulphur, and Medio Creek sub watersheds in Wilson and Karnes Counties.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 6,702	$ -	$ -	$ 6,702
Professional Services	-	50,000	-	-	50,000
Total	$ -	$ 56,702	$ -	$ -	$ 56,702

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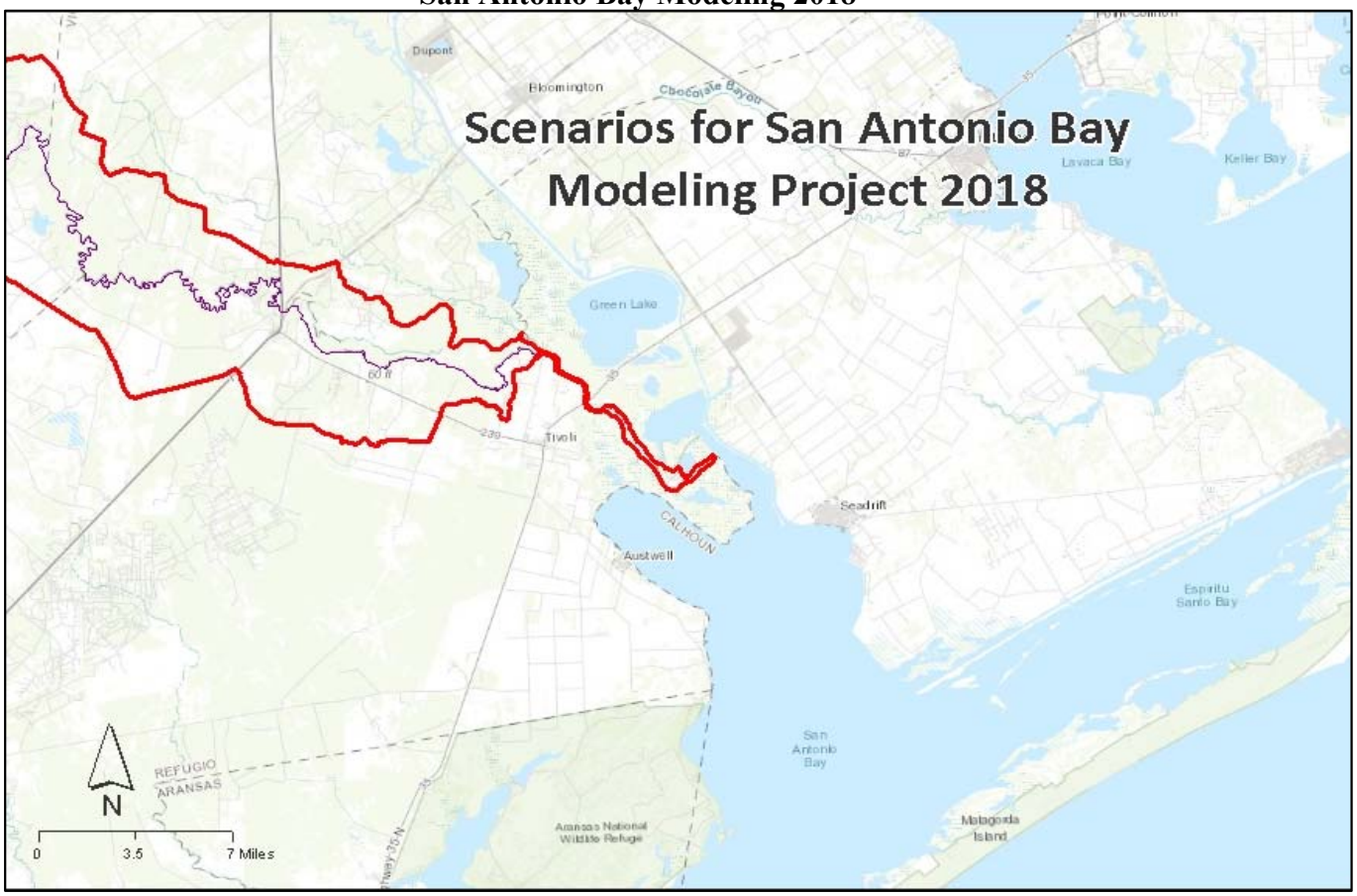
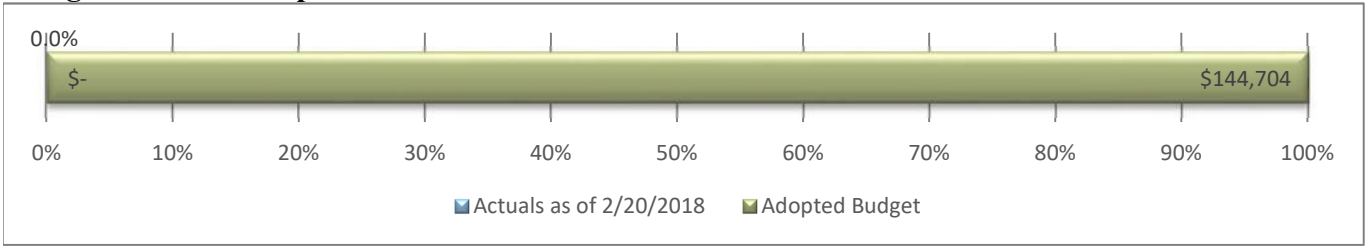
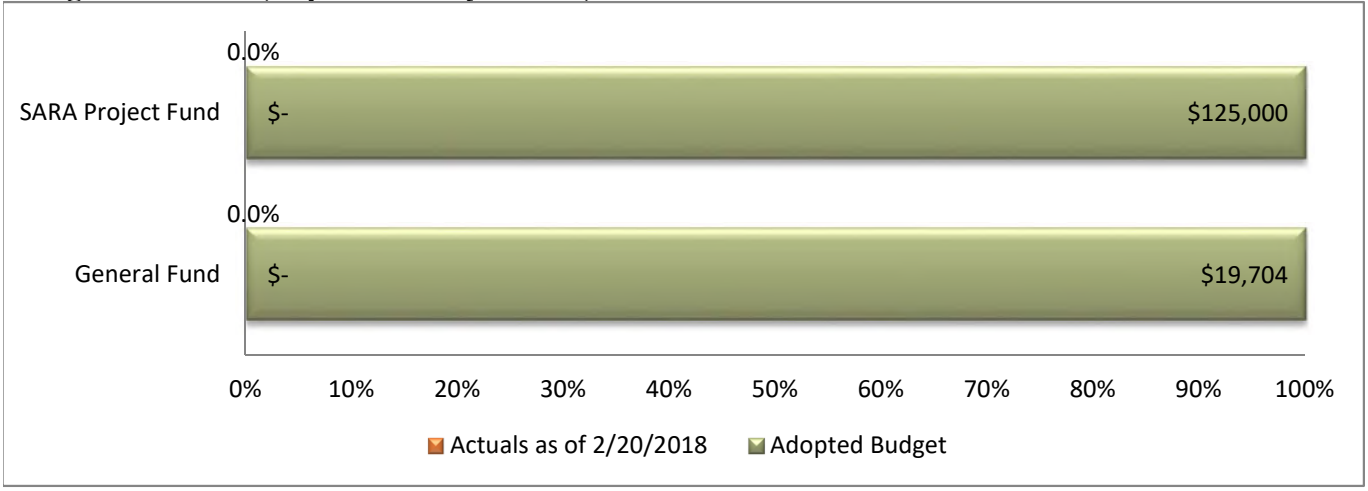
Project Name: **Inflow Scenarios for San Antonio Bay Modeling 2018** **Project #** **0605**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Inflow Scenarios for

Project Name:	**San Antonio Bay Modeling 2018**	**Project #**	**0605**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 125,000
		SARA Contribution:	$ 19,704
Project Start Date:	7/2/2018	Unfunded Plan:	$ -
Project Finish Date:	6/28/2019	Total Project:	$ 144,704

The purpose of this inflow scenarios study is to evaluate potential effects of changes in freshwater flows in the San Antonio Bay on the marsh vegetation. The study will simulate ten different flow-input scenarios and evaluate the response of various marsh plant communities. Each scenario will consider a discharge scenario of the Guadalupe River combined with a specific rainfall.

This study will help the River Authority to select strategies to implement in the outyears that will support the overall San Antonio Bay ecosystem.

In FY 2018/19, the Draft and Final Report will be completed.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 19,704	$ -	$ -	$ 19,704
Contracted & Other Services	-	125,000	-	-	125,000
Total	-	144,704	-	-	144,704

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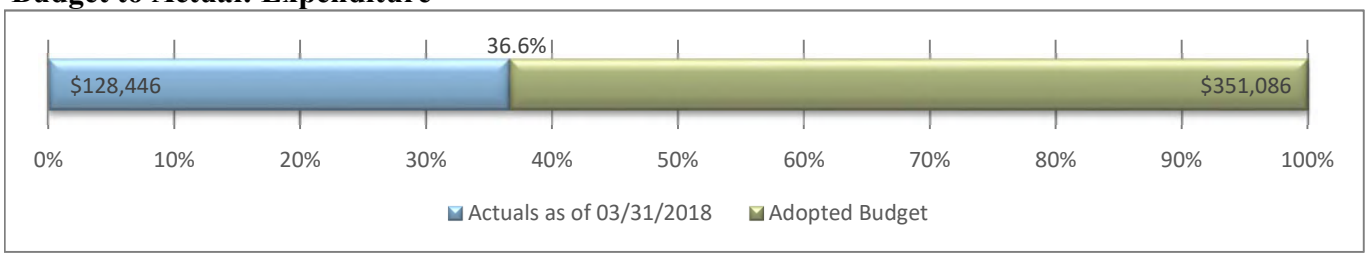
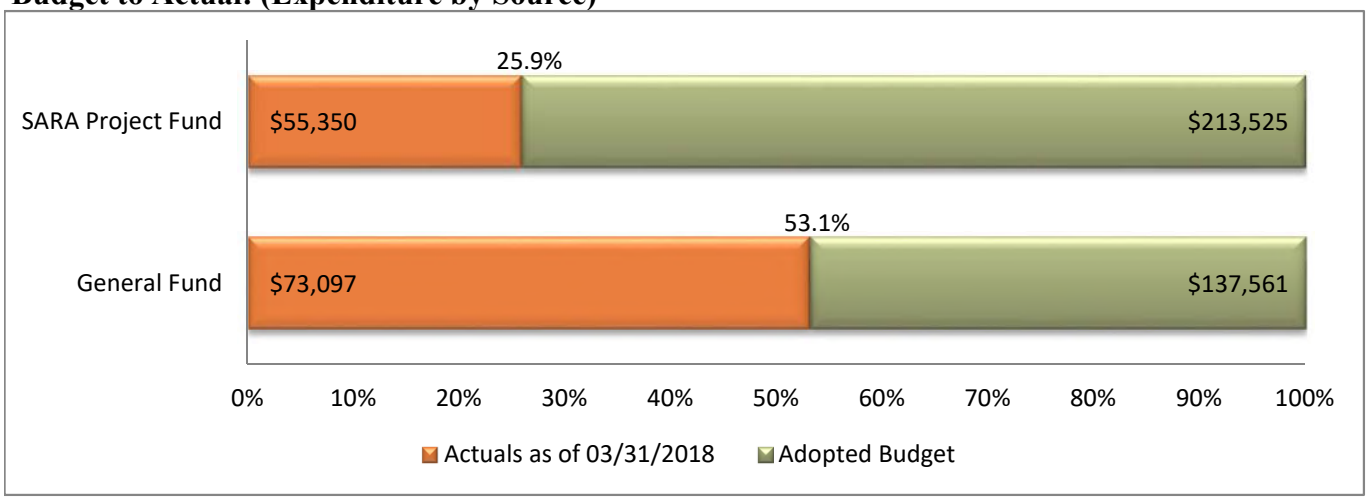
Project Name: **Laboratory Management Software Replacement** **Project #** **0537**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Laboratory Management Software Replacement**		**Project #**	**0537**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	213,525
		SARA Contribution:	$	137,561
Project Start Date:	7/1/2016	Unfunded Plan:	$	-
Project Finish Date:	12/31/2018	Total Project:	$	351,086

The acquisition and implementation of a new Laboratory Information Management System (LIMS) supports the River Authority'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. It facilitates implementation of operational efficiencies that respond to the growing and evolving demands for laboratory testing and data services.

The River Authority's Regional Environmental Laboratory utilizes a Laboratory Information Management System (LIMS) to electronically capture information for all samples submitted to the laboratory from internal and external customers. The current LIMS has been in use since February 2006 and was last upgraded in 2011. However, the version of the product currently in use does not include 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.

The contract was negotiated and the software was acquired in FY 2016/17. In FY 2018/19, staff will complete the software implementation process and incorporate additional laboratory workflows and new applications – such as chemical preparation and traceability, instrument interfaces, bar code labels, and client portal. Staff will update all existing documents, tools, and data migration protocols to reflect new table structures. Staff will also document new protocols incorporating new LIMS features into laboratory workflows. User and administrator level training will be conducted by the vendor. Operations and maintenance costs (software licensing and support) for the upgraded software are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 73,097	$ 64,464	$ -	$ -	$ 137,561
Software	55,350	158,175	-	-	213,525
Total	$ 128,446	$ 222,639	$ -	$ -	$ 351,086

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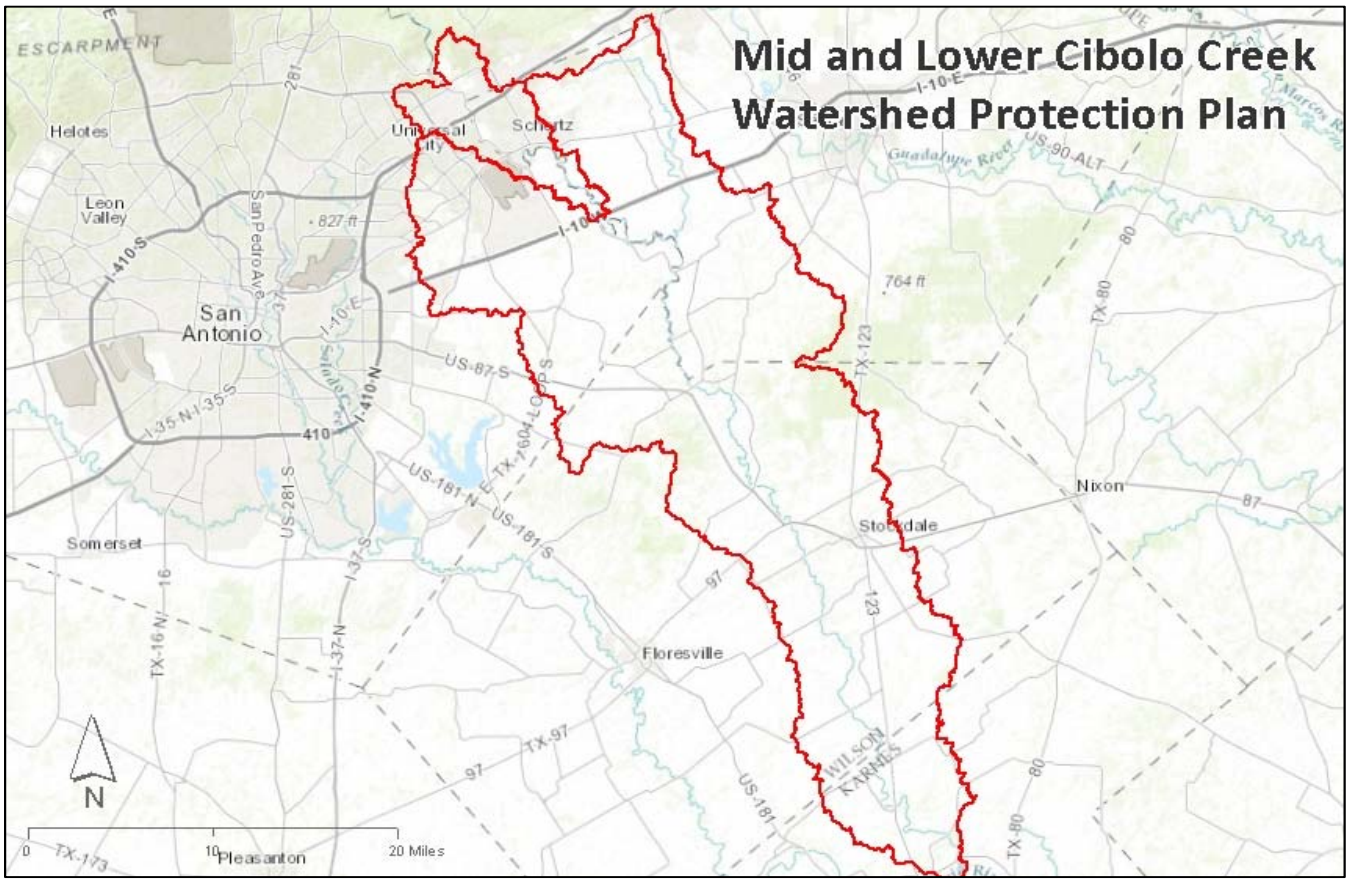
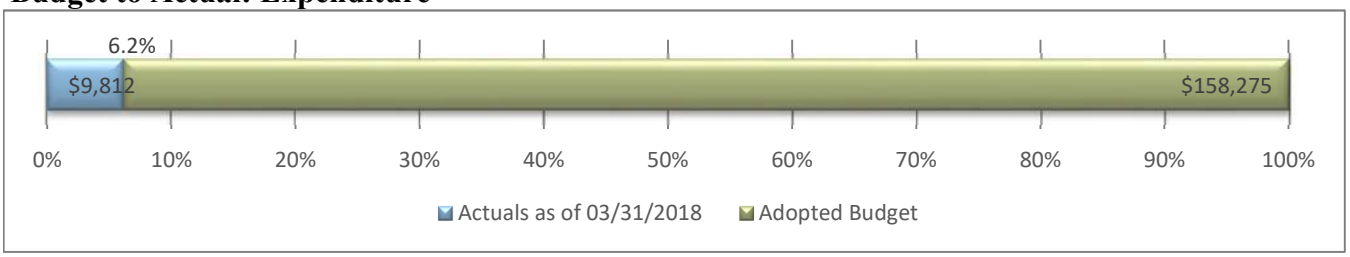
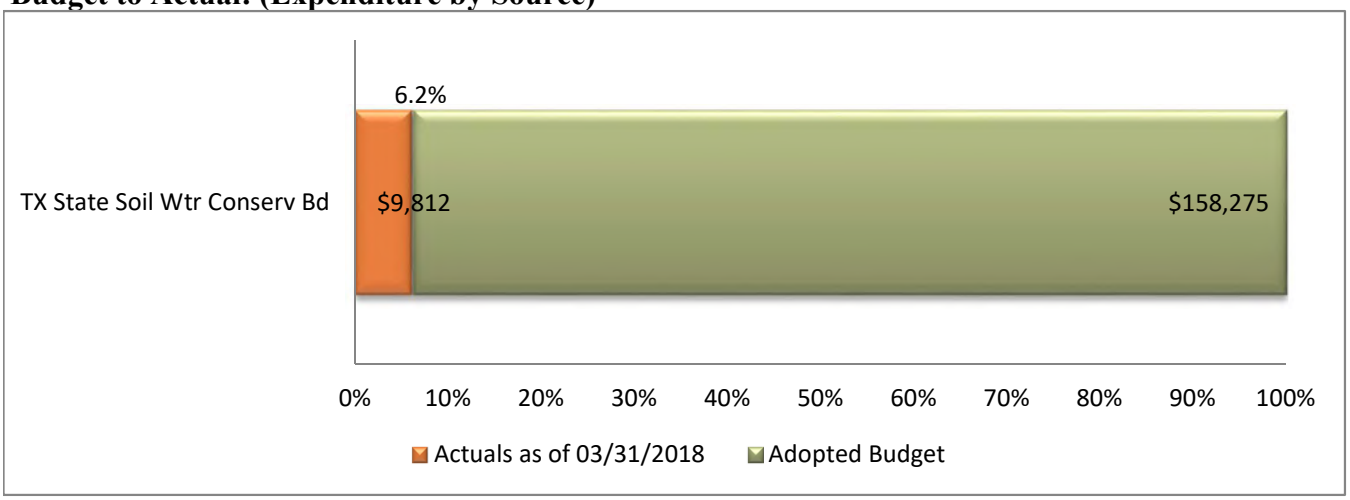
Project Name: **Mid/Lower Cibolo Creek WPP** **Project #** **0532**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Mid/Lower Cibolo Creek WPP**		**Project #**	**0532**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	158,275
		SARA Contribution:	$	-
Project Start Date:	7/1/2016	Unfunded Plan:	$	-
Project Finish Date:	12/31/2019	Total Project:	$	158,275

The Mid/Lower Cibolo Creek Watershed Protection Plan (WPP) project enhances the River Authority's science and engineering data by developing a Watershed Protection Plan for the Mid and Lower Cibolo Creek Watersheds. The WPP is being developed for the Texas State Soil and Water Conservation Board (TSSWCB) with participation from Texas AgriLife Extension (AgriLife).

This project compliments the Cibolo Creek Watershed Master Plan and utilizes the River Authority's ability to identify sources of E. coli that are contributing to concerns and impairments within the Mid and Lower Cibolo Creek Watersheds. The River Authority will serve as a subcontractor and will provide project administration, quality assurance, water quality monitoring, water quality modeling and participation in stakeholder facilitation as well as participation in the development of the WPP document.

In FY 2018/19, the project will continue stormwater monitoring and complete both the Draft and Final Watershed Protection Plan document.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 7,932	$ 24,950	$ 9,019	$ -	$ 41,901
Professional Services	1,880	109,194	5,300	-	116,374
Total	$ 9,812	$ 134,144	$ 14,319	$ -	$ 158,275

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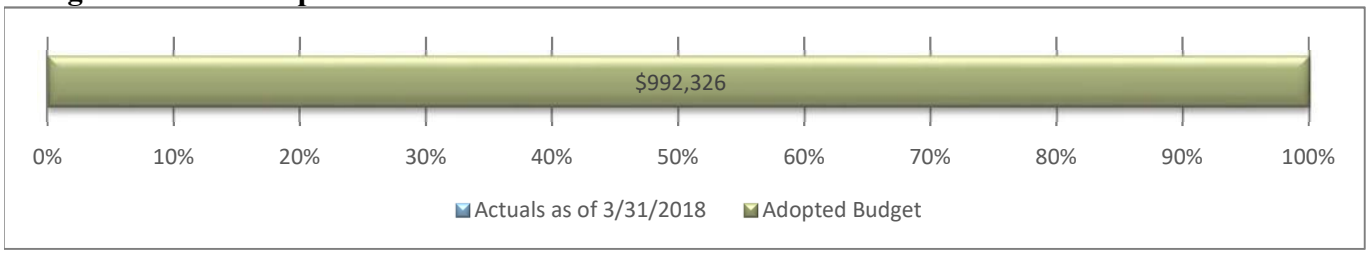
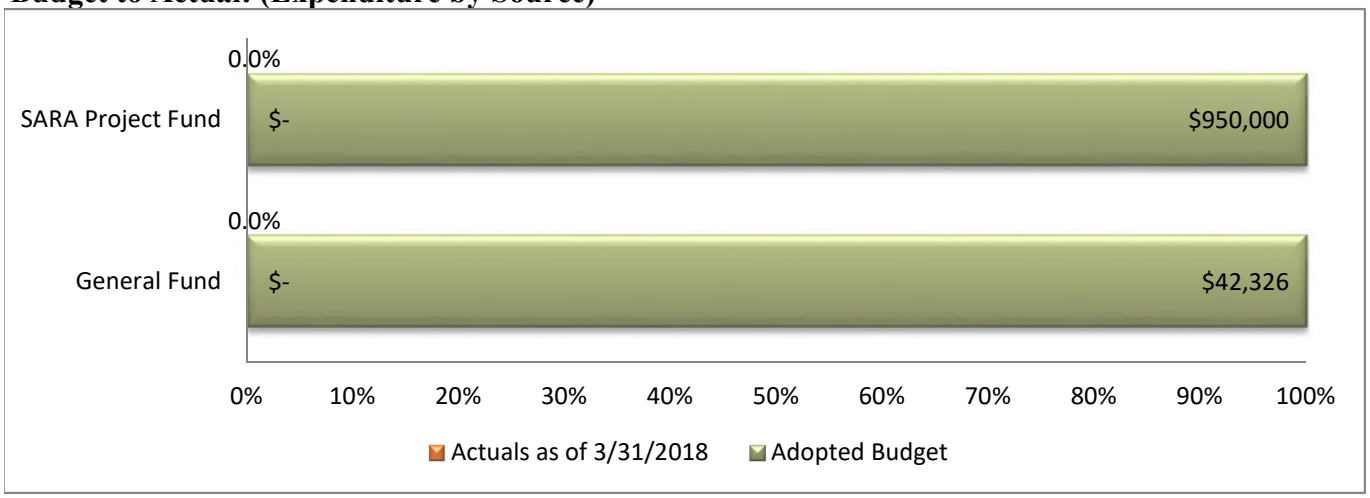
Project Name: **Predictive Flood Modeling** **Project #** **0602**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Predictive Flood Modeling**		**Project #**	**0602**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	950,000
		SARA Contribution:	$	42,326
Project Start Date:	9/3/2018	Unfunded Plan:	$	600,000
Project Finish Date:	3/31/2020	Total Project:	$	1,592,326

The Predictive Flood Modeling project will convert the FloodWorks flood modeling platform to a new modeling platform. This conversion will allow access to simulation data through the use of standard SQL database protocols to store simulation results in support of the River Authority's objective to advance capabilities for partners to access flood models and data.

The current FloodWorks platform is restrictive in its ability to export results outside the operational interface due to the underlying proprietary data storage format. The conversion to a new modeling platform will expand real-time data input and output capability, increase the range of simulation flows, and increase the speed of the simulations by taking advantage of advances in computing technology.

In FY 2018/19, the River Authority will seek to convert FloodWorks' central configuration to a new modeling platform, as well as update, streamline and recalibrate the underlying models using knowledge obtained from the Hurricane Harvey study, and investigate improvements to the external end-user interface.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 19,103	$ 23,223	$ -	$ 42,326
Contracted & Other Services	-	950,000	600,000	-	1,550,000
Total	$ -	$ 969,103	$ 623,223	$ -	$ 1,592,326

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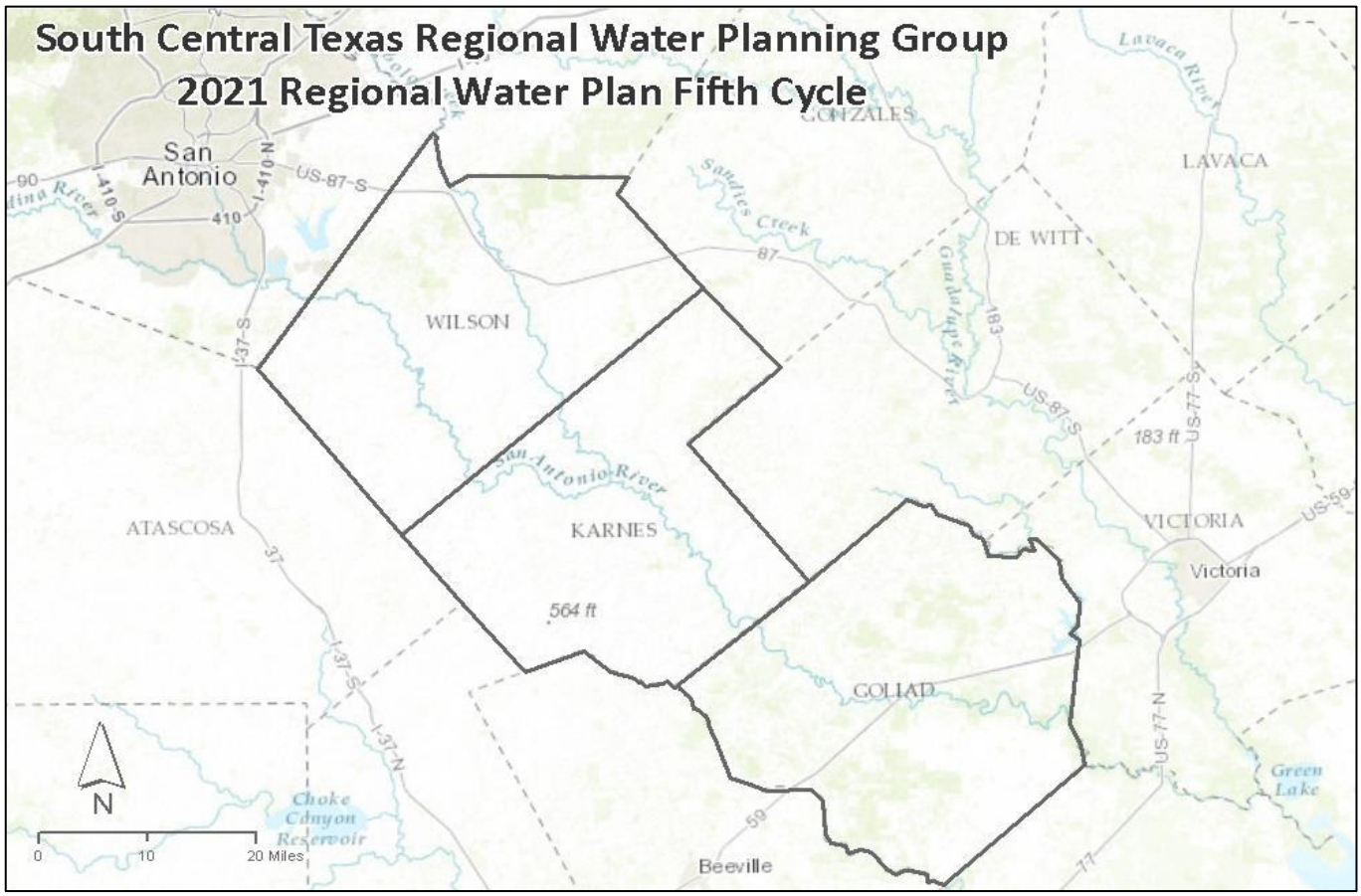
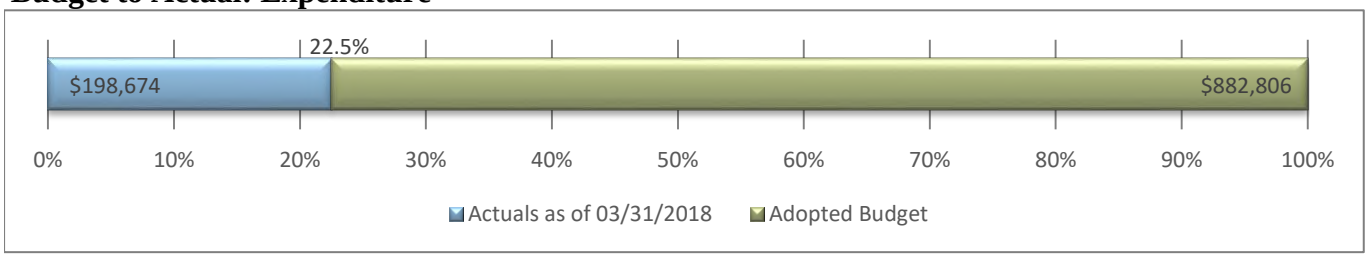
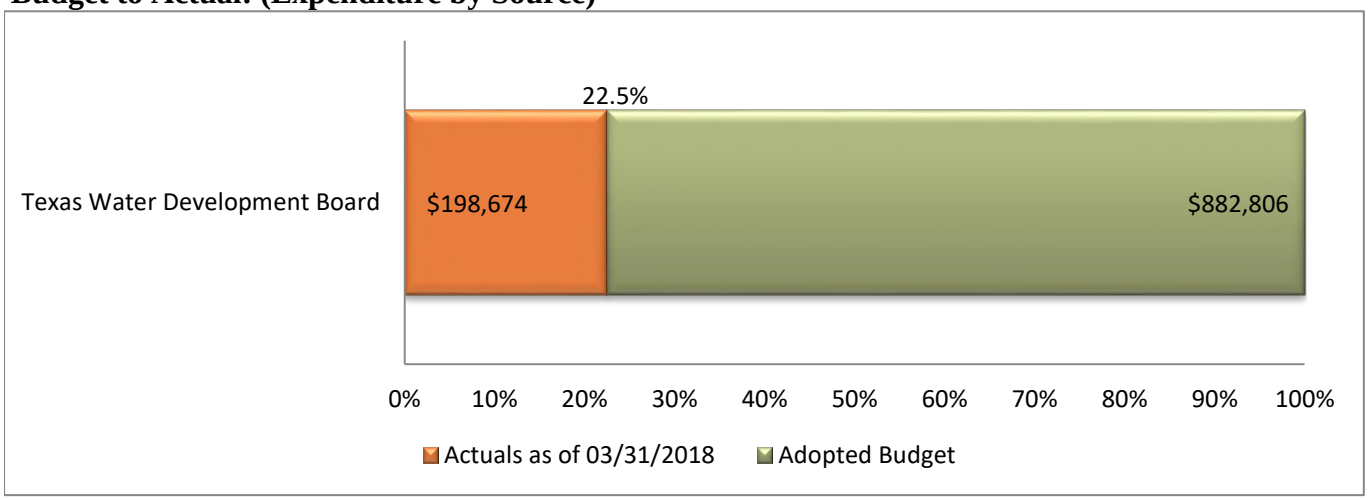
Project Name: SCTRWPG 2021 RWP Fifth Cycle **Project #** 0524



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**SCTRWPG 2021 RWP Fifth Cycle**		**Project #**	**0524**
Managing Department:	Intergovernmental and Community Relations			
		Adopted Budget:	$	882,806
		SARA Contribution:	$	-
Project Start Date:	8/31/2015	Unfunded Plan:	$	-
Project Finish Date:	3/31/2021	Total Project:	$	882,806

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.

In FY 2018/19, the River Authority will provide administrative services to the South Central Texas Regional Water Planning Group (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.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Professional Service	$ 198,674	$ 311,745	$ 372,387	$ -	$ 882,806
Total	$ 198,674	$ 311,745	$ 372,387	$ -	$ 882,806

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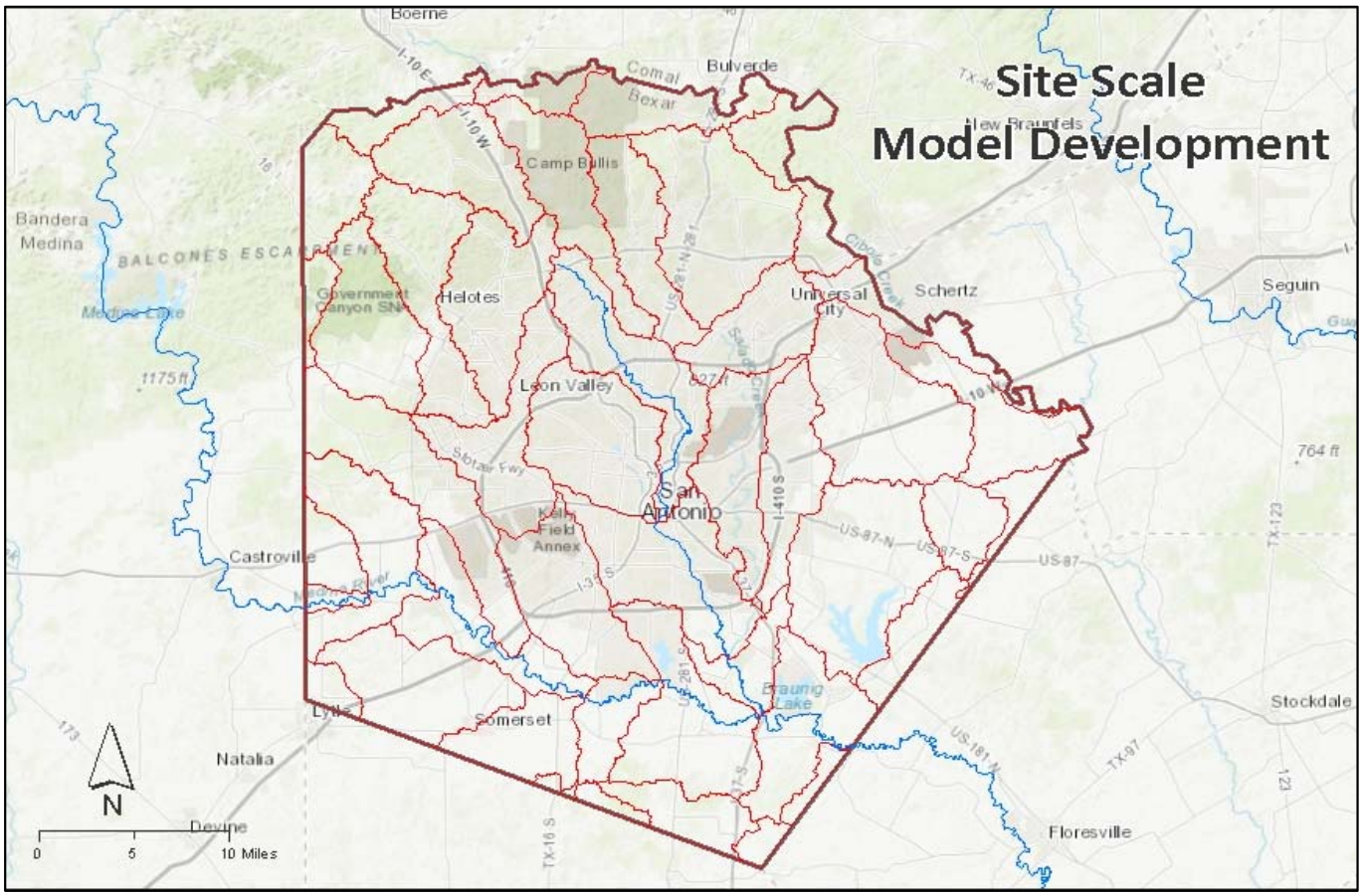
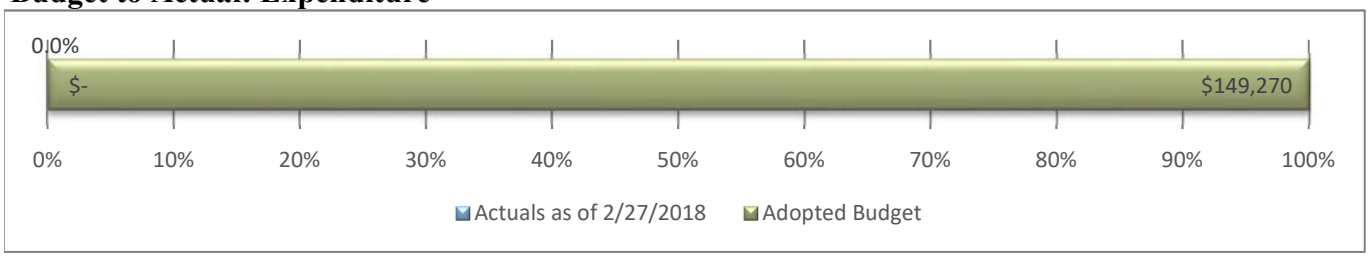
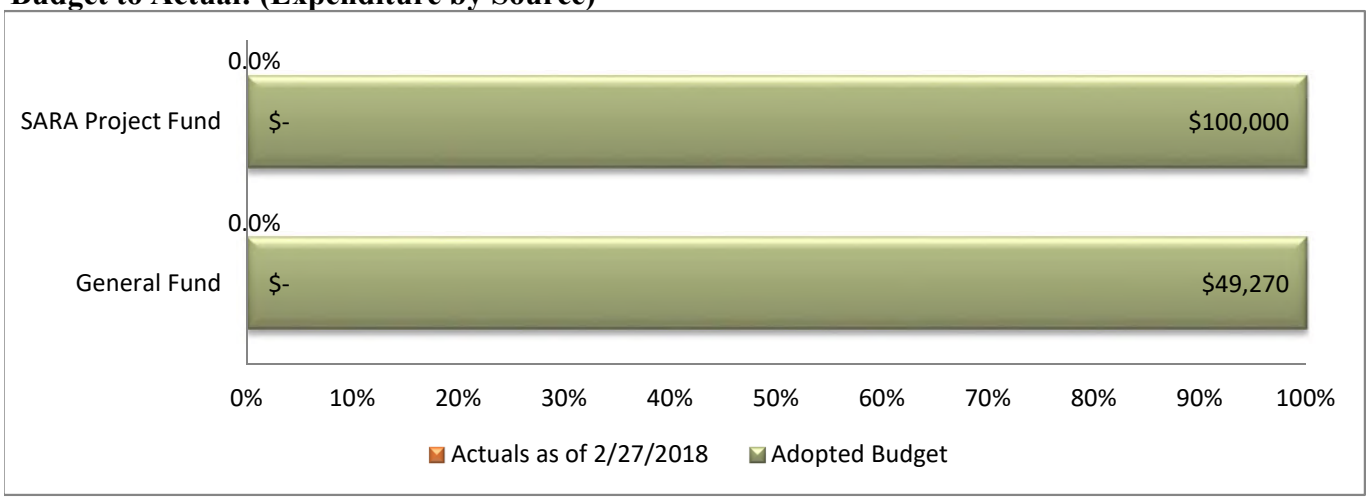
Project Name: **Site-Scale Model Development** **Project #** **0606**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Site-Scale Model Development**		**Project #**	**0606**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	100,000
		SARA Contribution:	$	24,211
Project Start Date:	7/2/2018	Unfunded Plan:	$	25,059
Project Finish Date:	6/28/2019	Total Project:	$	149,270

The Site-Scale Model Development project supports the River Authority's goal to advance and apply its expertise to influence, develop and implement watershed solutions that balance the environmental, economic and quality of life needs of its communities.

The purpose of the Site-Scale Model Development project is to enable users to see changes to the water quantity and quality as a result of changes to land use practices. The plan for providing site-scale watershed analysis in River Authority watersheds is to allow analysis of BMP/LID implementation at a parcel/neighborhood level within a selected sub basin (1-2 square miles) in Bexar County.

In FY 2018/19, a detailed water quality model that zooms into neighborhood levels of a sub-basin and applicable storm water measures to help with water quality goals.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 24,211	$ 25,059	$ -	$ 49,270
Professional Service	-	100,000	-	-	100,000
Total	$ -	$ 124,211	$ 25,059	$ -	$ 149,270

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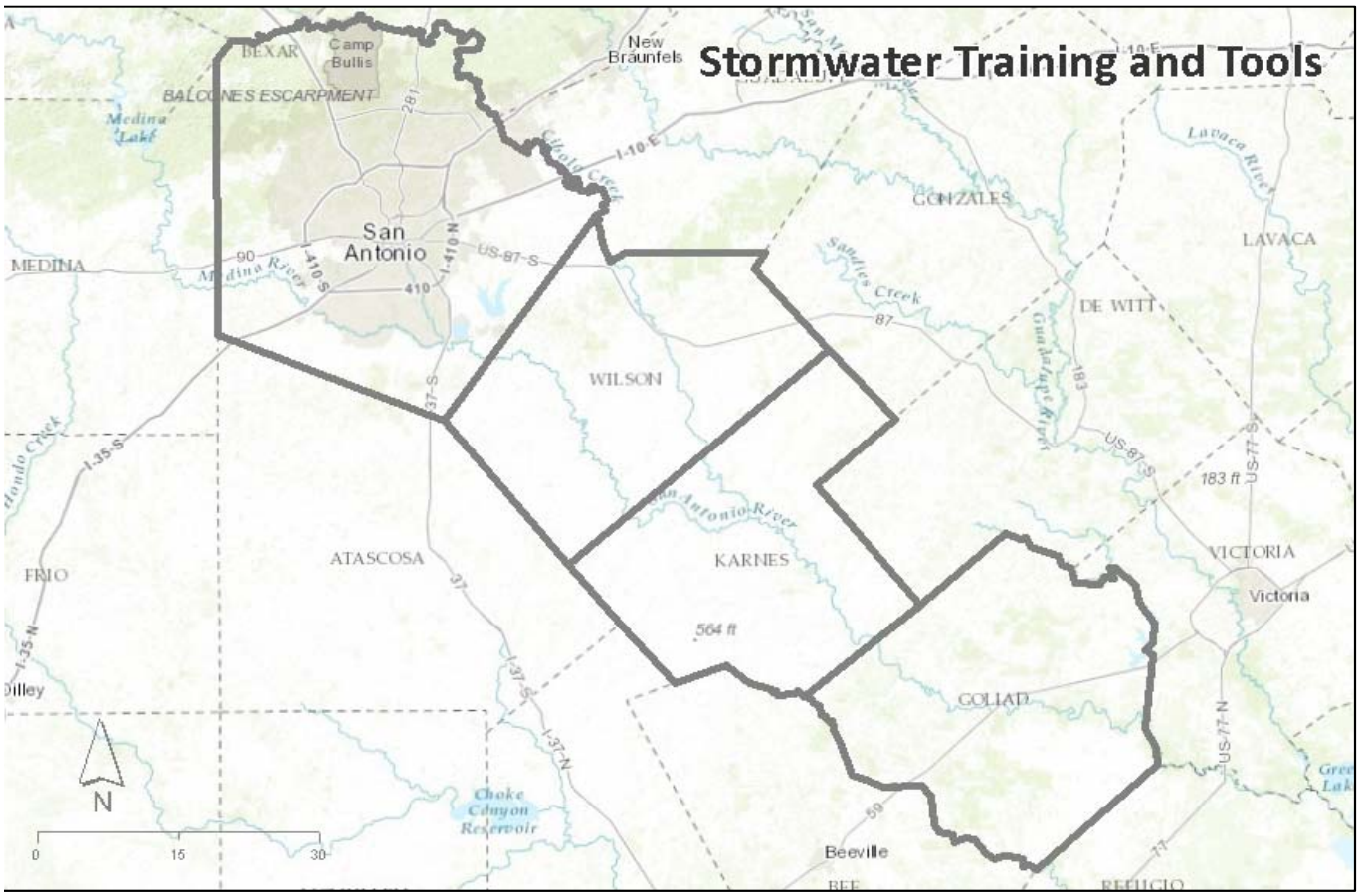
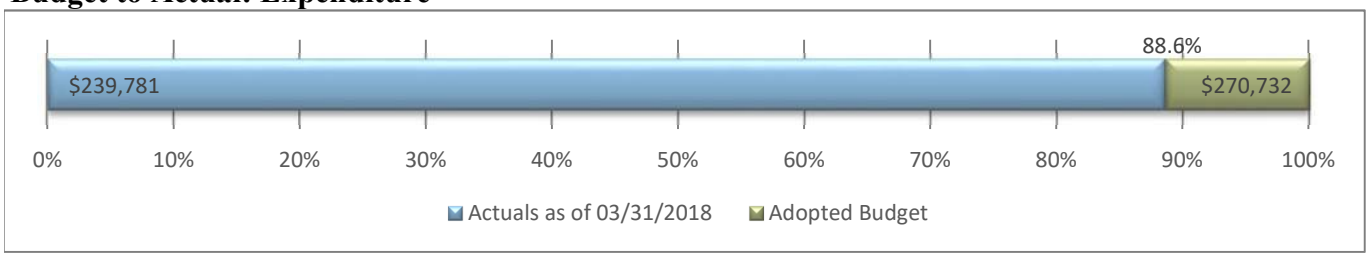
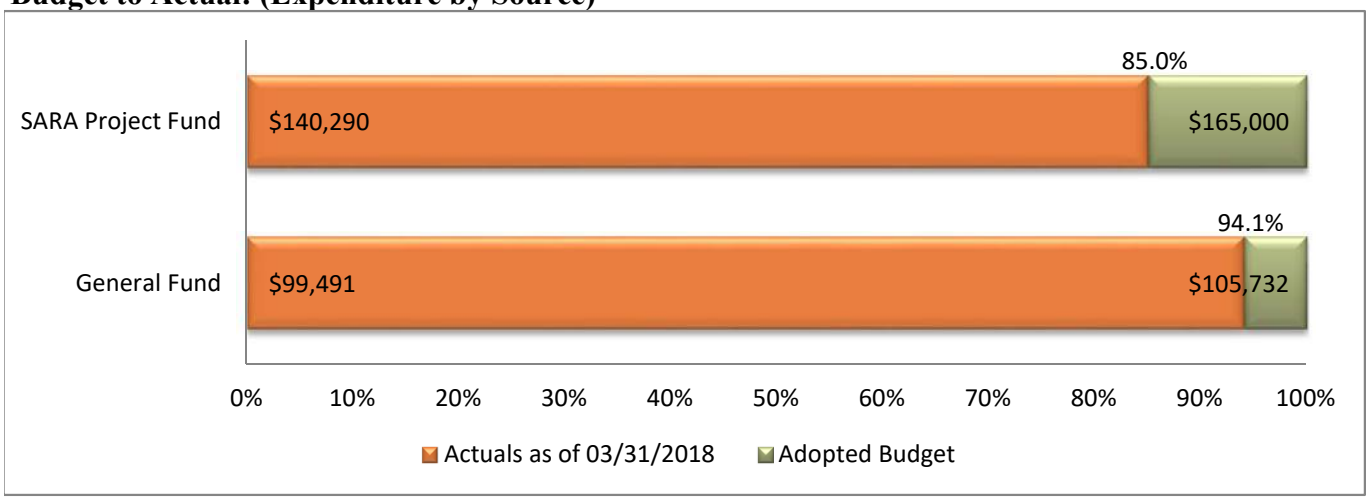
Project Name: **Stormwater Training and Tools** **Project #** **0514**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Stormwater Training and Tools**		**Project #**	**0514**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	165,000
		SARA Contribution:	$	105,732
Project Start Date:	7/1/2015	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	270,732

The Stormwater Training and Tools project provides training and tools to assist the design community in utilizing River Authority recommended design options for Low Impact Development (LID) permanent stormwater best management practices (BMPs).

The River Authority promotes the use of LID permanent stormwater BMPs to improve stormwater runoff management in the watershed. Updates to the San Antonio River Basin LID Technical Design Guidance Manual will assist staff, government agencies, the development community, designers, construction inspectors and maintenance contractors to better apply LID and sustainable stormwater BMPs to projects that impact the health of and quality of life within the basin.

In FY 2018/19, the project will fund a partnership between the City of San Antonio and the River Authority to support professional services to develop a Low Impact Development visioning document to guide development in the City of San Antonio.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 81,391	$ 4,841	$ -	$ -	$ 86,232
Contracted & Other Services	6,969	24,695	-	-	31,664
Other	151,422	1,415	-	-	152,836
Total	$ 239,781	$ 30,951	$ -	$ -	$ 270,732

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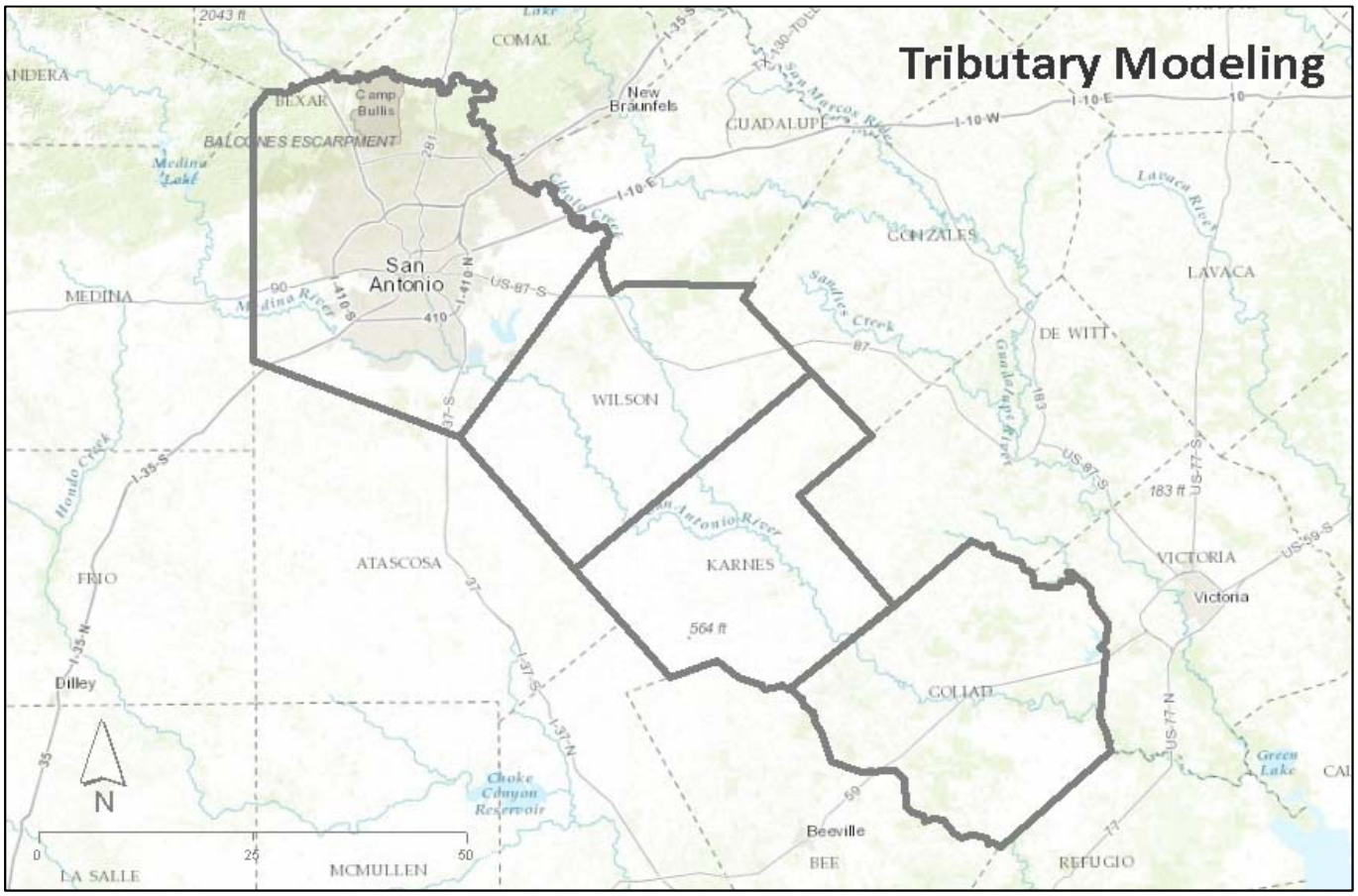
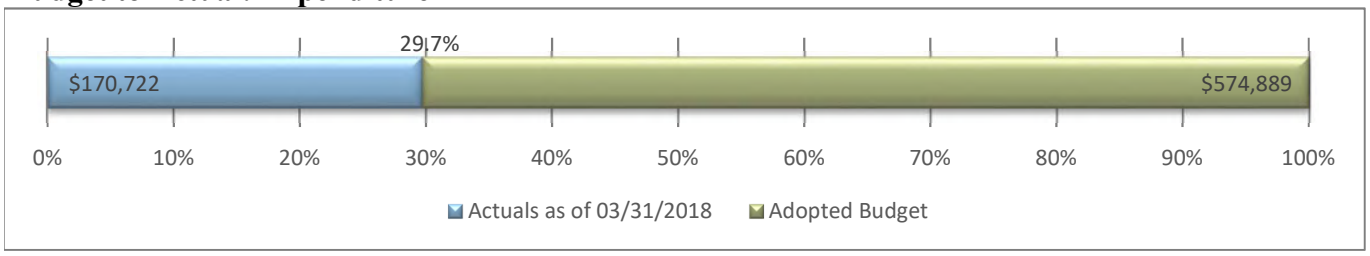
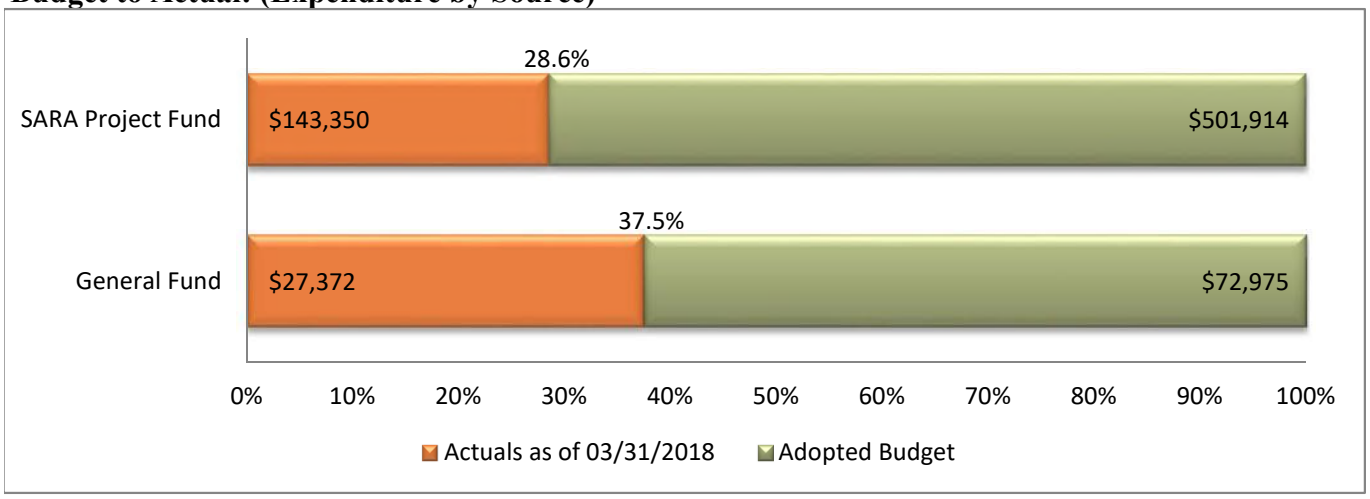
Project Name: **Tributary Modeling** **Project #** **0074**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Tributary Modeling**		**Project #**	**0074**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	501,914
		SARA Contribution:	$	72,975
Project Start Date:	3/18/2008	Unfunded Plan:	$	-
Project Finish Date:	9/30/2020	Total Project:	$	574,889

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 one-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. Over the past eight years the River Authority has invested over $900,000 in modeling.

Since FY 2007/08, efforts to model unstudied streams has taken place. In FY 2016/17, the project completed studies on Tributary 9 to Ojo de Agua Watershed, Seguin Branch, and Millers Creek. The studies included the creation of floodplain models and detailed floodplain delineations. The project also began new studies on State Hospital Creek, Calaveras Creek (from US 87 to FM 1516), Unnamed Tributary 27 in Calaveras Creek, China Grove Creek, Unnamed Tributary 6 in New Sulphur Springs Creek, Calaveras Creek (from confluence with the SAR to the Bexar County line), and Unnamed Tributary 1 in Calaveras Creek. These studies were completed in FY 2017/18. In FY 2018/19, Hydrologic and Hydraulic models for the streams listed in Mapping Activity Statement 13 and Mapping Activity Statement 15 will be developed. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Project Objective:

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 27,372	$ 45,603	$ -	$ -	$ 72,975
Professional Service	143,350	252,141	102,170	4,253	501,914
Total	$ 170,722	$ 297,744	$ 102,170	$ 4,253	$ 574,889

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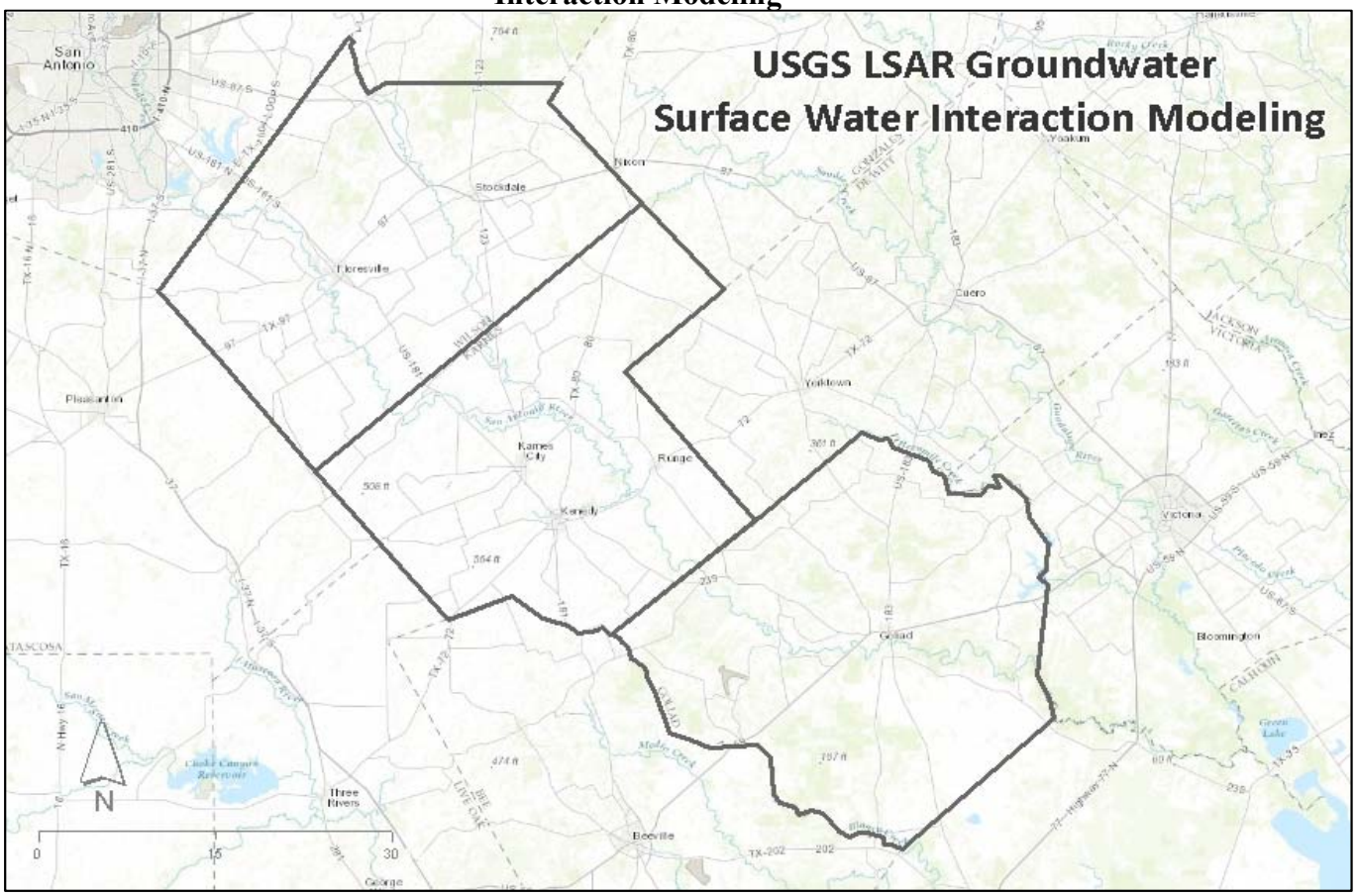
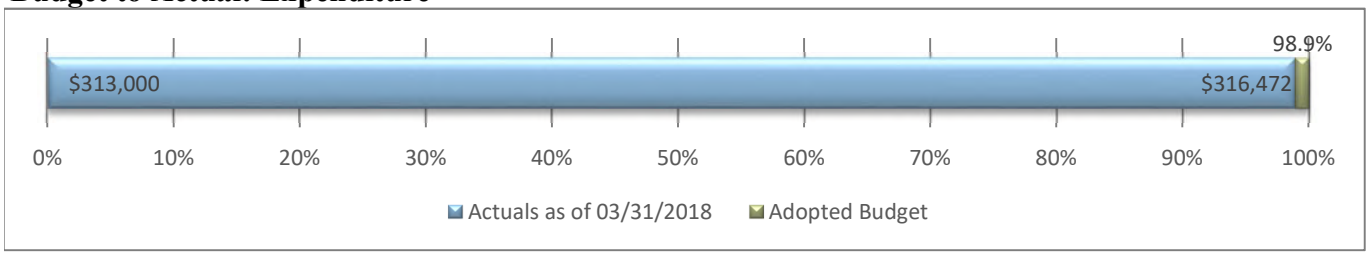
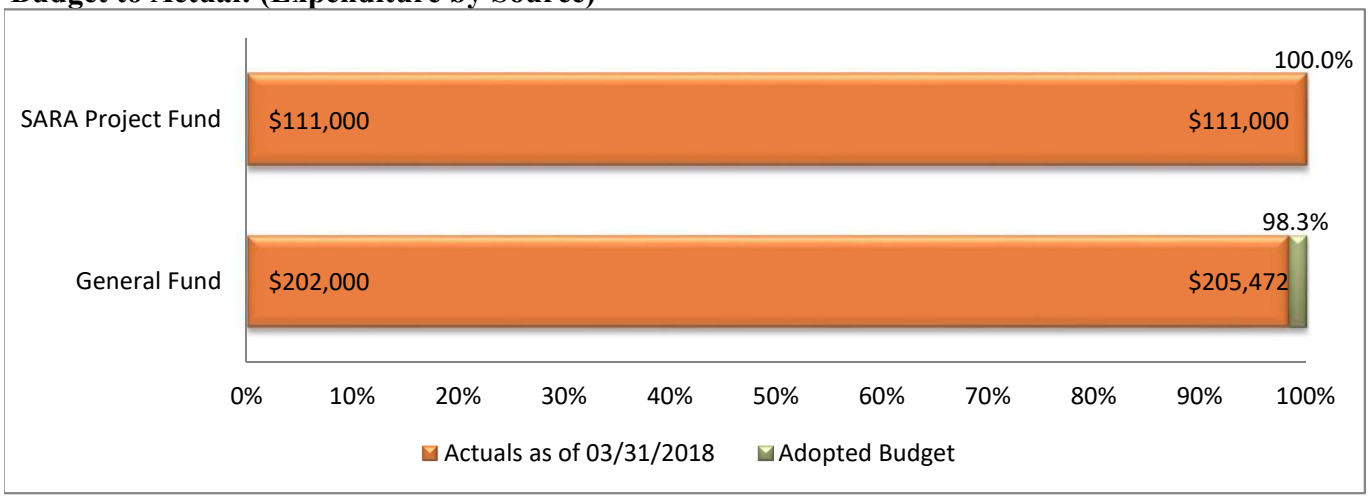
Project Name: USGS LSAR Groundwater Surface Water Interaction Modeling **Project #** 0411



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**USGS LSAR Groundwater Surface Water Interaction Modeling**	**Project #**	**0411**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 111,000
		SARA Contribution:	$ 205,472
Project Start Date:	10/31/2013	Unfunded Plan:	$ -
Project Finish Date:	10/1/2018	Total Project:	$ 316,472

This collaborative study with the U.S. Geological Survey (USGS) develops a groundwater/surface water model, which is a tool for understanding the interaction between groundwater and surface water resources of the Lower San Antonio River Basin. This provides the River Authority with the avenue to understand and plan for the implications of changing infiltration and exploitation of groundwater resources on the surface waters of the lower basin.

This project addresses the impact of groundwater use 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 is being conducted in cooperation with the USGS and produces an analysis of various scenarios that can be used for both planning and assessment purposes.

Beginning in FY 2013/14, this project began development of a groundwater model to simulate groundwater interaction with surface water. In FY 2017/18, the project used the groundwater model previously developed to simulate groundwater interaction with surface water under multiple scenarios representing both changes in recharge and increase in groundwater exploitation. In FY 2018/2019, the project will finish analyzing model results from scenario simulations representing both changes in recharge and increases in groundwater use in order to identify the potential impacts on the lower basin streams and river. These results will be interpreted and published in scientific literature. No operations and maintenance expenditures are anticipated from this project.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 3,472	$ -	$ -	$ 3,472
Contracted & Other Services	313,000	-	-	-	313,000
Total	$ 313,000	$ 3,472	$ -	$ -	$ 316,472

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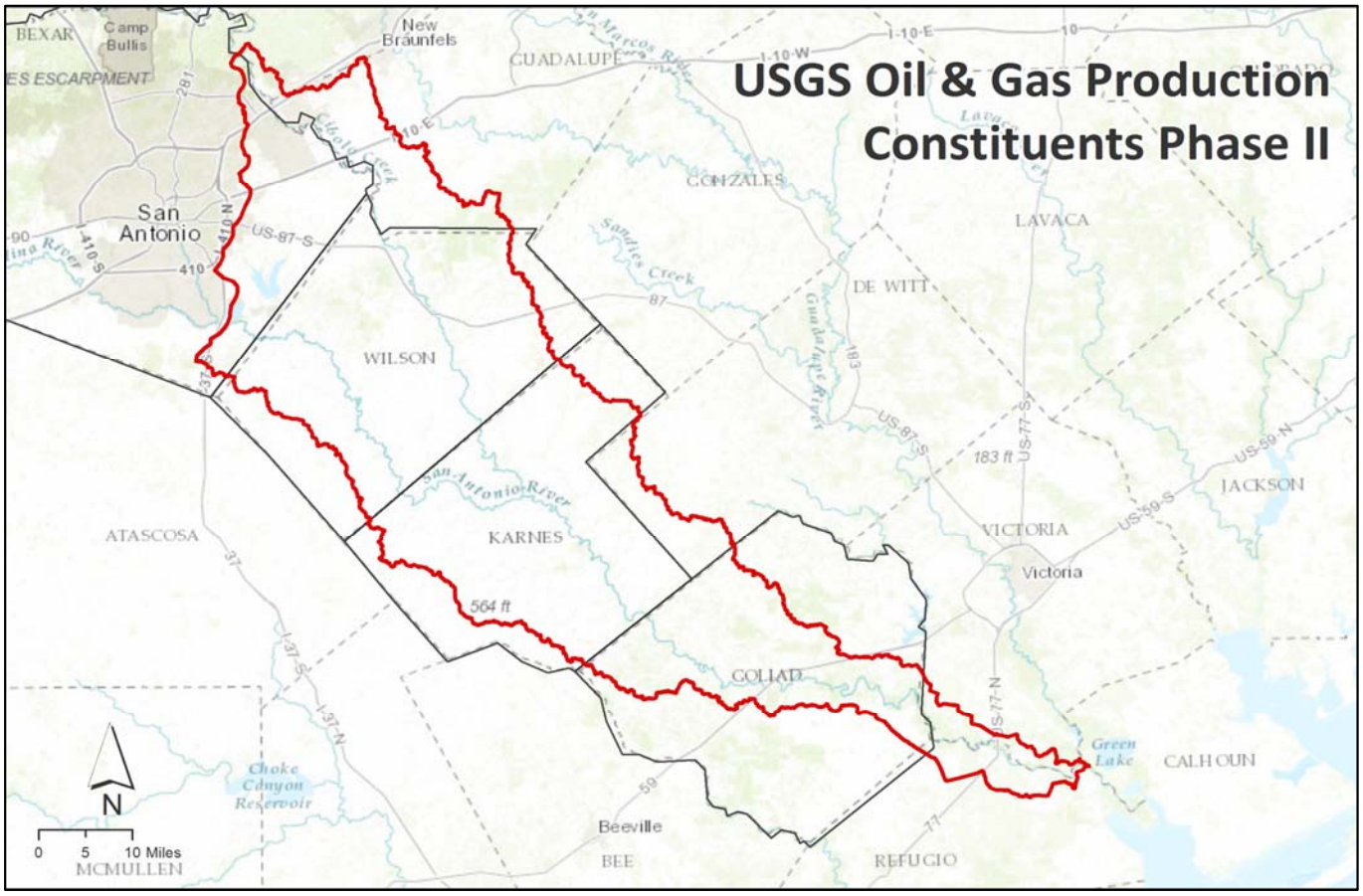
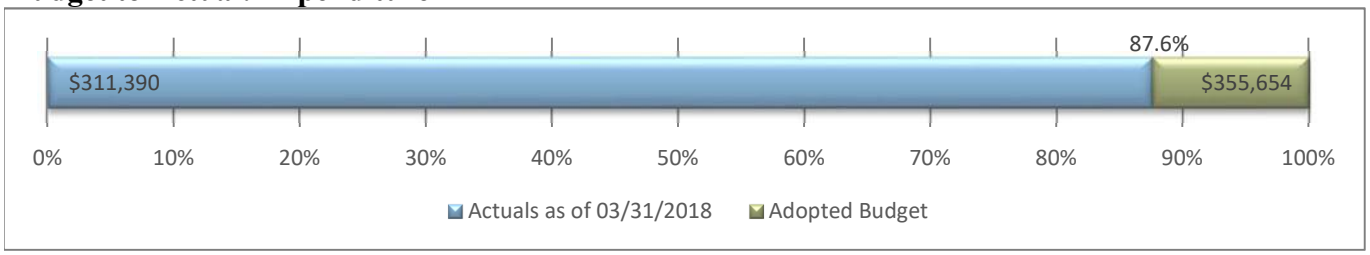
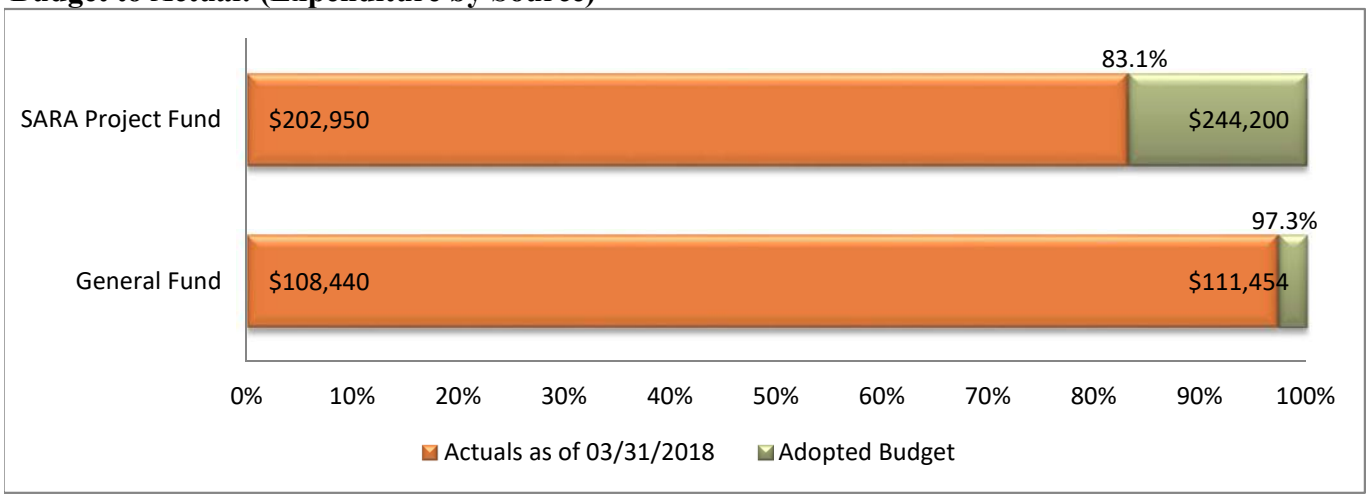
Project Name: USGS Oil and Gas Production Constituents Phase II **Project #** 0445



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**USGS Oil and Gas Production Constituents Phase II**	**Project #**	**0445**
Managing Department:	Environmental Sciences		
		Adopted Budget:	$ 244,200
		SARA Contribution:	$ 111,454
Project Start Date:	10/1/2014	Unfunded Plan:	$ -
Project Finish Date:	12/31/2018	Total Project:	$ 355,654

This specialized monitoring project contributes to the health and safety of the creeks and rivers by monitoring whether oil and gas production is impacting the Lower San Antonio River, Cibolo Creek, and Ecleto Creek. This data assists in keeping the watershed master plans dynamic and relevant.

The oil and gas production increase throughout the United States has elicited a multitude of concerns regarding the potential risks to human and environmental health (U.S. Environmental Protection Agency, 2011). The Phase I study, 2011-2013, established a baseline of a broad range of water and streambed constituents. With Phase II, the USGS revisited a subset of the sites from Phase I to determine any changes in surface water and streambed sediment quality, plus collected samples at additional sites within the Lower San Antonio River Basin to try and determine if any correlation exists between polyaromatic hydrocarbon (PAH) concentrations and impervious surface area.

For FY 2018/19, Phase II activities include the publication of a USGS Scientific Investigations Report that will include analysis of water and streambed samples and comparison to samples collected in Phase I in 2011-2013, changes in land cover in subwatersheds, and PAH concentrations in streambed samples collected. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 2,240	$ 3,014	$ -	$ -	$ 5,254
Contracted & Other Services	309,150	41,250	-	-	350,400
Total	$ 311,390	$ 44,264	$ -	$ -	$ 355,654

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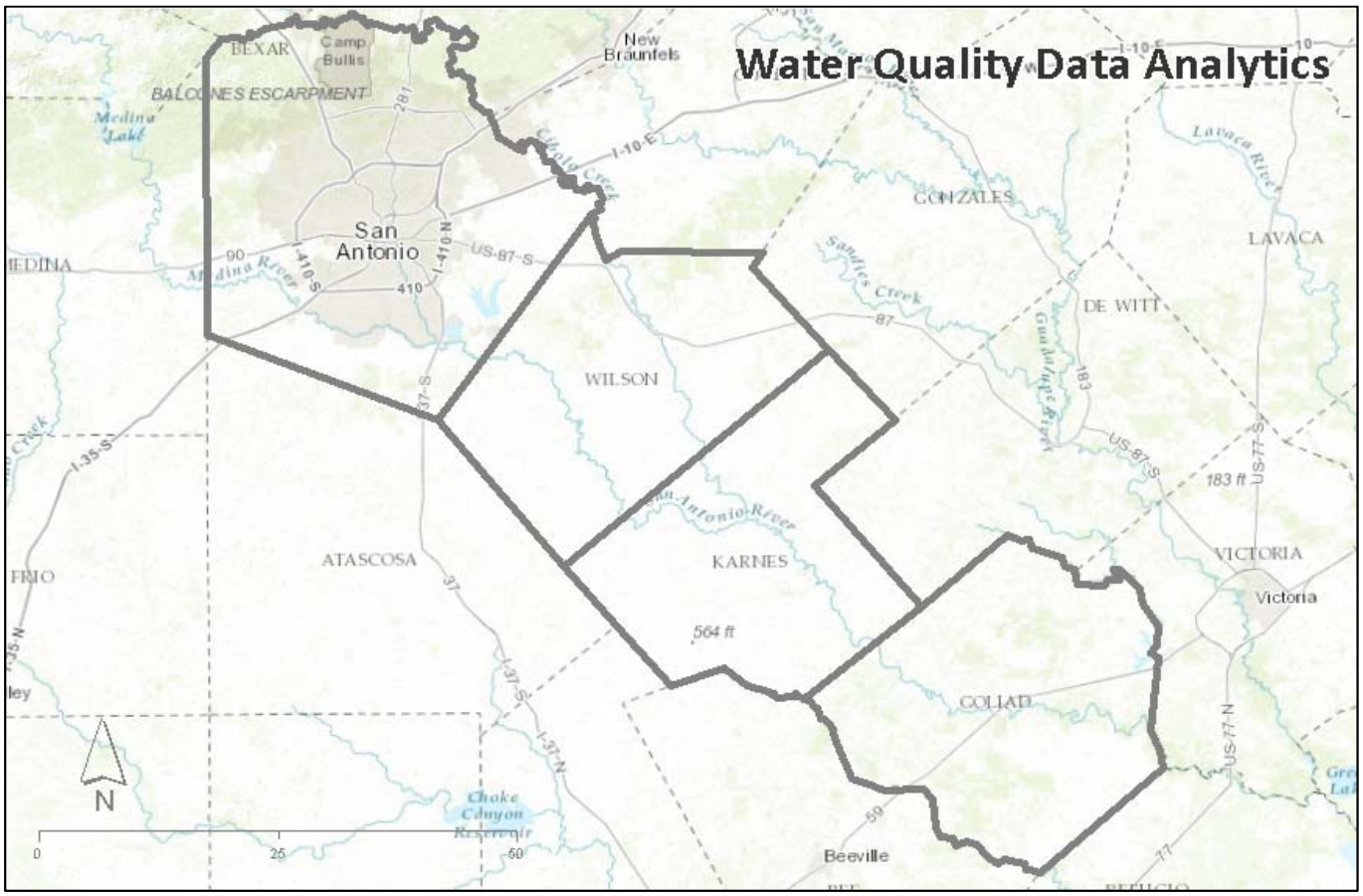
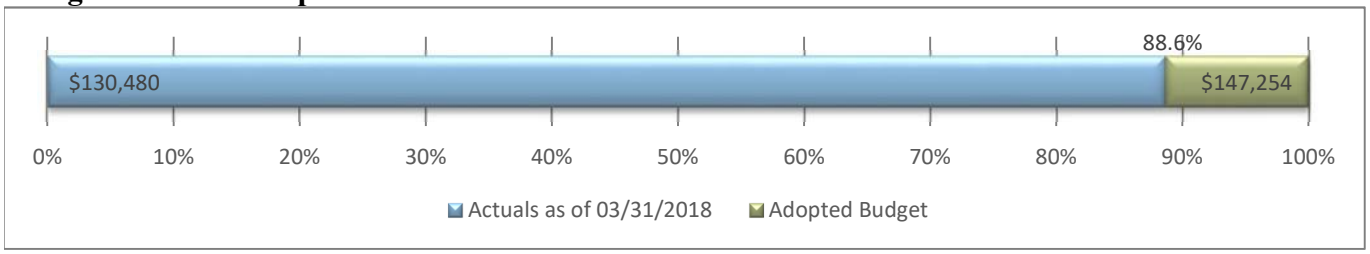
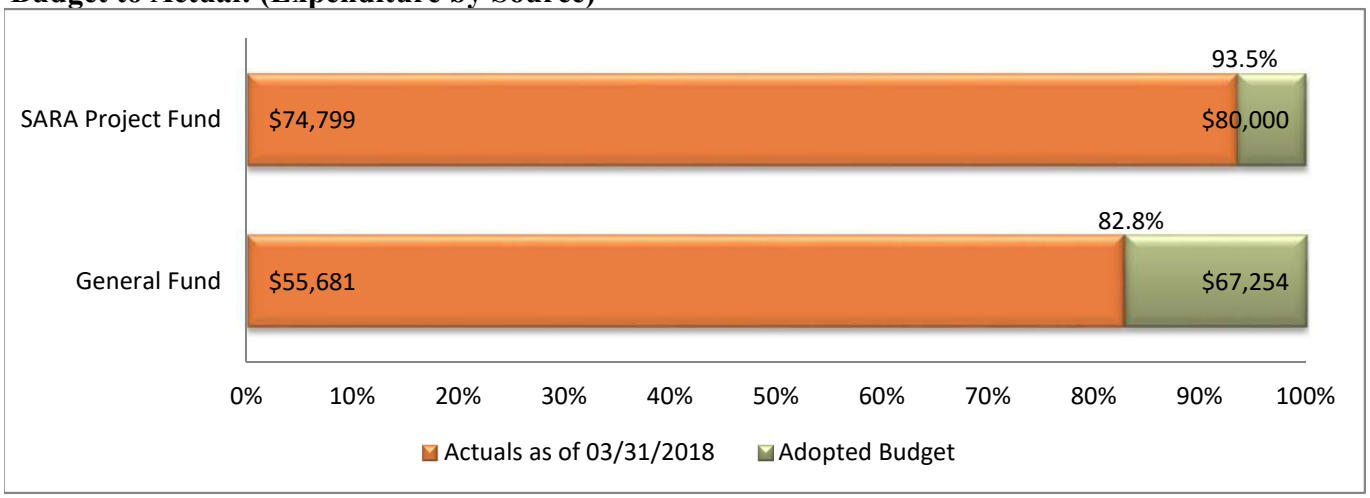
Project Name: **Water Quality Data Analytics** **Project #** **0460**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Water Quality Data Analytics**		**Project #**	**0460**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	80,000
		SARA Contribution:	$	67,254
Project Start Date:	7/1/2015	Unfunded Plan:	$	-
Project Finish Date:	6/30/2018	Total Project:	$	147,254

The development and use of the water quality data analytics tool strengthens and develops the expertise of the users and developers. The tool assists staff in analyzing large amounts of water quality data in a shorter amount of time and to explore the data to develop operational conclusions. 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.

While the River Authority collects extensive water quality and biological data, the technical analysis of the data in order to draw conclusions is an intensive process. This project develops a tool that facilitates the process of exploring environmental data. By being able to efficiently assess the data, staff can draw conclusions that assess the condition of the watershed, develop recommendations for addressing watershed concerns and impairments, and improve future sampling plans.

This project began in FY 2015/16 with the scoping and testing of data analysis tools for rapid statistical analysis of water quality data. Stakeholders collaborated on the interface and technical structure of the tool. The tool was completed in FY 2017/18. Staff will continue using MATLAB to enhance and explore opportunities to create additional tools. MATLAB, short for matrix laboratory, is a computer programming language developed for computing large amounts of data. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 55,681	$ 11,573	$ -	$ -	$ 67,254
Professional Service	74,799	5,201	-	-	80,000
Total	$ 130,480	$ 16,774	$ -	$ -	$ 147,254

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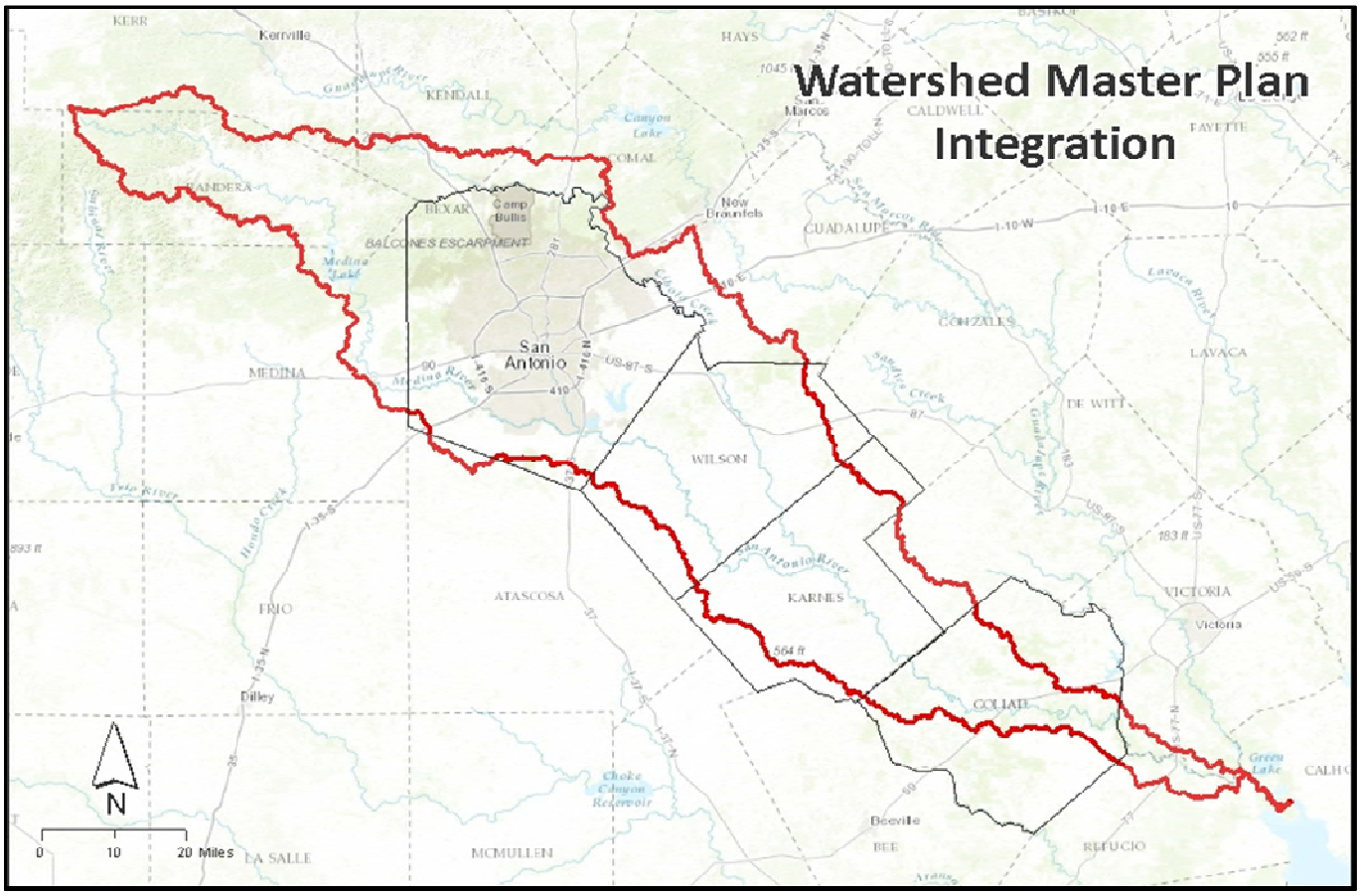
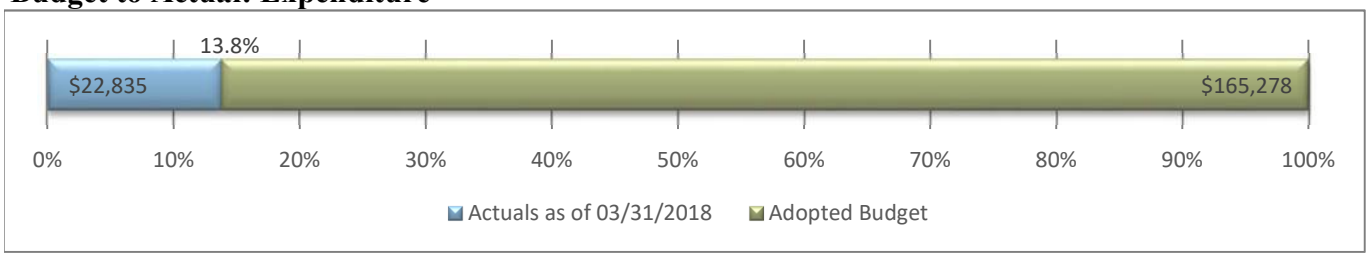
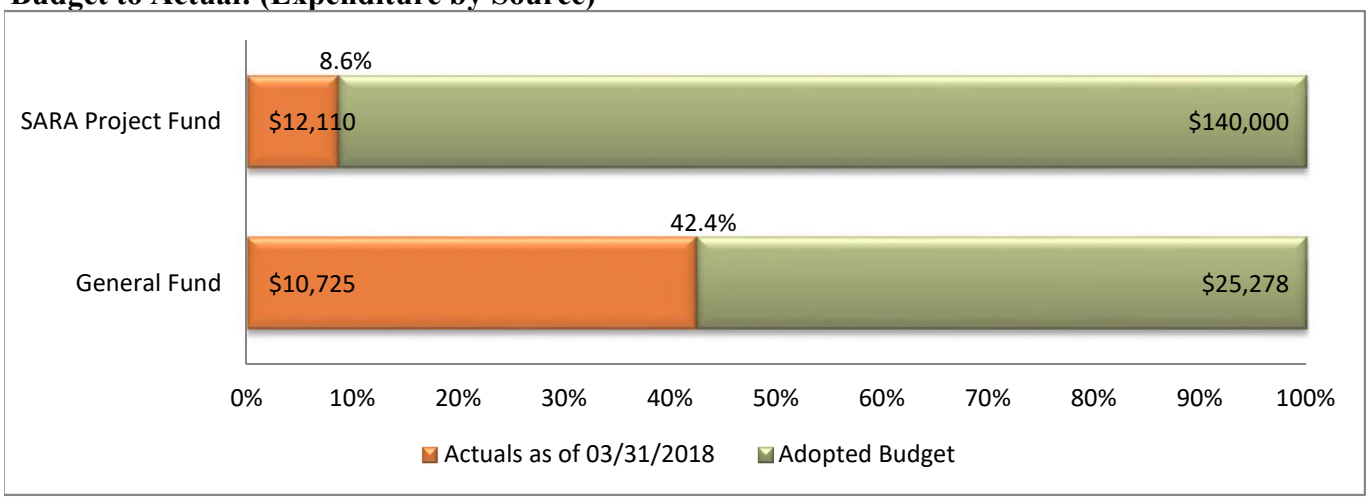
Project Name: Watershed Master Plans Integration **Project #** 0536



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Watershed Master Plans Integration**		**Project #**	**0536**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	140,000
		SARA Contribution:	$	25,278
Project Start Date:	6/22/2016	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	165,278

The Watershed Master Plan Integration project advances the science and engineering expertise and data 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.

Work began on integrating the geospatial data sets and model, as well as developing an action plan for implementing the watershed master plan recommendations within the River Authority and with partners in each watershed in FY 2016/17. In FY 2017/18, the data sets and action plan were completed, and meetings were held with partners in each watershed to share the relevant recommendations and data. In FY 2018/19, cost estimates for recommended projects will be updated along with an updated study for the Upper San Antonio River watershed. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 10,725	$ 14,553	$ -	$ -	$ 25,278
Professional Service	12,110	127,890	-	-	140,000
Total	$ 22,835	$ 142,443	$ -	$ -	$ 165,278

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SAN ANTONIO
RIVER AUTHORITY

Leaders in Watershed Solutions

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Projects Goal #2

Photo: Martin Reid

Mission Reach Avian Study

San Antonio, Bexar County

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AGENCY GOAL #2

Enable Policy, Projects, and Actions – Apply SARA's expertise and resources to influence, develop, and implement recognized and sustainable improvements to the health and safety of our creeks, rivers, estuaries and bays.

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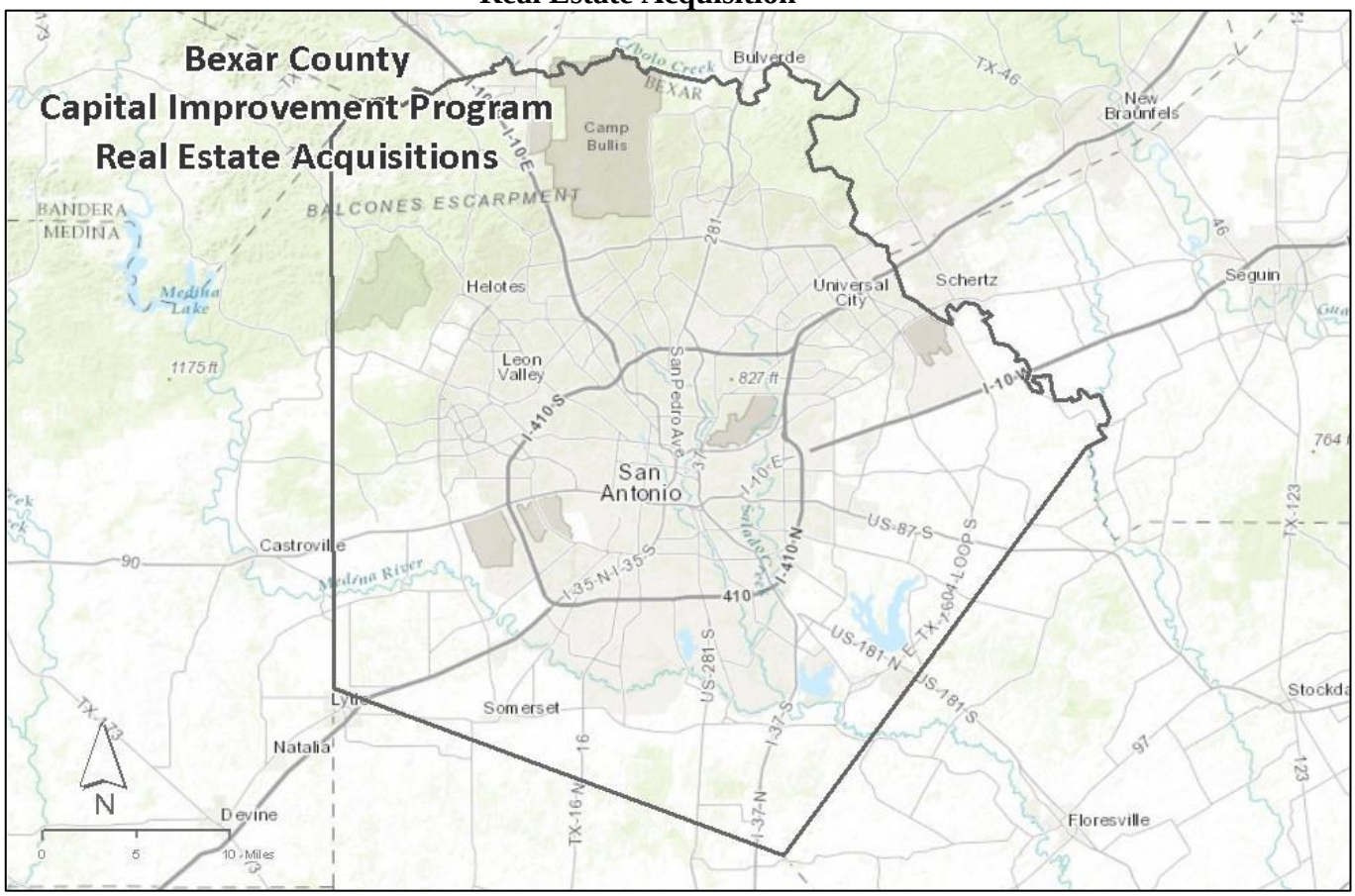
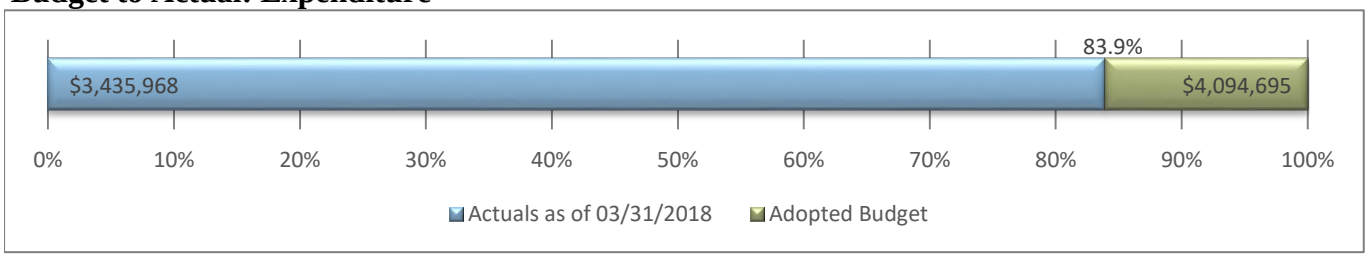
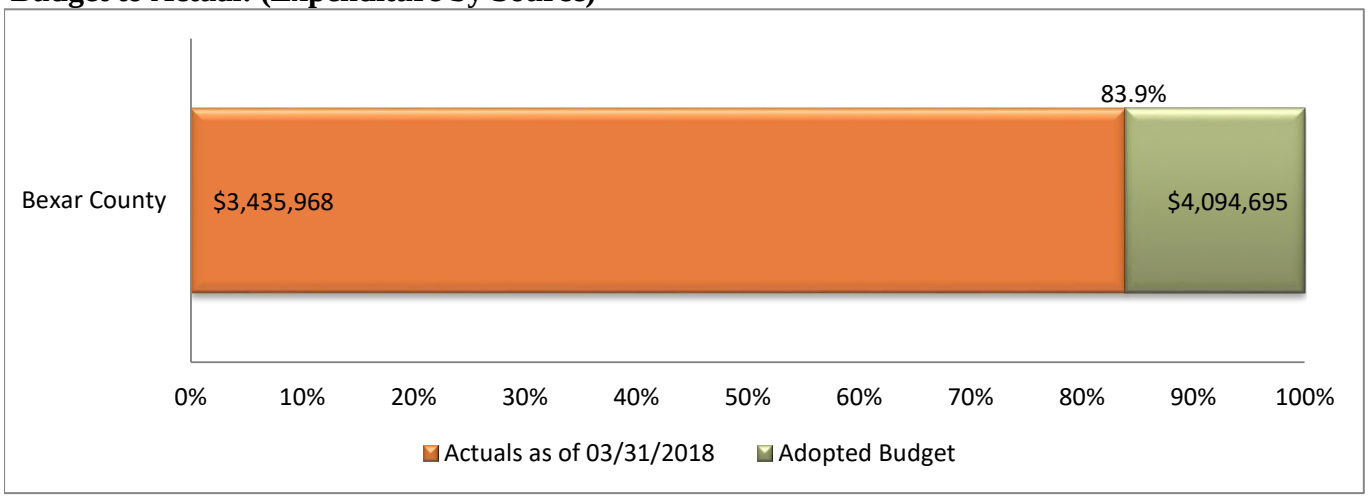
Project Name: Bexar County Capital Improvement Program **Project #** 0394
Real Estate Acquisition



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Bexar County Capital Improvement Program Real Estate Acquisition**		**Project #**	**0394**
Managing Department:	Real Estate			
		Adopted Budget:	$	4,094,695
		SARA Contribution:	$	-
Project Start Date:	1/1/2008	Unfunded Plan:	$	-
Project Finish Date:	12/31/2018	Total Project:	$	4,094,695

Through the Bexar County Capital Improvement Program, the River Authority acquires land rights, i.e. easements and fee simple ownership, for Bexar County Flood Control Infrastructure Services for construction of low water crossings, natural waterway conveyances, bridges, drainage channels, and regional stormwater facilities.

The Bexar County Commissioners Court approved a $500 million flood control capital improvements program in 2007. Projects within the program include regional stormwater facilities, low water crossings, natural waterway conveyances (channelization), outfall structures and buyouts located throughout Bexar County. River Authority staff provides real estate acquisition services for the program including negotiations for property rights and relocation with property owners. The eighth amendment to the interlocal agreement in process with the County identifies a total of 45 projects through this program. This amendment includes ten remaining projects to complete as of the end of this program with the County. The active projects as of this amendment are Cimarron Subdivision CB9, Elm Creek at Pearsall Road MR11, French Creek LC23, Huebner Creek LC17, Kirkner Road SA46, North Talley Road MR10, Pecan Creek/Toutant Beauregard LC34, Six Mile Creek SA43, South Hausman Road at French Creek LC5 and Woodlawn at 36th Street SA55.

During FY 2018/19, work will continue on the remaining ten projects to complete property acquisitions and relocations. All acquisitions and relocations are being conducted on behalf of Bexar County and any operations and maintenance responsibilities would be managed by Bexar County.

Spending Plan of Total Project Budget

Project Objective:

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 623,548	$ 4,000	$ -	$ -	$ 627,548
Contracted & Other Services	2,812,420	654,727	-	-	3,467,147
Total	$ 3,435,968	$ 658,727	$ -	$ -	$ 4,094,695

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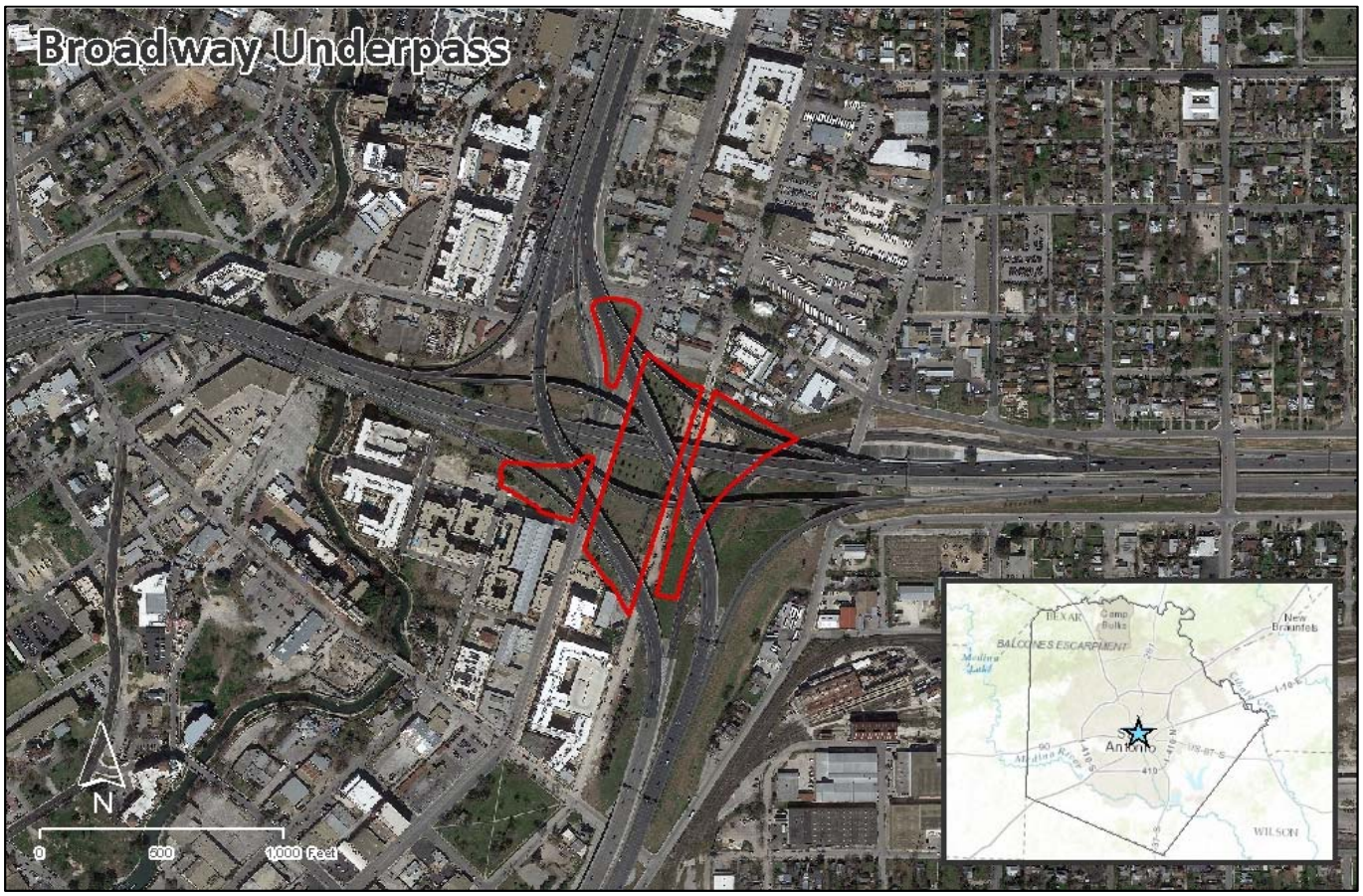
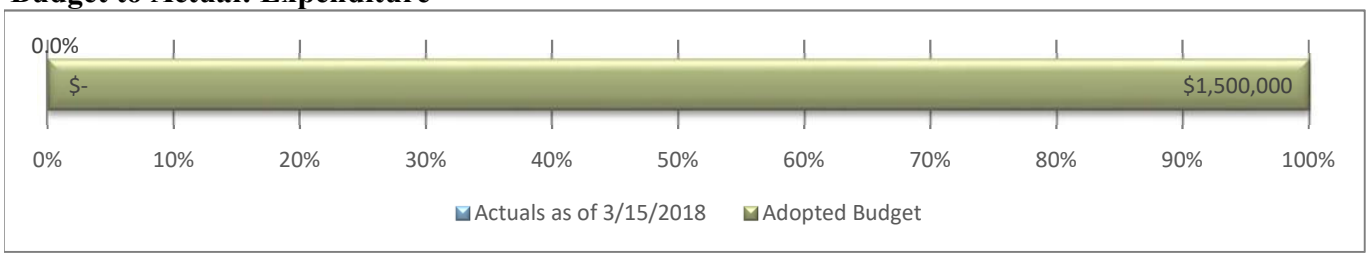
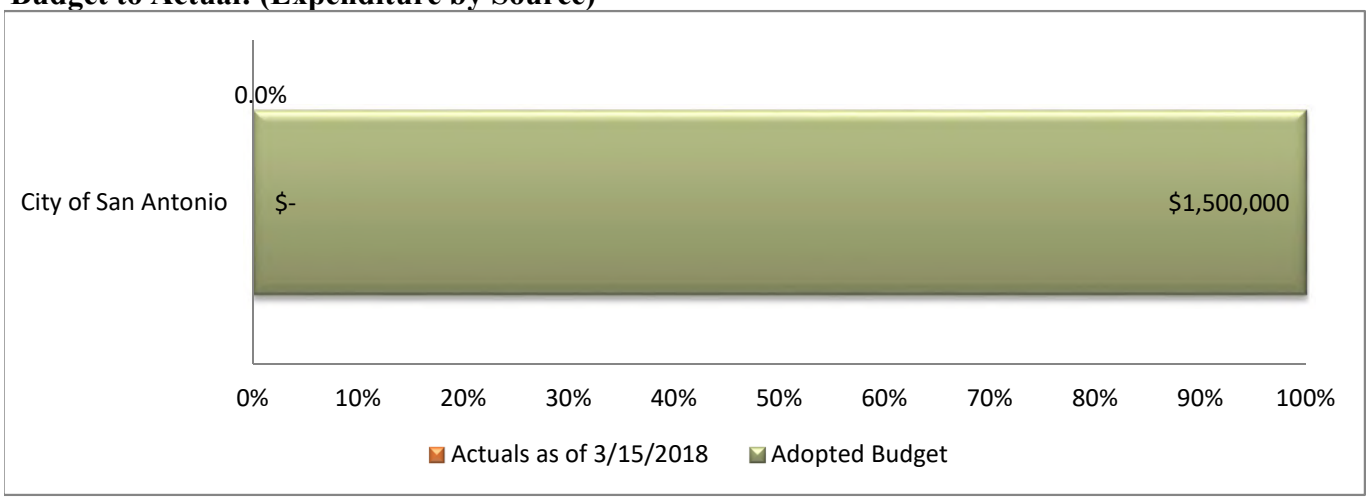
Project Name: **Broadway Underpass** **Project #** **0561**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Broadway Underpass**		**Project #**	**0561**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	1,500,000
		SARA Contribution:	$	-
Project Start Date:	10/31/2016	Unfunded Plan:	$	-
Project Finish Date:	9/30/2019	Total Project:	$	1,500,000

The River Authority, on behalf of the City of San Antonio, is overseeing the design and construction of the Broadway Underpass project. The project provides a sustainable design for managing stormwater runoff. The project will also provide access to the river, thereby enhancing community appreciation and recreation opportunities.

The project involves construction of a sustainable parking area under the IH-35/IH-37 interchange. The parking lot includes low impact development (LID) features that will treat stormwater runoff.

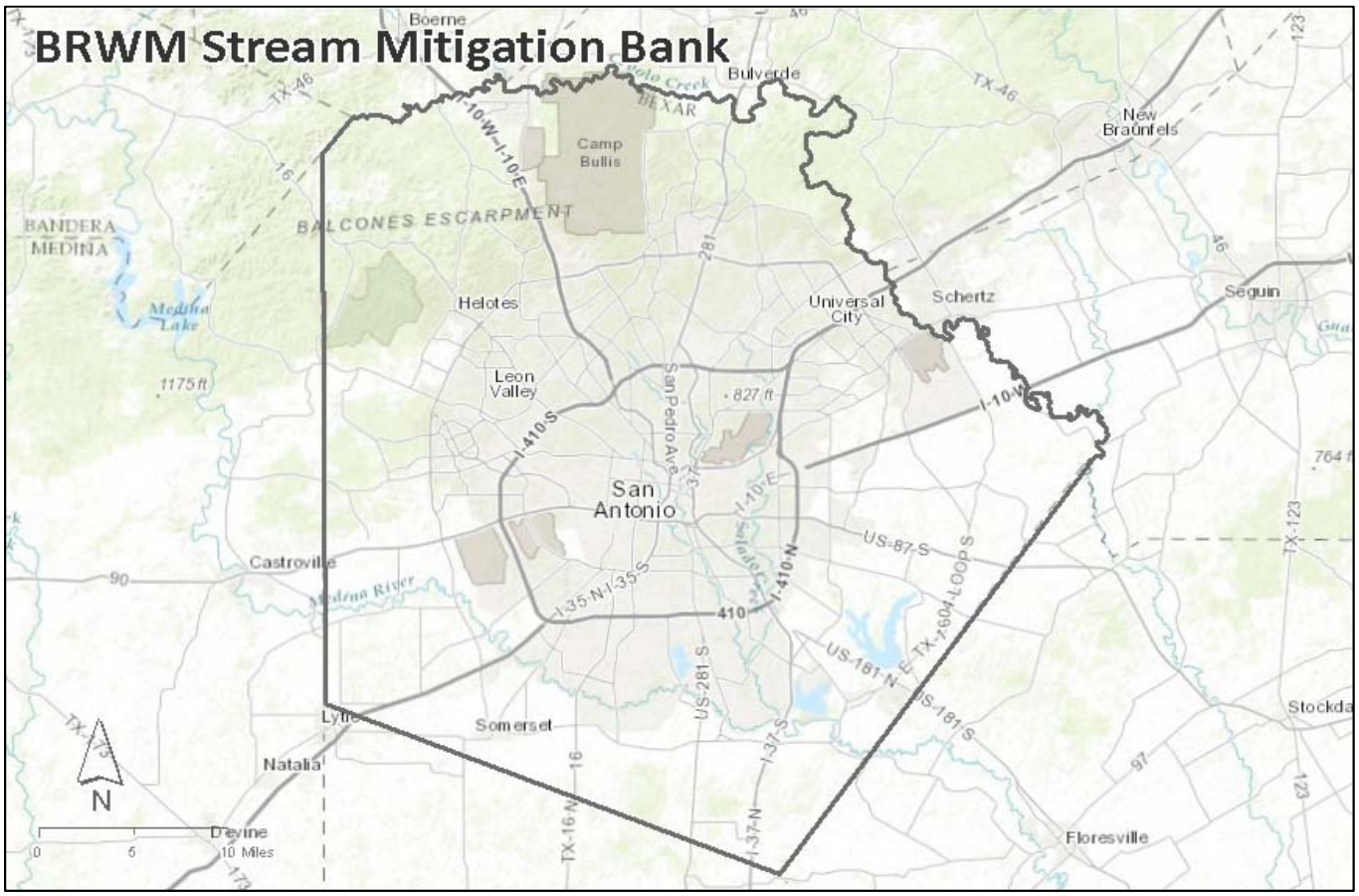
In FY 2018/19, the project will move into the construction phase. The River Authority will provide operations and maintenance services for these improvements through an interlocal agreement with the City of San Antonio. The net cost to the River Authority is zero dollars, as the full cost of the effort will be reimbursed by the City of San Antonio.

Spending Plan of Total Project Budget

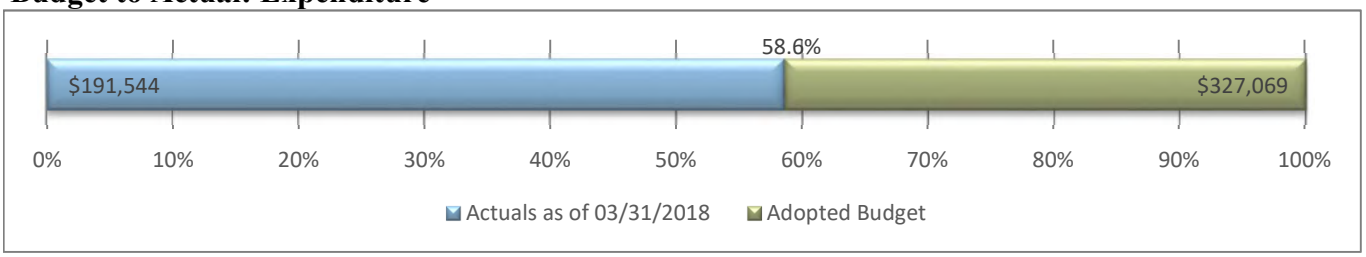
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Construction	$ -	$ 1,415,095	$ -	$ -	$ 1,415,095
Project Management	-	84,905	-	-	84,905
Total	$ -	$ 1,500,000	$ -	$ -	$ 1,500,000

Return to TOC

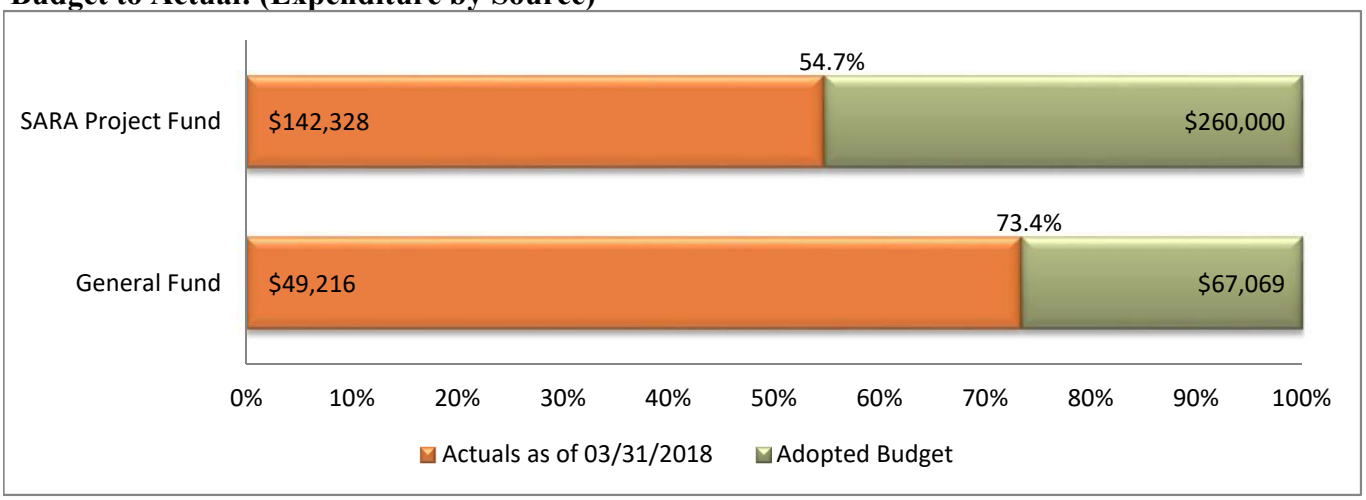
Project Name: **BRWM Stream Mitigation Bank** **Project #** **0466**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**BRWM Stream Mitigation Bank**		**Project #**	**0466**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	260,000
		SARA Contribution:	$	67,069
Project Start Date:	7/1/2014	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	327,069

Through collaboration with the Bexar Regional Watershed Management (BRWM) partners, the BRWM Mitigation Bank will restore natural stream functions to improve overall aquatic and riparian health.

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) was submitted in FY 2016/17.

In FY 2018/19, staff will work with the USACE and interagency review team to address comments on the MBI and establish the mitigation bank. The MBI is documentation that includes design plans and establishes guidelines for the establishment, operation, and maintenance of the proposed mitigation bank. Management of the program will be accomplished by existing River Authority staff.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 14,649	$ 17,853	$ -	$ -	$ 32,502
Professional Services	176,895	117,672	-	-	294,567
Total	$ 191,544	$ 135,525	$ -	$ -	$ 327,069

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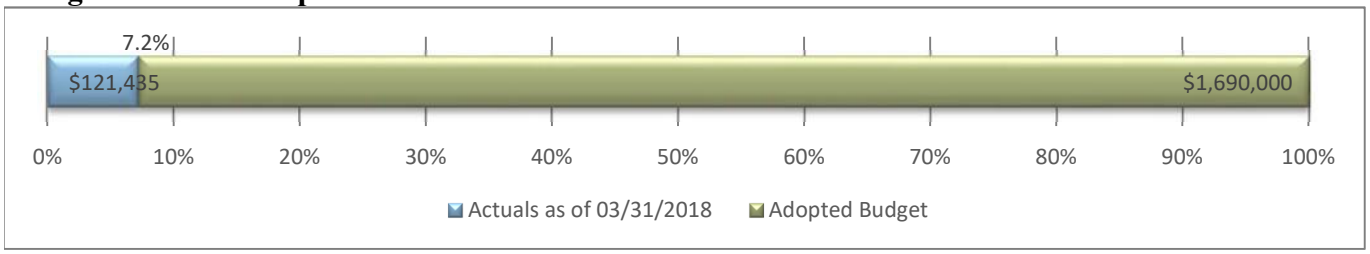
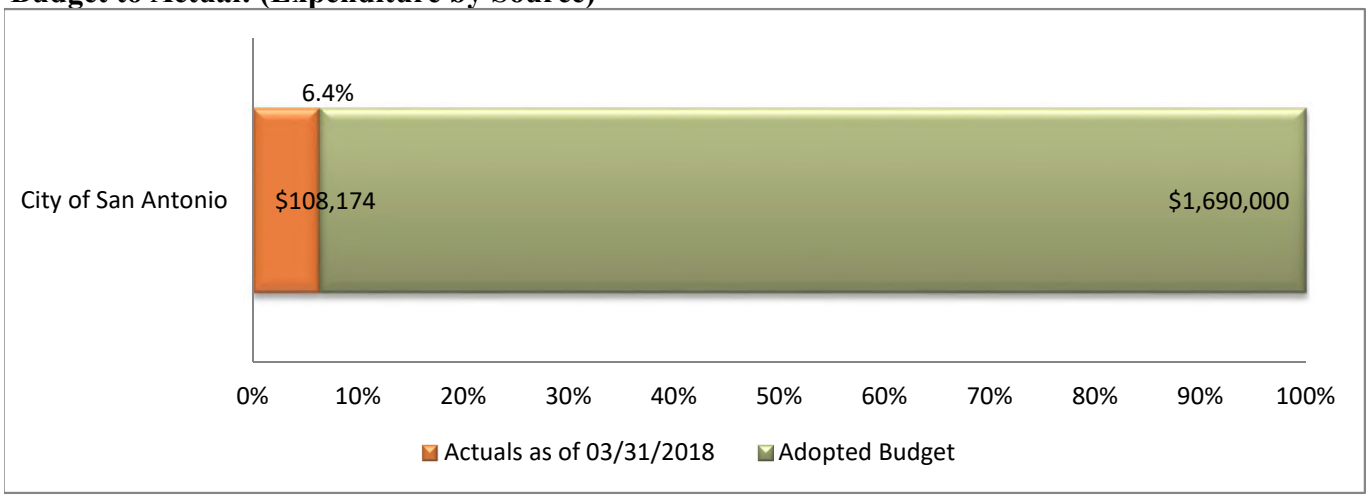
Project Name: **Concepcion Creek Outfall Repair** **Project #** **0583**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Concepcion Creek Outfall Repair**		**Project #**	**0583**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	1,690,000
		SARA Contribution:	$	-
Project Start Date:	4/20/2017	Unfunded Plan:	$	-
Project Finish Date:	12/31/2018	Total Project:	$	1,690,000

The Concepcion Creek Outfall Repair project contributes to the health and safety of the San Antonio River by rehabilitating damage sustained to Concepcion Creeks's outfall into the San Antonio River during a September 2016 storm event. This area continues to deteriorate with every large rain event. Through an interlocal agreement, the project is managed by the River Authority on behalf of the City of San Antonio.

During the storm event, a portion of the outfall's chute slab was undermined and displaced by the flood waters. The repairs will include construction of new slabs, a downstream weir wall, and a new apron slab. The contractor will provide design drawings, a design technical memorandum, construction drawings and technical specifications, and provide as built drawings following construction.

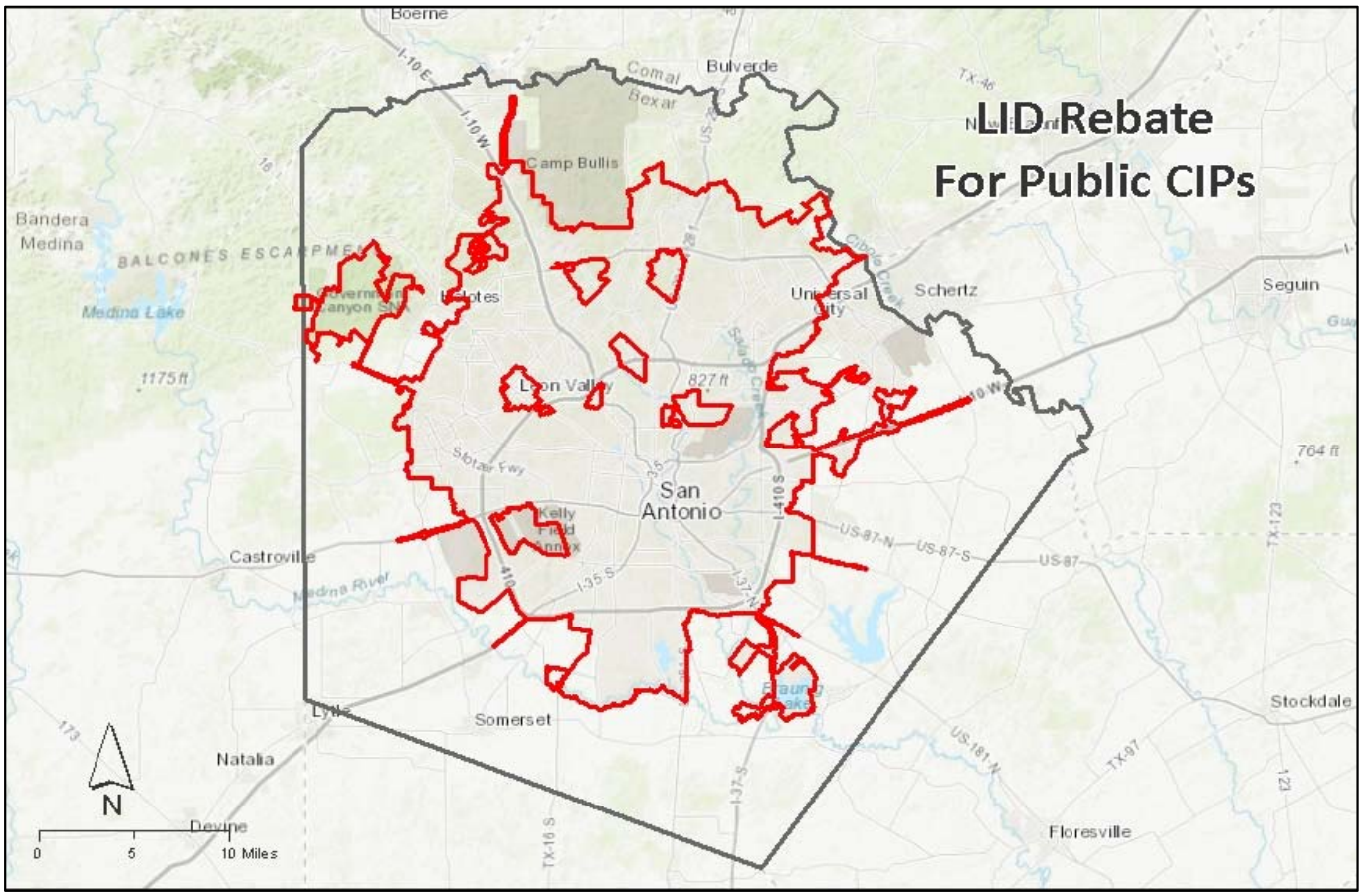
In FY 2017/18, the project's design work started. In FY 2018/19, the project will be bid, awarded and constructed. The River Authority is not responsible for operations and maintenance of these improvements.

Spending Plan of Total Project Budget

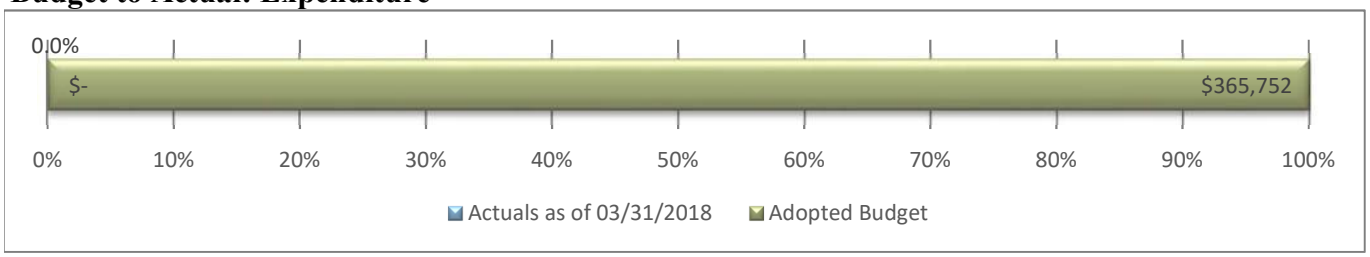
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Design	$ 97,251	$ 94,070	$ -	$ -	$ 191,321
Construction	4,800	1,398,219	-	-	1,403,019
Project Management	6,123	89,537	-	-	95,660
Total	$ 108,174	$ 1,581,826	$ -	$ -	$ 1,690,000

Return to TOC

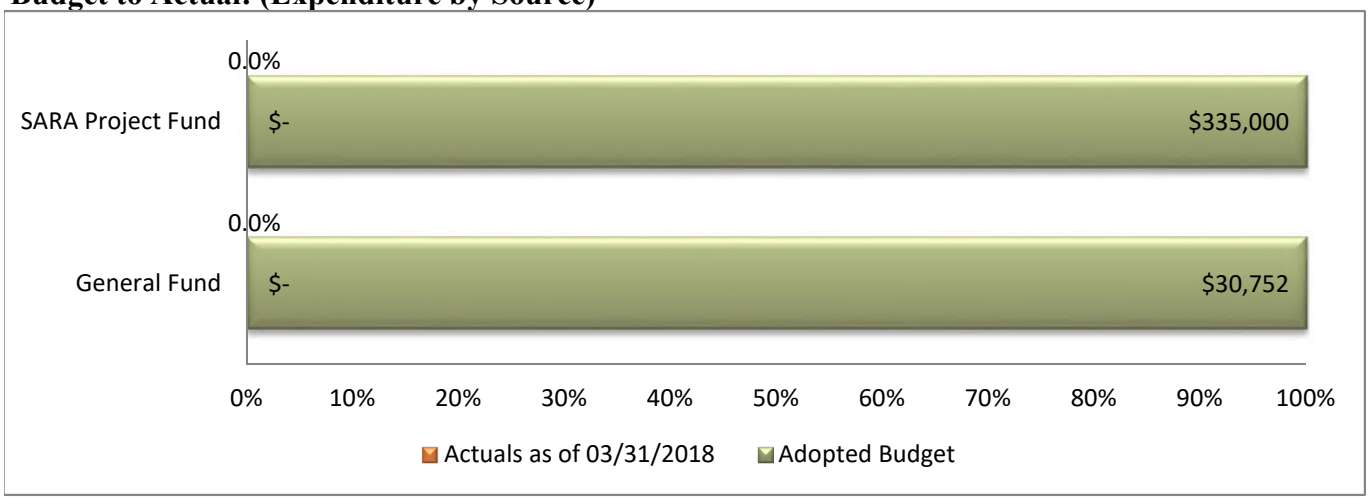
Project Name: **CoSA Bond LID Match** **Project #** **0607**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**CoSA Bond LID Match**		**Project #**	**0607**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	335,000
		SARA Contribution:	$	30,752
Project Start Date:	7/1/2018	Unfunded Plan:	$	31,828
Project Finish Date:	7/1/2020	Total Project:	$	397,580

The CoSA Bond LID Match provides funding for low impact development (LID) to bond projects that may not have used LID otherwise. Projects will be evaluated and selected based on analysis of the watershed to identify projects that will have the greatest affect on improving water quality of impaired stream stretches. The LID methods will be built to the specifications in the San Antonio River Basin Low Impact Development Technical manual.

The River Authority will coordinate with the City of San Antonio (CoSA) to identify bond projects that can incorporate low impact development practices. Projects will be ranked based on the benefits low impact development can make on water quality. In coordination with CoSA, LID requirements will be incorporated into selected bond project's design documents. The River Authority will share in this cost with CoSA through this project.

In FY 2018/19, the River Authority will work with CoSA to incorporate LID requirements into bond projects by evaluating, selecting, and developing standard plans for LID methods in public right of way. Delivery of these projects will be based on CoSA schedules for individual projects.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 30,752	$ 31,828	$ -	$ 62,580
Contracted & Other Services	-	167,500	167,500	-	335,000
Total	$ -	$ 198,252	$ 199,328	$ -	$ 397,580

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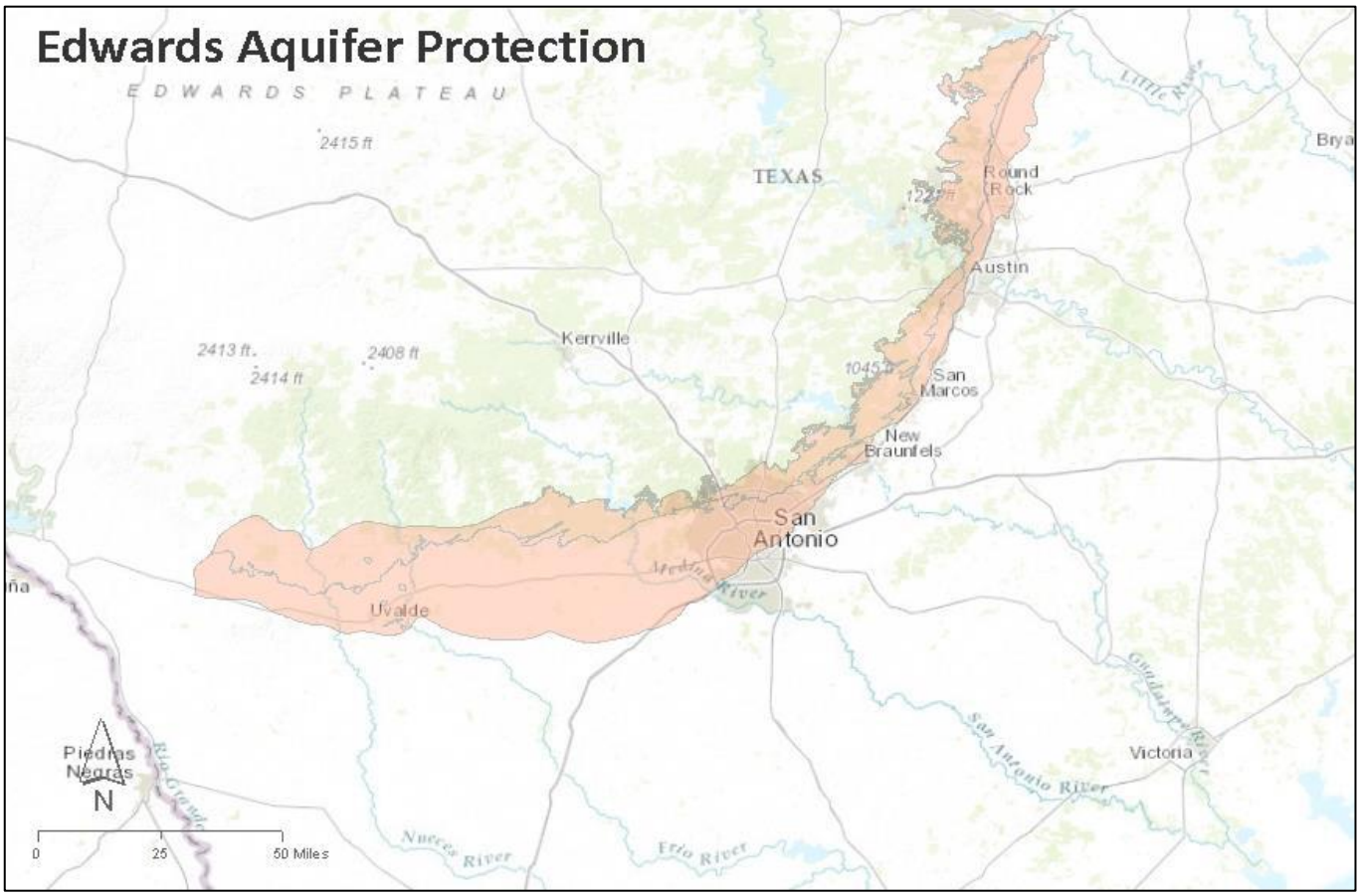
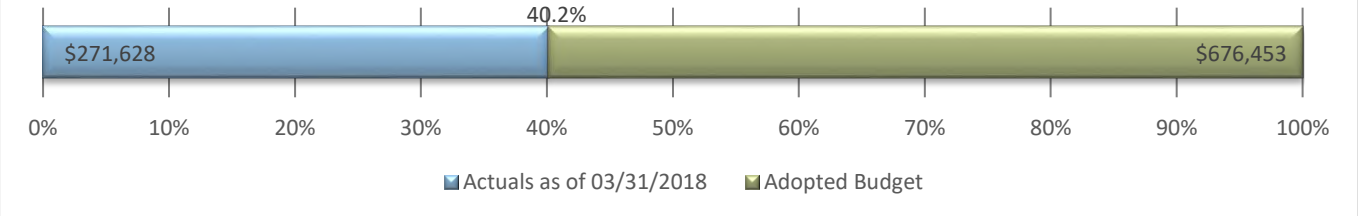
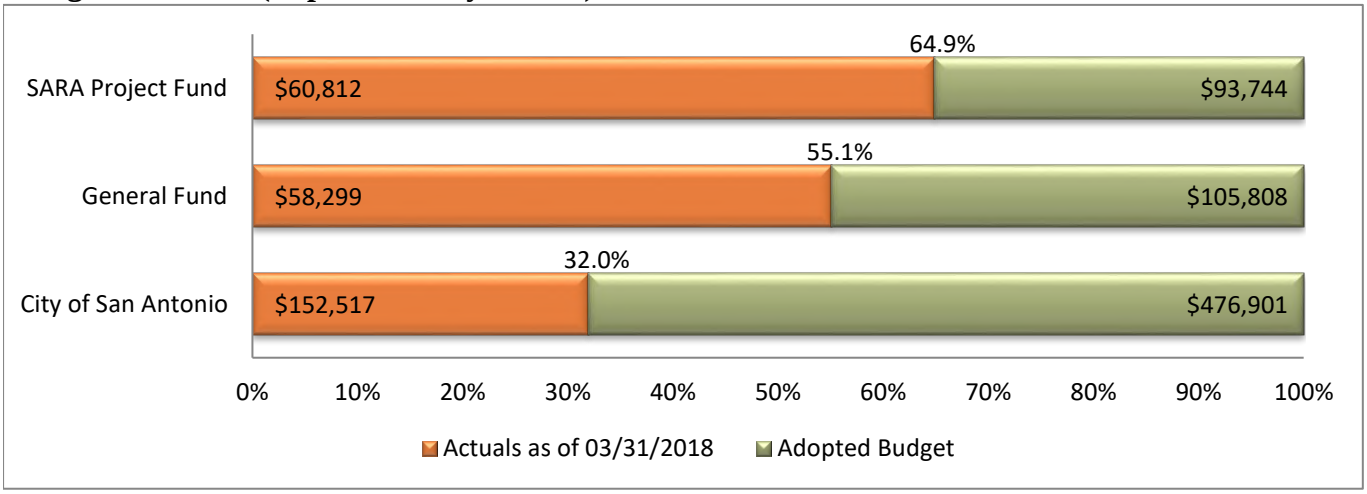
Project Name: **Edwards Aquifer Watershed Protection** **Project #** **0512**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Edwards Aquifer Watershed Protection**		**Project #**	**0512**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	570,645
		SARA Contribution:	$	105,808
Project Start Date:	7/1/2015	Unfunded Plan:	$	27,450
Project Finish Date:	12/31/2020	Total Project:	$	703,903

The watershed protection program funds research and implementation of best management practices (BMPs) to protect and improve water quality over the Edwards Aquifer. The River Authority serves as project manager and administrator of the City of San Antonio's Proposition 1 water quality project component of the Edwards Aquifer Protection Program, 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.

The Edwards Aquifer Watershed Protection project aligns with the River Authority's goal of enabling policy, projects and actions. The project seeks stormwater runoff management solutions that will improve water quality and enhance, in concert with local partners, the health and safety of the creeks and rivers.

The FY 2018/19 budget funds staff time to manage implementation of Proposition years one, two, and three projects funded by City of San Antonio; selection and management of year four projects funded by City of San Antonio in the first two calendar quarters; and staff time and funding to support other water quality projects in the Edwards region. The City of San Antonio is responsible for any future operations and maintenance costs that may be associated with the funded projects.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 139,094	$ 110,338	$ 98,000	$ 104,545	$ 451,977
Contracted & Other Services	132,534	19,567	77,475	22,350	251,926
Total	$ 271,628	$ 129,905	$ 175,475	$ 126,895	$ 703,903

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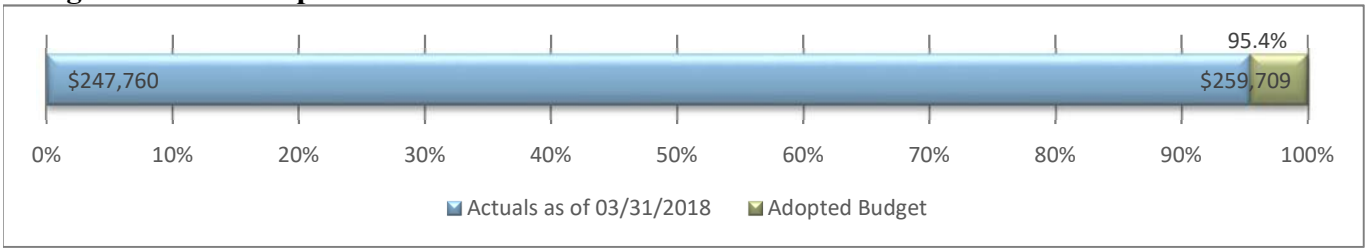
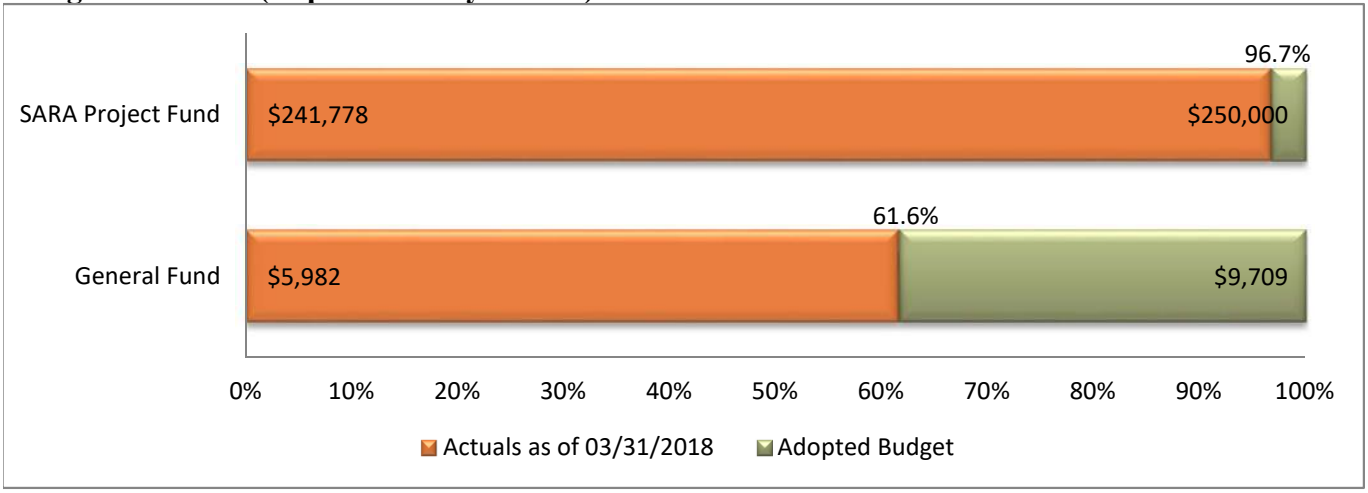
Project Name: **Feral Hog Management** **Project #** **0510**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Feral Hog Management**		**Project #**	**0510**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	250,000
		SARA Contribution:	$	9,709
Project Start Date:	7/1/2015	Unfunded Plan:	$	150,000
Project Finish Date:	6/30/2019	Total Project:	$	409,709

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 work towards generating lasting and recognized improvements to the health and safety of the creeks, rivers, estuaries and bays.

The Feral Hog Project, in its fourth 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 River Authority's district. This project implements wildlife best management practices in the district to improve water quality and promote riparian health.

In FY 2018/19, the River Authority will evaluate the program and determine whether to make additional investments in this project as it enters its fourth year.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 5,982	$ 3,727	$ -	$ -	$ 9,709
Contracted & Other Services	241,778	8,222	150,000	-	400,000
Total	$ 247,760	$ 11,949	$ 150,000	$ -	$ 409,709

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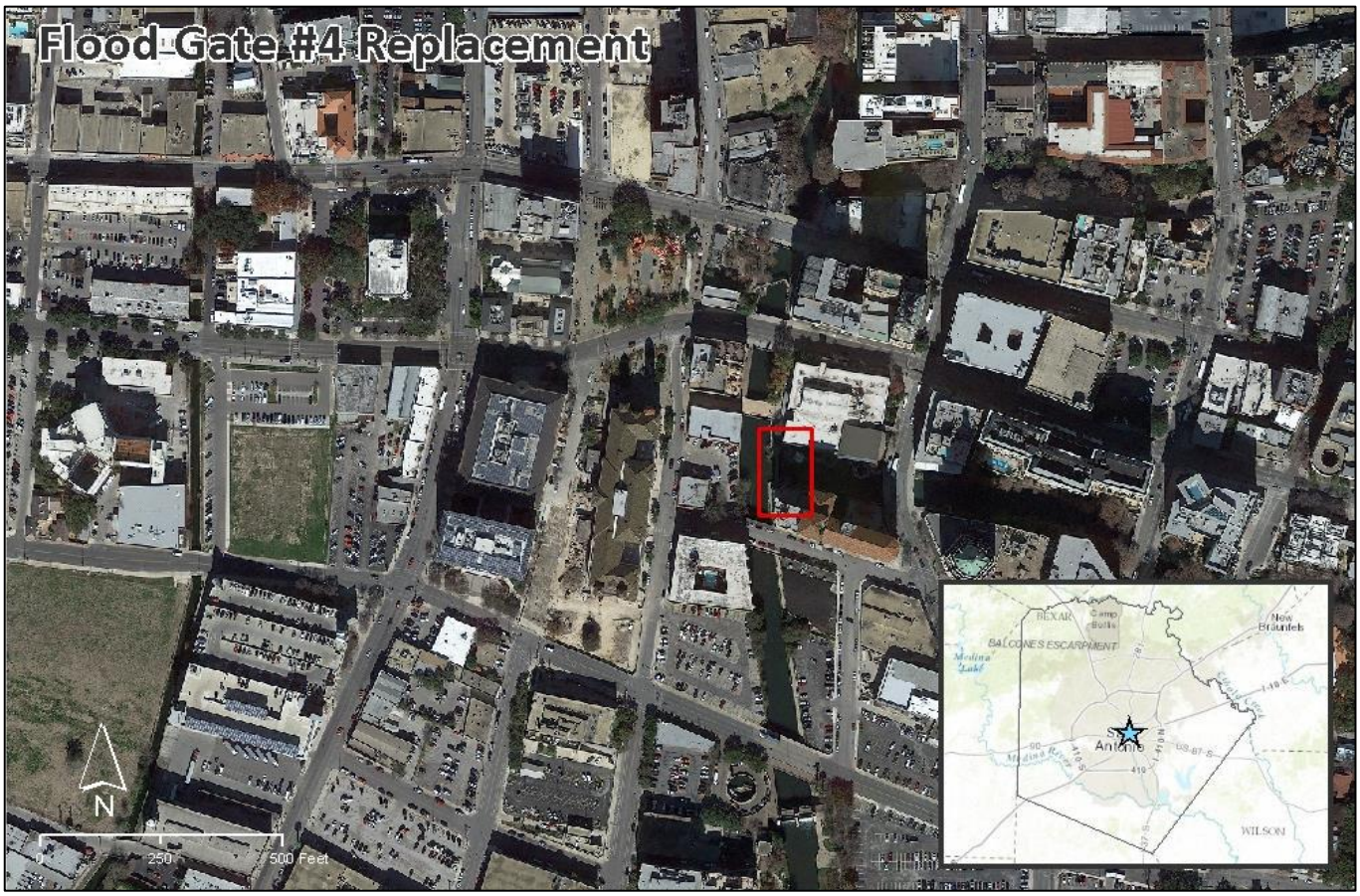
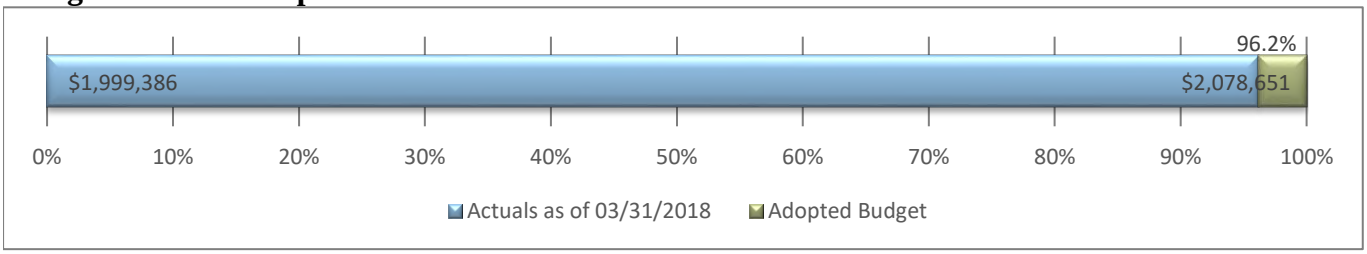
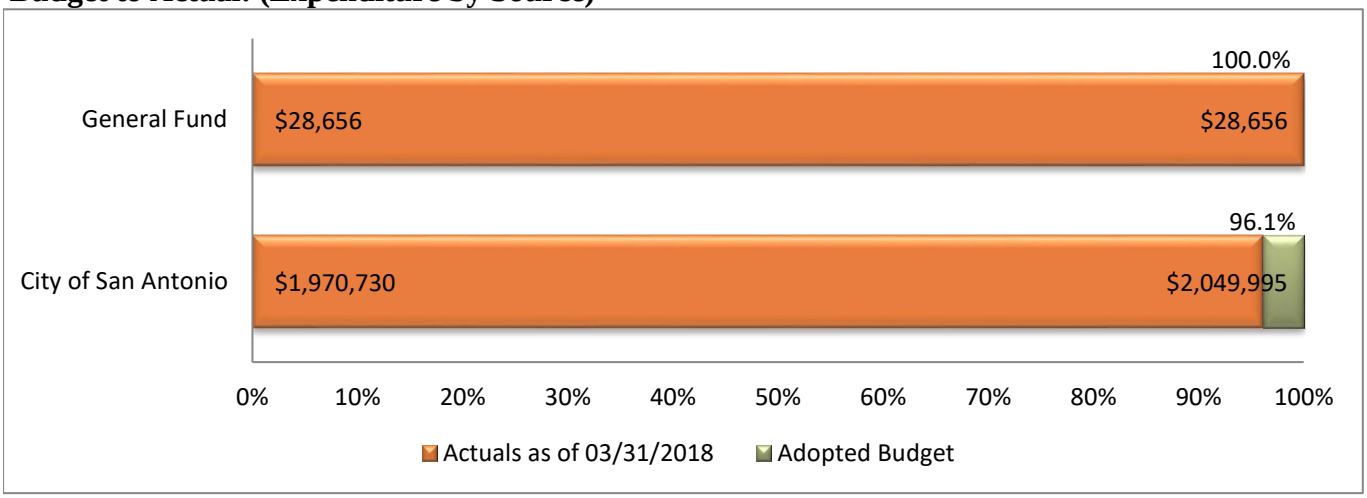
Project Name: **Flood Gate 4 Replacement** **Project #** **0516**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Flood Gate 4 Replacement**	**Project #**	**0516**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 2,049,996
		SARA Contribution:	$ 28,656
Project Start Date:	6/17/2015	Unfunded Plan:	$ -
Project Finish Date:	9/30/2018	Total Project:	$ 2,078,651

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.

In early FY 2018/19, the River Authority will complete construction management of the gate installation and operations will be turned over to the City of San Antonio. The River Authority is not responsible for any operations and maintenance activities related to this project.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 20,004	$ 409	$ -	$ -	$ 20,413
Design	73,727	-	-	-	73,727
Construction	1,905,655	78,856	-	-	1,984,511
Total	$ 1,999,386	$ 79,265	$ -	$ -	$ 2,078,651

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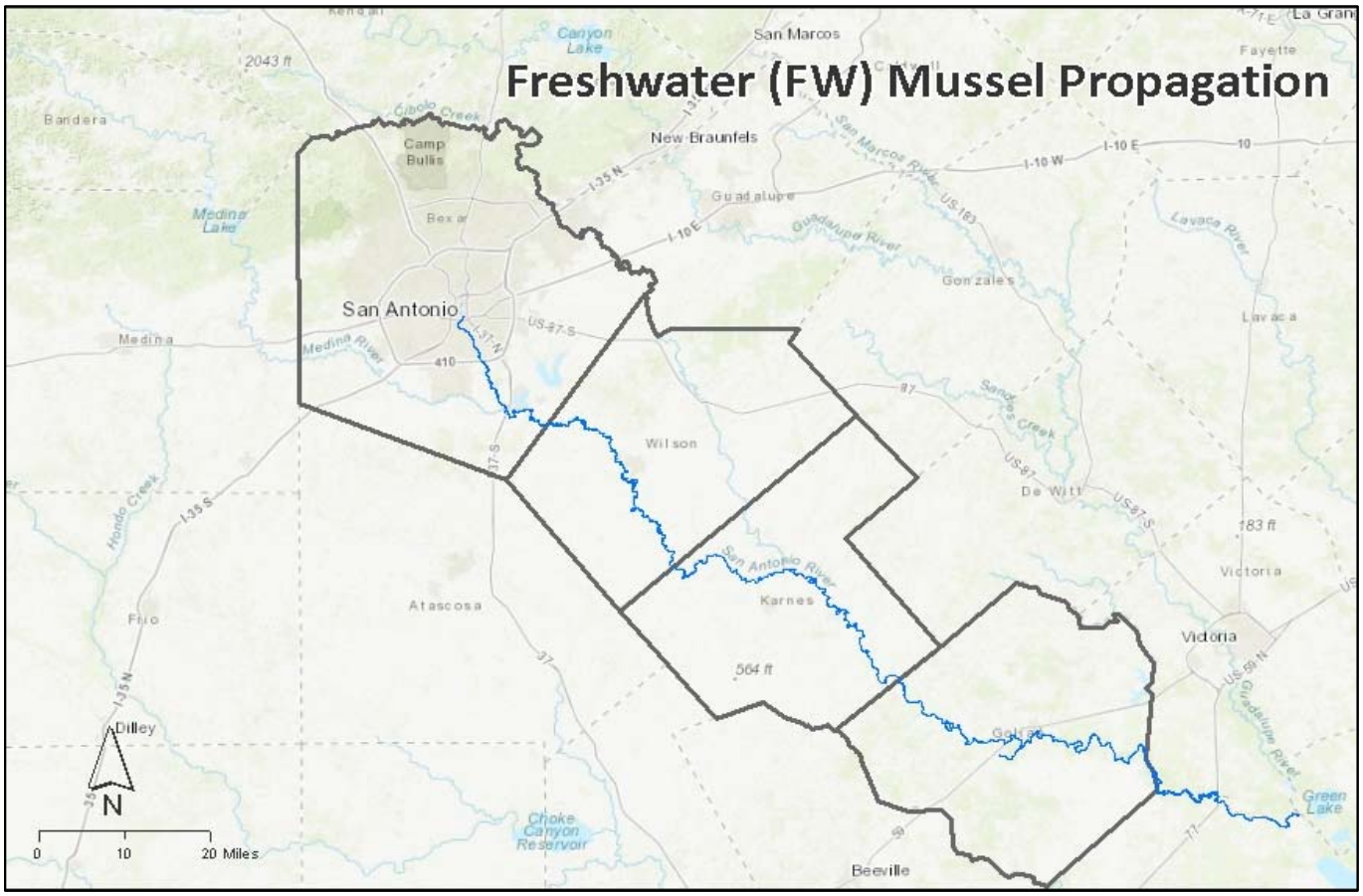
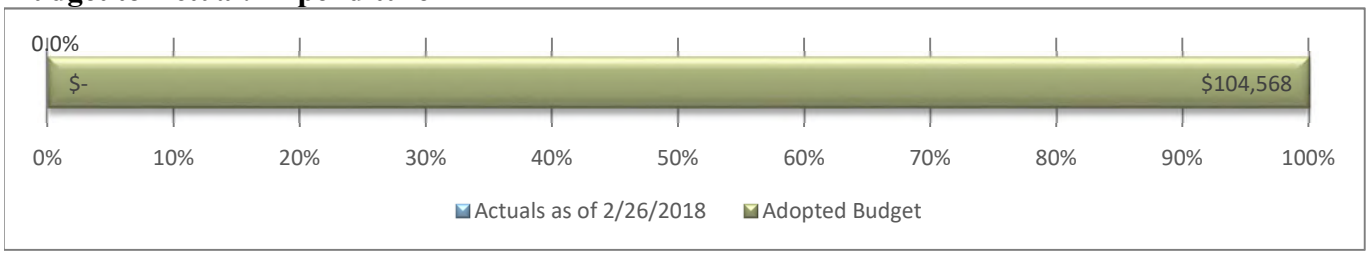
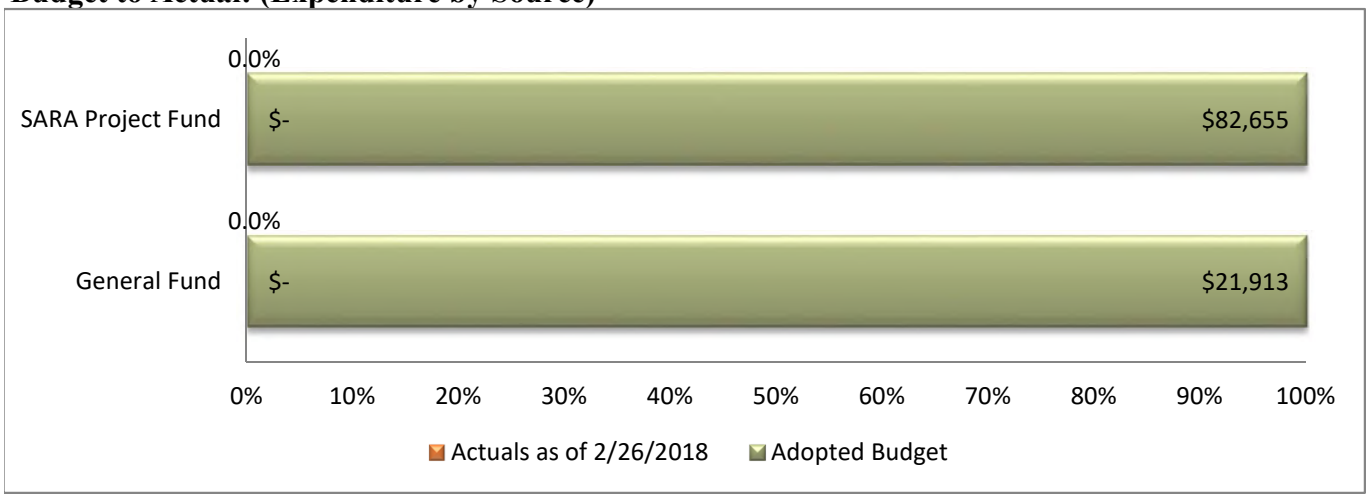
Project Name: **Freshwater (FW) Mussel Propagation** **Project #** **0608**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Freshwater (FW) Mussel Propagation**		**Project #**	**0608**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	82,655
		SARA Contribution:	$	21,913
Project Start Date:	7/1/2018	Unfunded Plan:	$	-
Project Finish Date:	6/30/2021	Total Project:	$	104,568

Freshwater mussels are excellent indicators of community health and establish a foundation for the ecological health of the Mission Reach. In addition to being excellent indicator species, mussels are filter feeders which could lead to improved water quality, act as substrate which can help stabilize finer substrates and are a food source for other animals. Taking a proactive stance on freshwater mussel propagation puts the River Authority in an excellent position to establish precluding measures should the U.S. Fish and Wildlife Service (USFWS) decide to list the golden orb as endangered.

Freshwater mussels are among the most threatened major taxonomic groups of animals worldwide. In the United States alone, 44.1% of all species are listed as extinct, endangered or threatened under the Endangered Species Act (ESA). In Texas, there are currently five candidate species for inclusion in the ESA including the golden orb, which is native to the San Antonio River (SAR) basin.This project will focus on propagation and potential re-introduction of four species that are common in the lower reaches of the San Antonio River. In partnership with the United States Fish and Wildlife Service (USFWS), Phase I will focus on developing propagation and subsequent grow out methodologies for the four species of interest. Phase II will be the production of juveniles by USFWS for re-introduction in to the Mission Reach. The River Authority would be the first river authority in the state, and one of the first Texas entities in general, to aggressively pursue mussel propagation/re-introduction as a means to protect and enhance wild populations.

Juveniles from all available species will be produced by USFWS in FY 2018/19, FY 2019/20 and FY 2020/21. Juveniles will be assessed for in-stream health in FY 2018/19 and FY 2019/20. Production phase will begin for all available species in FY 2019/20 and a minimum of one publication will be submitted to a peer-reviewed journal documenting the status/successes/failures of the project by the end of FY 2020/21.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 21,913	$ -	$ -	$ 21,913
Contracted & Other Services	-	82,655	-	-	82,655
Total	$ -	$ 104,568	$ -	$ -	$ 104,568

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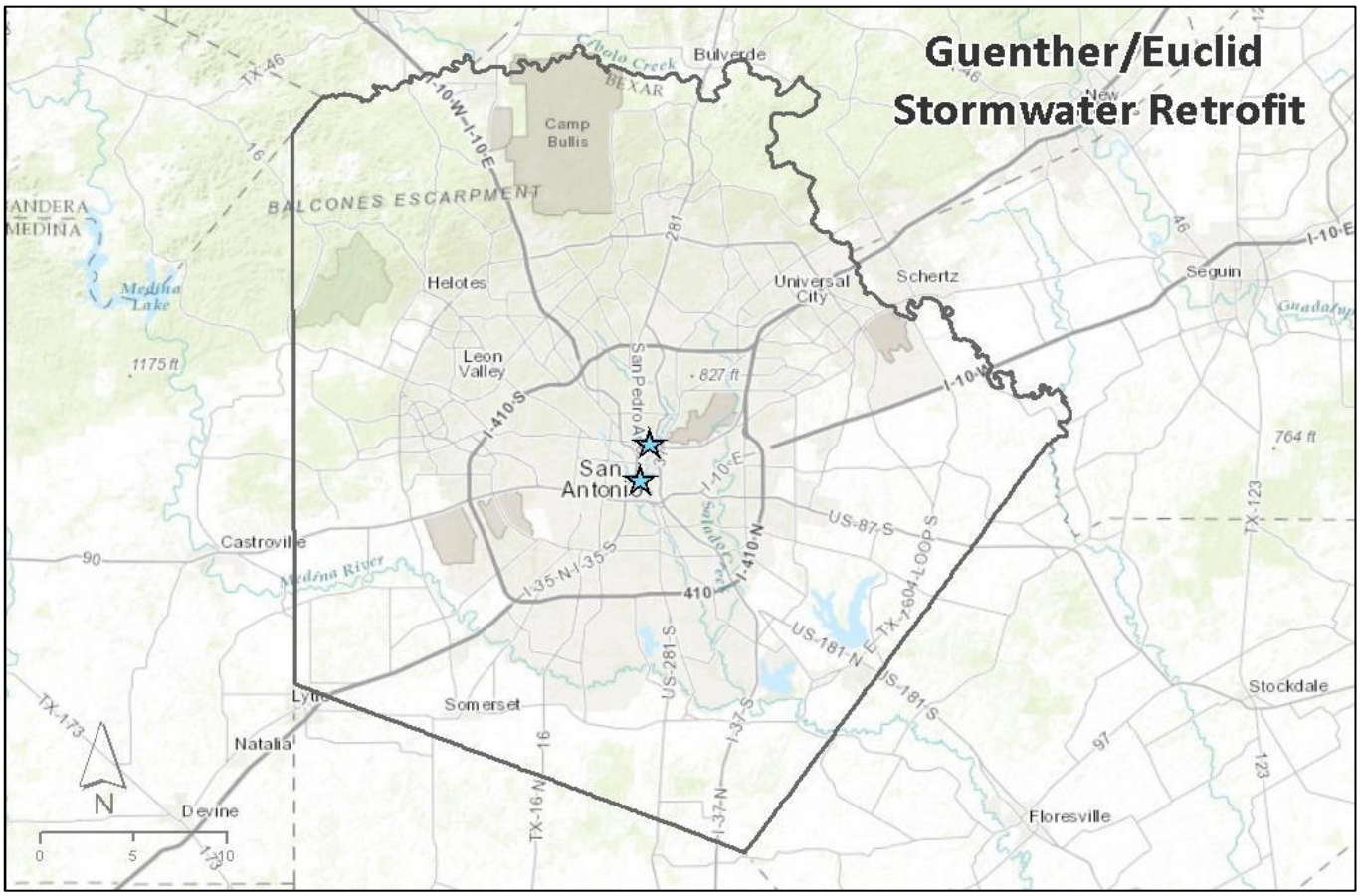
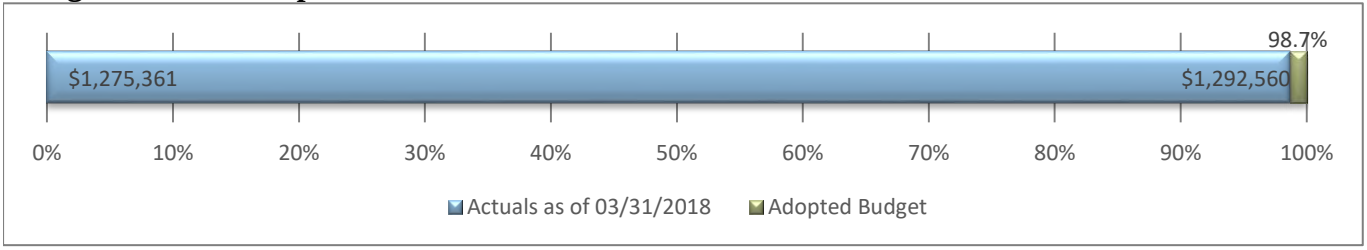
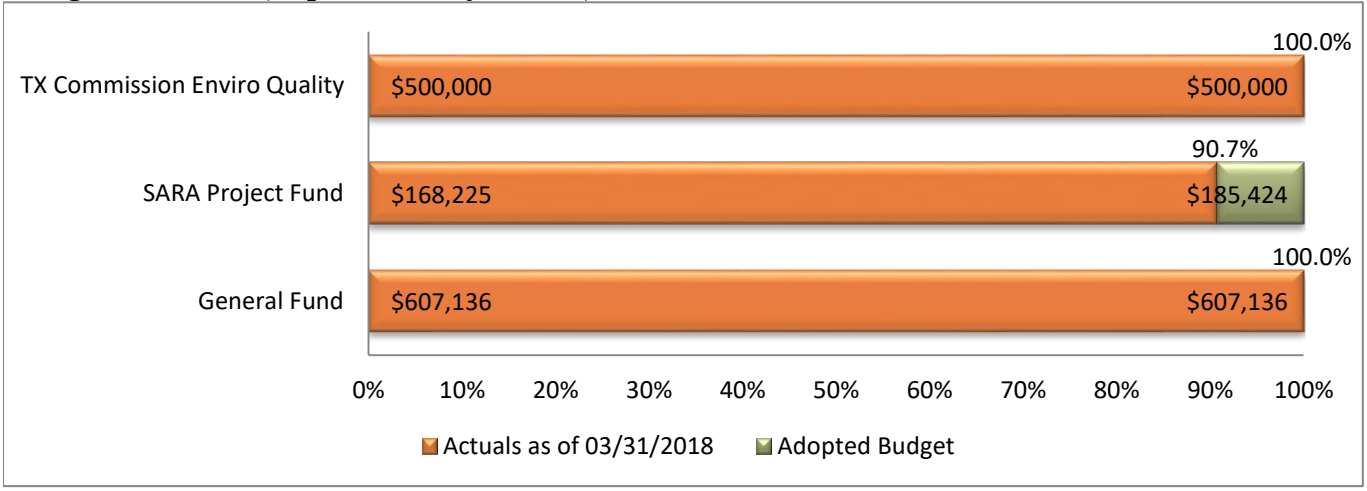
Project Name: **Guenther/Euclid Stormwater Retrofit** **Project #** **0358**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Guenther/Euclid Stormwater Retrofit**		**Project #**	**0358**
Managing Department:	Facilities			
		Adopted Budget:	$	685,424
		SARA Contribution:	$	607,136
Project Start Date:	10/8/2015	Unfunded Plan:	$	-
Project Finish Date:	9/4/2018	Total Project:	$	1,292,560

Stormwater retrofits of River Authority facilities were constructed as demonstration projects in support of the Upper San Antonio Watershed Protection Plan best management practices (BMPs). These demonstration projects provide 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 project benefits the health and safety of the San Antonio River basin.

The River Authority's Guenther and Euclid office buildings were constructed before low impact development (LID) and other sustainable stormwater technologies were available. The Euclid building's stormwater runoff caused onsite erosion, and the Guenther stormwater runoff drained into the Eagleland reach of the San Antonio River Improvements Project. The stormwater retrofit project utilized LID design and construction to improve runoff water quality, to capture all first-flush pollutants, and to increase on-site infiltration before the runoff reached the San Antonio River and/or its tributaries.

In FY 2018/19, the final report will be finalized to fulfill the TCEQ grant requirements. Monitoring of the BMPs will continue in order to develop comparative data for other SARA stormwater BMP performance studies. A BMP design training for engineering and landscape architecture professionals will be developed and delivered to the local community.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 285,336	$ -	$ -	$ -	$ 285,336
Contracted & Other Services	990,025	17,199	-	-	1,007,224
Total	$ 1,275,361	$ 17,199	$ -	$ -	$ 1,292,560

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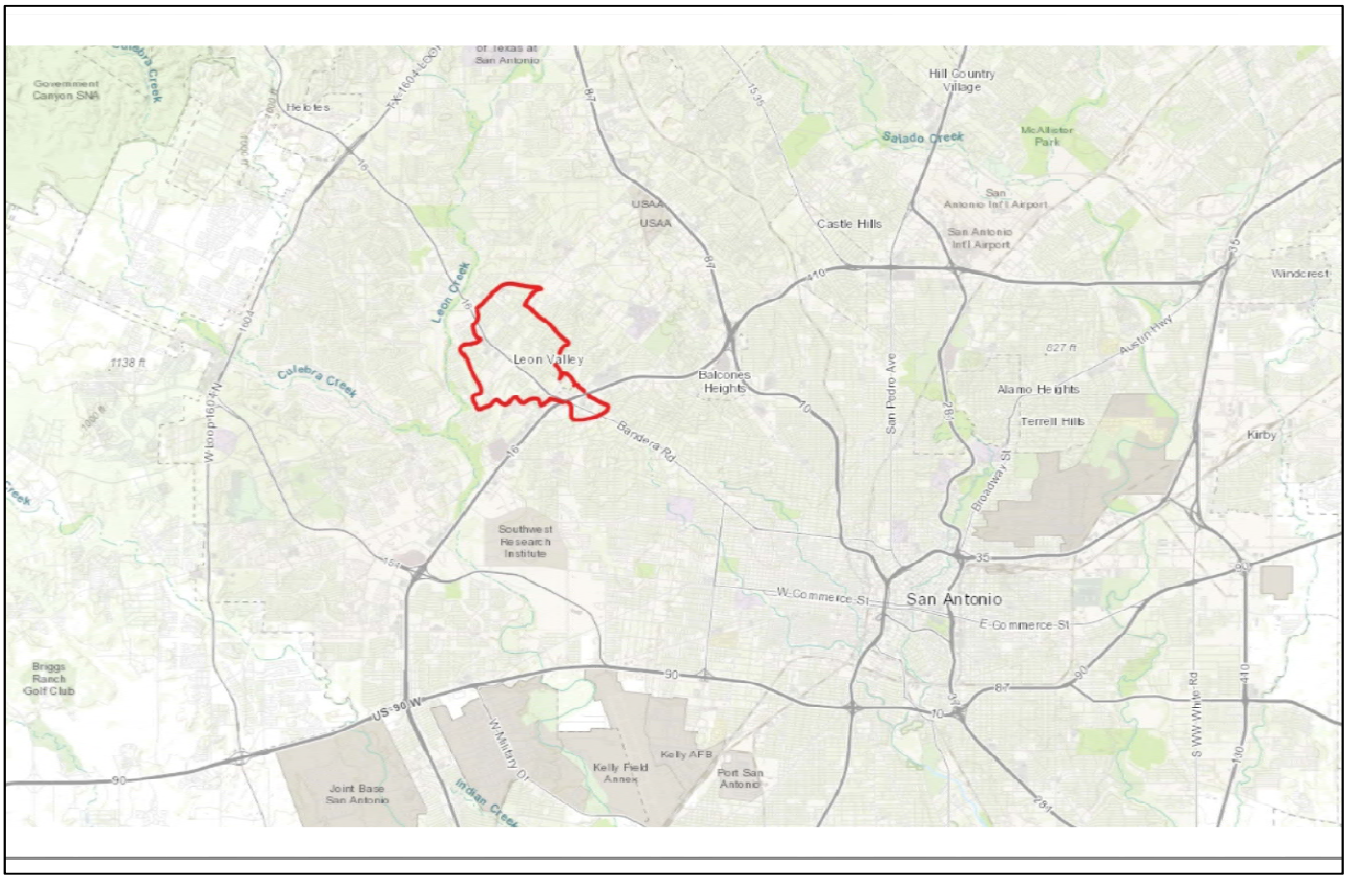
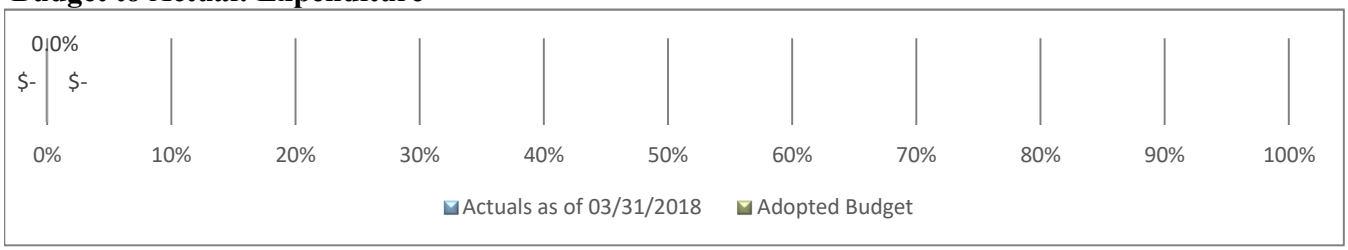
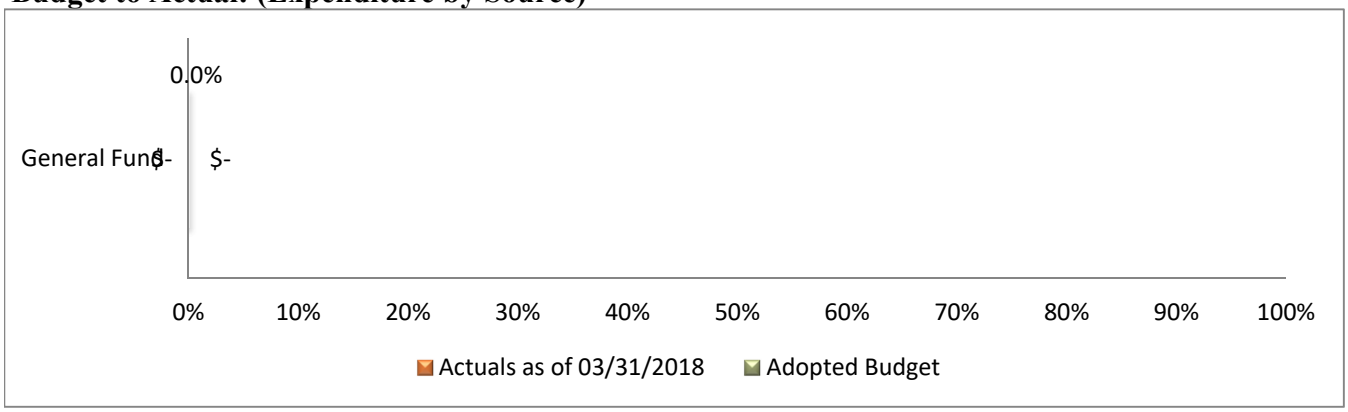
Project Name: **Huebner Creek Flood Remediation and Aquatic Ecosystem Restoration Project** **Project #** **0609**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Huebner Creek Flood Remediation and Aquatic Ecosystem Restoration Project**	**Project #**	**0609**
Managing Department:	Intergovernmental and Community Relations		
		Adopted Budget:	$ -
Project Start Date:	3/1/2018	SARA Contribution:	$ -
Project Finish Date:	6/30/2020	Unfunded Plan:	$ -
		Total Project:	$ -

The Huebner Creek Flood Remediation and Aquatic Ecosystem Restoration Project is a Continuing Authorities Program (CAP) under section 205 of the 1948 Flood Control Act, which capitalizes on the resources of the United States Army Corp of Engineers (USACE), the City of Leon Valley, and the River Authority. The project aims to provide local protection from flooding in areas along Huebner Creek between Leon Valley's northern City limits and the creek's bridge crossing at Bandera Road. The project's focus is flood control works, but has potential to incorporate ecosystem restoration and/or natural channel design elements.

The project will follow the CAP 205 road map as required by USACE. Phase 1 (Feasibility Phase) entails a detailed study of the affected area. Phase 2 (Design & Implementation Phase) is dependent on the Feasibility Phase finding, but is currently envisioned to implement a flood control solution with the potential for ecosystem restoration and/or natural channel design.

Project benefits include the reduction of flood risk along Huebner Creek within the project area, potential for ecosystem restoration and/or natural channel design, and building and maintaining relationships with the City of Leon Valley, USACE, and other potential partners.

In FY 2018/19, a Feasibility Study will be completed. The project's first $100,000 of the Feasibility Phase is 100 percent federally funded via USACE. Any costs beyond the first $100,000 will be shared 50/50 between USACE and the local sponsors. The River Authority is currently in the process of entering into an Interlocal Agreement (ILA) with the City of Leon Valley to share the local match for the project. The ILA names the River Authority as Project Manager and Administrator and the as the Local Sponsor with USACE on the Project. The River Authority's contribution will be in-kind staffing support (project management, community outreach, and real estate services), which will contribute to the local match.

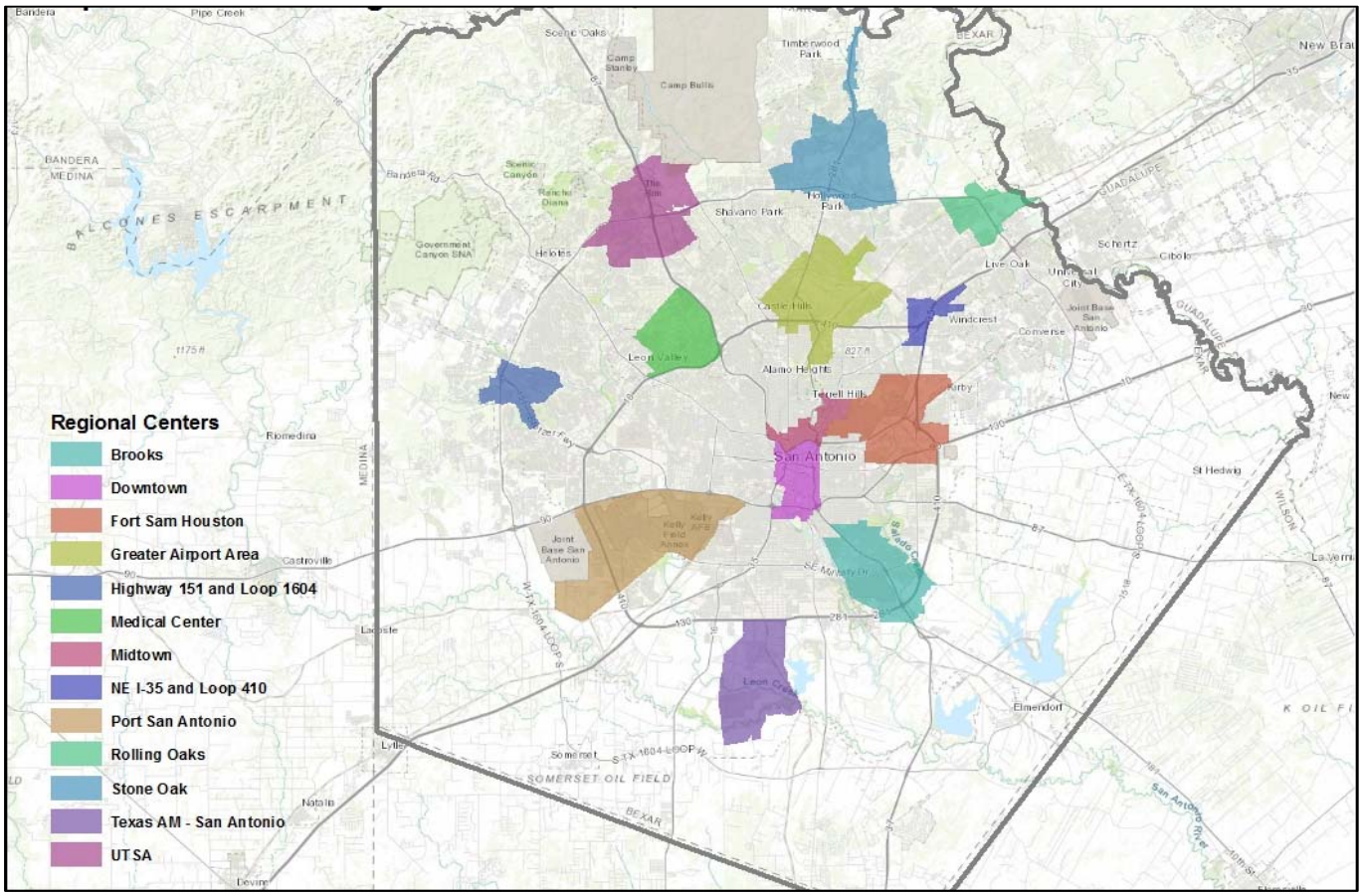
All costs beyond the Feasibility Phase are considered part of the Design & Implementation Phase, with cost sharing to be specified in the authorizing legislation for that purpose. Specific requirements for the Design & Implementation Phase will be detailed in the Project Partnership Agreement (PPA). The maximum federal commitment on the total project is $10 million.

Spending Plan of Total Project Budget

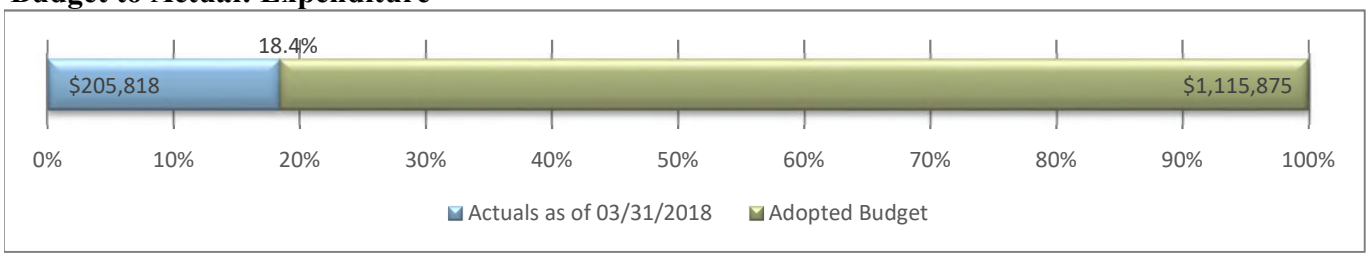
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ -	$ -	$ -	$ -
Contracted & Other Services	-	-	-	-	-
Total	$ -	$ -	$ -	$ -	$ -

Return to TOC

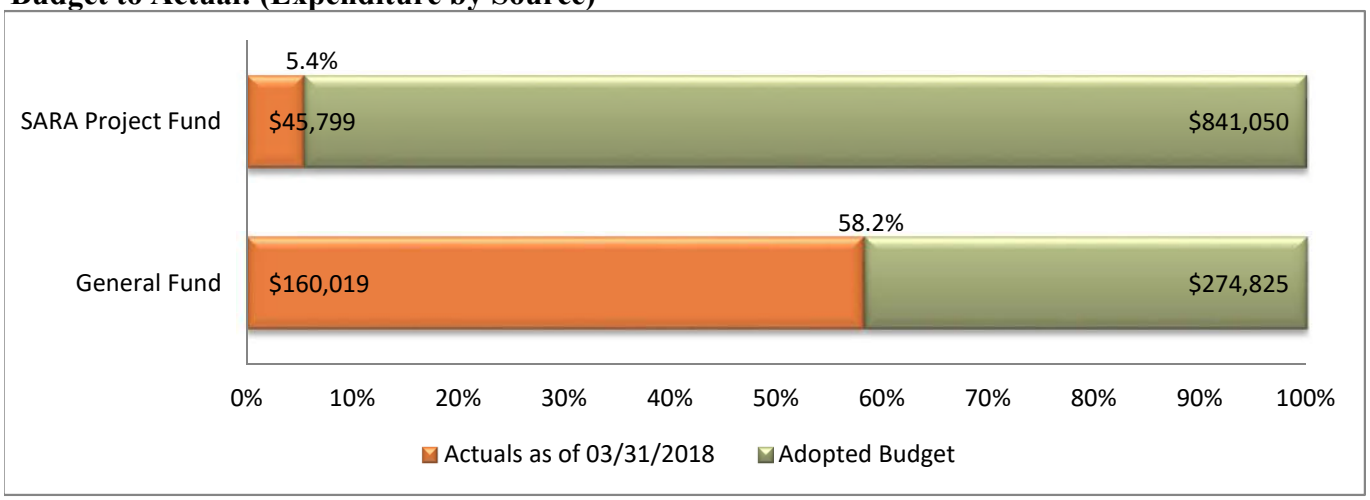
Project Name: **Impervious Cover Mitigation** **Project #** **0564**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Impervious Cover Mitigation**		**Project #**	**0564**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	841,050
		SARA Contribution:	$	274,825
Project Start Date:	11/15/2016	Unfunded Plan:	$	-
Project Finish Date:	12/31/2021	Total Project:	$	1,115,875

In August 2016, the City of San Antonio City Council approved a Comprehensive Plan, a Sustainability Plan, and a Transportation Plan under the name SA Tomorrow. SA Tomorrow identifies 13 regional centers throughout the city that will see significant growth in the upcoming 23 years and addresses the new development within those centers to accommodate a projected 1.1 million new residents. SA Tomorrow makes reference to impervious cover, its potential impacts on flood management and water quality, and potential policy changes that may result as the SA Tomorrow plan moves into its implementation phase.

The River Authority is uniquely qualified to provide science-based technical data and analyses to foster the City's efforts in establishing sound policy to mitigate any impacts of increased impervious cover on San Antonio watersheds. The River Authority utilizes GIS impervious cover and land-use data, historic water quality and flow data, water quality and hydrology and hydraulic models, trash loading, and economic analyses to quantify impacts of unmitigated and mitigated development on receiving watersheds. The River Authority's work will result in technical and economic assessments and mitigation, messaging, and policy recommendations upon which the City may base development code and other policy amendments.

In FY 2018/19, funding will allow River Authority staff to secure additional impervious cover data sets, use those and other data sets to conduct analyses on additional SA Tomorrow regional centers, and provide science-based recommendations toward amending the City's development code and other policies.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 160,019	$ 114,806	$ -	$ -	$ 274,825
Contracted & Other Services	45,799	529,803	265,448	-	841,050
Total	$ 205,818	$ 644,609	$ 265,448	$ -	$ 1,115,875

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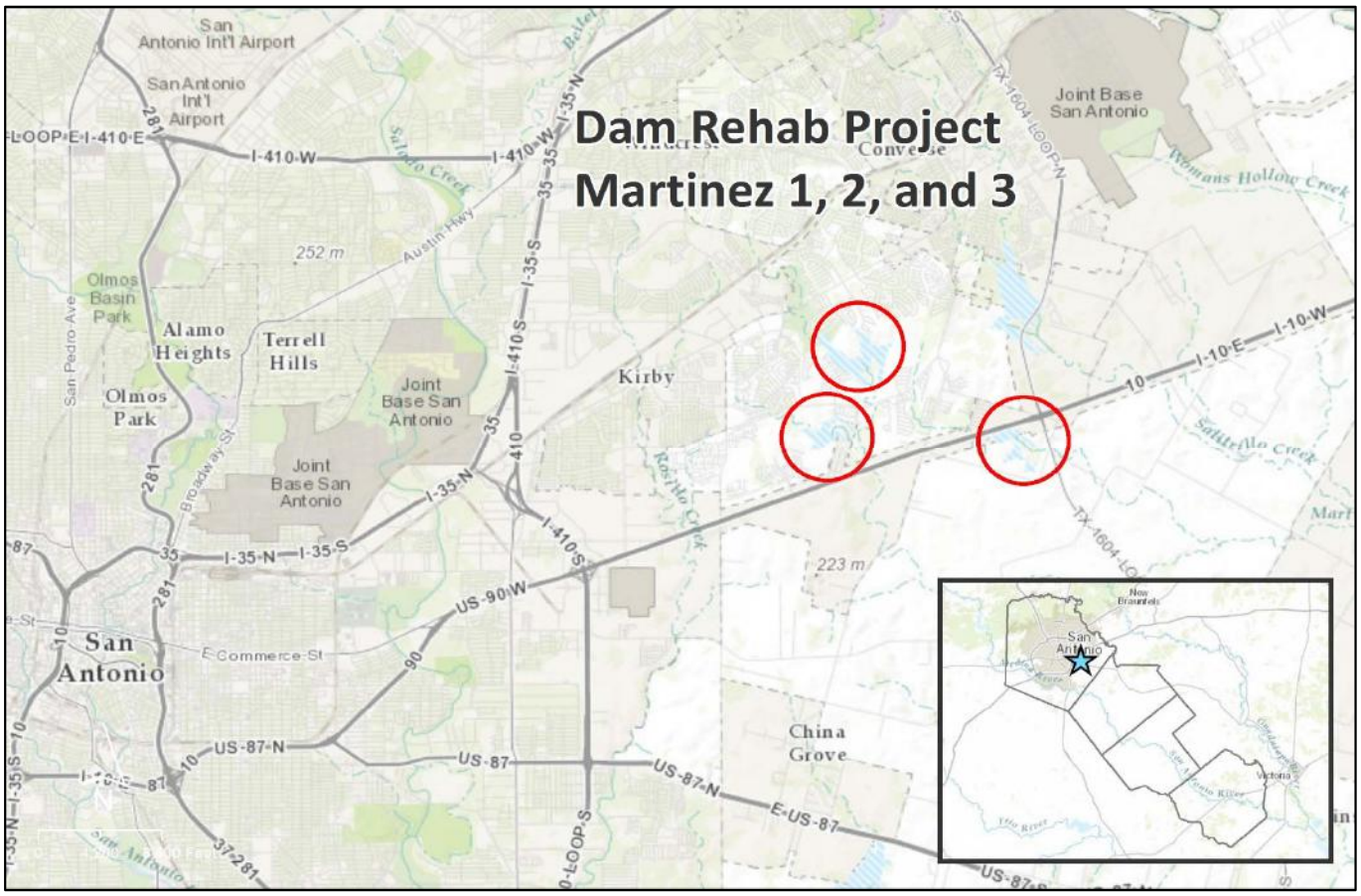
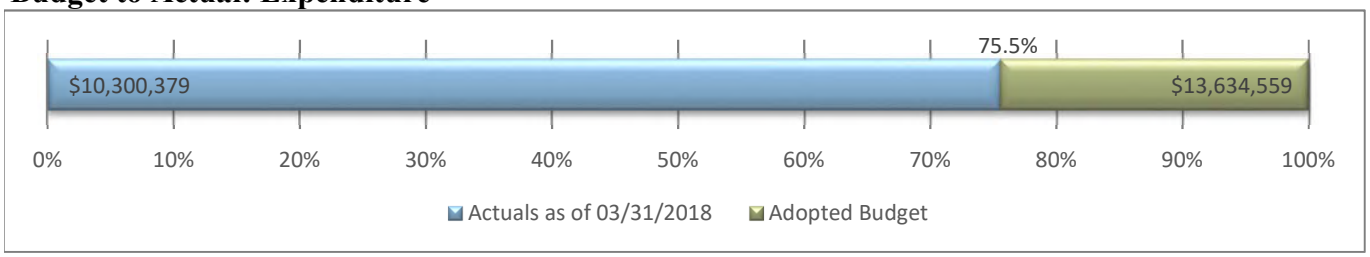
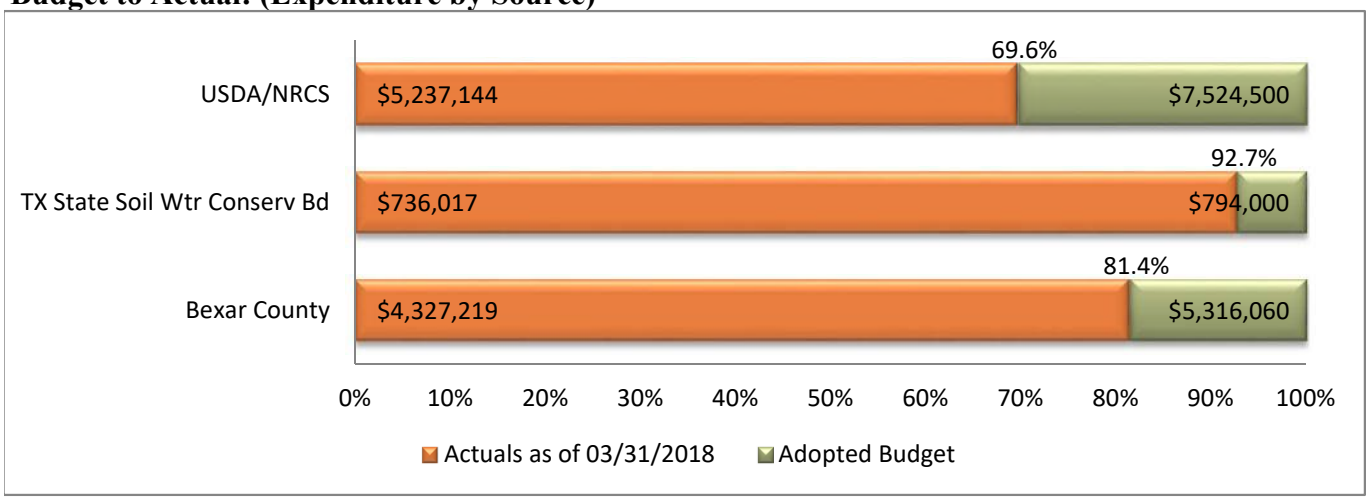
Project Name: **Martinez 1, 2 and 3 Dam Rehabilitation** **Project #** **0374**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Martinez 1, 2 and 3 Dam Rehabilitation**	**Project #**	**0374**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 13,634,559
		SARA Contribution:	$ -
Project Start Date:	7/27/2012	Unfunded Plan:	$ -
Project Finish Date:	12/31/2018	Total Project:	$ 13,634,559

The rehabilitation of the Binz Engleman Dam (Martinez 1), Martinez Creek Dam (Martinez 2) and Escondido Creek Dam (Martinez 3) allows these dams to meet 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 which will provide increased safety to downstream residents by decreasing the risk of dam overtopping during an extreme flood event.

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.

Construction of the improvements at all three dams was completed in FY 2017/18.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 768,021	$ 68,815	$ -	$ -	$ 836,835
Right-of-Way Acquisition	744,110	547,765	-	-	1,291,875
Design	1,711,748	68,792	-	-	1,780,539
Construction	7,076,500	2,648,809	-	-	9,725,309
Total	$ 10,300,379	$ 3,334,180	$ -	$ -	$ 13,634,559

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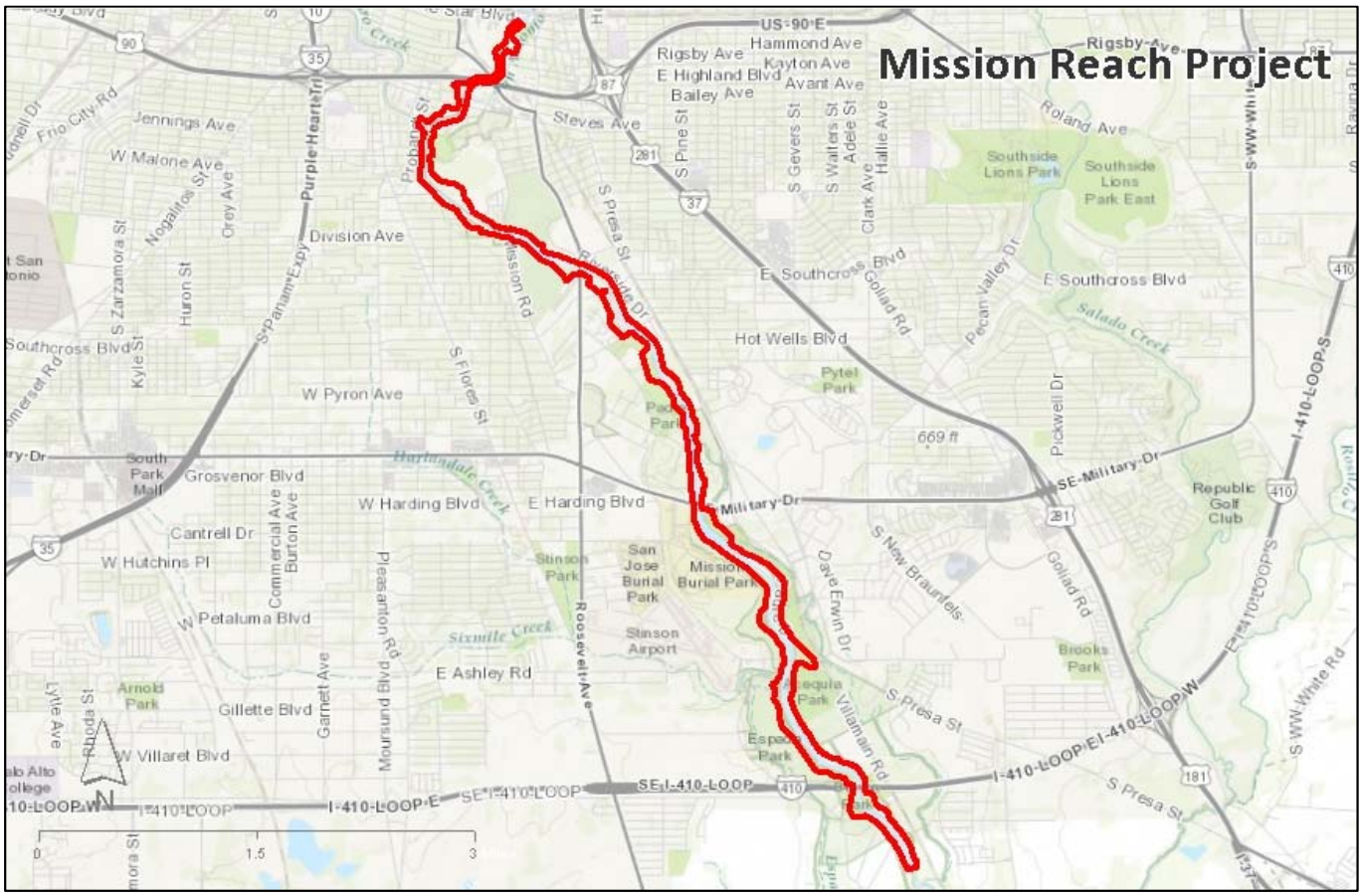
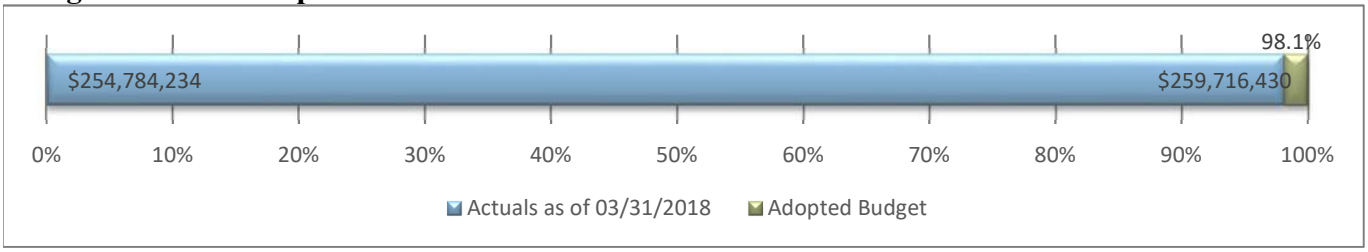
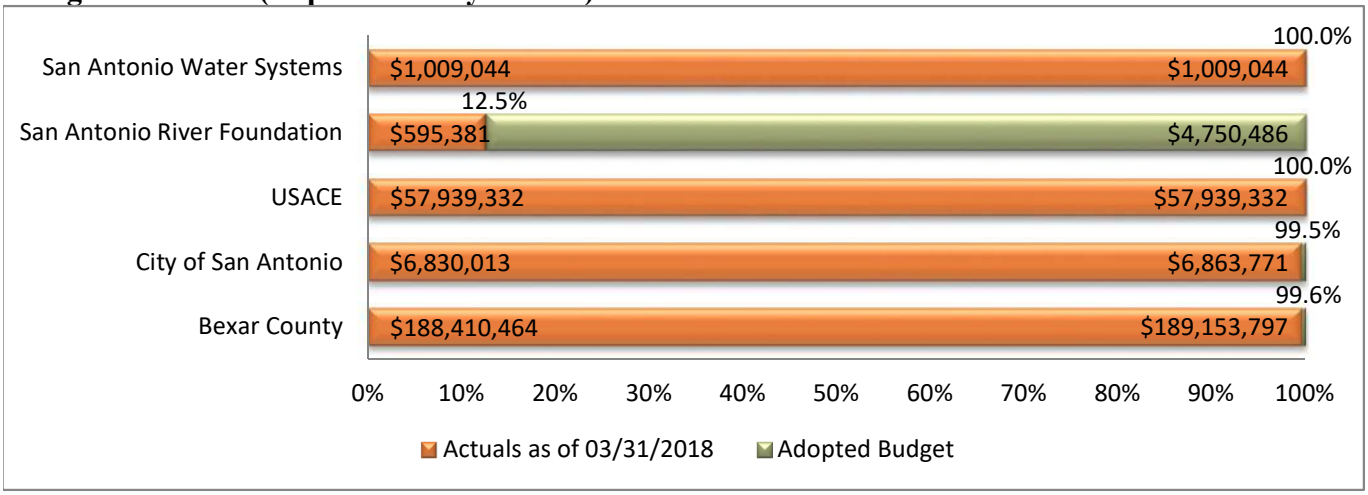
Project Name: **Mission Reach** **Project #** **0136**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Mission Reach**	**Project #**	**0136**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 259,716,430
		SARA Contribution:	$ -
Project Start Date:	1/1/1998	Unfunded Plan:	$ -
Project Finish Date:	12/31/2018	Total Project:	$ 259,716,430

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 2018/19, the project team will complete the land exchange with National Park Service, and the project will close. Operations and maintenance costs for this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Right-of-Way Acquisition	$ 10,173,897	$ 28,197	$ -	$ -	$ 10,202,094
Pre-Design	2,183,170	-	-	-	2,183,170
Design	28,300,366	-	-	-	28,300,366
Pre-Construction	-	-	-	-	-
Construction	214,126,801	4,903,999	-	-	219,030,800
Total	$254,784,234	$ 4,932,196	$ -	$ -	$ 259,716,430

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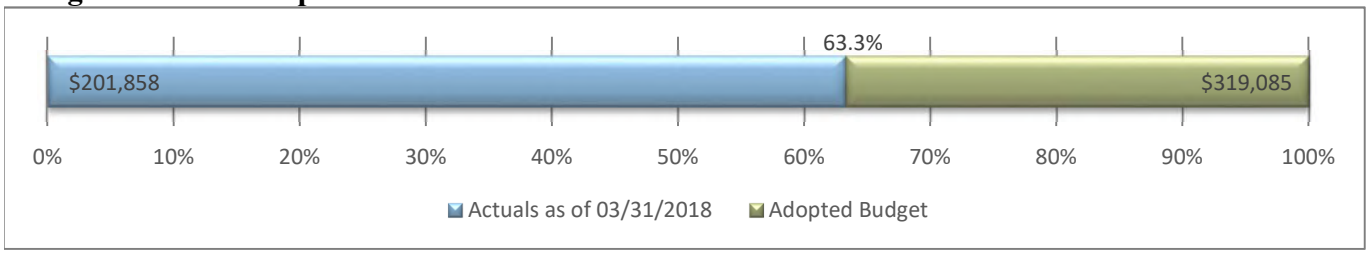
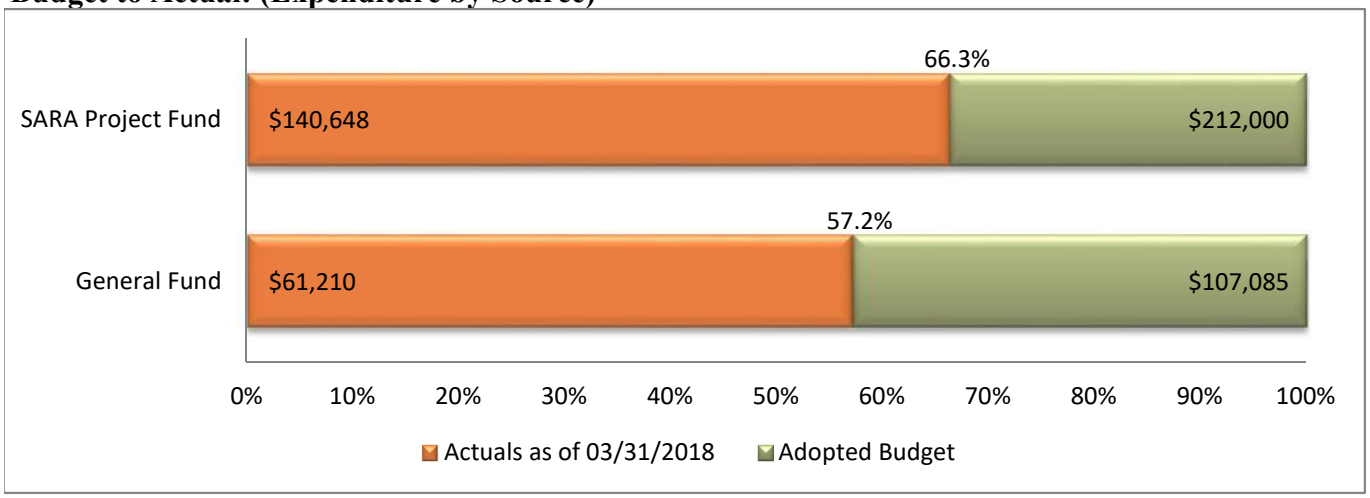
Project Name: **Mission Reach Avian Study** **Project #** **0502**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Mission Reach Avian Study**		**Project #**	**0502**
Managing Department:	Watershed and Park Operations			
		Adopted Budget:	$	212,000
		SARA Contribution:	$	107,085
Project Start Date:	7/1/2015	Unfunded Plan:	$	-
Project Finish Date:	6/28/2019	Total Project:	$	319,085

The Mission Reach Avian 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 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.

In FY 2018/19, the River Authority will complete the data collection and analysis for this three-year study. The information will serve as a baseline to demonstrate future benefits of the Mission Reach ecosystem restoration project and will provide information about the types and locations of avian species present in the Mission Reach. This project will not require operations and maintenance expenditures.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 61,221	$ 45,864	$ -	$ -	$ 107,085
Contracted & Other Services	140,637	71,363	-	-	212,000
Total	$ 201,858	$ 117,227	$ -	$ -	$ 319,085

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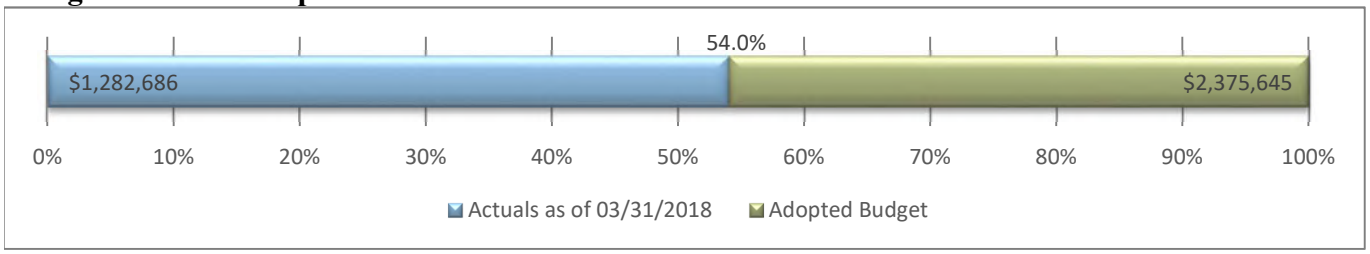
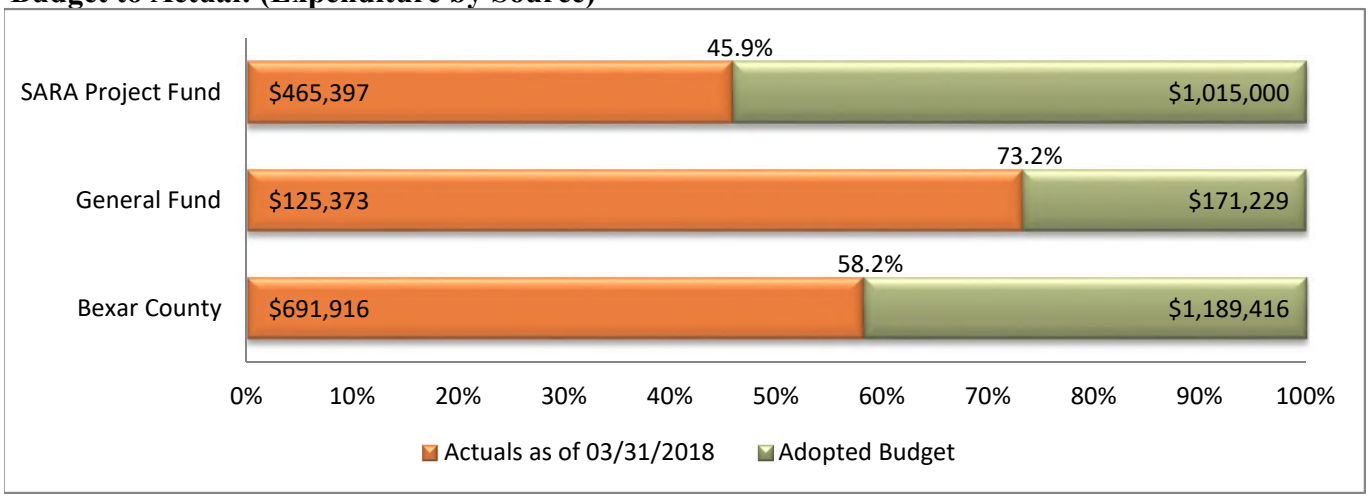
Project Name: **Mission Reach Erosion Repairs** **Project #** **0528**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Mission Reach Erosion Repairs**	**Project #**	**0528**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 2,204,416
		SARA Contribution:	$ 171,229
Project Start Date:	3/1/2016	Unfunded Plan:	$ -
Project Finish Date:	11/30/2018	Total Project:	$ 2,375,645

The Mission Reach Erosion Repairs project contributes to the health and safety of the San Antonio River by protecting the hike and bike trails and reducing sediment loads within the San Antonio River Mission Reach.

The project funds repairs to address erosion at various locations along the Mission Reach. Two types of repairs are funded - larger, specific projects that address major erosion issues in defined locations (generally requiring outside design and construction services) and smaller area repairs that can be accomplished by staff with outside assistance in some locations.

The larger project areas for erosion repair include Roosevelt Park, downstream of Mitchell Street, the confluence with San Pedro Creek, the rock wall upstream of Mission Road, downstream of Mission Parkway, upstream of Steves Avenue, upstream of Theo Avenue, downstream of the Espada Dam, and various minor repairs.

In FY 2018/19, design for bank restoration for scour downstream of Lone Star Boulevard, construction for stream bank stabilization downstream of Mitchell Street, design for bank stabilization downstream of the San Juan Pump, and erosion repairs near the fifth pedestrian bridge on the Mission Reach will be completed. Operations and maintenance costs for these improvements are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 62,666	$ 45,856	$ -	$ -	$ 108,522
Design	62,706	135,150	-	-	197,856
Construction	1,157,313	911,953	-	-	2,069,266
Total	$ 1,282,686	$ 1,092,959	$ -	$ -	$ 2,375,645

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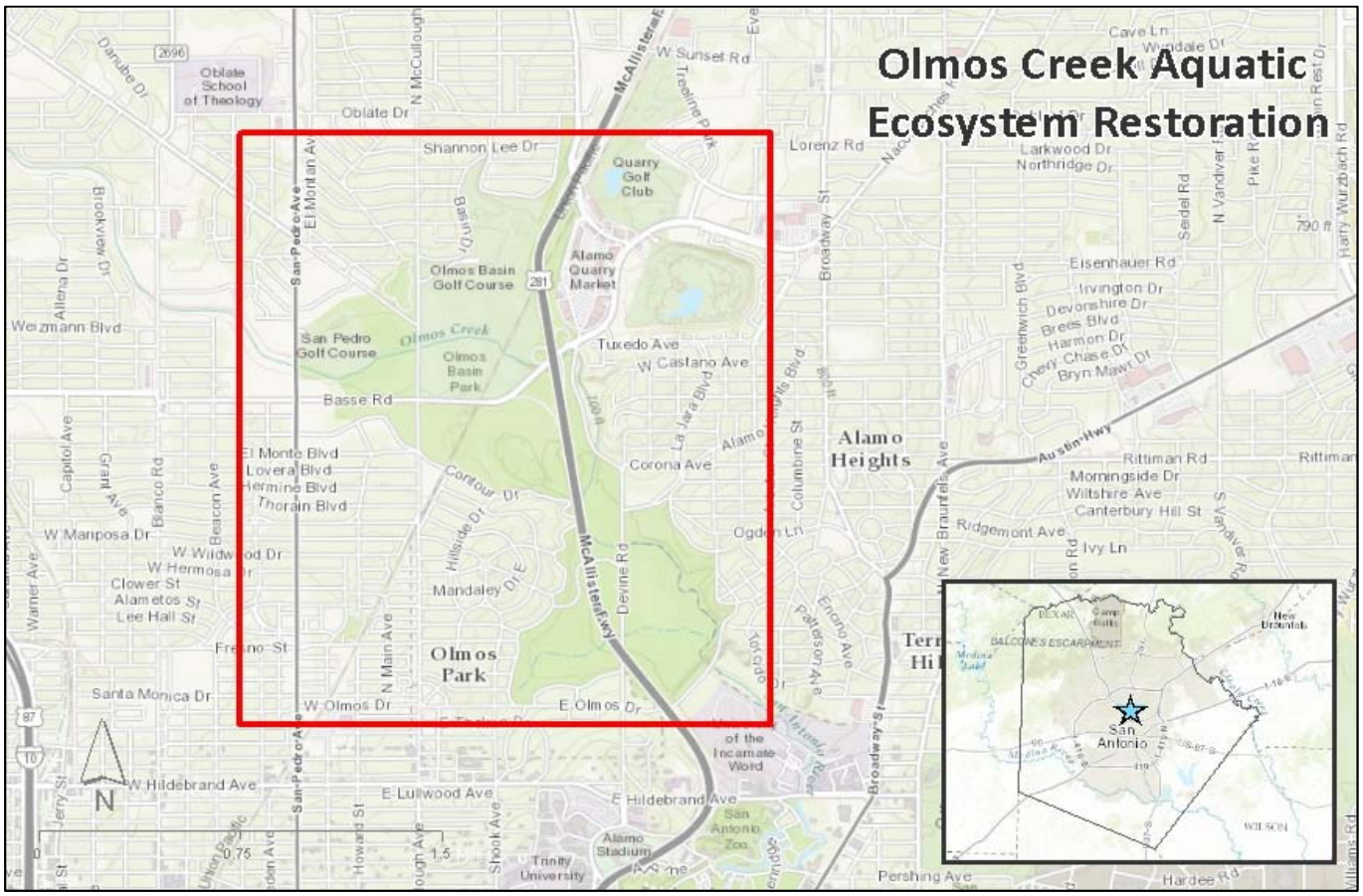
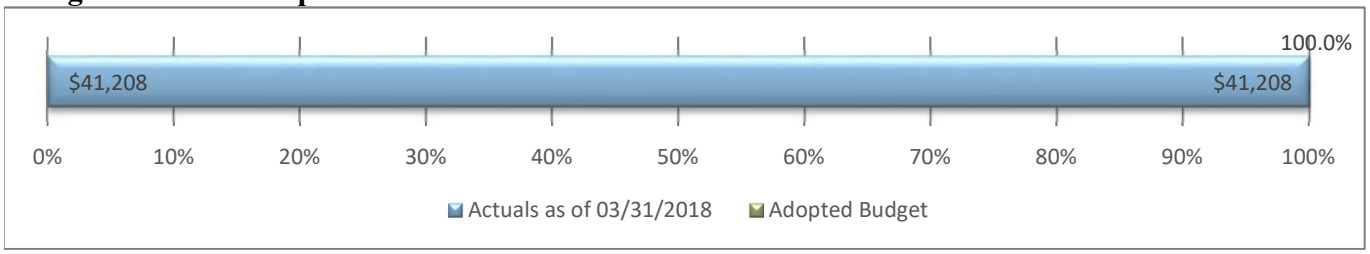
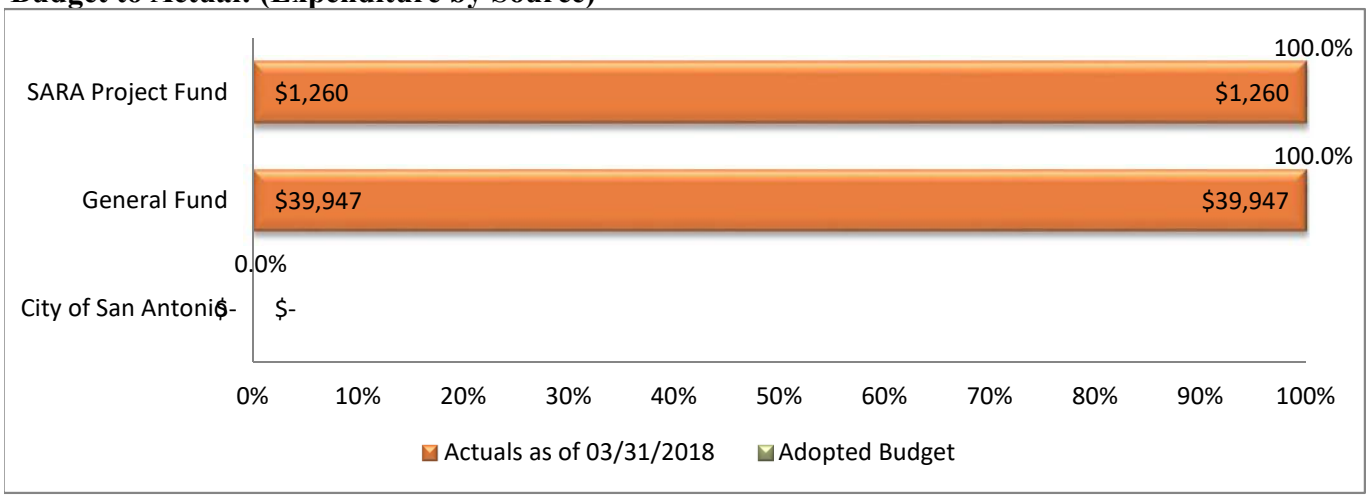
Project Name: Olmos Creek Aquatic Ecosystem Restoration **Project #** 0458



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Olmos Creek Aquatic Ecosystem Restoration**	**Project #**	**0458**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 1,260
		SARA Contribution:	$ 39,947
Project Start Date:	4/16/2014	Unfunded Plan:	$ -
Project Finish Date:	10/31/2019	Total Project:	$ 41,208

The Olmos Creek Aquatic Ecosystem project is anticipated to restore the riparian corridor along three miles of Olmos Creek upstream of Olmos Dam. The project aims to restore riparian habitat throughout the corridor through the removal of non-native invasive plant species and planting of native grasses, shrubs and trees. There are several partners that are leveraging funding for the project including the City of San Antonio, the City of Alamo Heights, the River Authority and the United States Army Corps of Engineers.

This project is managed by the United States Army Corps of Engineers, and the City of San Antonio serves as the Local Sponsor. The project was presented to the River Authority in FY 2013/14. During that time, the City of San Antonio and the United States Army Corps of Engineers were working towards a funding agreement. Partners in the project signed on and the River Authority was designated the project manager.

In FY 2018/19, pending approvals from the City of San Antonio and United States Army Corps of Engineers, this project will begin construction. Upon acceptance of constructed project areas by the City of San Antonio, the River Authority will begin limited ecosystem restoration maintenance activities in these locations per the agreement with the City of San Antonio. Construction is anticipated to end in FY 2019/20. The River Authority will incur no operations and maintenance costs as a result of this project.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 38,398	$ -	$ -	$ -	$ 38,398
Contracted & Other Services	2,809	-	-	-	2,809
Total	$ 41,208	$ -	$ -	$ -	$ 41,208

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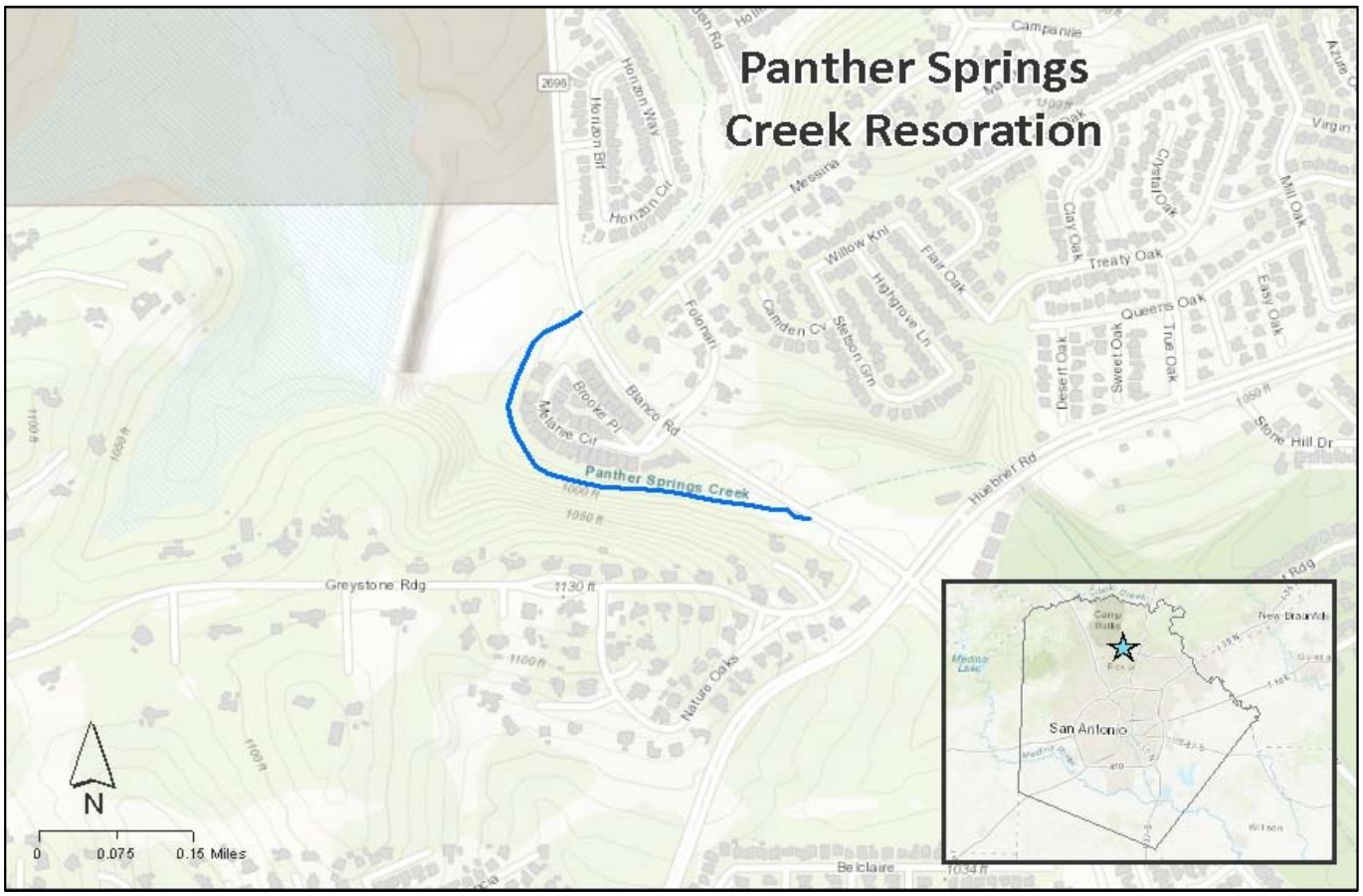
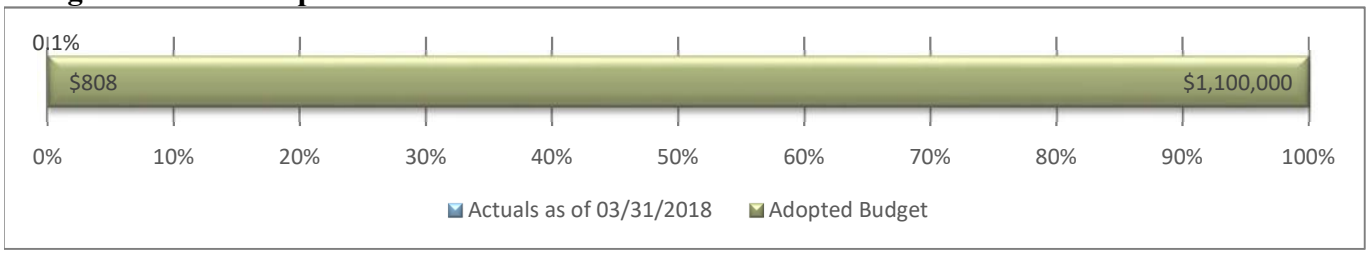
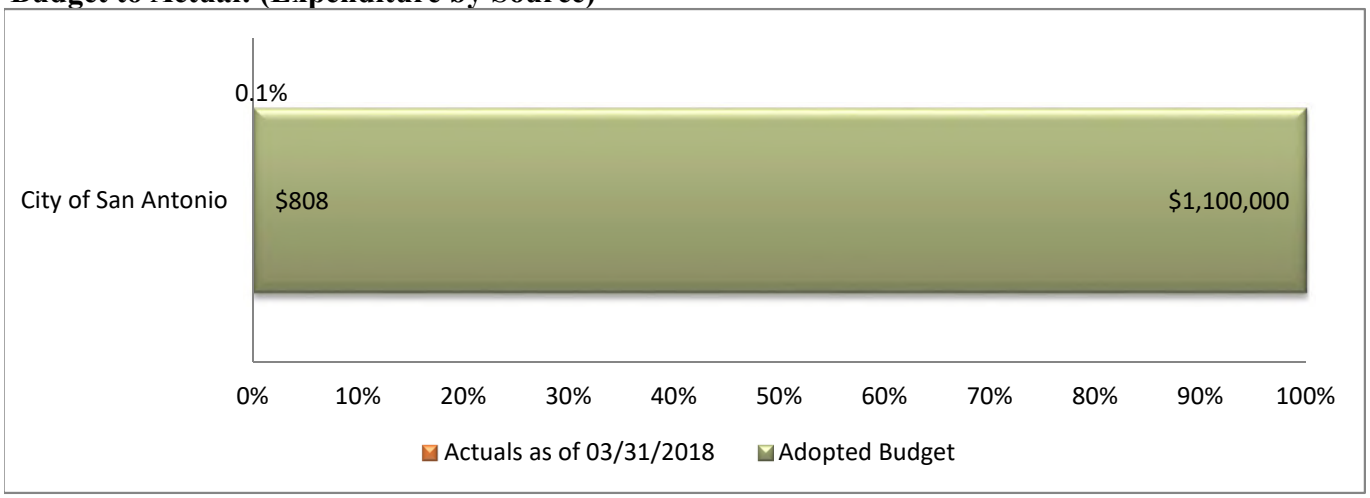
Project Name: **Panther Springs Creek Restoration** **Project #** **0596**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Panther Springs Creek Restoration**	**Project #**	**0596**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 1,100,000
		SARA Contribution:	$ -
Project Start Date:	10/9/2017	Unfunded Plan:	$ -
Project Finish Date:	7/7/2020	Total Project:	$ 1,100,000

The River Authority, on behalf of the City of San Antonio, is overseeing the design and construction of Panther Springs Creek Restoration. The project will modify the existing creek channel and return it to its natural functioning state to alleviate excessive ponding caused by deposition of sediment.

Panther Springs Creek is impaired due to past construction activity adjacent to the channel. As part of the City of San Antonio's 2017-2022 Bond Program, the project will repair issues related to soil deposition and ponding water. The project will involve survey, design, environmental investigations, permit acquisition, and construction.

In FY 2018/19, design and permitting will be completed. Construction is anticipated to begin in spring 2019.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 808	$ 46,826	$ 34,616	$ -	$ 82,250
Design	-	254,747	-	-	254,747
Construction	-	-	663,003	100,000	763,003
Total	$ 808	$ 301,573	$ 697,619	$ 100,000	$ 1,100,000

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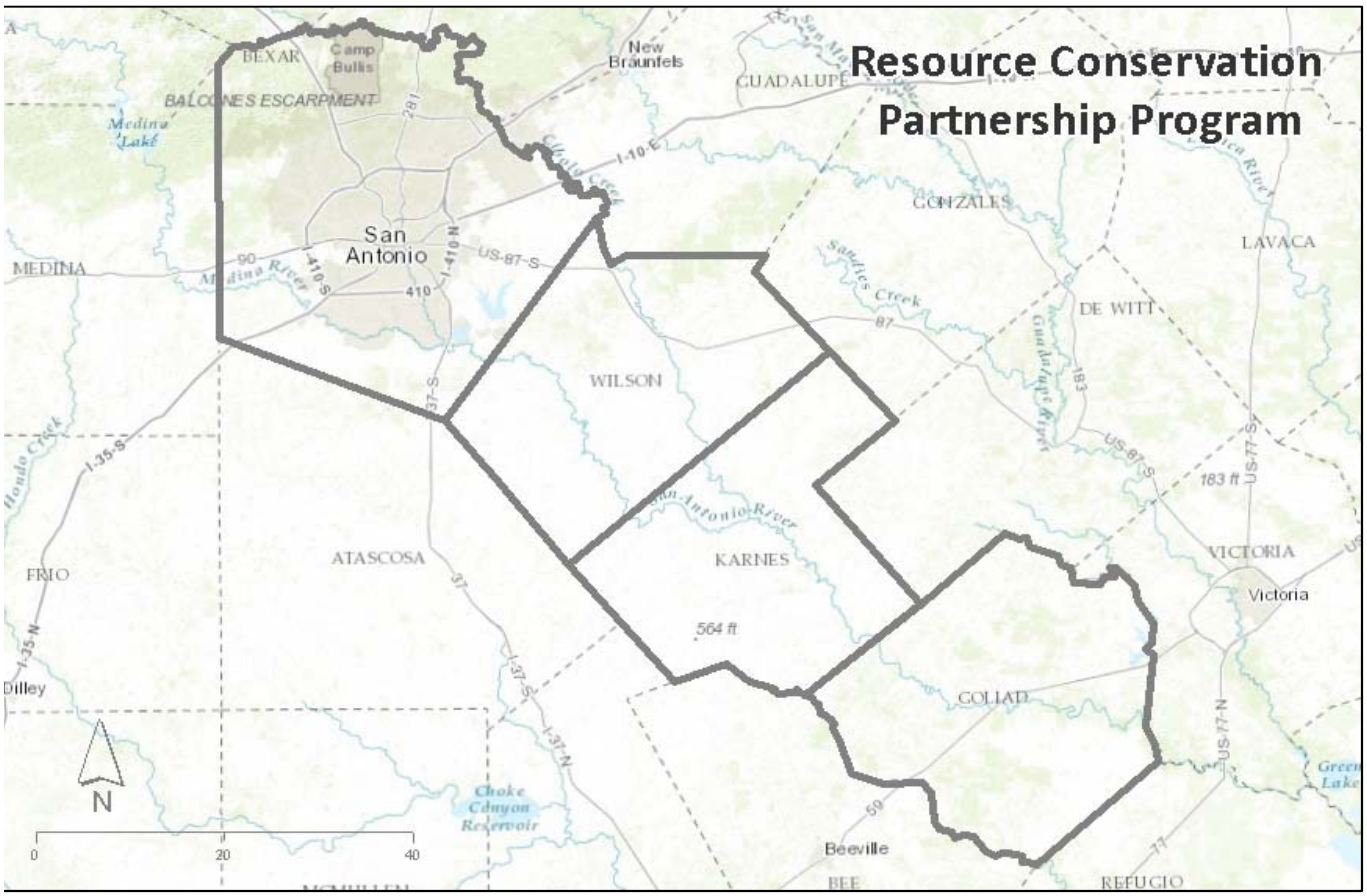
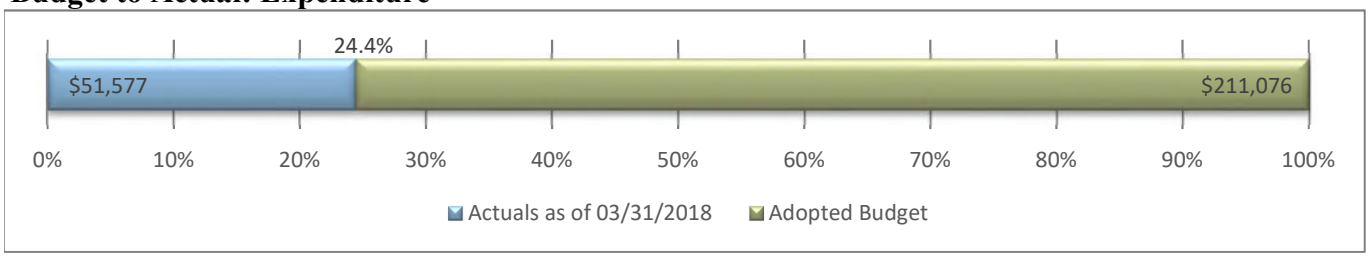
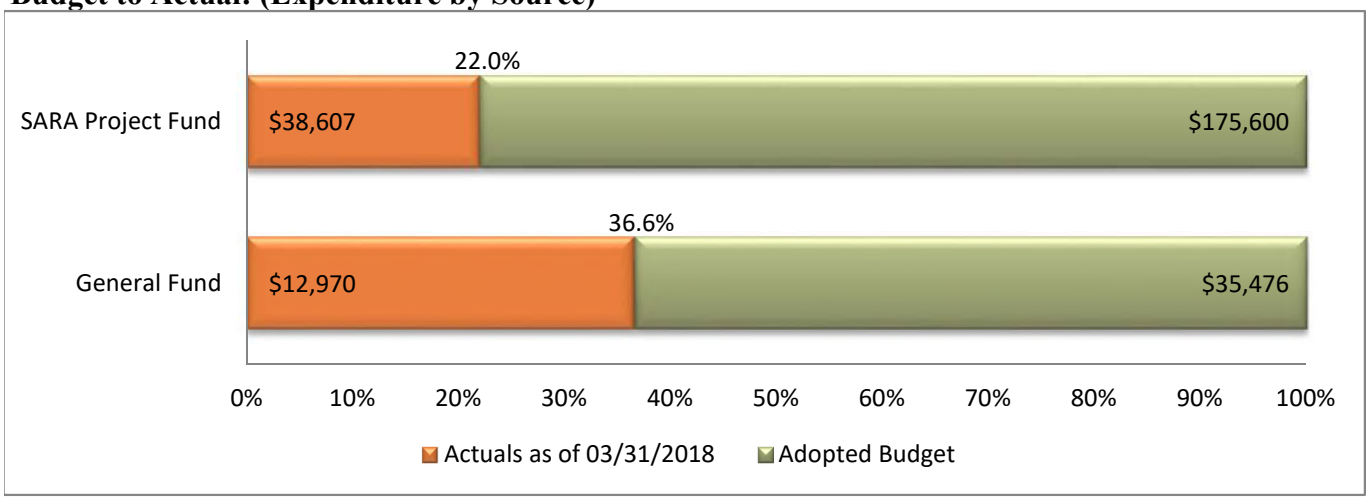
Project Name: **Resource Conservation Partnership Program** **Project #** **0503**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Resource Conservation Partnership Program**		**Project #**	**0503**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	175,600
		SARA Contribution:	$	35,476
Project Start Date:	7/11/2016	Unfunded Plan:	$	-
Project Finish Date:	7/31/2018	Total Project:	$	211,076

The River Authority is leveraging technical assistance and outreach to assist land owners to implement conservation measures throughout the basin to improve the long term resiliency of the watershed. Through collaboration with multiple public and private partners, the River Authority assists with implementation of a Natural Resources Conservation Services (NRCS) program that allows land owners to conserve and restore riparian areas and to implement stream restoration and water quality related land management practices.

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 TGCI 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 focuses 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 are used in the River Authority's four county jurisdiction for stream/wetland restoration, best management practices, 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.

The River Authority's partnerships began in FY 2016/17, as did the efforts to identify and collaborate with potential participants. In FY 2017/18, the River Authority continued to identify and collaborate with potential landowners/ producer participants, assisted with providing public outreach services as needed, helped identify potential projects, provided technical assistance and support, and collaborated with the partners to develop project activities. In FY 2018/2019, the River Authority will finish and close out pending tasks, including clearing invoices for construction of the Sulphur Creek Restoration. The River Authority is not responsible for the operations and maintenance costs related to this project.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 12,970	$ 22,506	$ -	$ -	$ 35,476
Contracted & Other Services	38,607	136,993	-	-	175,600
Total	$ 51,577	$ 159,499	$ -	$ -	$ 211,076

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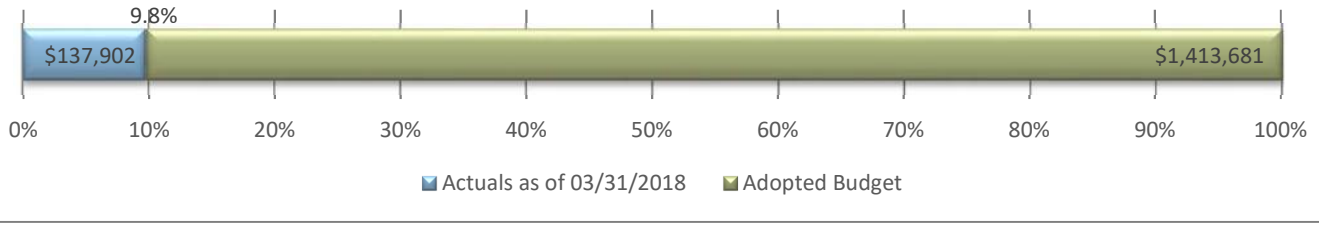
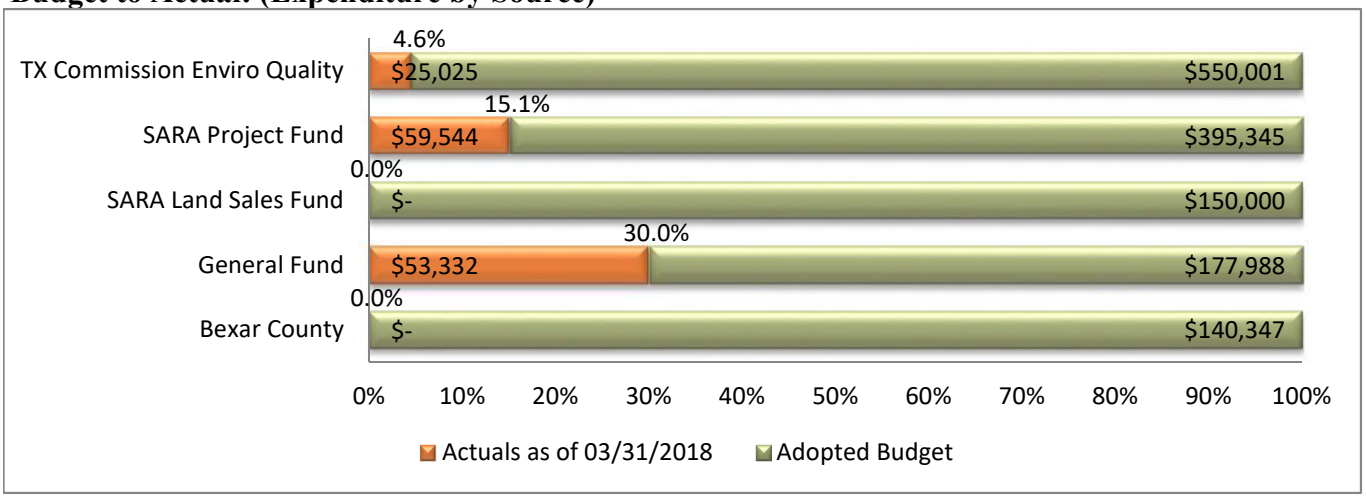
Project Name: River Road Stream Restoration **Project #** 0530

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**River Road Stream Restoration**		**Project #**	**0530**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	1,235,694
		SARA Contribution:	$	177,988
Project Start Date:	6/15/2013	Unfunded Plan:	$	-
Project Finish Date:	12/20/2021	Total Project:	$	1,413,681

The River Authority is working with the United States Army Corps of Engineers to restore the aquatic ecosystem of the San Antonio River from Mulberry to Woodlawn Streets using natural channel design techniques.

This project designs, constructs, and monitors 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 BMPs.

In FY 2018/19, the River Authority will collaborate with the United States Army Corps of Engineers to design the ecosystem restoration of the San Antonio River at River Road. The River Authority will conduct outreach with stakeholders in order to determine appropriate project components.

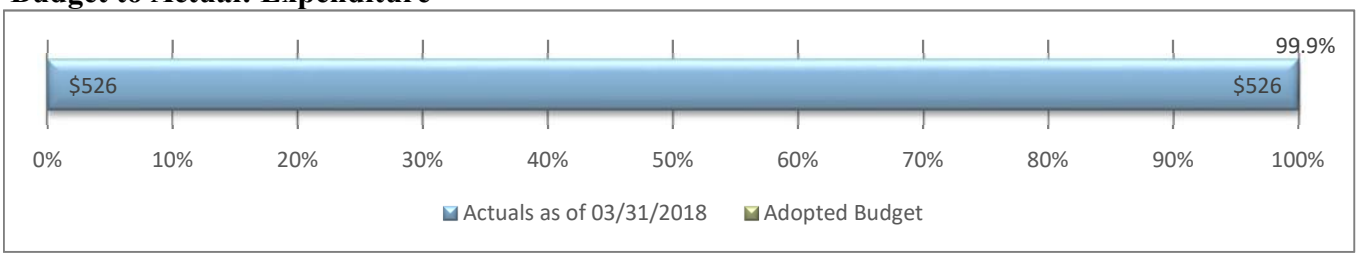
Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 53,332	$ 124,656	$ -	$ -	$ 177,988
Design	83,487	741,124	-	-	824,611
Public Outreach	1,083	10,000	-	-	11,083
Total	$ 137,902	$ 1,275,780	$ -	$ -	$ 1,413,681

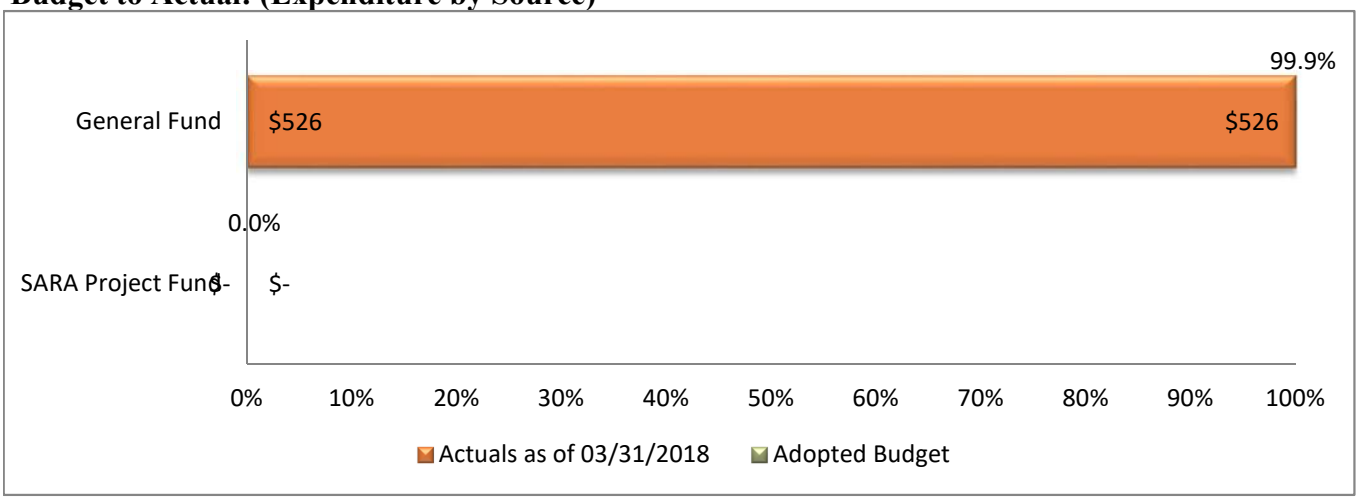
Return to TOC

Project Name:	Stone Oak Park Dam (Salado 8) Spillway Repair	Project #	0531

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Stone Oak Park Dam (Salado 8) Spillway

Project Name:	**Repair**		**Project #**	**0531**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	-
		SARA Contribution:	$	526
Project Start Date:	6/1/2018	Unfunded Plan:	$	-
Project Finish Date:	12/13/2019	Total Project:	$	526

The Stone Oak Park Dam, made of earthen material, was constructed in 1973 in northern Bexar County. As San Antonio's population increased, urban development encroached on both sides of the dam's reservoir area. With this encroachment, construction debris and a road cut have compromised the auxiliary spillway. This project aims to restore the functionality of the spillway as designed.

The River Authority and Bexar County are in discussions regarding the spillway. The project is currently unfunded as work is underway on other dams within the county. Once funding is identified and secured, design repairs consisting of reestablishing the spillways grade and elevations to as-built conditions will be sought.

In FY 2018/19, the project will continue to seek funding to design and construct the necessary repairs.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 526	$ -	$ -	$ -	$ 526
Construction	-	-	-	-	-
Total	$ 526	$ -	$ -	$ -	$ 526

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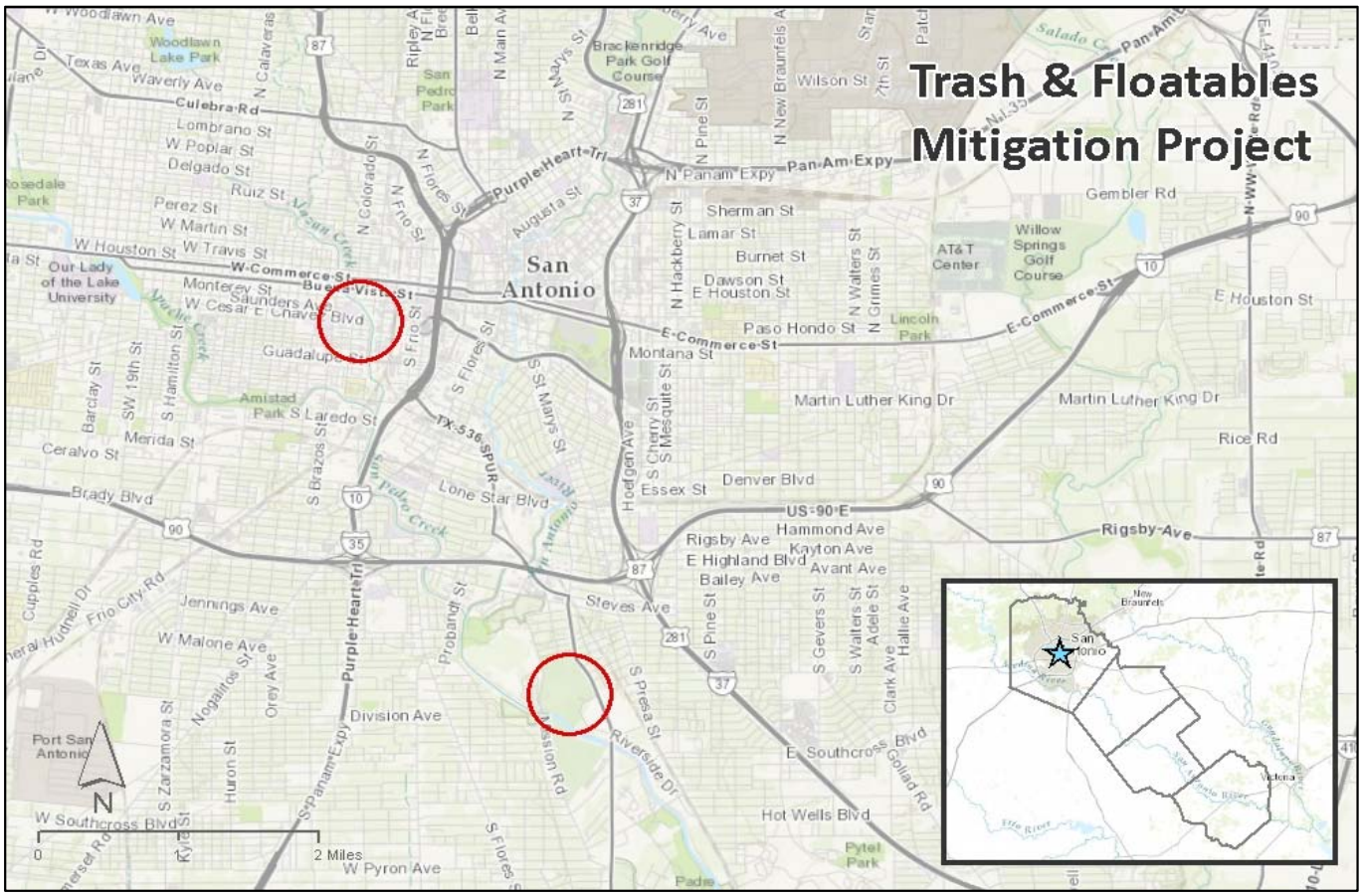
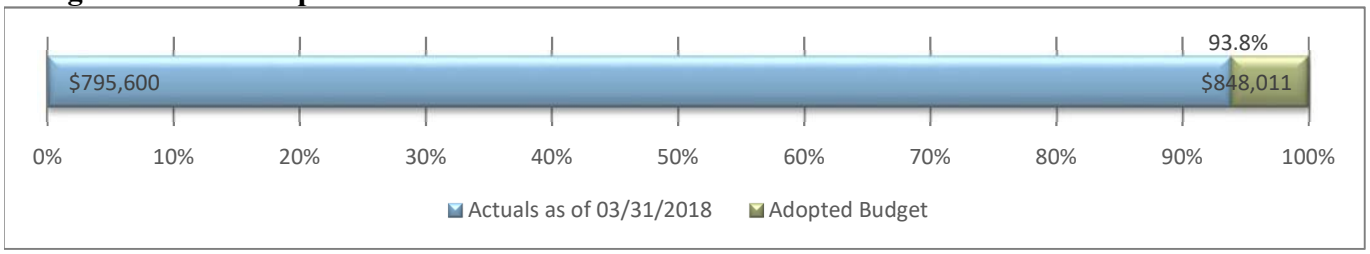
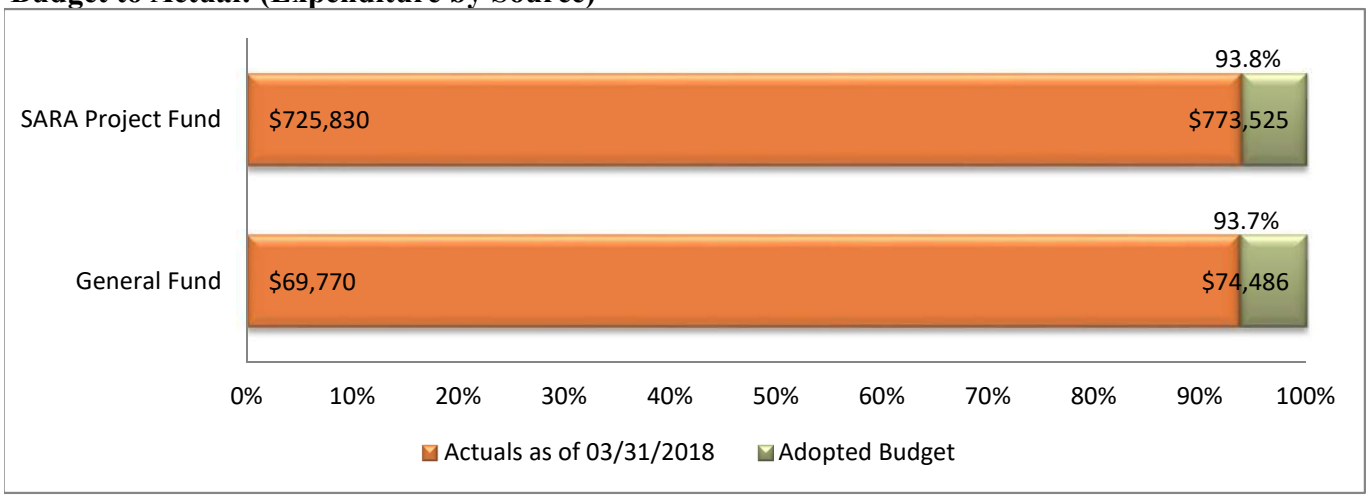
Project Name: **Trash and Floatables Mitigation** **Project #** **0515**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Trash and Floatables Mitigation**		**Project #**	**0515**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	773,525
		SARA Contribution:	$	74,486
Project Start Date:	7/1/2015	Unfunded Plan:	$	-
Project Finish Date:	9/30/2018	Total Project:	$	848,011

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.

The Trash and Floatables Mitigation project builds on recent trash and floatable studies within the San Antonio River Basin and results in the implementation of in-stream trash collection systems.

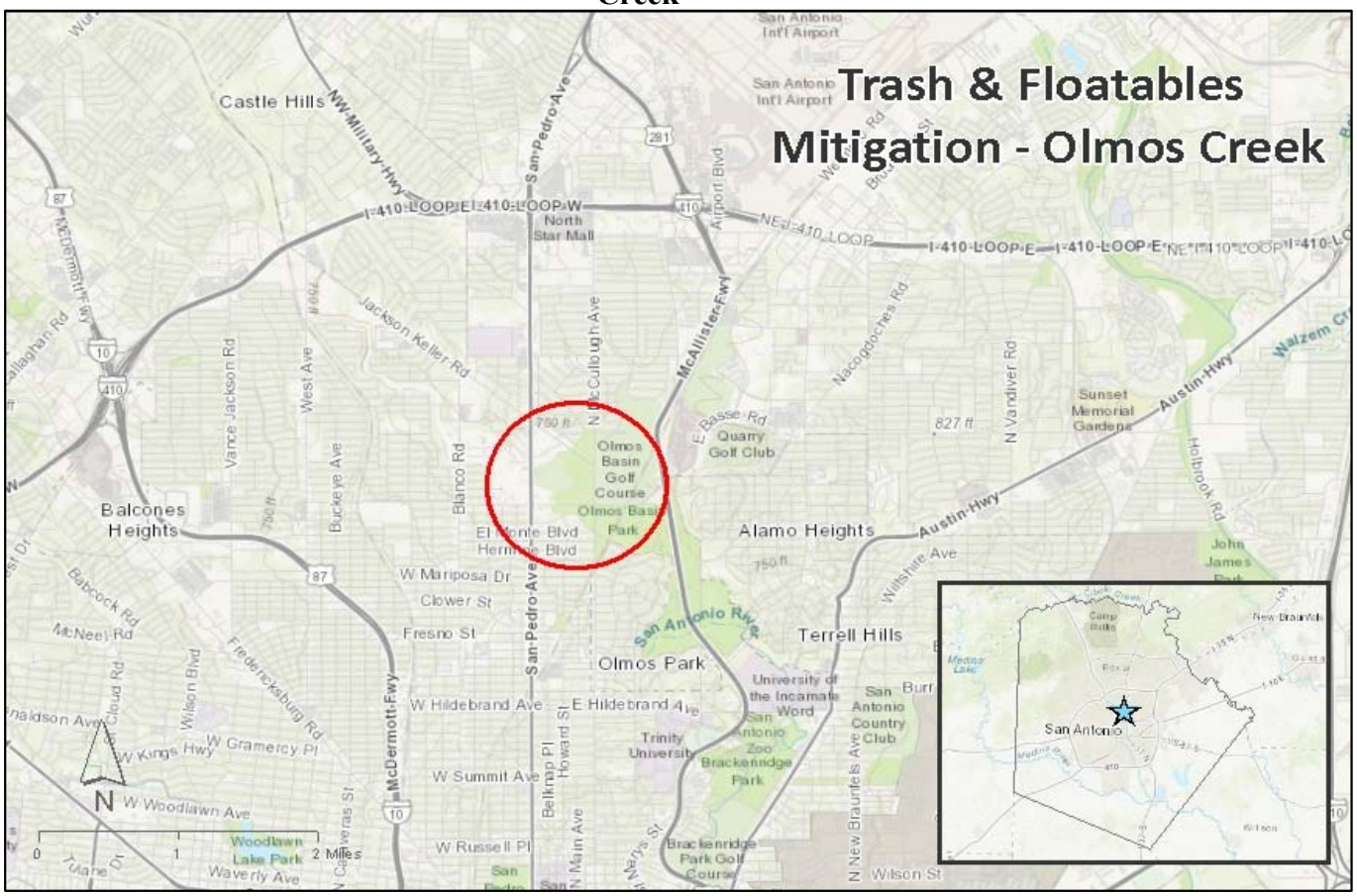
In FY 2016/17, the project constructed two trash collection systems, one on Riverside Creek by Riverside Golf Course and one on Alazan Creek between South Colorado and El Paso streets. Following installation, a significant storm event damaged the Alazan Creek collection system and a new one was constructed and installed in FY 2017/18. In FY 2018/19, the project will be completed.

Spending Plan of Total Project Budget

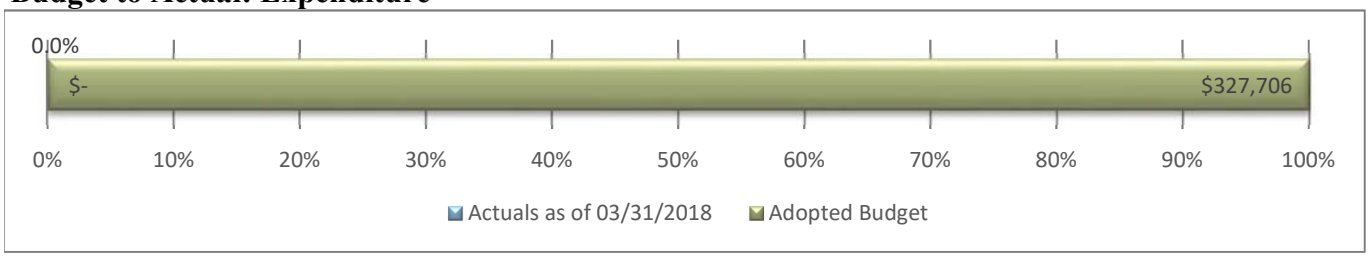
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 68,259	$ 4,716	$ -	$ -	$ 72,975
Construction	575,541	12,760	-	-	588,301
Contracted & Other Services	77,939	20,135	-	-	98,074
Capital Outlay	70,000	-	-	-	70,000
Other	3,861	14,800	-	-	18,661
Total	$ 795,600	$ 52,411	$ -	$ -	$ 848,011

Return to TOC

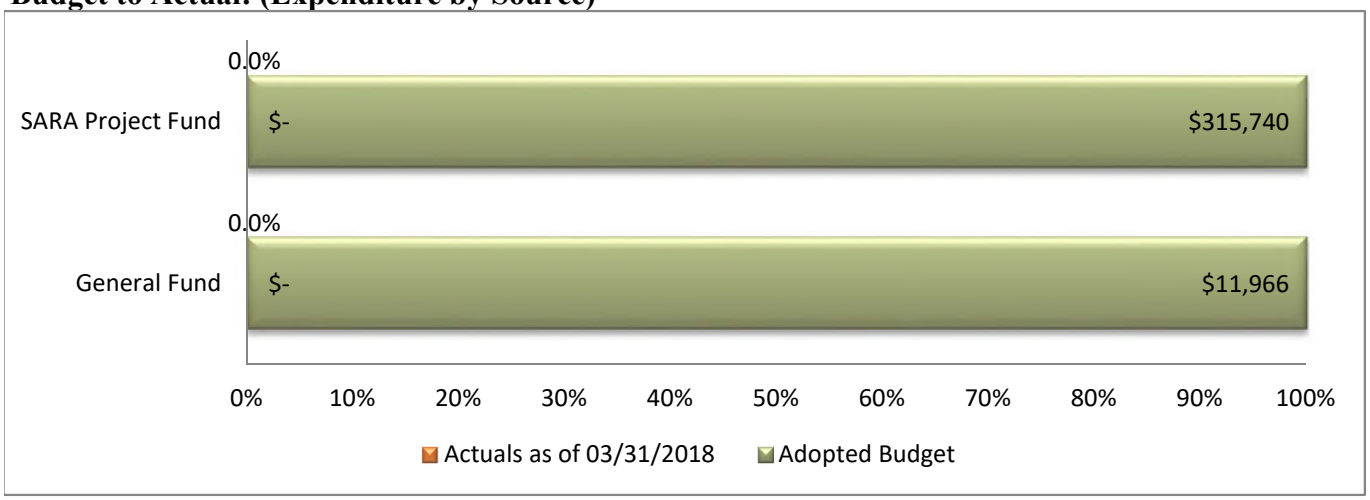
Trash and Floatables Mitigation - Olmos Creek **Project #** **0554**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Trash and Floatables Mitigation - Olmos Creek

Project Name:			**Project #**	**0554**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	315,740
		SARA Contribution:	$	11,966
Project Start Date:	7/1/2016	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	327,706

Trash and floatables adversely impact aquatic and riparian habitats, impede recreational use of local parks and waterways, are unsightly, and require extensive labor by local government agencies and community volunteers to remove by hand. Through centralizing the collection of trash carried by stormwater runoff, this project addresses a large threat to our creeks and rivers.

The Trash and Floatables Mitigation - Olmos Creek project builds on recent trash and floatable studies within the San Antonio River Basin and results in the implementation of in-stream trash collection systems.

In FY 2018/19, pending agreements with local partners, the project will be bid, awarded and constructed.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 11,966	$ -	$ -	$ 11,966
Design	-	95,000	-	-	95,000
Construction	-	220,740	-	-	220,740
Total	$ -	$ 327,706	$ -	$ -	$ 327,706

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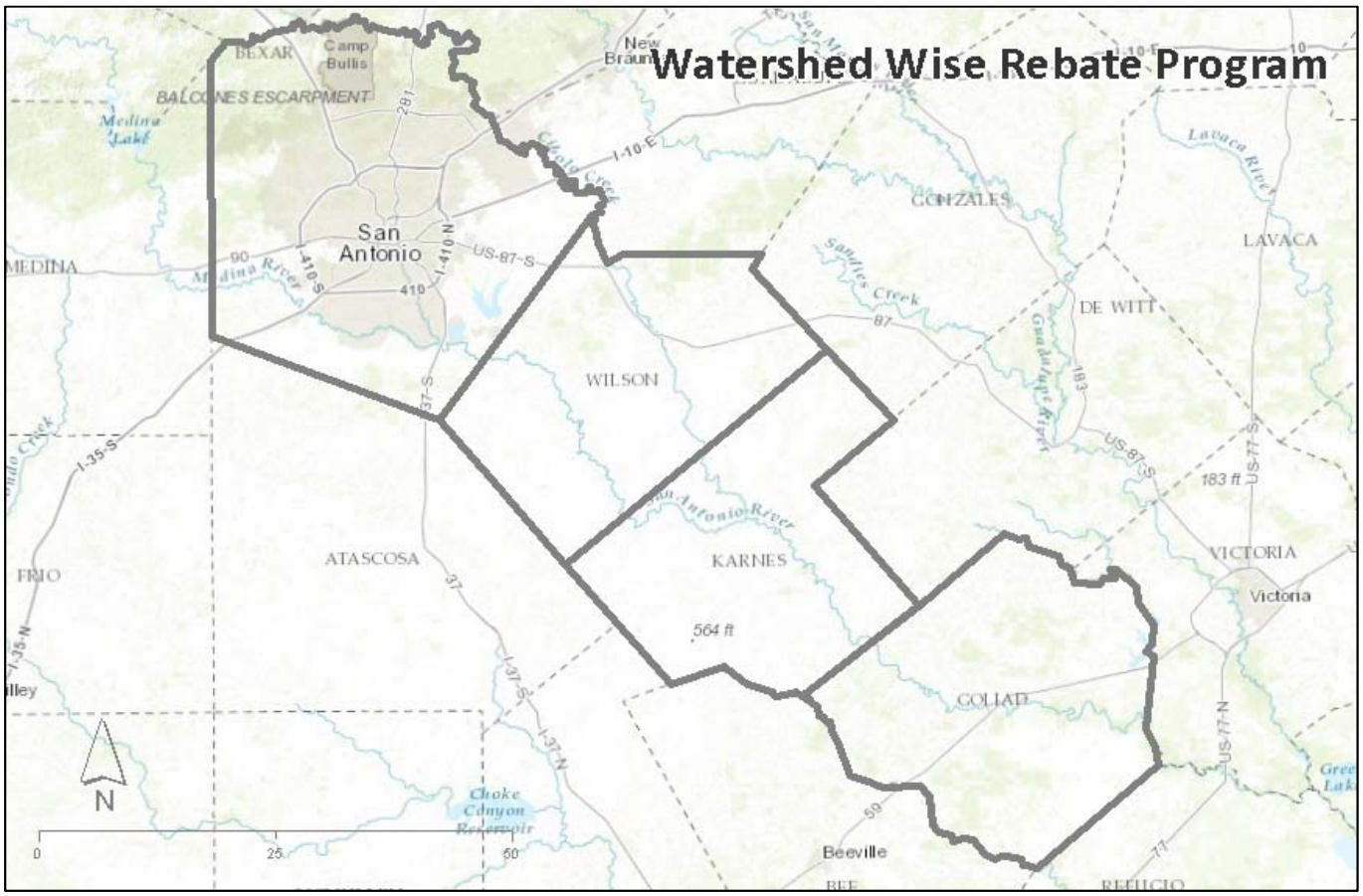
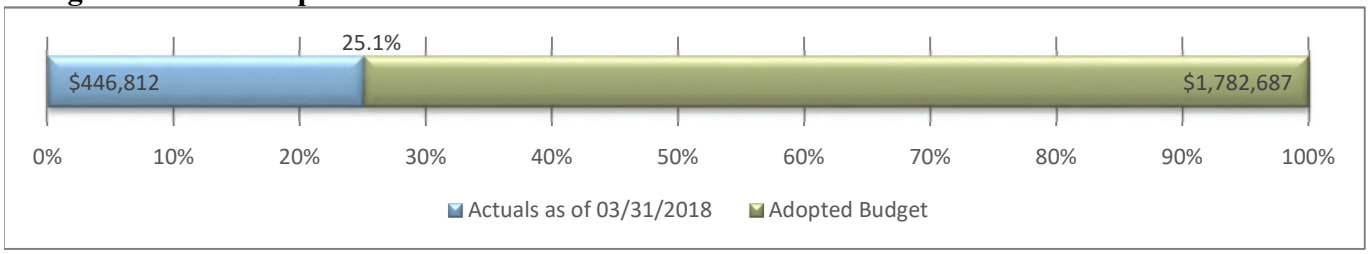
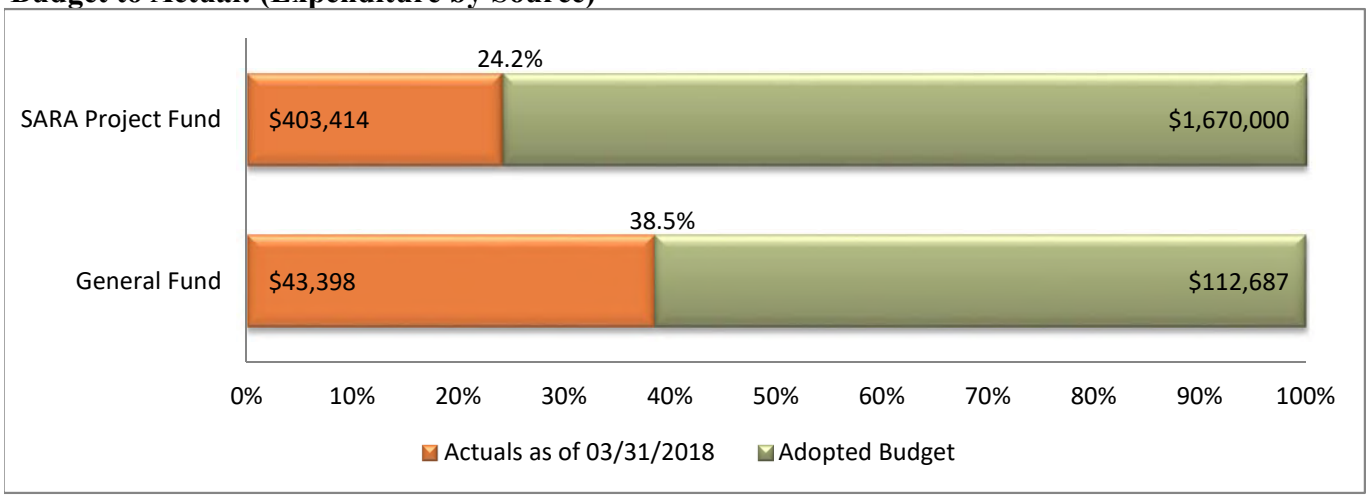
Project Name: **Watershed Wise Rebate Program** **Project #** **0513**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Watershed Wise Rebate Program**		**Project #**	**0513**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	1,670,000
		SARA Contribution:	$	112,687
Project Start Date:	7/1/2015	Unfunded Plan:	$	-
Project Finish Date:	6/30/2020	Total Project:	$	1,782,687

The Watershed Wise Rebate Program 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.

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.

In FY 2018/19, the River Authority will continue to promote the rebate program, accept, evaluate and award rebates where LID is incorporated in the design plans. Also, the Watershed Wise School Grant Program is included under this rebate program. Schools (K through 12) in the four counties served by the River Authority can apply for funding in this program to design and build a rain garden, or select other green infrastructure best management practices, for on-site stormwater management. The River Authority is no responsible for operation and maintenance of the installed green infrastructure.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 43,398	$ 46,834	$ -	$ -	$ 90,232
Construction	403,414	568,656	720,385	-	1,692,455
Total	$ 446,812	$ 615,490	$ 720,385	$ -	$ 1,782,687

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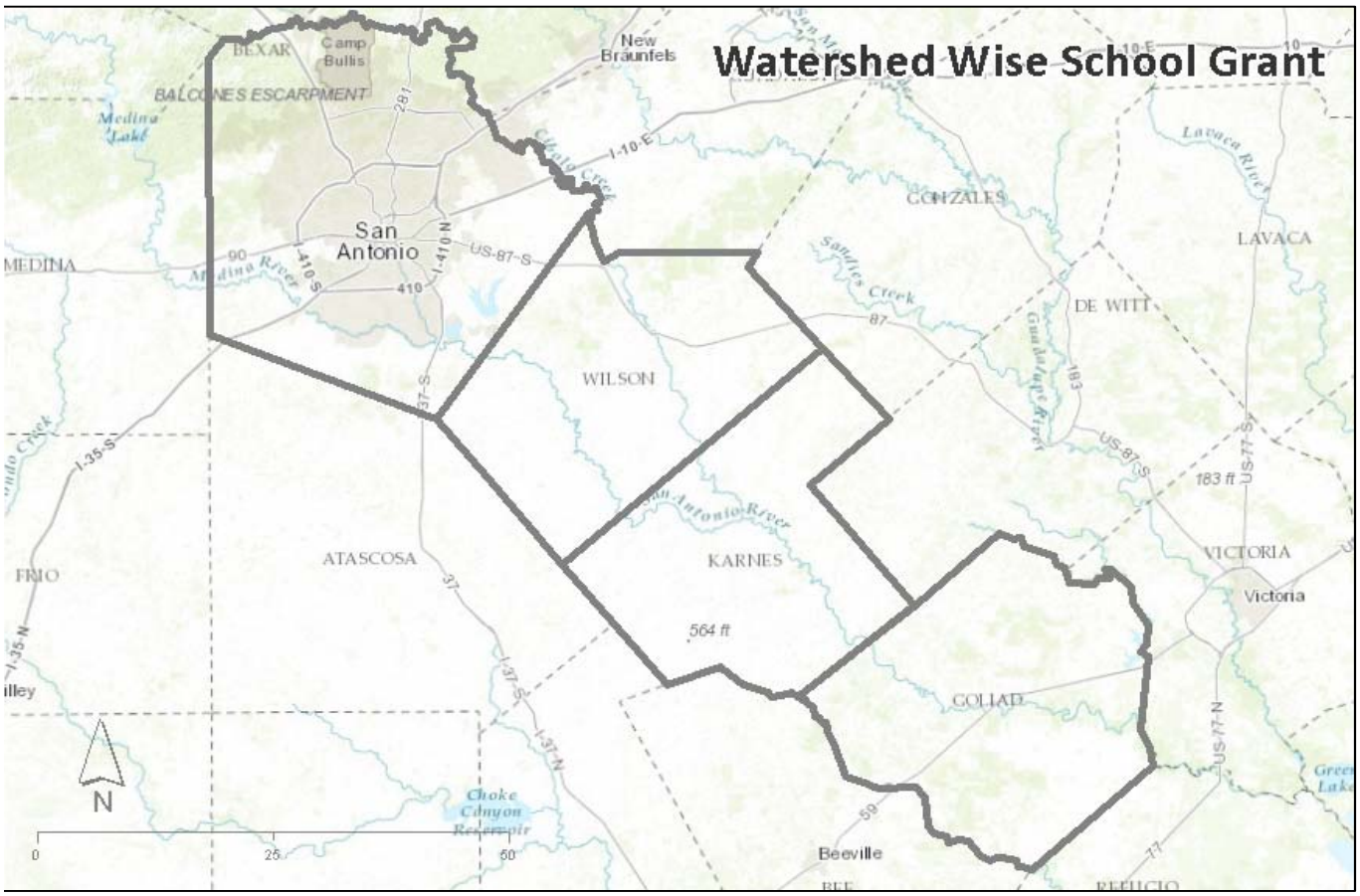
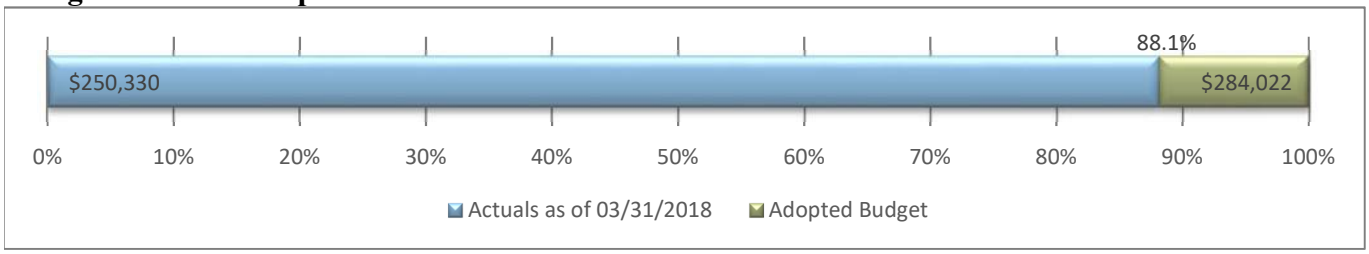
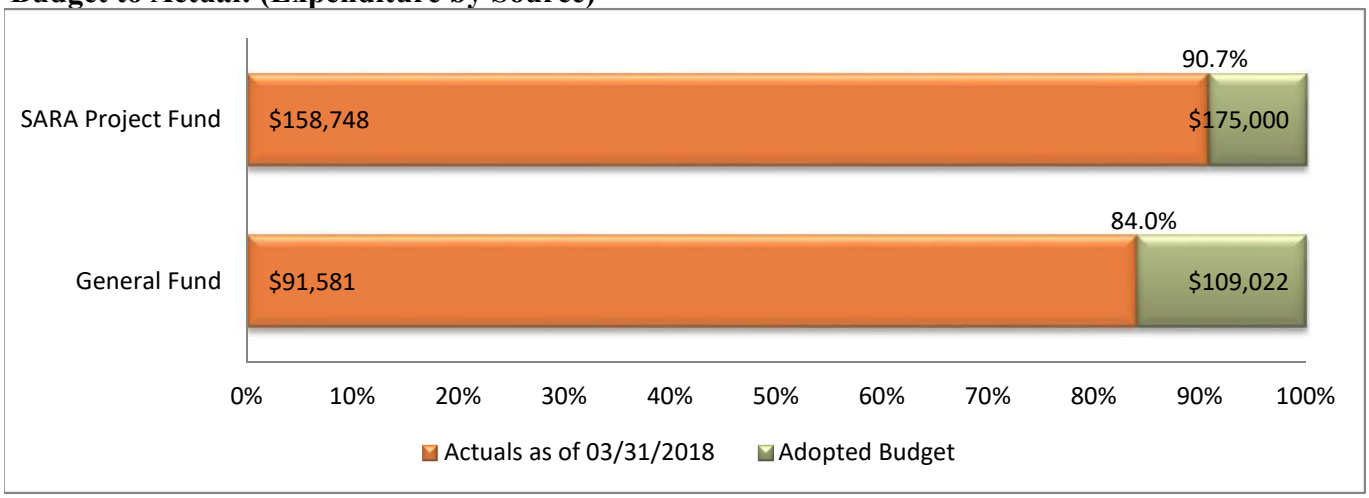
Project Name: **Watershed Wise School Grant** **Project #** **0474**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Watershed Wise School Grant**		**Project #**	**0474**
Managing Department:	Environmental Sciences			
		Adopted Budget:	$	175,000
		SARA Contribution:	$	109,022
Project Start Date:	10/31/2014	Unfunded Plan:	$	-
Project Finish Date:	12/29/2018	Total Project:	$	284,022

The Watershed Wise School Grant project provides an educational demonstration of watershed solutions with an emphasis on managing stormwater quality to enhance local creeks and rivers.

Up to $22,000 has been provided to each recipient school, all within the four counties served by the River Authority, to design and build a rain garden or other eligible green infrastructure best management practices for on-site stormwater management. These school grants have been consolidated with the Watershed Wise Rebate Program.

In FY 2018/19, previously awarded school grants will close out upon project completion and future school applicants will apply for funding under the Watershed Wise Rebate Program. No operations and maintenance expenditures are anticipated from this project. The winning schools are responsible for operation and maintenance of the installed green infrastructure.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 43,663	$ -	$ -	$ -	$ 43,663
Construction	206,667	34,693	-	-	241,359
Total	$ 250,330	$ 34,693	$ -	$ -	$ 284,022

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SAN ANTONIO
RIVER AUTHORITY

Leaders in Watershed Solutions

Return to TOC

Projects Goal #3

Escondido Creek Parkway Project Rendering
Kenedy, Karnes County

Return to TOC

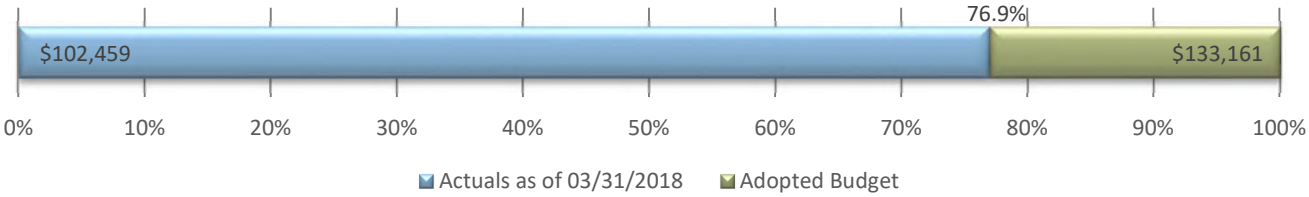
AGENCY GOAL #3

Enhance Community Appreciation and Recreation – Enhance community appreciation by firmly supporting engagement with our creeks and rivers to ensure that these resources contribute to the quality of life of all residents.

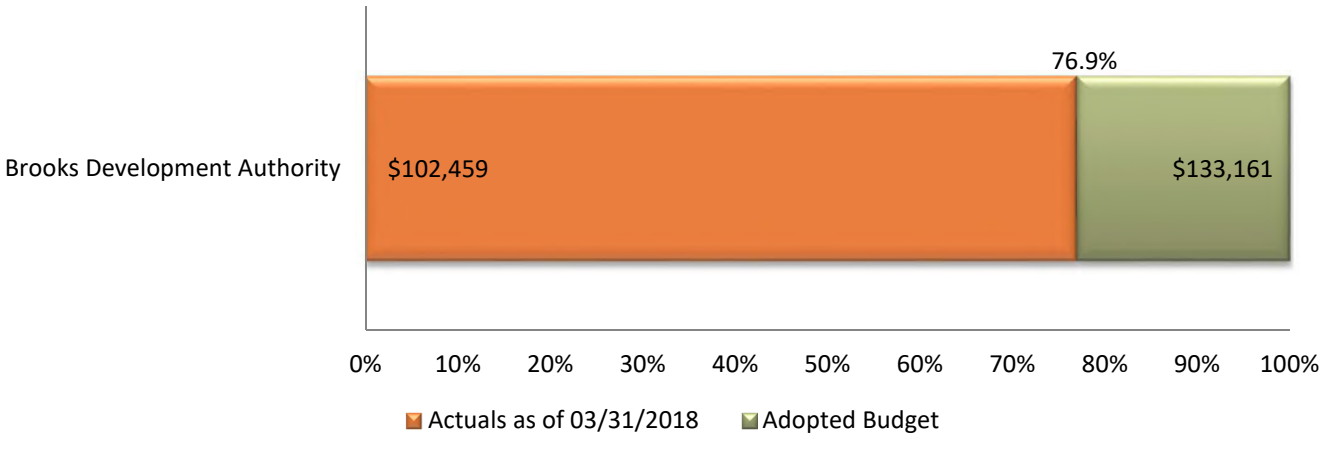
Return to TOC

Project Name: **Brooks City Base - Mission Reach Linkage** **Project #** **0525**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Brooks City Base - Mission Reach Linkage**		**Project #**	**0525**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	133,161
		SARA Contribution:	$	-
Project Start Date:	1/21/2016	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	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 a trail connection between the San Antonio River Mission Reach and Brooks City Base. 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. The River Authority will not be responsible for operations and maintenance along these improvements.

In FY 2018/19, a feasibility study with cost estimates will be presented to the Brooks Development Authority to receive direction on potential alternative trail alignments that would provide access across the Union Pacific Railroad right-of-way. In FY 2017/18, Union Pacific denied the option of using the existing underpass due to concerns regarding flooding. Options that may be explored include aligning the trail down Presa St to Graf Road or constructing a steel span bridge across the railroad tracks. Based on direction from Brooks Development Authority, the project may go back into the design phase or end.

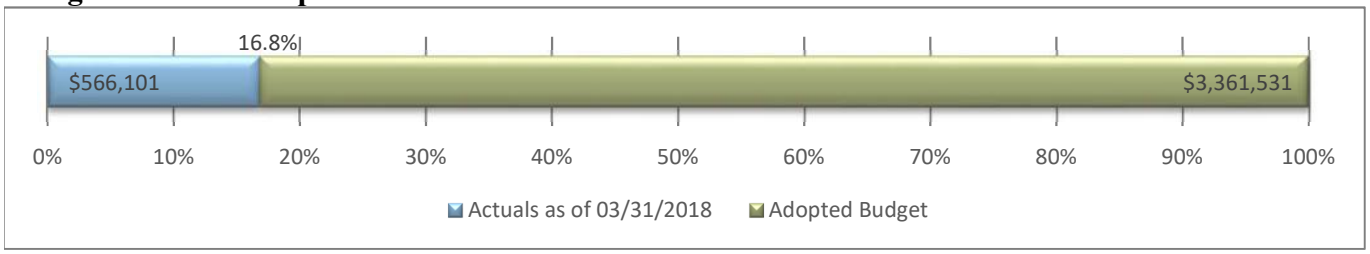
Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Right-of-Way Acquisitio	$ 548	$ 9,452	$ -	$ -	$ 10,000
Design	$ 101,912	$ 21,249	$ -	$ -	$ 123,161
Total	$ 102,460	$ 30,701	$ -	$ -	$ 133,161

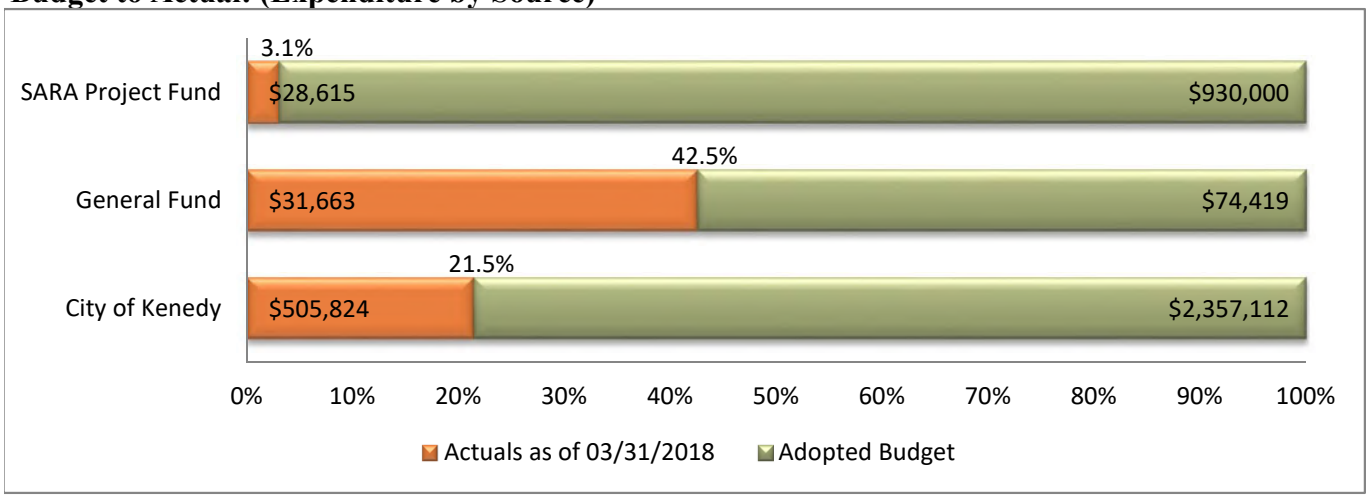
Return to TOC

Project Name: **Escondido Creek Parkway** **Project #** **0397**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Escondido Creek Parkway**	**Project #**	**0397**
Managing Department:	Watershed and Park Operations		
		Adopted Budget:	$ 3,287,018
		SARA Contribution:	$ 74,419
Project Start Date:	7/1/2012	Unfunded Plan:	$ 900,000
Project Finish Date:	10/2/2019	Total Project:	$ 4,261,437

Escondido Creek Parkway, located in Karnes County, meanders between the City of Kenedy's Joe Gulley Park on the west and downtown Kenedy on the east. This 1.25 mile stretch is currently maintained by the San Antonio River Authority for drainage and flood control. The park will include a hike and bike trail, parking, a pavilion and restroom, a playground, trail amenities and possibly a skate park and splash pad.

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.

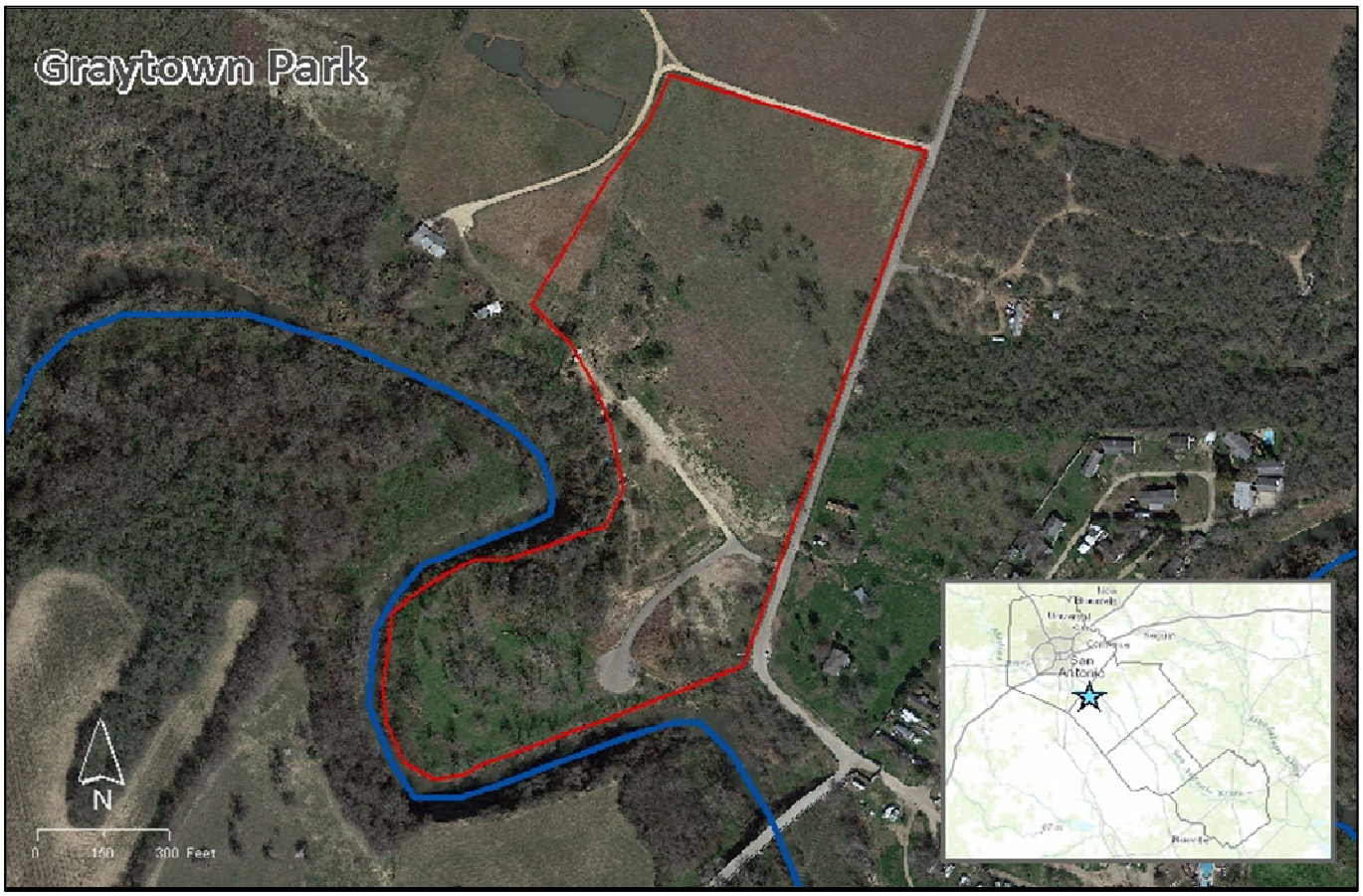
In FY 2018/19, The River Authority will build upon the 40% design. 100% design plans and construction documents will be completed in August 2018. It is anticipated for the project to break ground by December 2018. Phase I will include park amenities, a ten foot wide hike and bike trail, a pavilion with a restroom, a splash pad, a playground and skate park. The project is currently funded by the San Antonio River Authority Project Fund and the Downstream Capital San Antonio River Authority Project Fund, which represents funding from various contributors in Karnes County including the City of Kenedy 4B Corporation and the City of Kenedy Chamber of Commerce. Operation and maintenance expenditures are estimated between $275,000 and $300,000.

Spending Plan of Total Project Budget

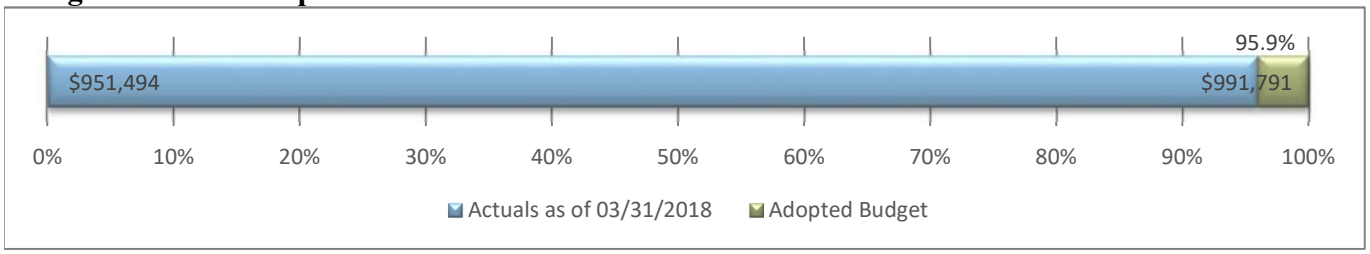
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 75,268	$ 42,757	$ -	$ -	$ 118,025
Right-of-Way Acquisition	170,439	-	-	-	170,439
Design	291,780	477,404	-	-	769,184
Construction	-	2,243,790	900,000	-	3,143,790
Public Outreach	28,615	31,385	-	-	60,000
Total	$ 566,101	$ 2,795,336	$ 900,000	$ -	$ 4,261,437

Return to TOC

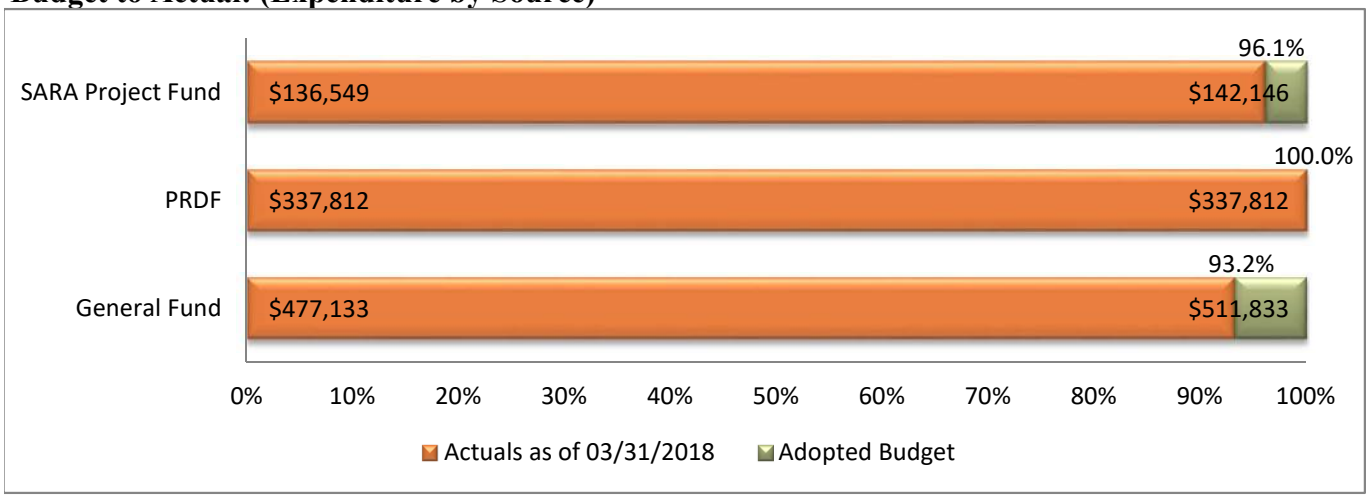
Project Name: Graytown Park on the San Antonio River **Project #** 0298



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Graytown Park on the San Antonio River**		**Project #**	**0298**
Managing Department:	Watershed and Park Operations			
		Adopted Budget:	$	479,958
		SARA Contribution:	$	511,833
Project Start Date:	2/1/2011	Unfunded Plan:	$	-
Project Finish Date:	6/30/2018	Total Project:	$	991,791

The Graytown Park on the San Antonio River project allows for continued development of park amenities to increase and enhance visitor experiences, attendance and overall provide opportunities for visitors to enjoy, appreciate and understand the San Antonio River.

Graytown, 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. This location also provides an additional area for day use recreational park activities such as picnic pads and walking trails, and also contains an 18-hole disc golf course.

In FY 2018/19, the project will be closed and the new park pavilion and public restroom opened to the public. Operations and maintenance costs are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 146,858	$ 34,700	$ -	$ -	$ 181,558
Right-of-Way Acquisition	323,341	-	-	-	323,341
Design	50,000	500	-	-	50,500
Construction	338,005	1,891	-	-	339,896
Capital Outlay	93,290	3,206	-	-	96,496
Total	$ 951,494	$ 40,297	$ -	$ -	$ 991,791

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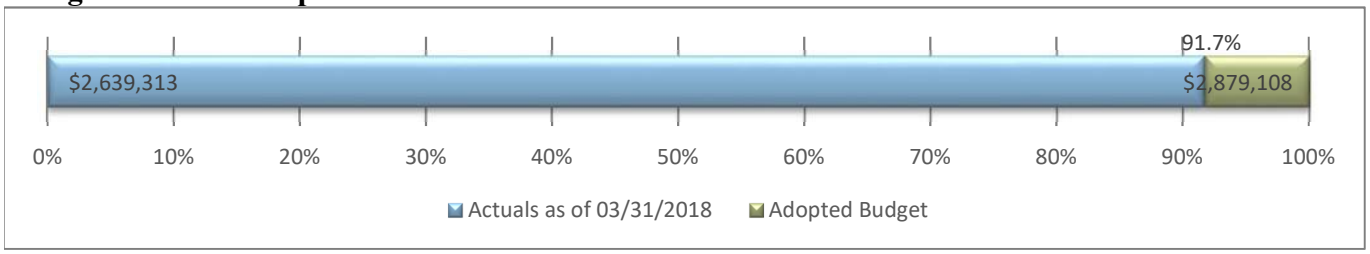
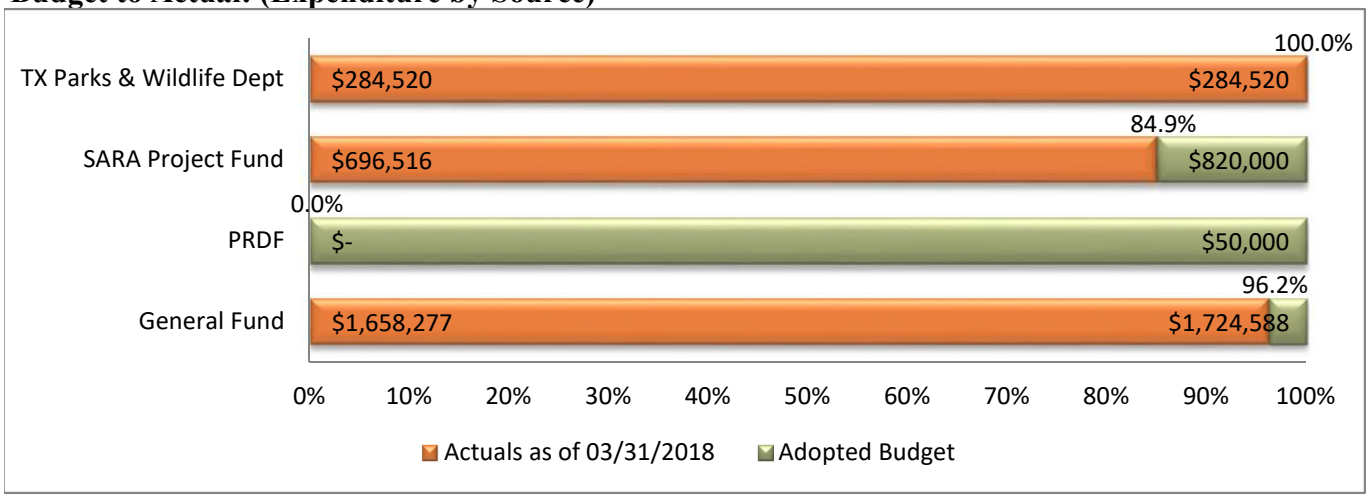
Project Name: **John William Helton San Antonio River Nature Park** **Project #** **0067**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**John William Helton San Antonio River Nature Park**	**Project #**	**0067**
Managing Department:	Watershed and Park Operations		
		Adopted Budget:	$ 1,154,520
		SARA Contribution:	$ 1,724,588
Project Start Date:	7/1/2007	Unfunded Plan:	$ 190,000
Project Finish Date:	6/30/2019	Total Project:	$ 3,069,108

Continued improvements at John William Helton Nature Park (Helton) furthers opportunities for visitors to enjoy, appreciate and understand the San Antonio River.

Over the past several years, the River Authority has improved the 98 acres of John William Helton Nature Park by adding a multi-use pavilion, picnic units, signage, basketball court, paddling trail access, restrooms, a playground, and park trails. Additionally, River Authority staff have hosted numerous community programs and events. Funding included in this project allows for continued development of the park to increase usage.

In FY 2017/18, the River Authority improved the park entrance on FM 775 to meet Texas Department of Transportation requirements and increase the safety of patrons to enter and leave the park. Additionally, a camping flood alert system was installed. In FY 2018/19, the River Authority will improve the river access road inside the park and install lighting at the pavilion, playground, parking area and basketball court. Operations and maintenance costs for the funded improvements are included in the FY 2018/19 Adopted Budget.

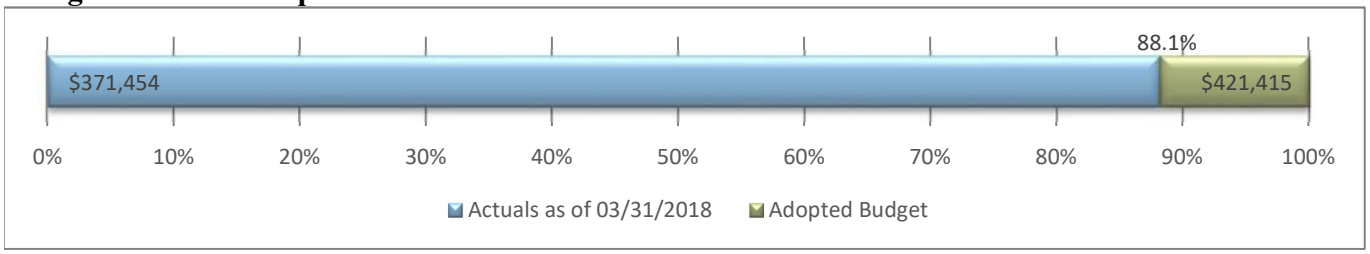
Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 543,218	$ 66,312	$ -	$ -	$ 609,530
Design	257,342	-	-	-	257,342
Capital Outlay	1,838,752	173,484	190,000	-	2,202,236
Total	$ 2,639,313	$ 239,795	$ 190,000	$ -	$ 3,069,108

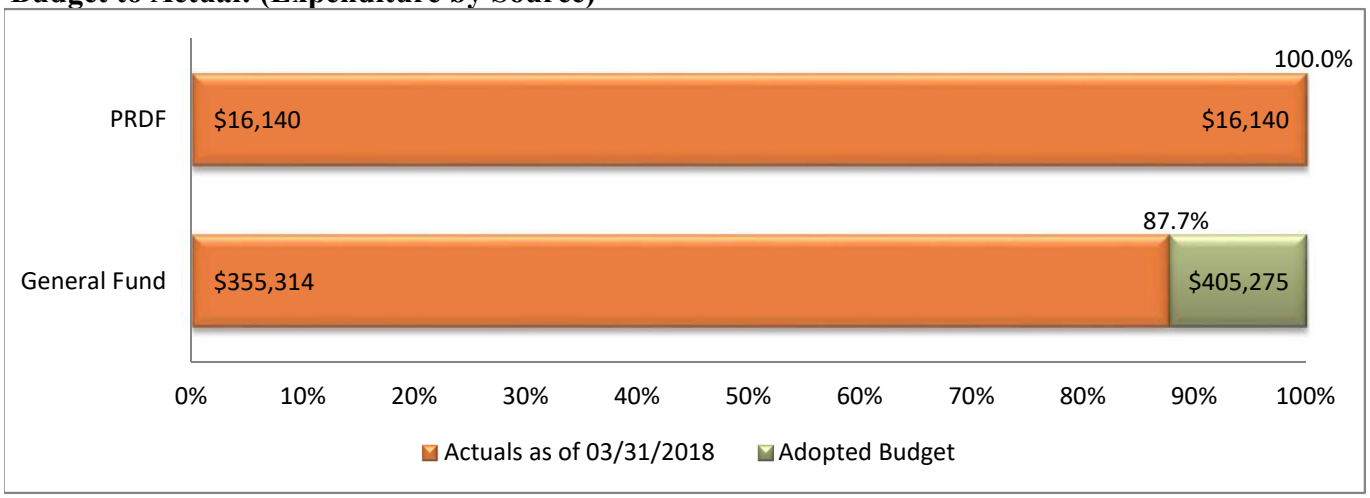
Return to TOC

Project Name: Mann's Crossing Park on the Medina River **Project #** 0410

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Mann's Crossing Park on the Medina River**	**Project #**		**0410**
Managing Department:	Watershed and Park Operations			
		Adopted Budget:	$	16,140
		SARA Contribution:	$	405,275
Project Start Date:	7/1/2013	Unfunded Plan:	$	255,000
Project Finish Date:	6/30/2020	Total Project:	$	676,415

Future development of Mann's Crossing Park will enhance community engagement and appreciation for and recreational use of our creeks and rivers.

Formerly referred to as the Catfish Farm/Medina Paddling Trail, the long-term vision for this property is to develop recreational enhancements while preserving the natural beauty and character of this property adjacent to the Medina River. Additionally, this site will provide an access point along the Medina River for a paddling trail that will be coordinated with other resources along the Medina River including City of San Antonio Parks department, Land Heritage Institute as well as other public and private partners.

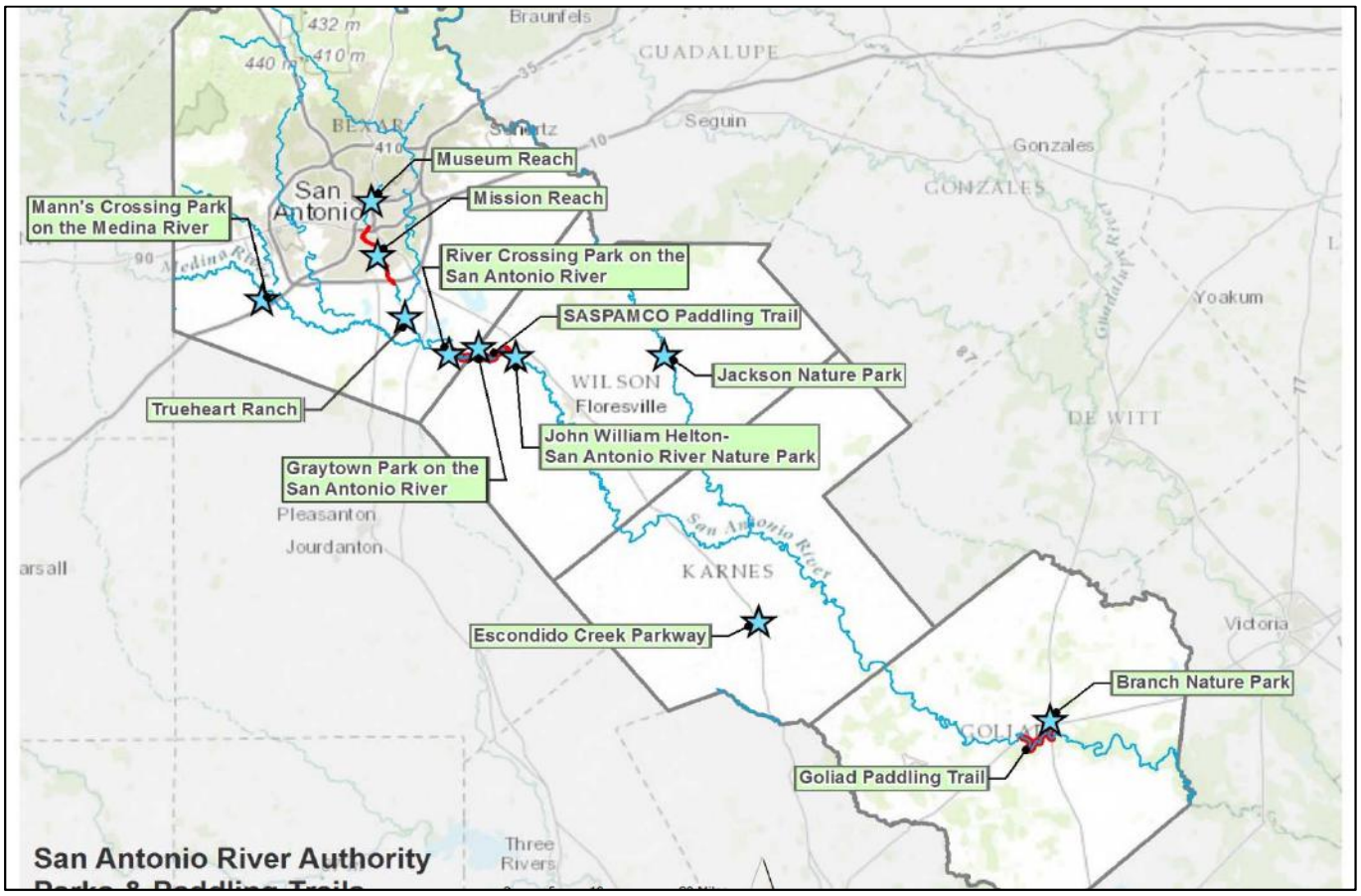
In FY 2018/19, plans are to investigate activities such as a vehicular park entrance and exit, and a park master plan. Should improvements occur as a result of these planning efforts, additional operations and maintenance costs may be incurred. These are unknown at this time.

Spending Plan of Total Project Budget

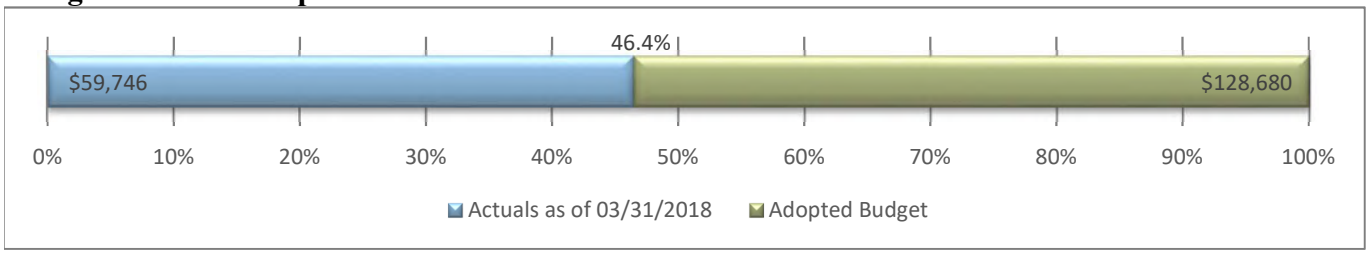
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 75	$ 49,961	$ -	$ -	$ 50,036
Right-of-Way Acquisition	355,239	-	-	-	355,239
Design	-	-	255,000	-	255,000
Capital Outlay	16,140	-	-	-	16,140
Total	$ 371,454	$ 49,961	$ 255,000	$ -	$ 676,415

Return to TOC

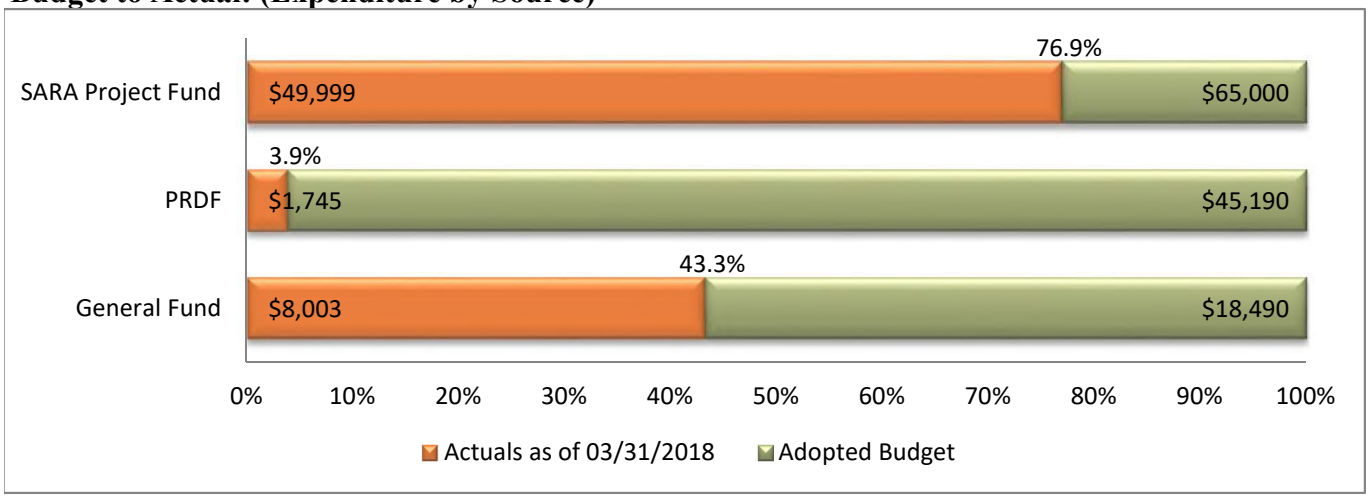
Project Name: **Nature Park Signage Development** **Project #** **0501**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Nature Park Signage Development**		**Project #**	**0501**
Managing Department:	Watershed and Park Operations			
		Adopted Budget:	$	110,190
		SARA Contribution:	$	18,490
Project Start Date:	7/1/2015	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	128,680

The Nature Park Signage Development project designs, constructs, and installs holistic signage packages that are consistent among all operating River Authority nature parks and provides templates for future park developments. The project's goal is to enhance visitor enjoyment, understanding and knowledge of the park as well as identifying other park opportunities/locations that the River Authority has to offer.

Types of signage includes wayfinding 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 (i.e. El Camino Real National Historic Trail, Texas Inland Paddling Trail).

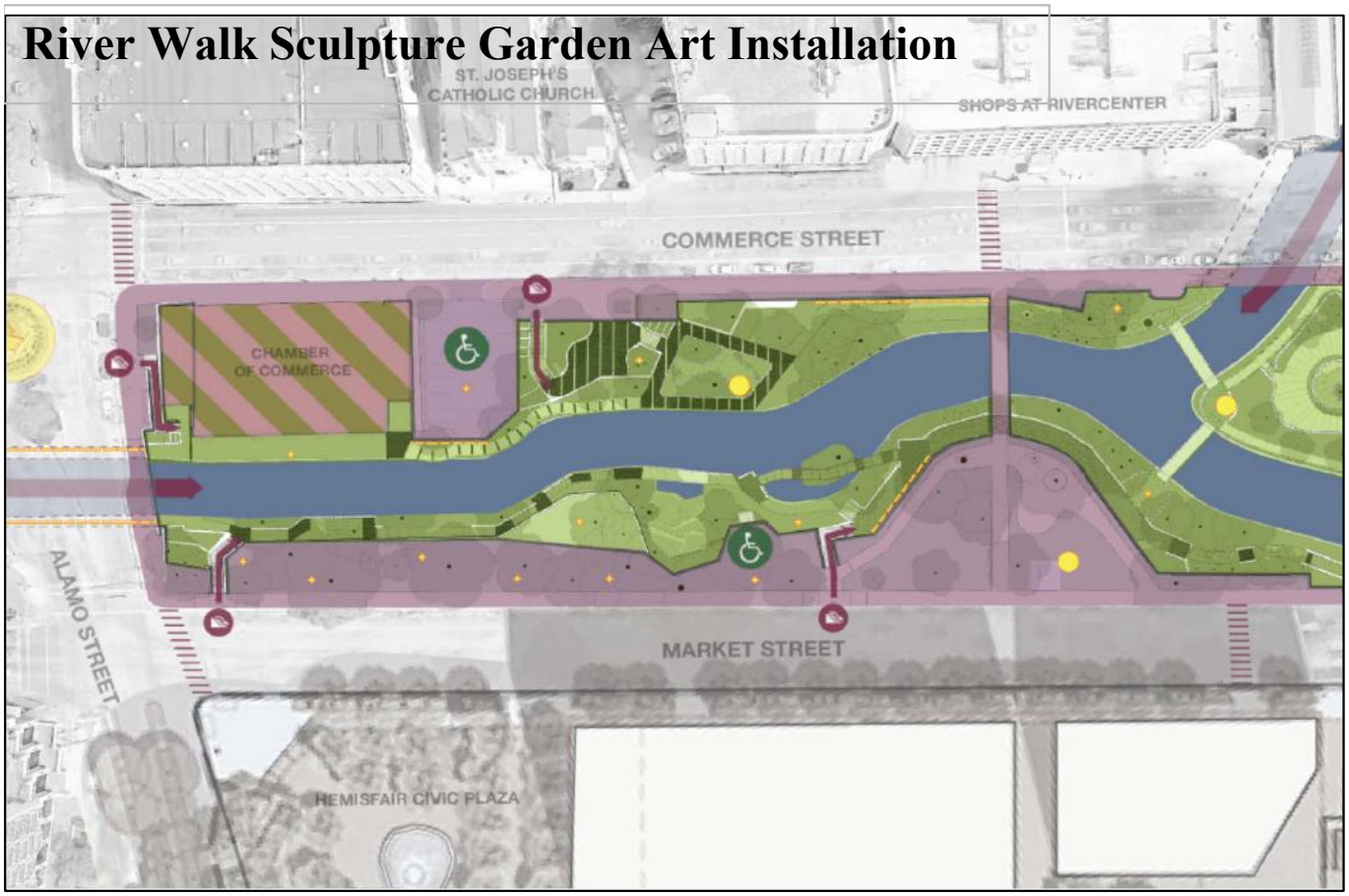
In FY 2017/18, signs were installed at John William Helton San Antonio River Nature Park, Graytown Park on the San Antonio River, Jackson Nature Park, Branch River Park, and the Highway 97 San Antonio River access point. In FY 2018/19, the River Authority will purchase the remaining river signage and install. Operations and maintenance costs associated with this signage are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

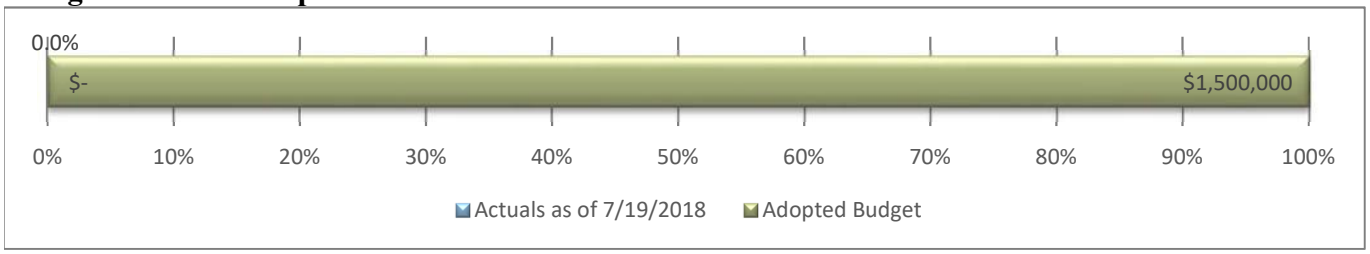
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 8,003	$ 10,487	$ -	$ -	$ 18,490
Equipment	51,744	58,446	-	-	110,190
Total	$ 59,746	$ 68,933	$ -	$ -	$ 128,680

Return to TOC

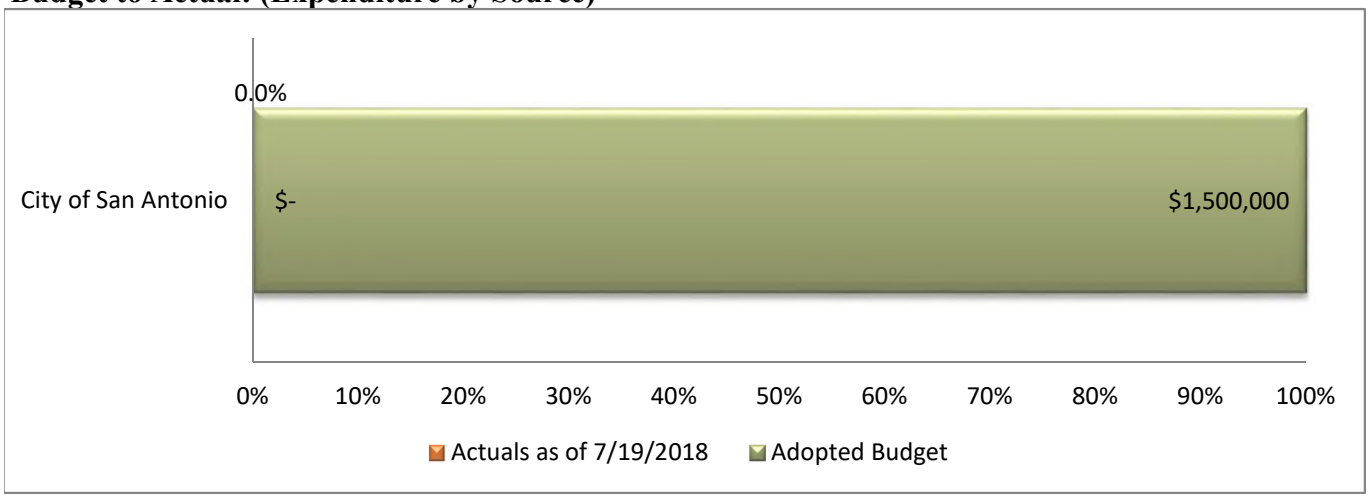
Project Name: River Walk Sculpture Garden Art Installation **Project #** 0599



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**River Walk Sculpture Garden Art Installation**	**Project #**	**0599**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 1,500,000
		SARA Contribution:	$ -
Project Start Date:	5/18/2018	Unfunded Plan:	$ -
Project Finish Date:	3/29/2019	Total Project:	$ 1,500,000

The River Walk Sculpture Garden Project will enhance community appreciation of this area. This project will also enhance the River Authority's partnership with the City of San Antonio (City).

The River Authority will provide the design and construction management of Public Art Projects on behalf of the City of San Antonio Department of Arts & Culture. The projects will consist of permanent and rotating art installations on City property. River Authority staff will coordinate the design with the City, provide consultation on constructability, and provide construction phase services to include contracting with construction contractor(s).

In FY 2018/19, the first phase will consist of design and installation of three pieces near the River Center Mall. The design is anticipated to be complete by the end of July 2018 and the first piece should be installed and ready for dedication by the end of 2018. The remaining pieces of art are scheduled to be installed by March 2019.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Construction	$ -	$ 1,415,095	$ -	$ -	$ 1,415,095
Project Management	$ -	$ 84,905	$ -	$ -	$ 84,905
Total	$ -	$ 1,500,000	$ -	$ -	$ 1,500,000

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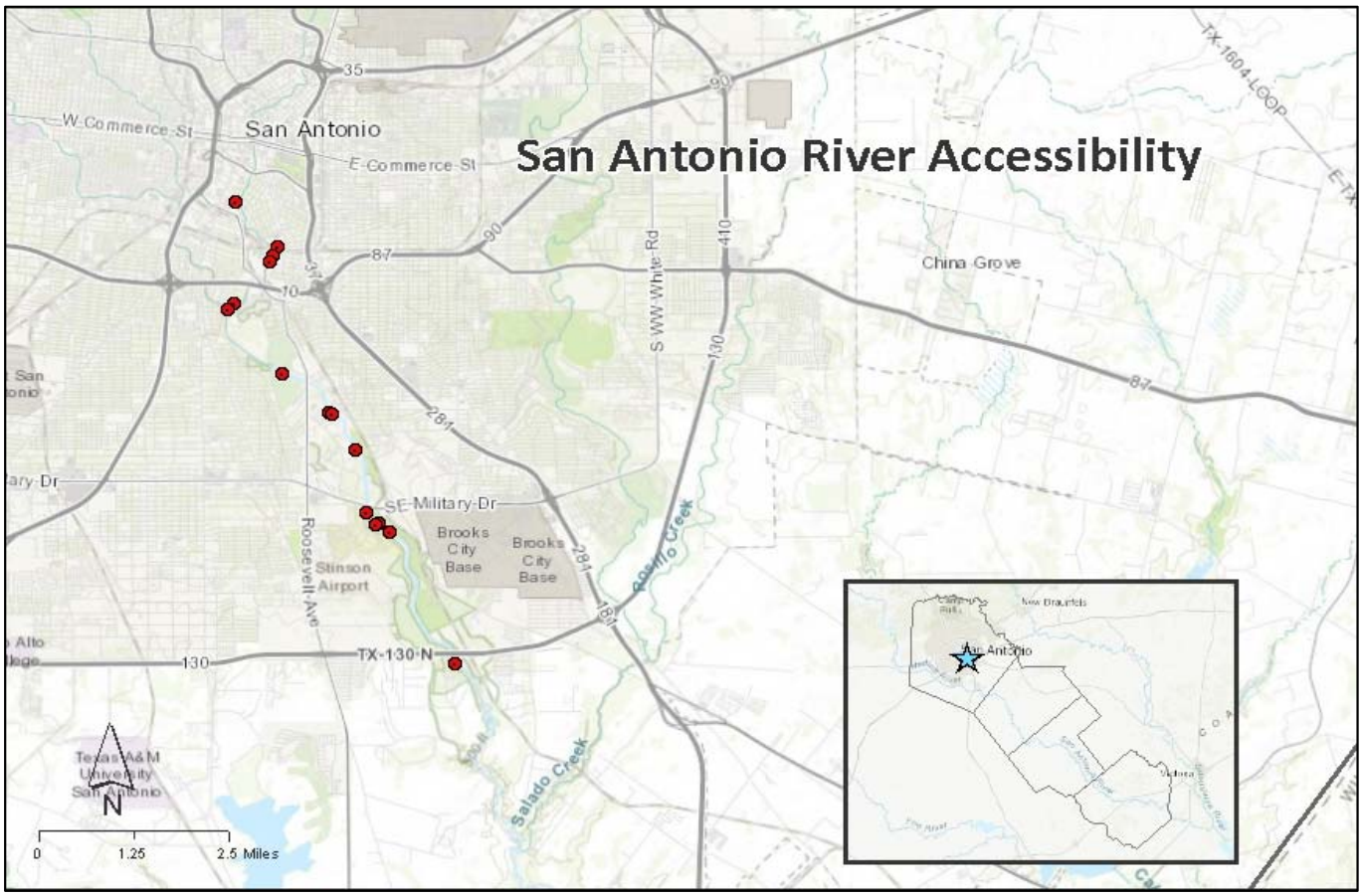
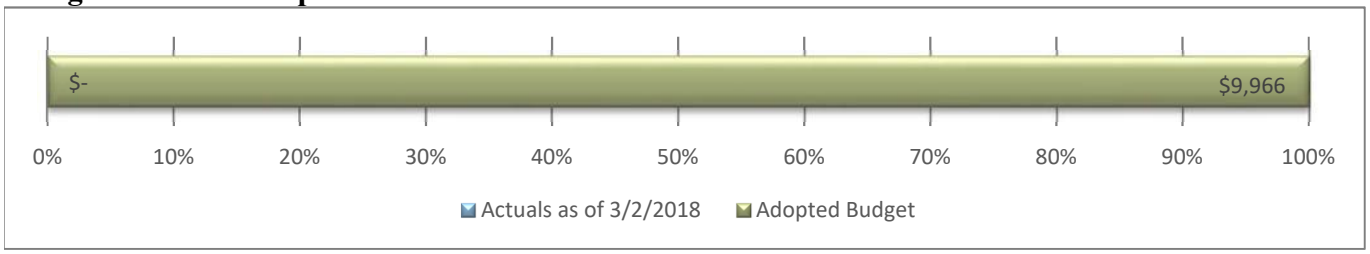
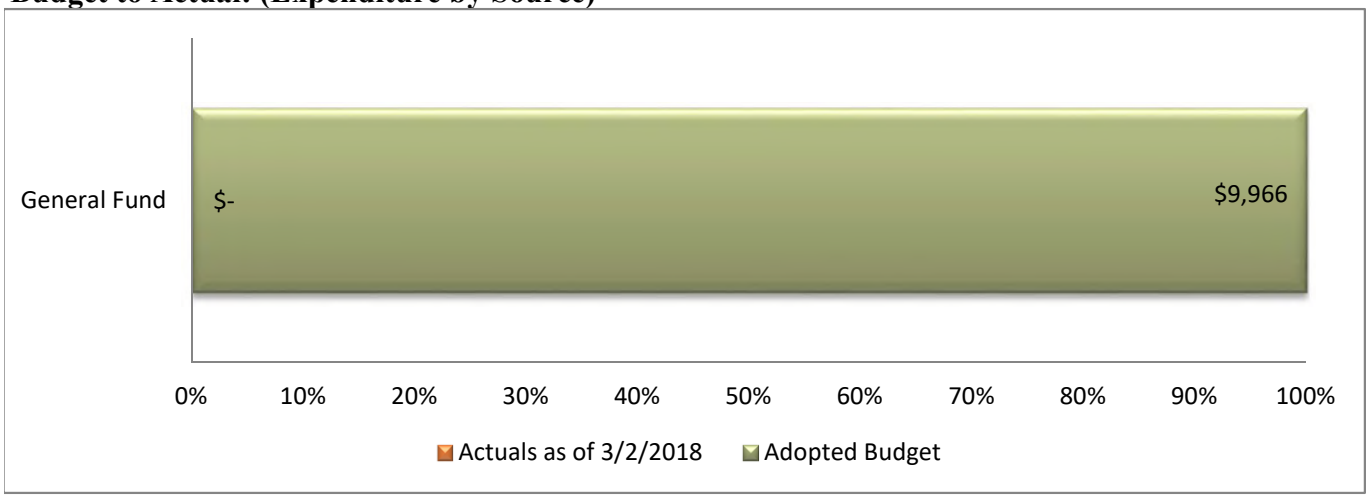
Project Name: San Antonio River Accessibility **Project #** 0610



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**San Antonio River Accessibility**		**Project #**	**0610**
Managing Department:	Watershed and Park Operations			
		Adopted Budget:	$	-
		SARA Contribution:	$	9,966
Project Start Date:	7/1/2018	Unfunded Plan:	$	10,317
Project Finish Date:	6/30/2021	Total Project:	$	20,283

The San Antonio River Accessibility Project promotes continued use of our natural resource by investigating additional public access points to the San Antonio River, to include Museum Reach, Mission Reach, and southern counties, where additional access points would benefit the community as well as River Authority maintenance staff.

In FY 2018/2019, staff will conduct an internal study where locations will be identified, analyzed for feasibility, and prioritized. Cost estimates and preliminary design will be completed in order to facilitate design and construction projects that may develop out of the study. This project will be the umbrella for the portfolio of smaller projects identified to give the needed access along the San Antonio River.

Spending Plan of Total Project Budget

Project Objective:

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 9,966	$ 10,317	$ -	$ 20,283
Total	$ -	$ 9,966	$ 10,317	$ -	$ 20,283

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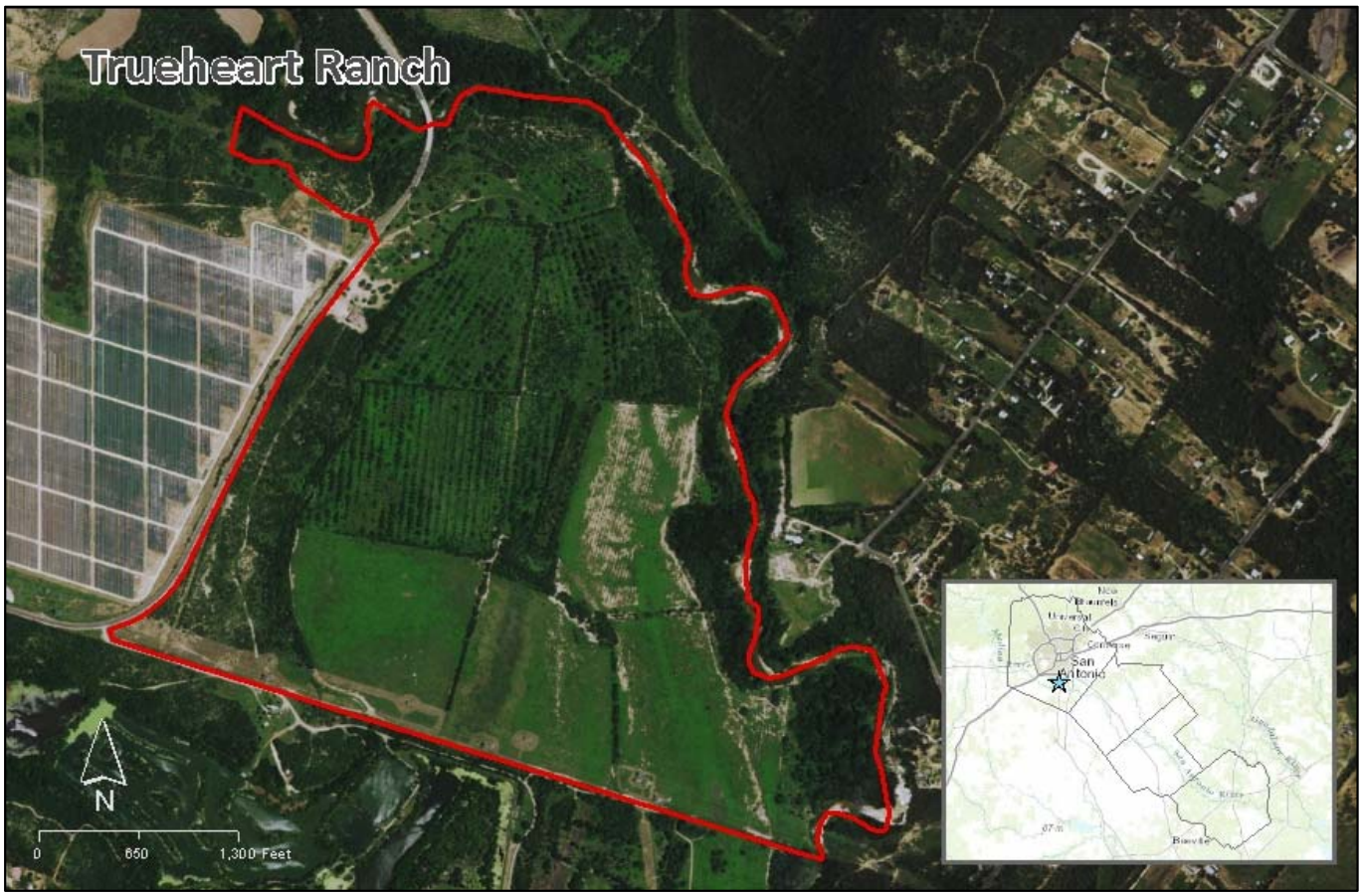
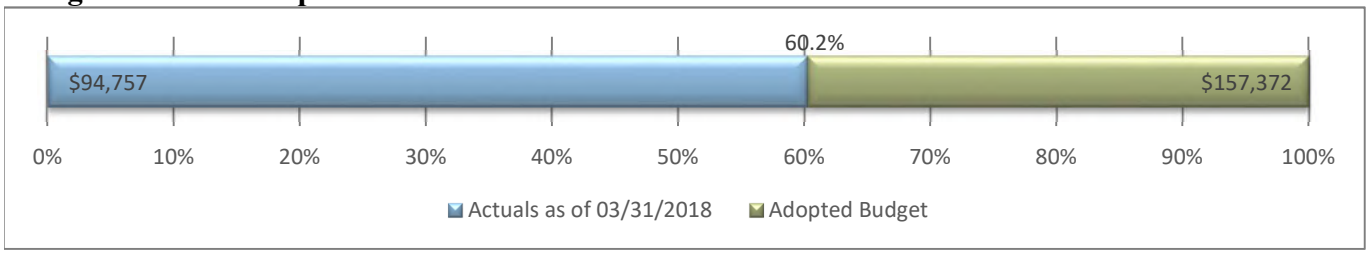
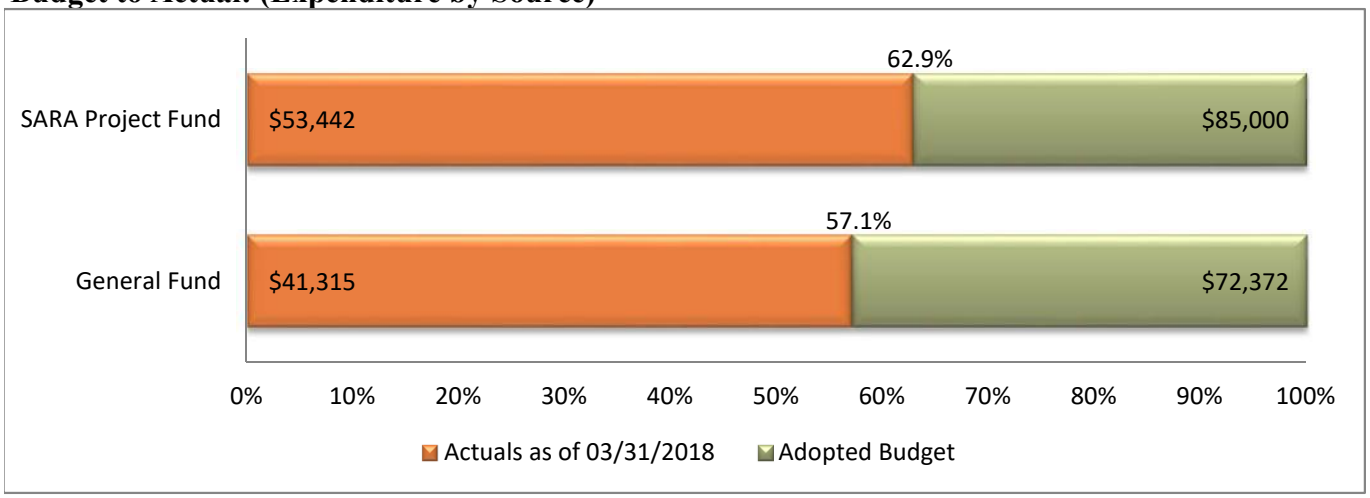
Project Name: **Trueheart Ranch** **Project #** **0436**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Trueheart Ranch**		**Project #**	**0436**
Managing Department:	Watershed and Park Operations			
		Adopted Budget:	$	85,000
		SARA Contribution:	$	72,372
Project Start Date:	4/1/2014	Unfunded Plan:	$	-
Project Finish Date:	6/30/2019	Total Project:	$	157,372

The future Trueheart Ranch park will offer opportunities for park visitors to recreate and increase their awareness and knowledge of the San Antonio River.

Trueheart Ranch, 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.

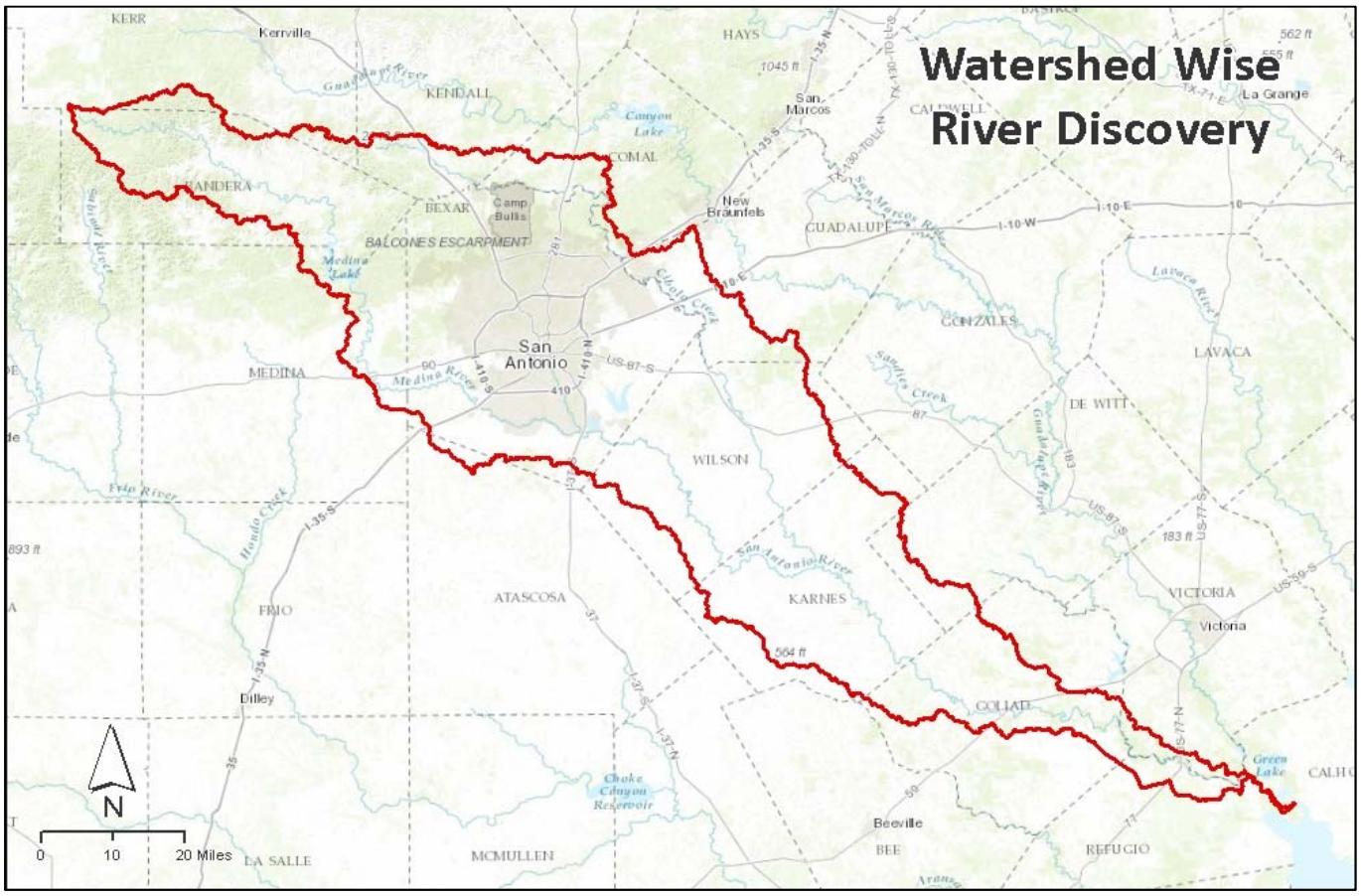
In FY 2014/15, the River Authority acquired the property and master planning efforts ensued. A conservation plan was funded in FY 2015/16, and in FY 2017/18 funding was used to increase site security and protect the historic buildings according to the Conservation Plan. In FY 2018/19, staff time is planned to continue the preservation of the historic buildings. Future amenities may include paddling trail infrastructure, roadways, and other recreational enhancements. Operations and maintenance costs associated with this project are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

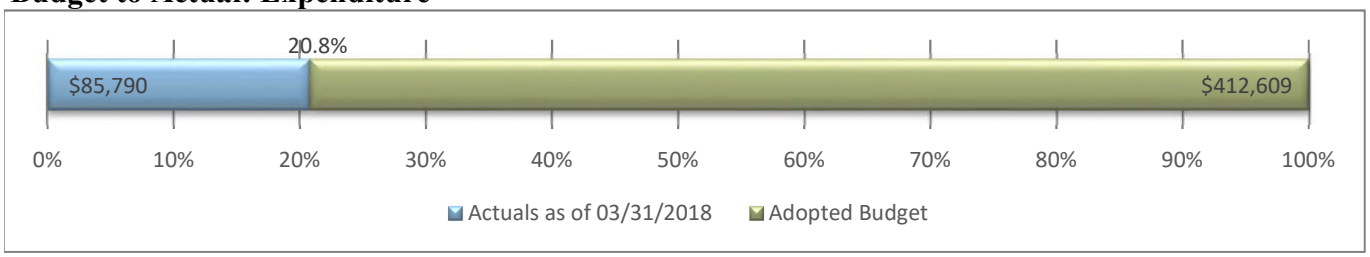
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 2,742	$ 31,058	$ -	$ -	$ 33,800
Construction	38,572	-	-	-	38,572
Contracted & Other Services	53,442	31,558	-	-	85,000
Total	$ 94,757	$ 62,616	$ -	$ -	$ 157,372

Return to TOC

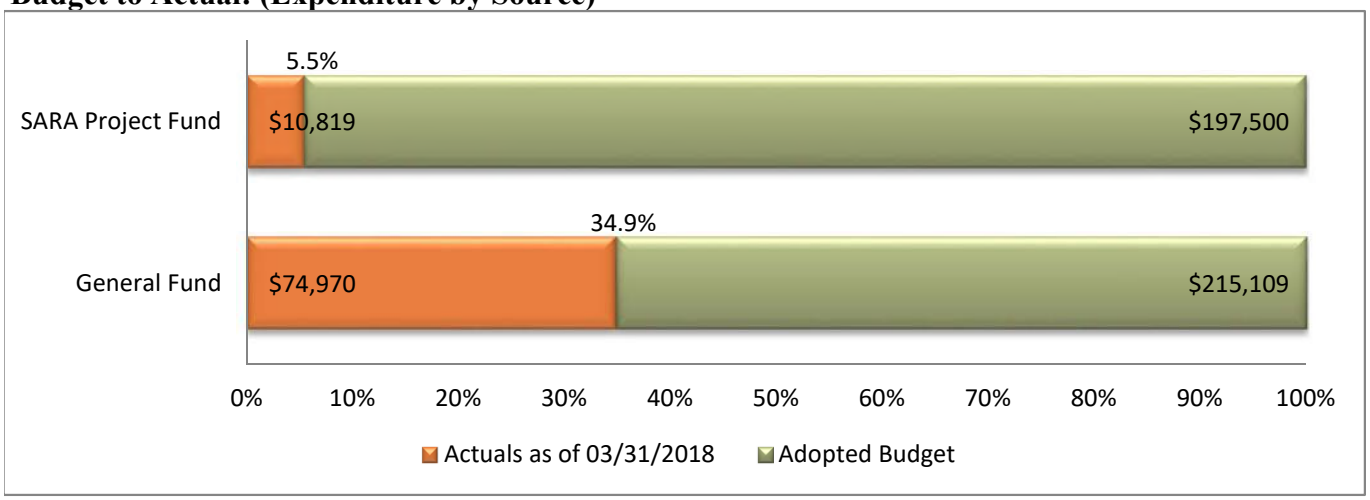
Project Name: **Watershed Wise River Discovery** **Project #** **0553**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Watershed Wise River Discovery**	**Project #**	**0553**
Managing Department:	Intergovernmental and Community Relations		
		Adopted Budget:	$ 197,500
		SARA Contribution:	$ 215,109
Project Start Date:	6/27/2016	Unfunded Plan:	$ -
Project Finish Date:	6/30/2019	Total Project:	$ 412,609

The Watershed Wise River Discovery Project is a multi-faceted outreach and educational project that collects data and information from multiple sources, and presents it through the www.sara-tx.org website to reach a wide audience to enhance community appreciation and recreation for the watershed.

The major public outreach and educational outcomes of the project include improvements to the River Authority's website that involves: the most citizen-relevant information, a combination of GIS and recreation information, digital media and interactive components, design and integration that encourage exploration and discovery, demonstration of the River Authority's watershed expertise, and increasing public awareness of and engagement with the River Authority.

This project, which was initiated in FY 2016/17, provides various informative and interactive modules to include water quality, aquatic and riparian ecosystems, recreation, bays and estuaries, and historical information including the acequias, geology, and economic uses.

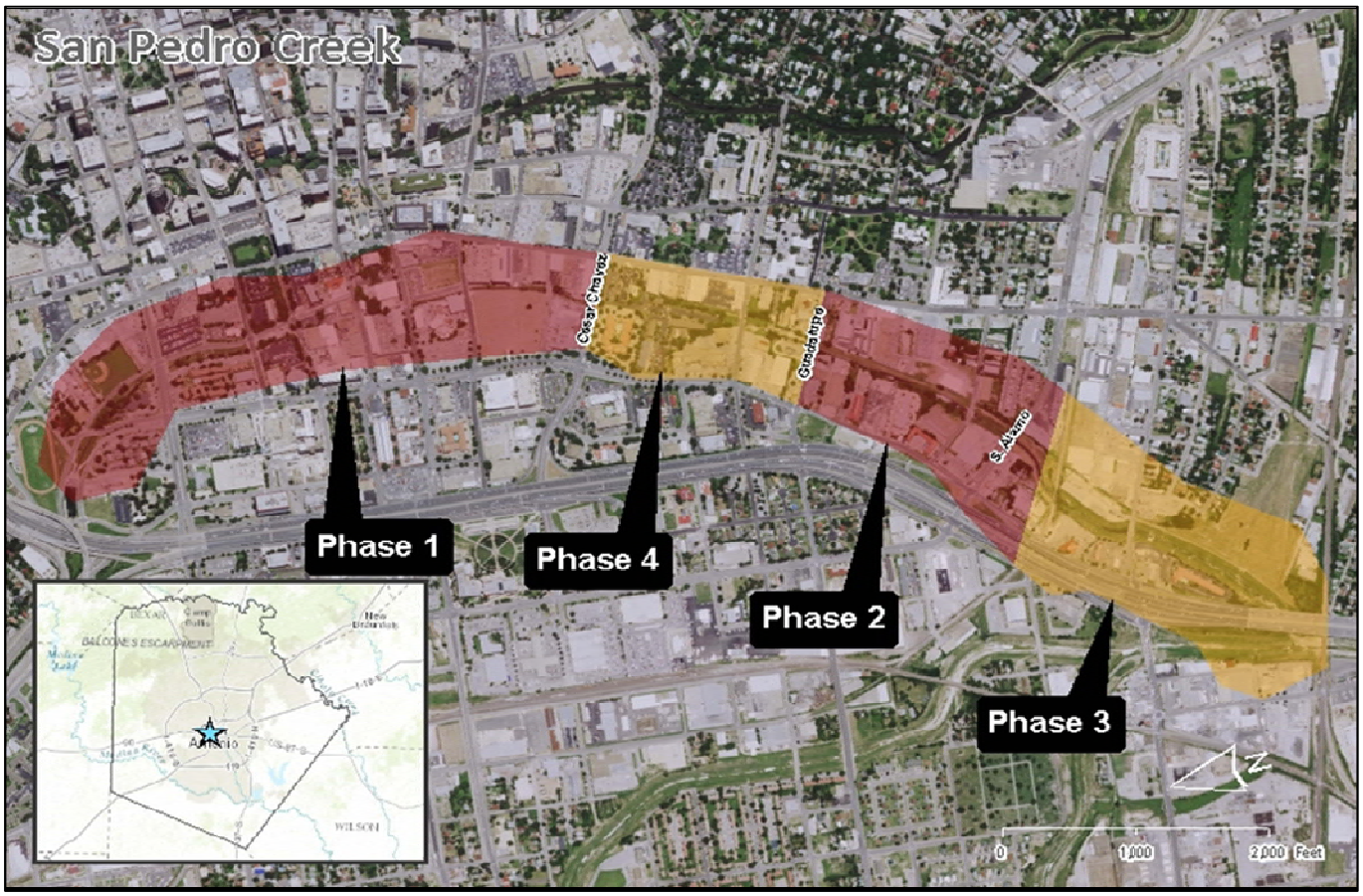
In FY 2017/18, the project continued to gather the information and digital media (videos, graphics, data, dynamic maps) necessary to complete and make available to the public two of the topic modules, Water Quality and Recreation, as well as compile the copy and digital media towards fifty percent completion of the remaining modules. This phase of the project will be finalized and made available to the public in FY 2018/19. The project will require additional operations and maintenance expenditures by the River Authority. However, these cannot yet be quantified as the project is still in its early phases.

Spending Plan of Total Project Budget

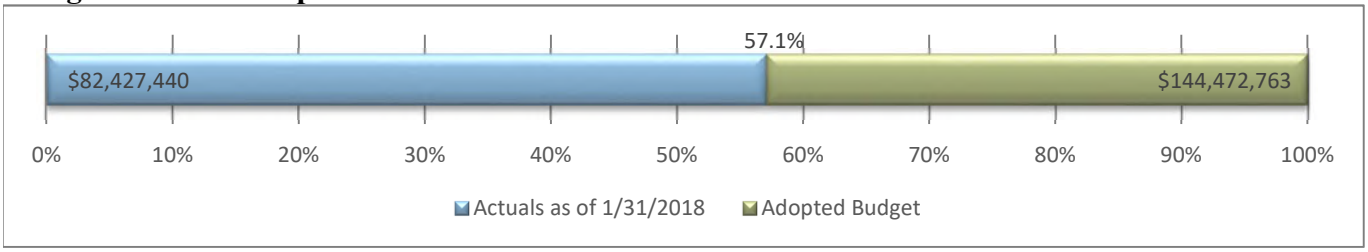
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 74,908	$ 136,473	$ -	$ -	$ 211,381
Contracted & Other Services	-	56,765	-	-	56,765
Professional Services	10,882	133,581	-	-	144,462
Total	$ 85,790	$ 326,819	$ -	$ -	$ 412,609

Return to TOC

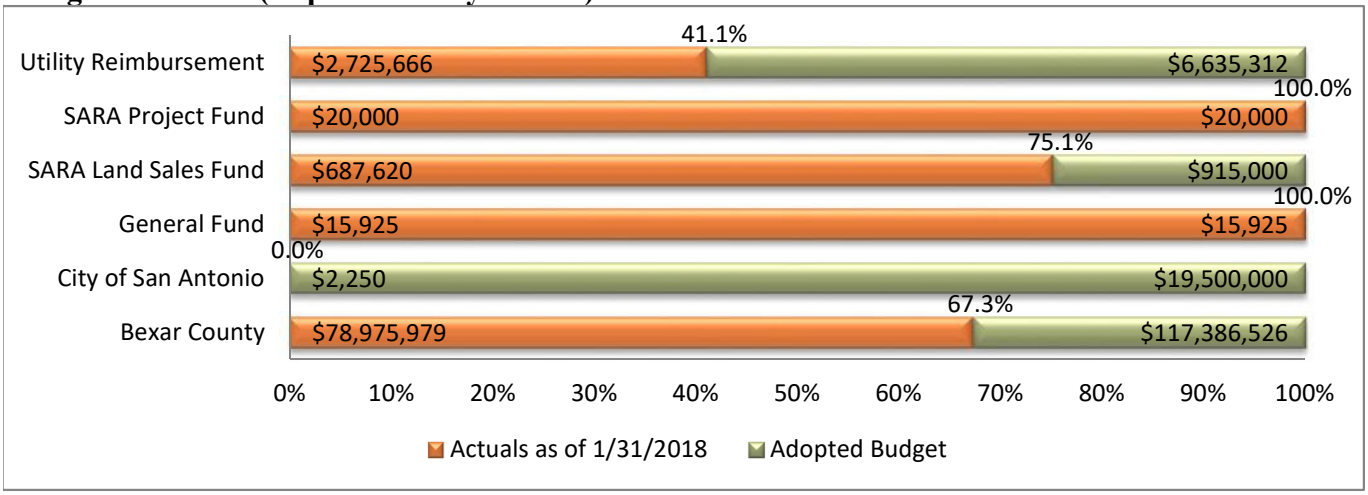
Project Name:	Westside Creeks San Pedro Creek	Project #	0378



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Westside Creeks San Pedro Creek**	**Project #**	**0378**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 144,472,763
		SARA Contribution:	$ -
Project Start Date:	8/1/2012	Unfunded Plan:	$ 16,168,475
Project Finish Date:	8/28/2018	Total Project:	$ 160,641,238

Bexar County and the River Authority, in coordination with the City of San Antonio, are transforming San Pedro Creek into a resource that reflects the community's cultural history, improves its function in flood control, revitalizes natural habitat and water quality, and promotes economic development. These activities are in support of enhancing community appreciation and recreational use of our creeks.

The San Pedro Creek Improvements project begins at the tunnel inlet near Fox Tech High School and winds its way through the western side of downtown to the creek's confluence with the Alazan and Apache Creeks. Once fully constructed, the project will include approximately 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.

Bexar County and the River Authority authorized the use of an alternative project delivery method, Construction Manager at Risk, in December 2015 to maintain the project schedule for phases 1.1 and 1.2. Phase 1.1 stretches from the flood control inlet tunnel to Houston Street and was completed and opened to the public on May 5, 2018 as part of the 300th anniversary of the City of San Antonio festivities.

Phase 1.2 from Houston Street to Nueva Street is in construction and is anticipated to be completed in 2020. Operations and maintenance costs are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Right-of-Way Acquisitio	$ 5,181,769	$ 460,648	$ -	$ -	$ 5,642,417
Pre-Design	685,925	30,000	-	-	715,925
Design	20,190,424	1,694,126	-	-	21,884,550
Construction	52,936,036	71,891,998	-	-	124,828,034
Utility Relocations	2,725,666	3,909,646	-	-	6,635,312
Public Outreach	707,620	227,380	-	-	935,000
Total	$ 82,427,440	$ 78,213,798	$ -	$ -	$ 160,641,238

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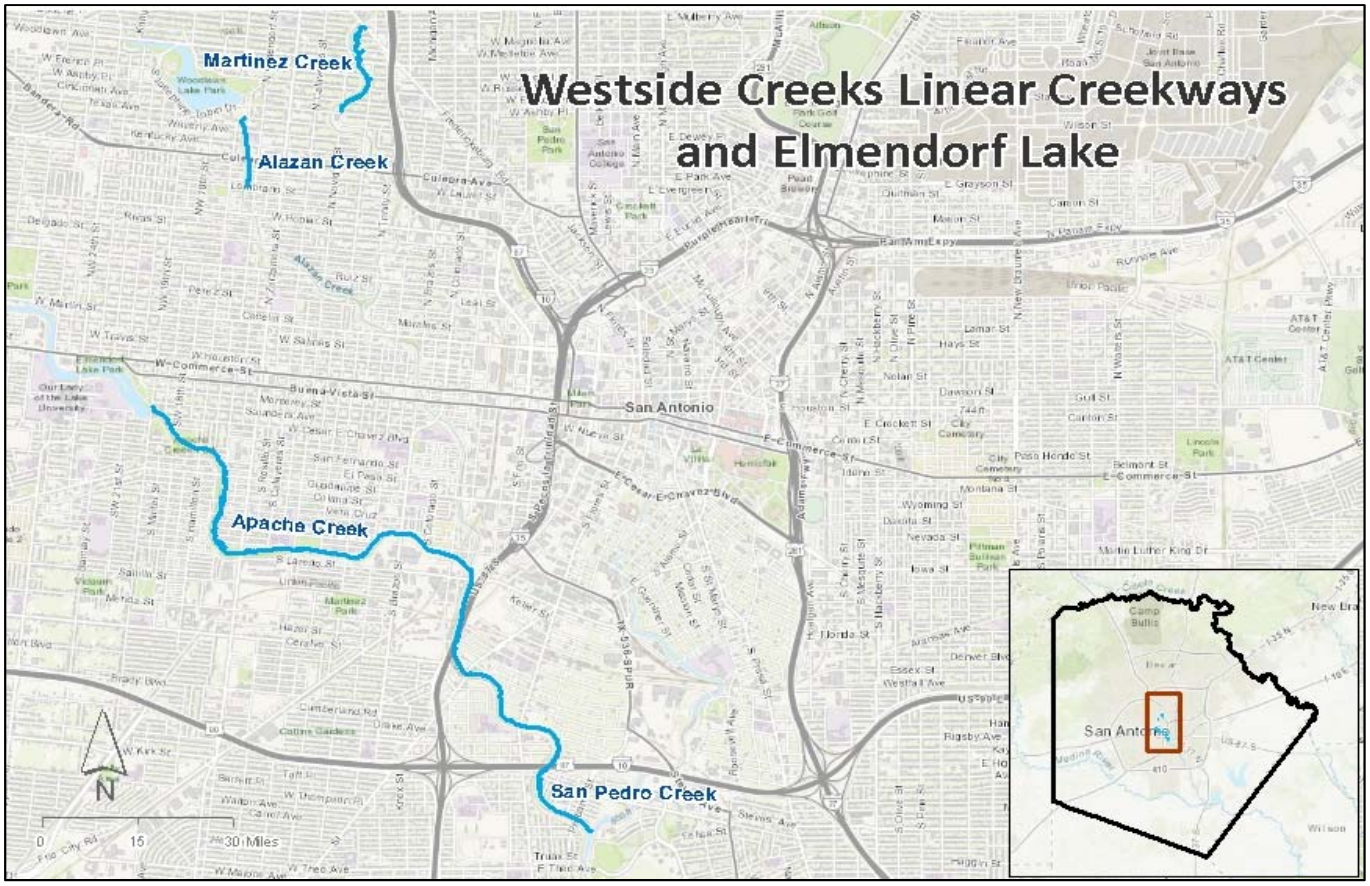
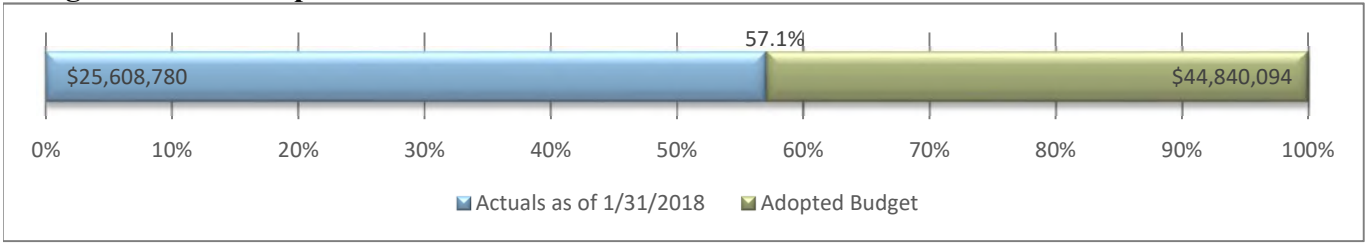
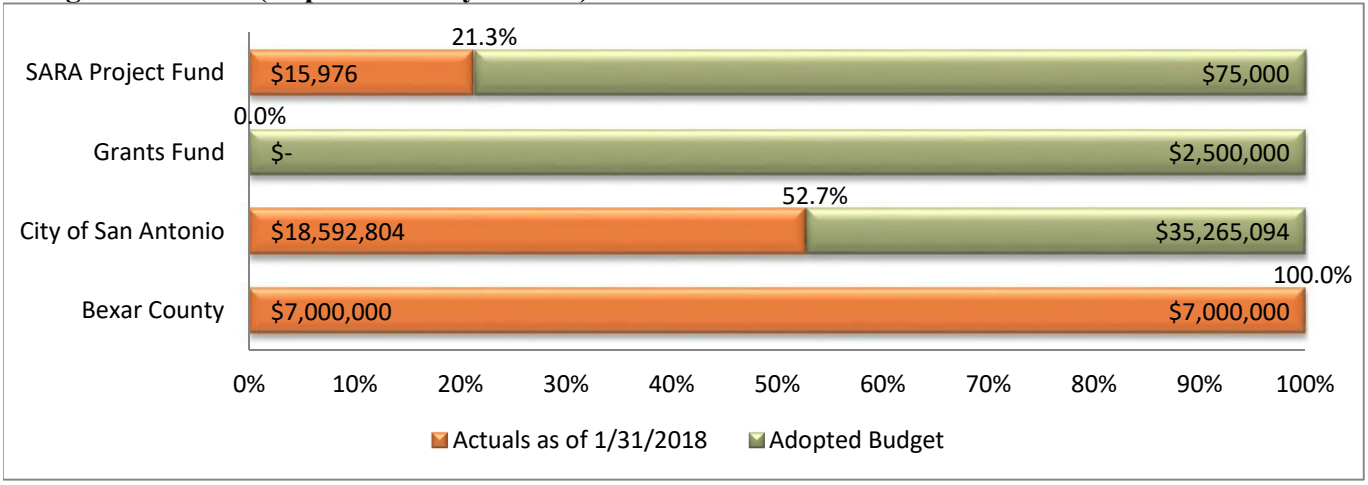
Project Name: WSC - Linear Creek Trails and Elmendorf Lake Park **Project #** 0380



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**WSC - Linear Creek Trails and Elmendorf Lake Park**	**Project #**	**0380**
Managing Department:	Watershed Engineering		
		Adopted Budget:	$ 44,840,094
		SARA Contribution:	$ -
Project Start Date:	1/1/2012	Unfunded Plan:	$ -
Project Finish Date:	3/5/2021	Total Project:	$ 44,840,094

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 segments of linear creekway trails along the Westside Creeks. The Apache and San Pedro Creeks trail connected Elmendorf Lake Park to the San Antonio River. The 10-foot wide trail included amenities such as shade structures, drinking fountains, signage, and seating. The Alazan Creek trail connected Woodlawn Lake Park to West End Park, and along Martinez Creek, the trail connected Fredericksburg Road to Cincinnati Avenue. The Martinez Creek segment included multimodal connections by linking VIA Metropolitan Transit's Primo bus station to the creekway trail and a bike lane along Cincinnati Avenue that extends into Woodlawn Lake Park. The design and construction of these improvements was managed by the River Authority and completed in 2016. In May 2015, the voters approved another proposition that funds additional Linear Creekway Trails segments along the Westside Creeks. The River Authority manages these projects to completion.

The Elmendorf Lake Park Improvements Project, completed in 2016, was approved by City of San Antonio voters in 2012 with the passage of the 2012 bond, and received additional funding from Bexar County for flood control and water quality enhancements around the lake. The improvements included recreational 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) were installed and included fountains and aerators in the lake, rain gardens and bioswales, shoreline invasive plant removal, and a recirculating water feature. In 2017, voters approved additional bond funds to construct an aquatic facility. The facility will include a pool with lap lanes, a beach entry pool, changing rooms, restrooms, and landscaping.

In FY 2018/19, the River Authority will complete the design process and begin construction on the second phase of trails along the Alazan, Martinez, and Zarzamora Creeks. The Alazan Creek trail will extend from Lombrano Street to the confluence with Apache Creek near Laredo Street, the Martinez Creek trail will extend from Cincinnati Avenue to the confluence of Alazan Creek at Mario Farias Park and the Zarzamora Creek trail will extend from General McMullen to Alderete Park located on Aurora Avenue and NW 36th Street. These trails will be 10-feet in width and will include amenities such as trail heads, seating, and signage. Construction is projected to begin on the first two segments of these improvements in January 2019. The Confluence Park stairway connection will be constructed and will serve as an official entrance to the park from the Mission Reach trail system and nearby San Pedro Creek trail system. Lastly, the Elmendorf Lake Park pool and amenities will be designed and constructed, and is proposed to be in operation by May 2019. The River Authority will not be responsible for operations and maintenance on this project.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Right-of-Way Acquisition	$ 204,346	$ -	$ -	$ -	$ 204,346
Design	4,229,694	13,155,193	-	-	17,384,887
Construction	20,171,006	5,090,700	-	-	25,261,706
Public Outreach	15,976	59,024	-	-	75,000
Project Management Fee	987,758	926,397	-	-	1,914,155
Total	$ 25,608,780	$ 19,231,314	$ -	$ -	$ 44,840,094

Return to TOC

SAN ANTONIO
RIVER AUTHORITY

Leaders in Watershed Solutions

Return to TOC

Projects Goal #4

Martinez II Wastewater Treatment Plant and Recycling Facility
Converse, Bexar County

Return to TOC

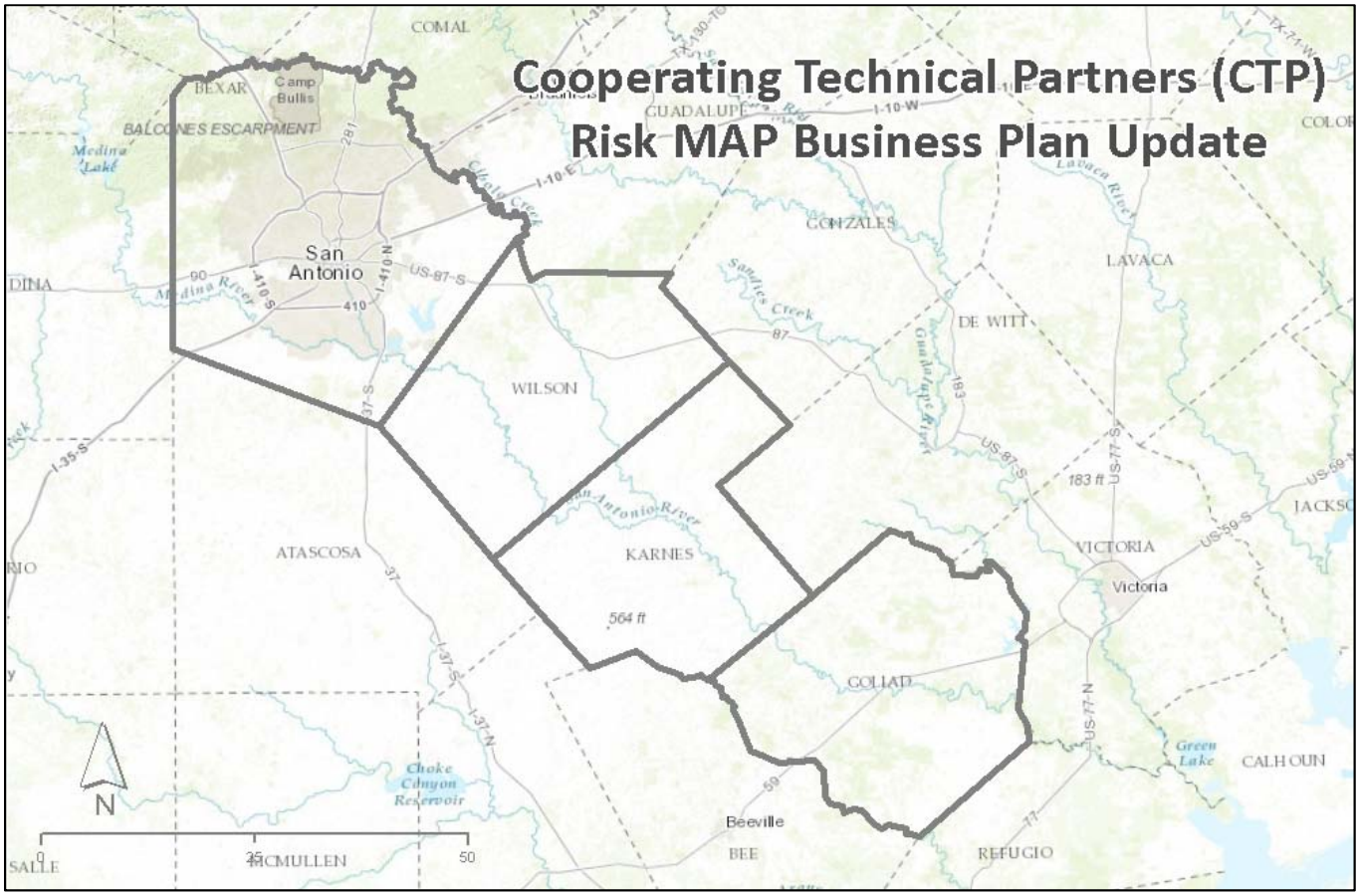
AGENCY GOAL #4

Maximize Strategic Use of Resources – Diversify and leverage funding, technology, and people (employees, partners, community) to strengthen business processes and SARA service delivery.

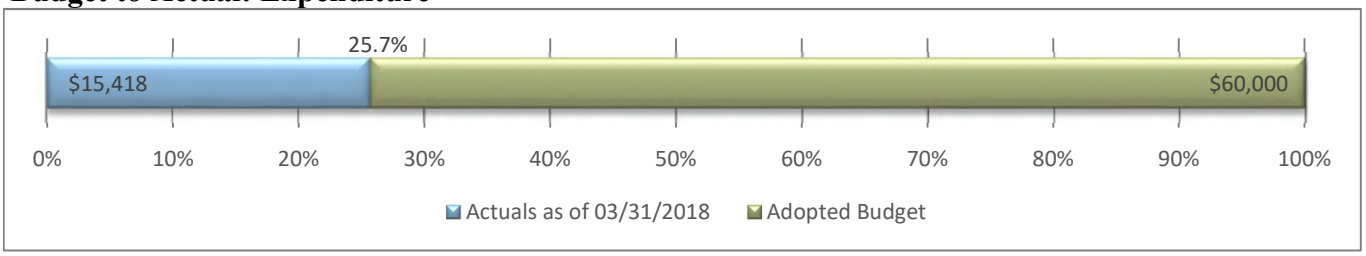
Return to TOC

Cooperating Technical Partners (CTP) Risk

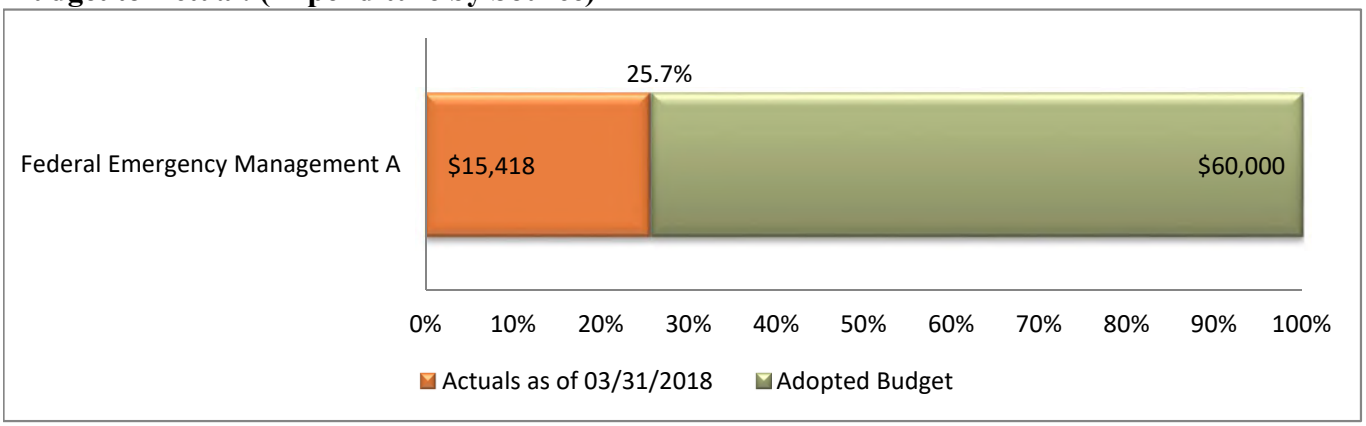
Project Name: **MAP Business Plan Update** **Project #** **0562**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Cooperating Technical Partners (CTP) Risk

Project Name:	**MAP Business Plan Update**		**Project #**	**0562**
Managing Department:	Watershed Engineering			
		Adopted Budget:	$	60,000
		SARA Contribution:	$	-
Project Start Date:	10/1/2016	Unfunded Plan:	$	-
Project Finish Date:	10/31/2018	Total Project:	$	60,000

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.

The project will deliver a business plan that will serve as a resource for planning future Risk MAP activities.

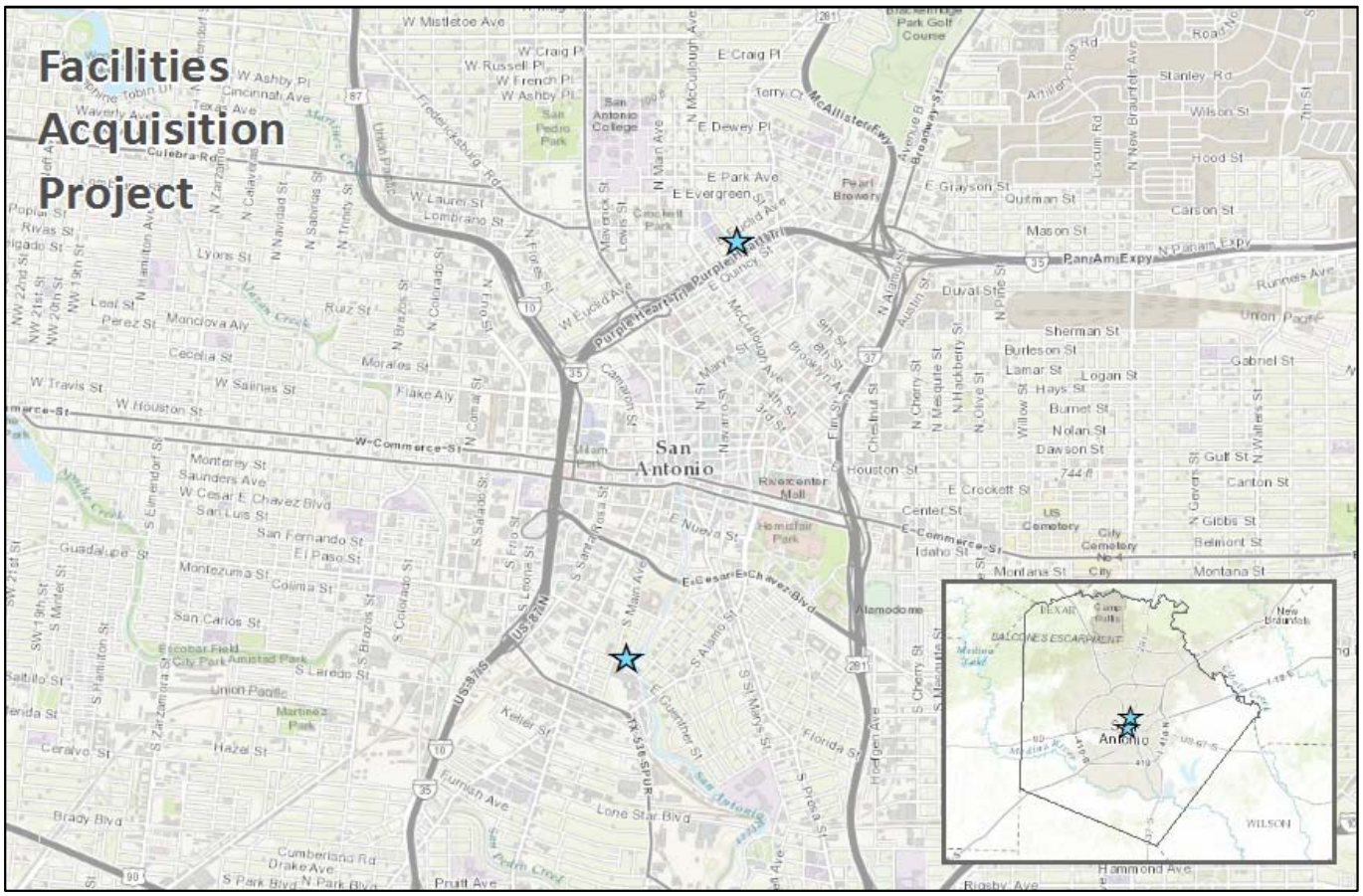
In FY 2018/19, the current Risk MAP Quality Management Plan will be updated. The updates will include documentation of the procedures and checklists used to ensure the data, floodplain mapping, and flood risk products produced under each Risk MAP grant meet FEMA standards.

Spending Plan of Total Project Budget

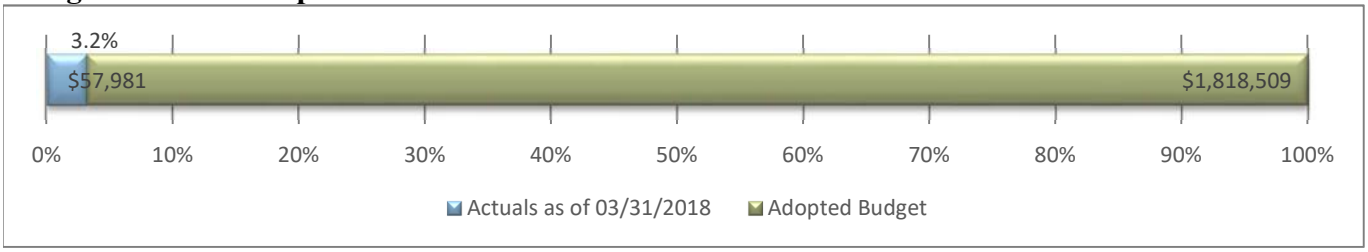
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 15,418	$ 44,582	$ -	$ -	$ 60,000
Total	$ 15,418	$ 44,582	$ -	$ -	$ 60,000

Return to TOC

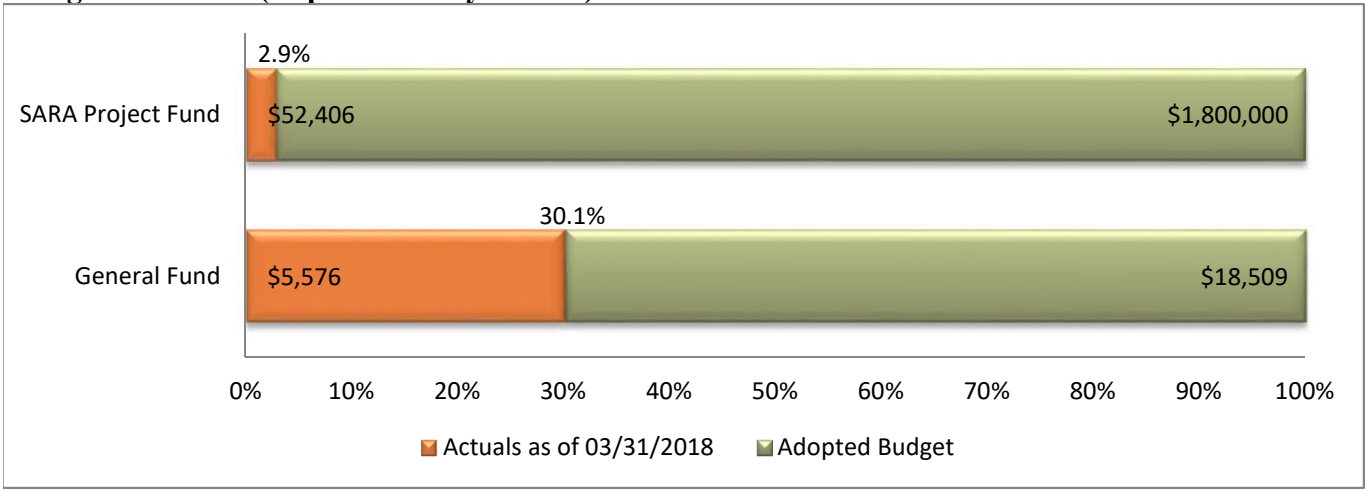
Project Name: **Facilities Acquisition/ Improvements** **Project #** **0585**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Facilities Acquisition/ Improvements**	**Project #**	**0585**
Managing Department:	Facilities		
		Adopted Budget:	$ 1,800,000
		SARA Contribution:	$ 18,509
Project Start Date:	7/1/2017	Unfunded Plan:	$ -
Project Finish Date:	6/30/2020	Total Project:	$ 1,818,509

The River Authority has various needs and opportunities for facilities acquisition and improvements including additional administrative space, a location for Watershed and Park Operations staff to serve San Pedro Creek improvements once completed, and renewal of aging infrastructure in existing facilities. The River Authority is working to finalize a facilities plan. Funding for this project will help further the plan as well as improve the current working conditions of existing facilities.

Initial efforts for the Facilities Acquisition/ Improvements project include heating, ventilation, and air conditioning (HVAC) studies for Guenther Street and Euclid Avenue office buildings. Studies to include cost estimates, design, and reconfiguration options. Additionally, a commercial real estate consultant will seek alternatives to meet the River Authority's space needs.

In FY 2018/19, the heating, ventilation, and air conditioning (HVAC) studies for the Guenther Street main office and Euclid Avenue environmental center will be completed. The River Authority purchased land during FY 2017/18 to house San Pedro Creek operations staff and equipment. During FY 2018/19, staff will proceed with construction of a building to facilitate operations and maintenance functions for San Pedro Creek. Operations and maintenance budget for the future facility are in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 5,576	$ 12,933	$ -	$ -	$ 18,509
Contracted & Other Services	46,406	343,594	-	-	390,000
Capital Outlay	6,000	1,404,000	-	-	1,410,000
Total	$ 57,981	$ 1,760,528	$ -	$ -	$ 1,818,509

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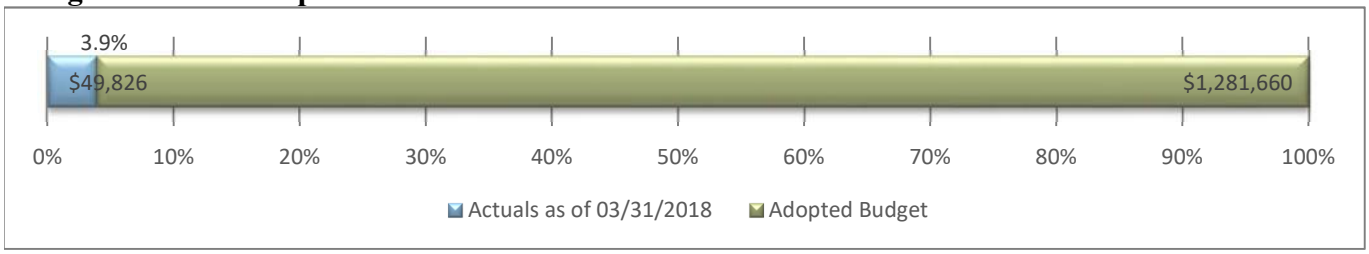
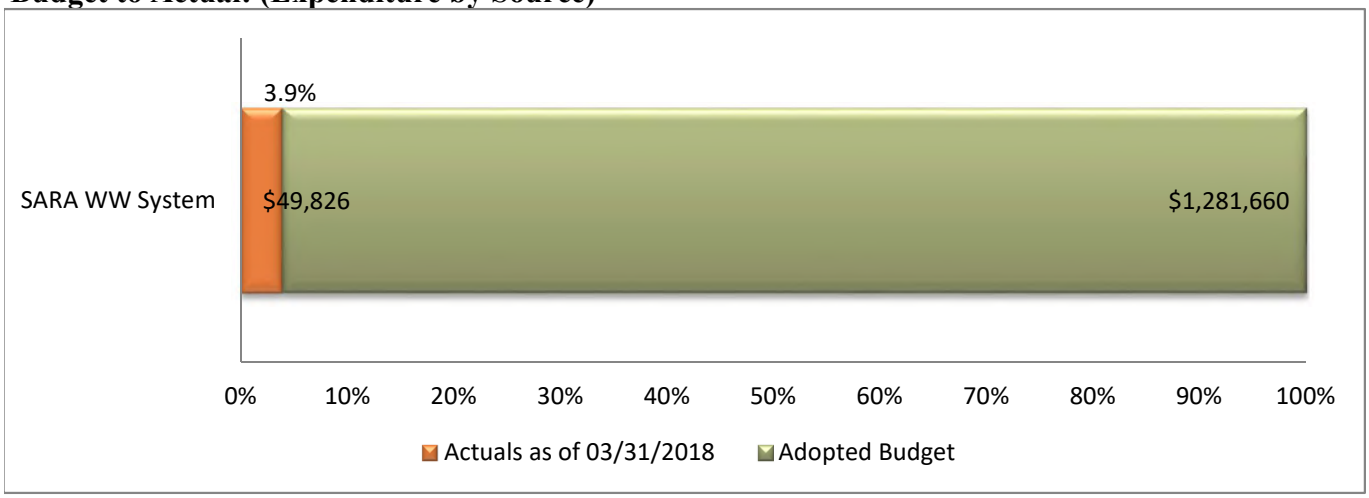
Project Name: **Martinez II Screw Pump Replacement** **Project #** **0582**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Martinez II Screw Pump Replacement**	**Project #**	**0582**
Managing Department:	Utilities		
		Adopted Budget:	$ 1,281,660
		SARA Contribution:	$ -
Project Start Date:	10/23/2017	Unfunded Plan:	$ -
Project Finish Date:	12/7/2018	Total Project:	$ 1,281,660

The Martinez II Screw Pump project designs and constructs the 48-inch screw pump and the 66-inch screw pump at the Martinez II Wastewater Treatment Plant. Both screw pumps were installed in 1986. The 48-inch screw pump is currently out of service and cannot be repaired. The 66-inch screw pump has had some final repairs and needs to be replaced due to the end of useful life.

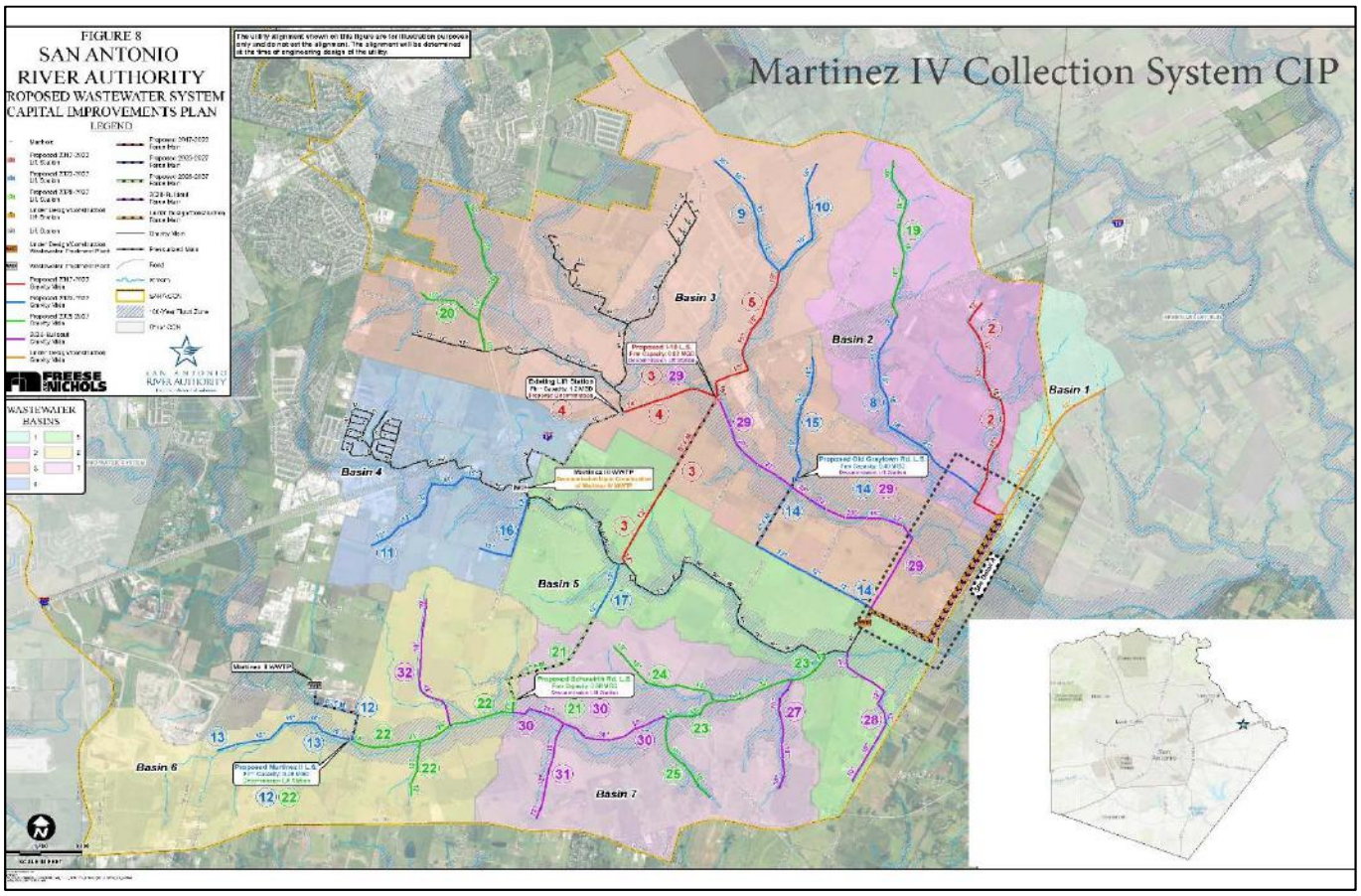
In FY 2018/19, the pumps will be delivered and installed. The project is anticipated to close in early December. New screw pumps will ensure the Martinez II wastewater treatment plant will have adequate pumping capacity at the headworks to prevent any chance of overflow from the wastewater collection system. Operations and maintenance expenditures could be reduced slightly as a result of new equipment being put into place.

Spending Plan of Total Project Budget

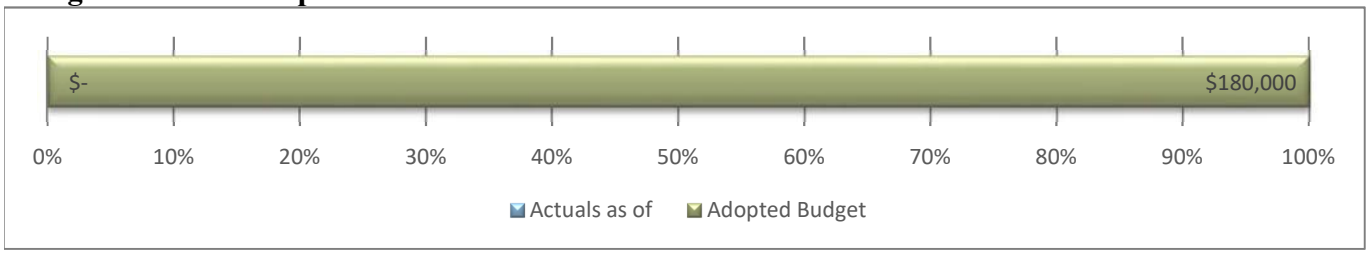
Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 18,245	$ 27,964	$ -	$ -	$ 46,209
Design	31,120	90,610	-	-	121,730
Construction	462	1,113,259	-	-	1,113,721
Total	$ 49,826	$ 1,231,834	$ -	$ -	$ 1,281,660

Return to TOC

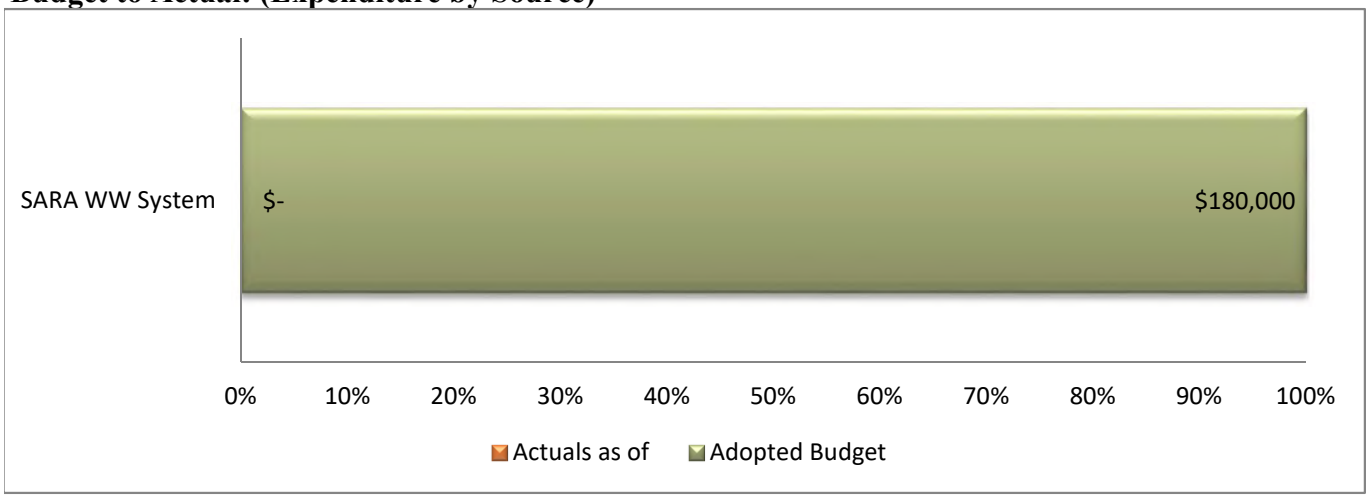
Project Name: **Martinez IV Collection System CIP** **Project #** **0611**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Martinez IV Collection System CIP**		**Project #**	**0611**
Managing Department:	Utilities			
		Adopted Budget:	$	180,000
		SARA Contribution:	$	-
Project Start Date:	7/1/2018	Unfunded Plan:	$	-
Project Finish Date:	6/30/2028	Total Project:	$	180,000

The Martinez IV Collection System CIP project will begin design on new collection system lines in the Martinez IV service area identified in the Martinez IV Service Area Master Plan completed in FY 2017/18. The plan identifies thirty-three capital improvement projects to develop the service area to ultimate build out. The improvements in the plan were phased by planning year depending on the timing of projected developments. As development in the area occurs staff will work with developers on the design and construction of the collection system.

In FY 2018/19, work will include the design of Project 4 by River Authority engineers. The construction of Project 4 is projected to take place in FY 2019/20. As lines and/or lift stations are installed there will be future operations and maintenance expenditures associated with the maintenance of the collection system.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Contracted & Other Services	$ -	$ 180,000	$ -	$ -	$ 180,000
Total	$ -	$ 180,000	$ -	$ -	$ 180,000

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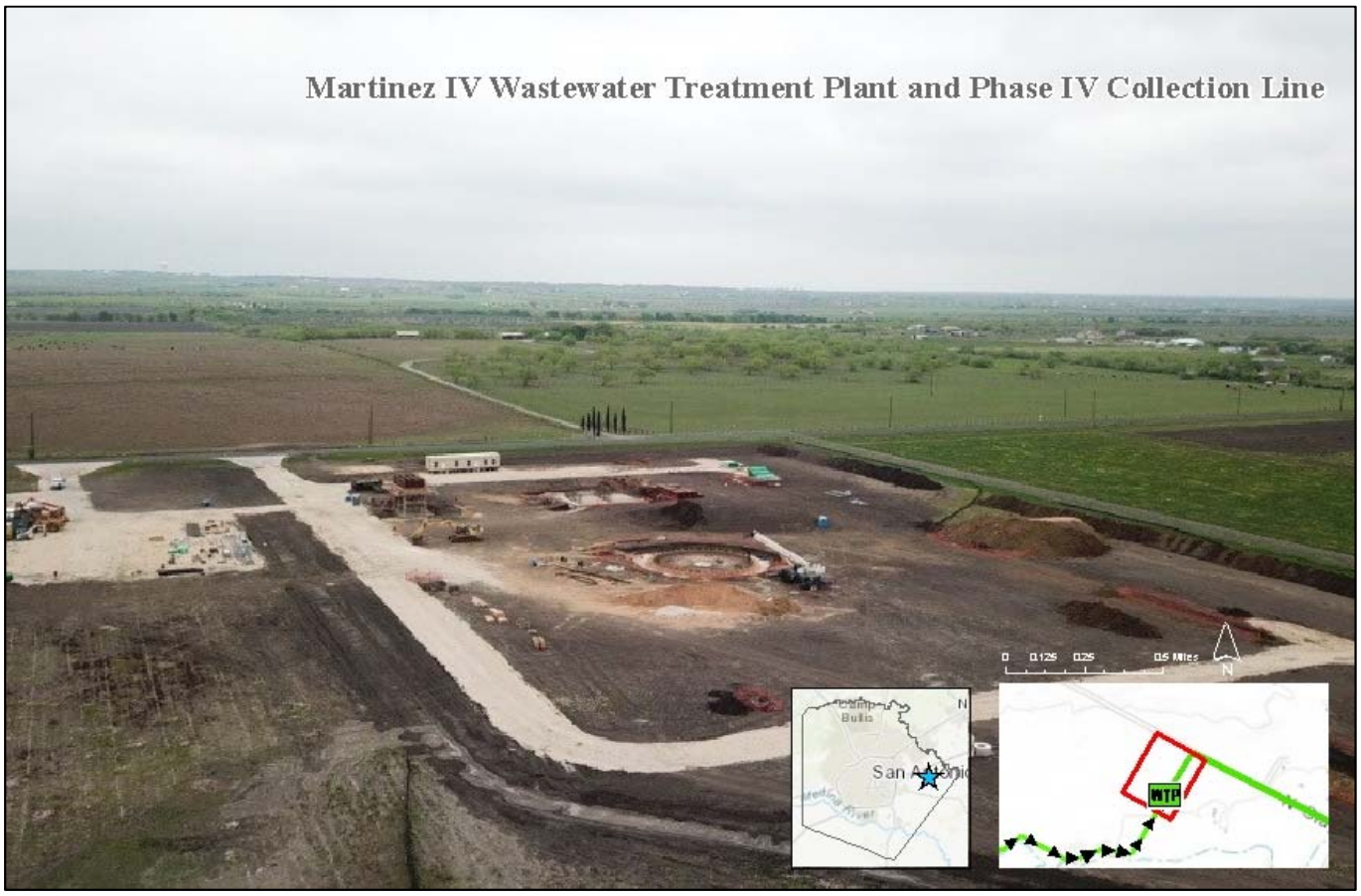
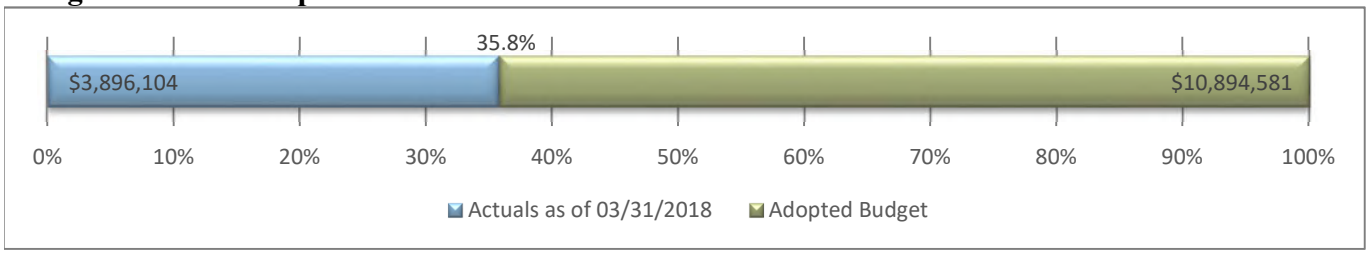
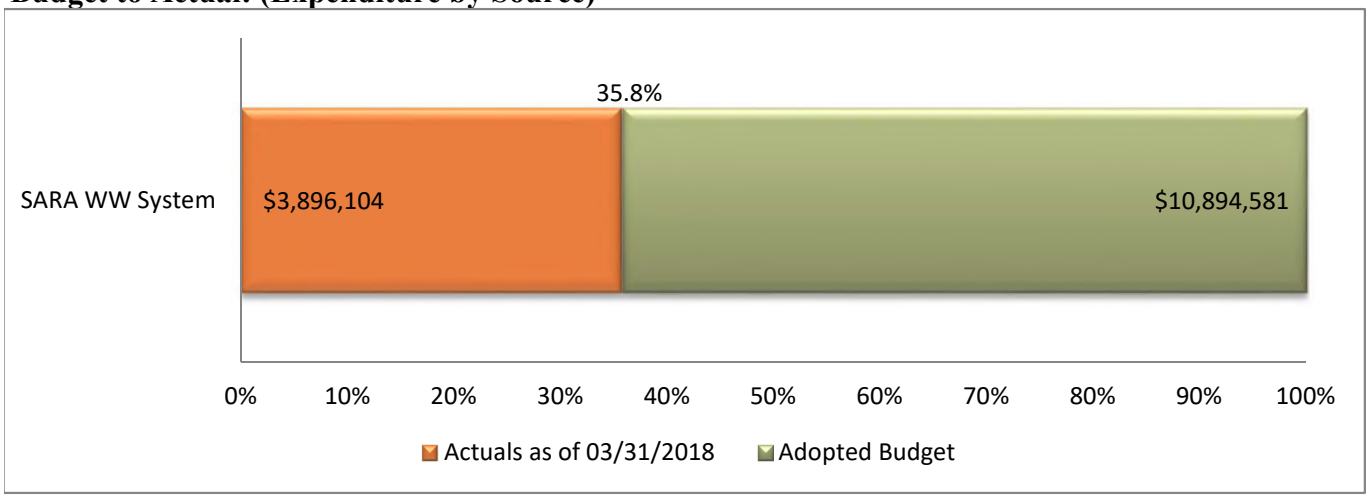
Project Name: **Martinez IV WWTP and Phase IV WW Line** **Project #** **0107**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Martinez IV WWTP and Phase IV WW Line**	**Project #**	**0107**
Managing Department:	Utilities		
		Adopted Budget:	$ 10,894,581
		SARA Contribution:	$ -
Project Start Date:	11/16/2006	Unfunded Plan:	$ -
Project Finish Date:	6/30/2020	Total Project:	$ 10,894,581

The Martinez IV Wastewater Treatment Plant (WWTP) and additional wastewater collection line is under construction in eastern Bexar County. The plant is in response to urban growth and increased requests for sewer service. With the addition of the WWTP and collection system, the River Authority's utility enterprise is maximizing strategic use of its resources and efficiently meeting service delivery needs.

In FY 2018/2019, construction will be completed for the first phase of Martinez IV 250,000 GPD treatment plant and 17,000 linear feet of wastewater collection line. Initial operating costs are anticipated to be around $80,000 annually and are included in the FY 2018/19 Adopted Budget. As flow increases and future plant expansions are completed, operating costs will increase. Upon completion it is anticipated that the Martinez IV WWTP will replace the need for Martinez III, which will eventually be decommissioned.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 81,580	$ 93,152	$ -	$ -	$ 174,732
Right-of-Way Acquisition	59,509	-	-	-	59,509
Construction	3,755,015	6,905,325	-	-	10,660,340
Total	$ 3,896,104	$ 6,998,477	$ -	$ -	$ 10,894,581

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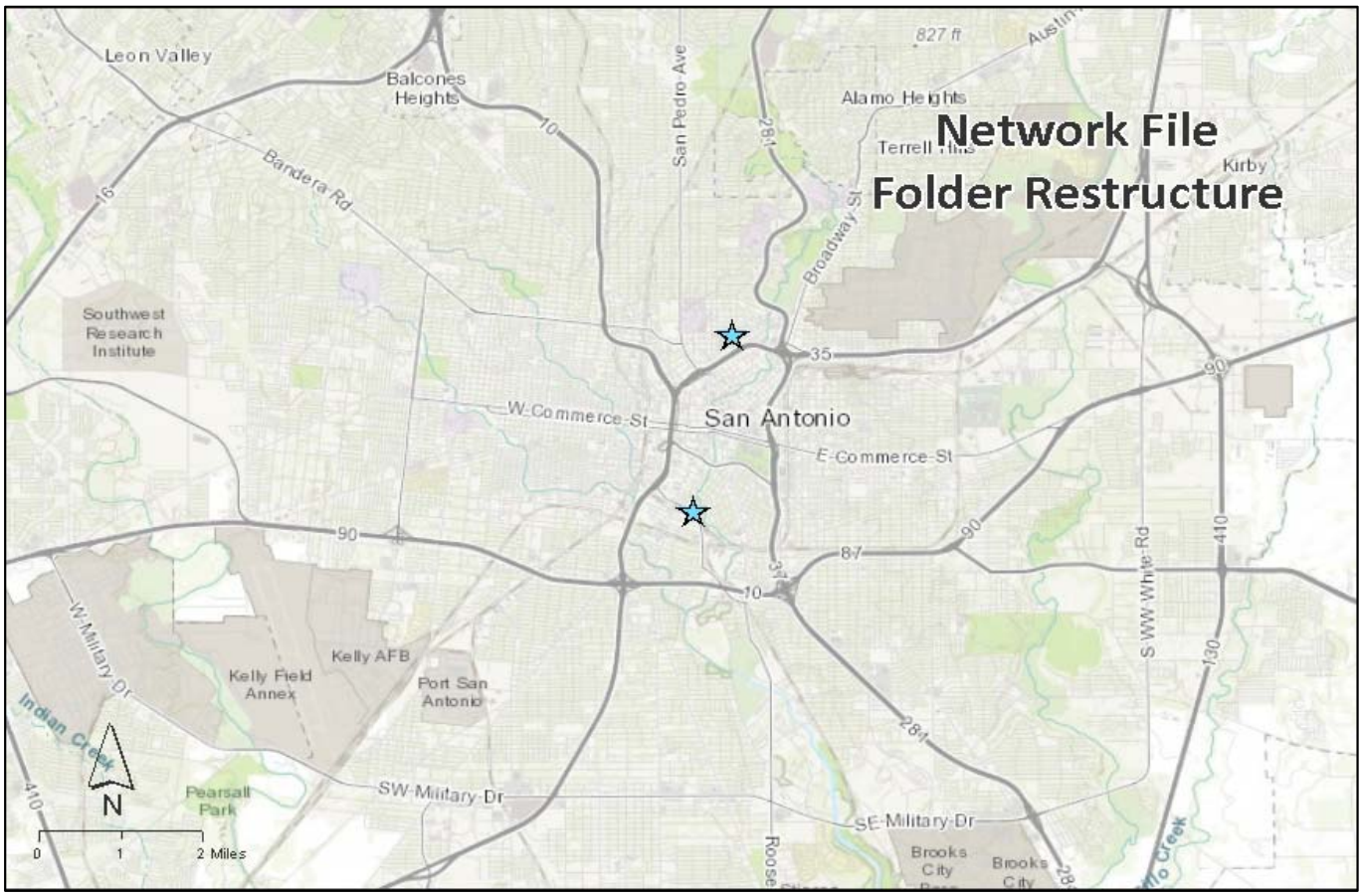
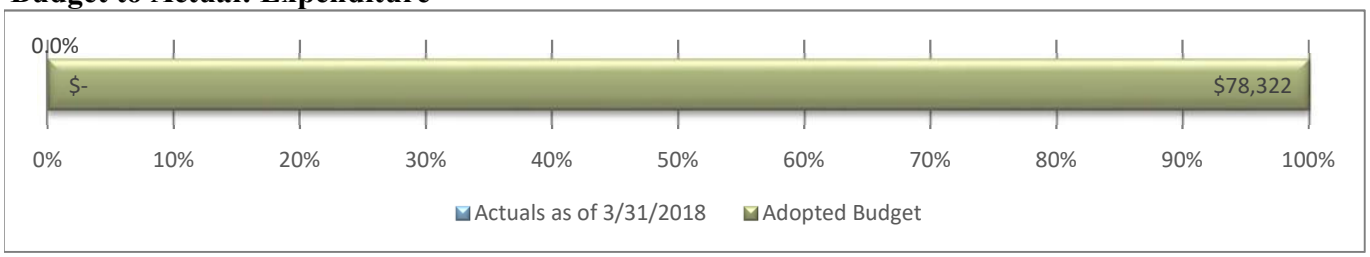
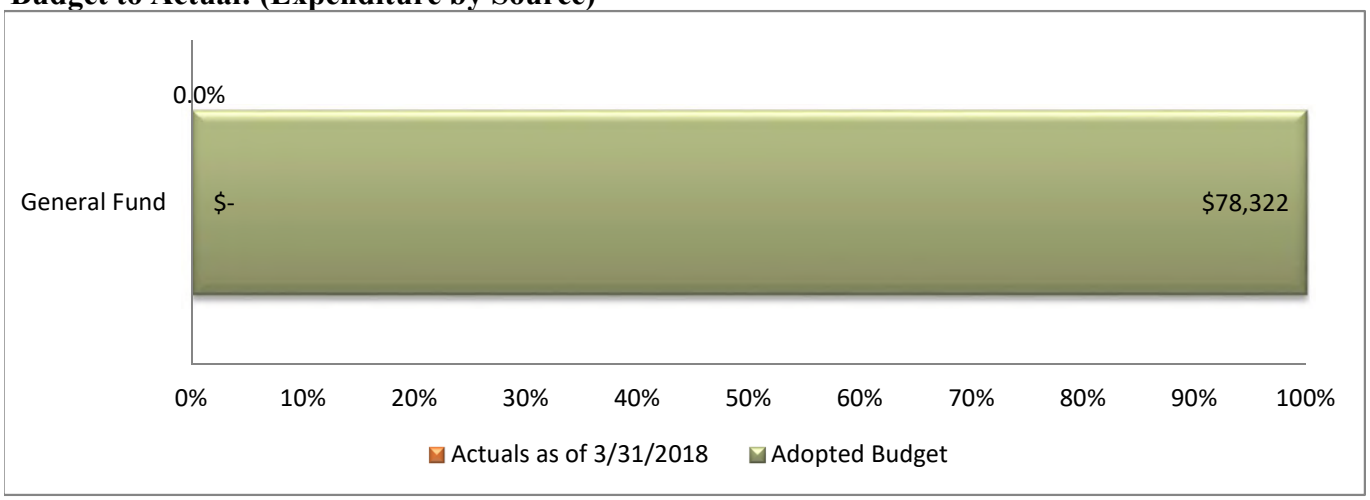
Project Name: Network File/Folder Re-structure **Project #** 0603



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Network File/Folder Re-structure**		**Project #**	**0603**
Managing Department:	Information Technology			
		Adopted Budget:	$	-
		SARA Contribution:	$	78,322
Project Start Date:	4/12/2018	Unfunded Plan:	$	-
Project Finish Date:	7/1/2019	Total Project:	$	78,322

The Network File/Folder Re-structure project will develop and implement a new internal agency network drive/folder/file organizational structure and file naming convention based on stakeholder input from every River Authority department.

The project's objectives are to improve efficiency in finding relevant documents and data, reduce duplication of efforts, provide needed structure for agency network drives and assist in records management and retention.

In FY 2018/19, a new drive/folder/file organizational structure and naming convention will be identified and adopted. Ongoing training and resource documents will be provided throughout the transition of the new standards.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ -	$ 78,322	$ -	$ -	$ 78,322
Total	$ -	$ 78,322	$ -	$ -	$ 78,322

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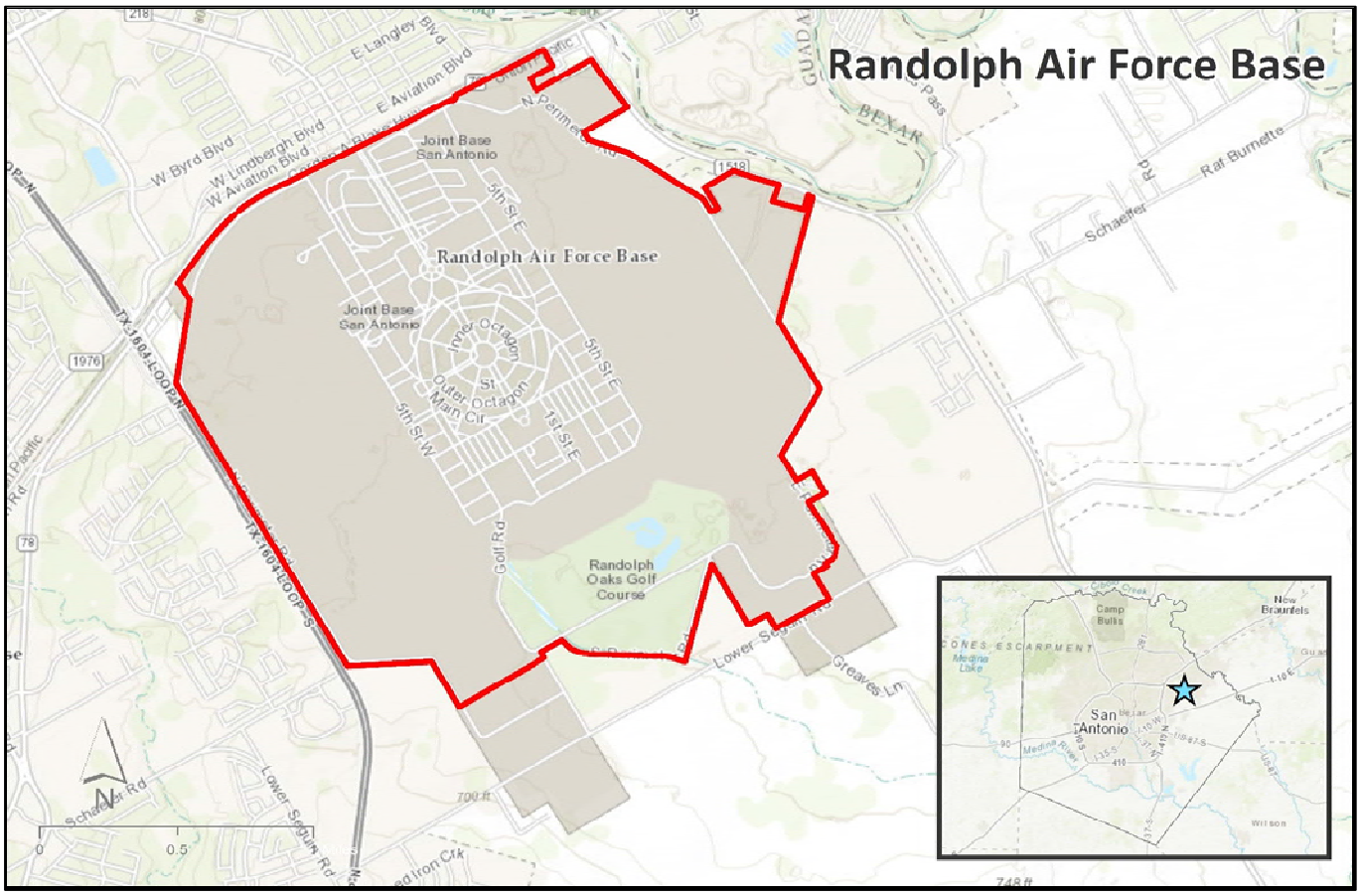
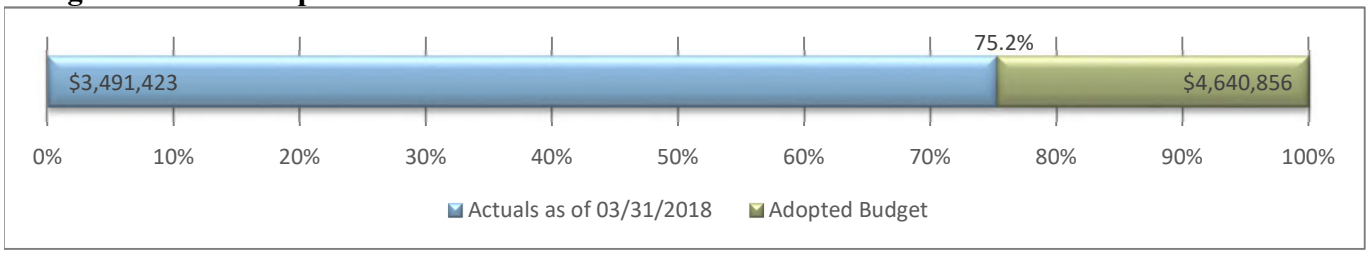
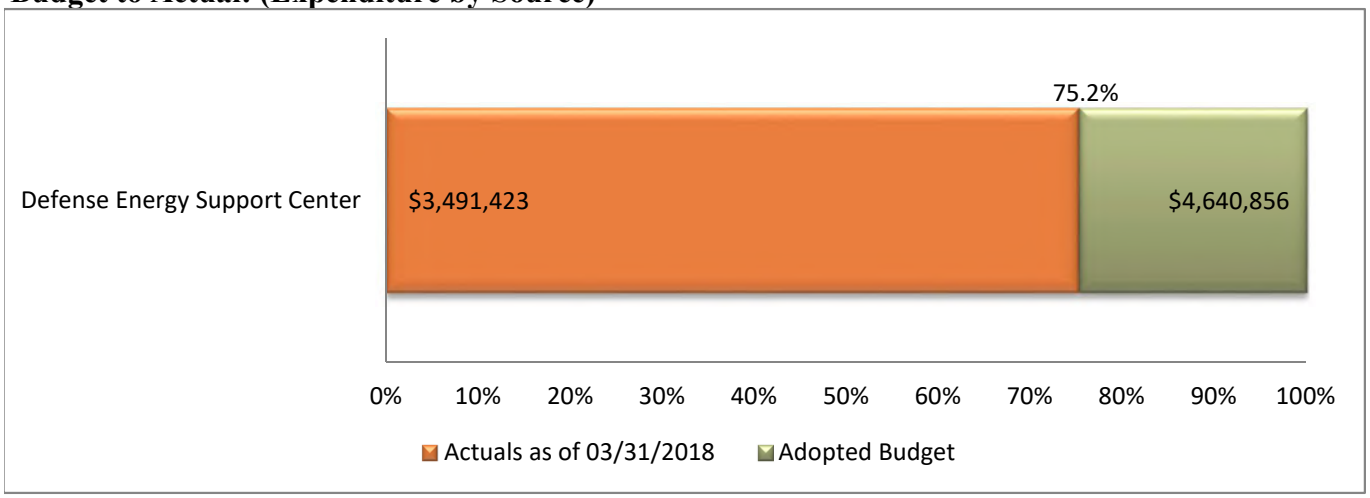
Project Name: **Randolph Air Force Base All Years** **Project #** **9999**



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Randolph Air Force Base All Years**	**Project #**	**9999**
Managing Department:	Utilities		
		Adopted Budget:	$ 4,640,856
		SARA Contribution:	$ -
Project Start Date:	7/1/2003	Unfunded Plan:	$ -
Project Finish Date:	7/1/2052	Total Project:	$ 4,640,856

The River Authority, through a contract with the federal government, has responsibility for the Randolph Air Force Base (RAFB) wastewater collection system which provides service to customers of the RAFB installation adjacent to Universal City in Bexar County. The Utilities Department operates and maintains the River Authority owned collection system in the RAFB installation and completes projects annually that improve the system. The Randolph Air Force Base Renewals and Replacement Fund accounts for the capital improvement projects completed annually to maintain the collection system.

The River Authority rehabilitates portions of the Randolph Air Force Base (RAFB) collection system based on a 50 year plan. The River Authority reassesses the sewer lines by closed circuit television to determine lateral locations which are in poor condition, as well as determine the best type of rehabilitation. Repairs and improvements are then completed for the identified line, and the manholes involved are coated.

In FY 2018/19, the River Authority will complete year 15 (2018) projects. This includes rehabilitation of 2,086 linear feet of eight inch pipe by cast in place pipe (CIPP) and rehabilitations of eight manholes by installing new rings and covers and spraying the manhole's interior with epoxy liner. Operations and maintenance expenditures for these improvements are included in the FY 2018/19 Adopted Budget.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 1,334,779	$ 38,272	$ -	$ -	$ 1,373,051
Construction	2,156,644	1,111,161	-	-	3,267,805
Total	$ 3,491,423	$ 1,149,433	$ -	$ -	$ 4,640,856

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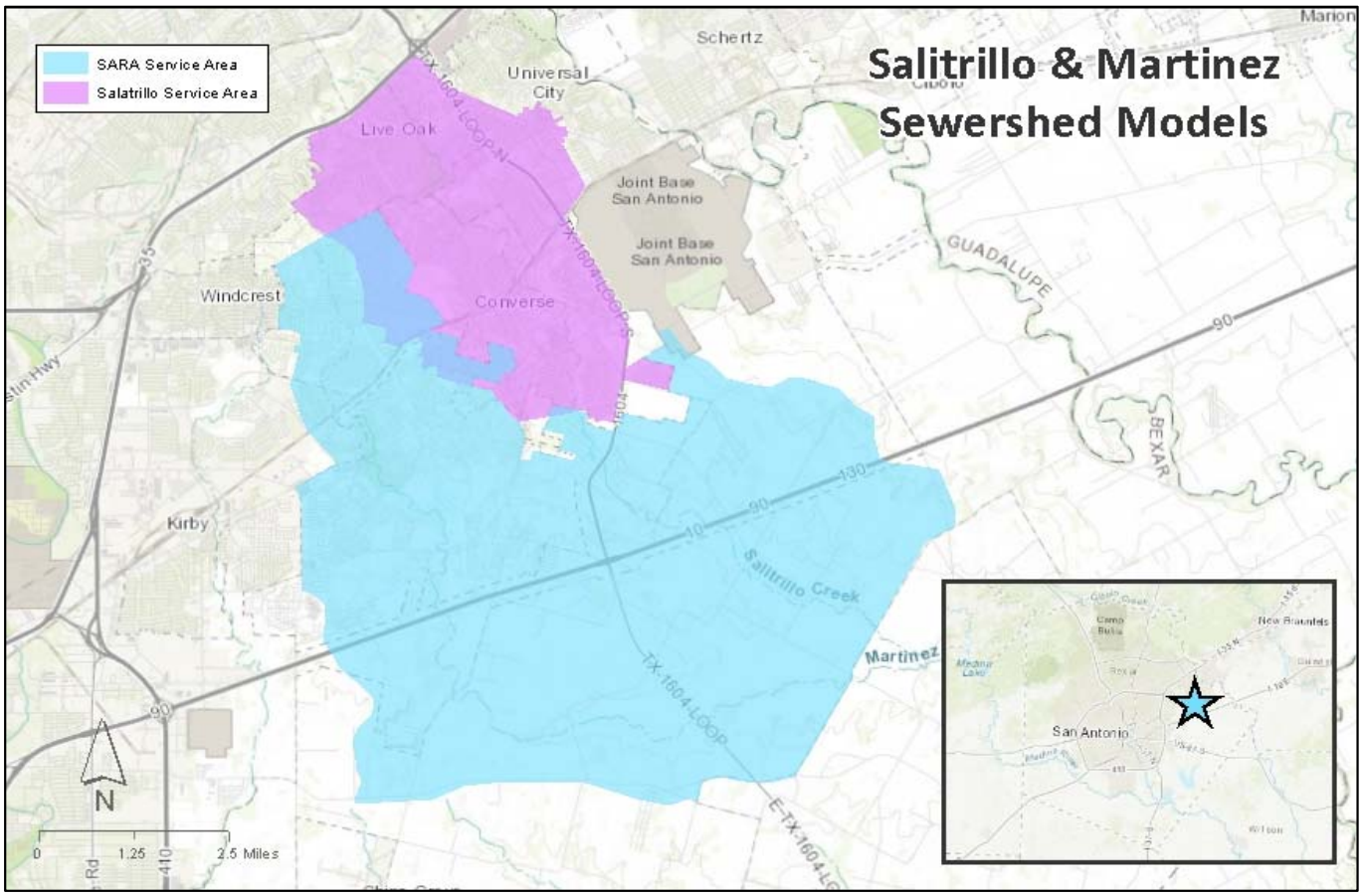
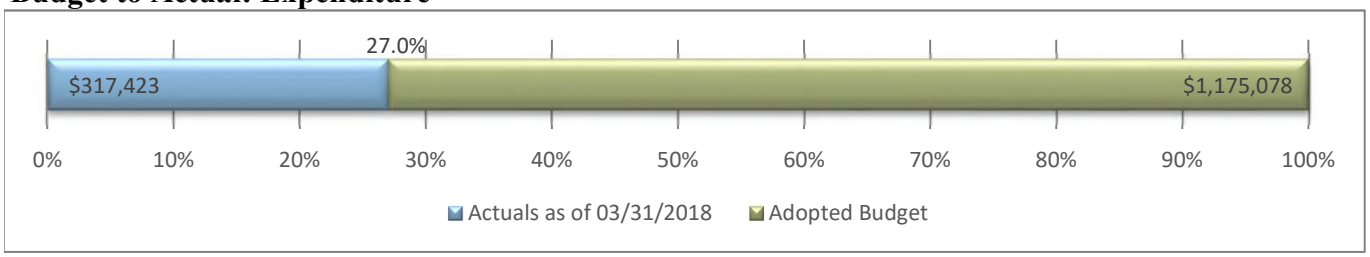
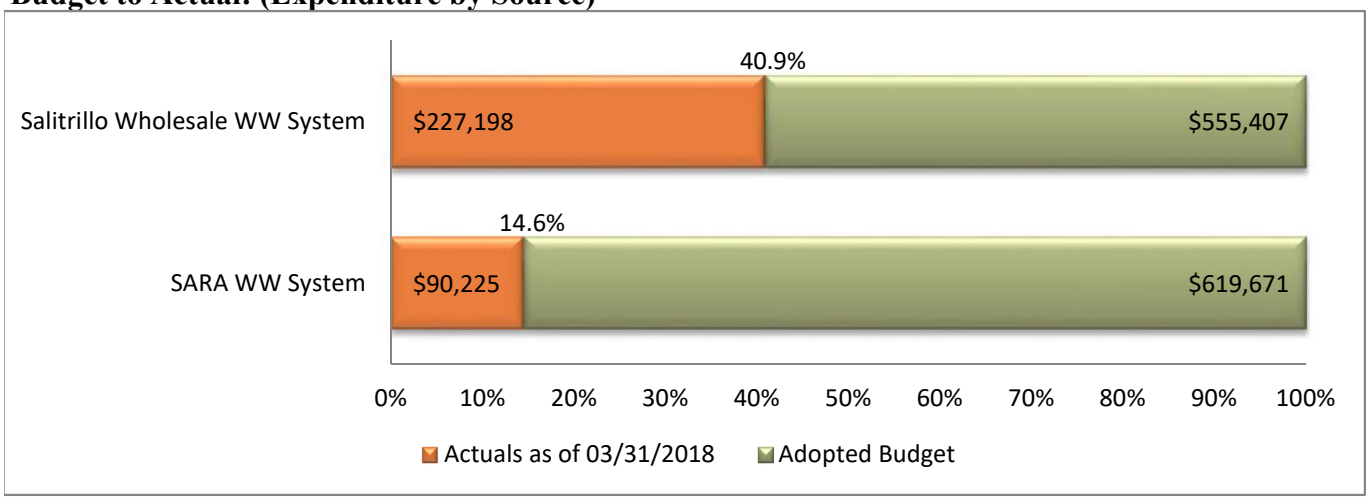
Project Name: Salitrillo & Martinez Sewershed Models **Project #** 0535



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Salitrillo & Martinez Sewershed Models**		**Project #**	**0535**
Managing Department:	Utilities			
		Adopted Budget:	$	1,175,078
		SARA Contribution:	$	-
Project Start Date:	7/1/2016	Unfunded Plan:	$	694,356
Project Finish Date:	6/30/2021	Total Project:	$	1,869,434

The Salitrillo and Martinez Sewershed Models project develops comprehensive and dynamic sewershed system models for the Salitrillo and Martinez Wastewater Treatment Plants (WWTP). These models help to quantify available system capacity and identify inefficiencies that require attention.

Twenty year projected growth demands will be simulated for the Salitrillo and Martinez wastewater collection systems and wastewater treatment plants to identify future infrastructure improvements that will be required to meet flow projections. These proposed models will provide a scientific method for keeping check on the capacity of the collection system and wastewater treatment plants to meet future needs. In addition, the proposed models will allow staff to find and address areas in the collection system with high inflow/infiltration.

In FY 2018/19, the deliverables will be an updated and verified utilities geodatabase, recommendations on database schema for modeling, utilities and GIS purposes. This project will not require any future operations and maintenance expenditures.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 28,343	$ 61,866	$ -	$ -	$ 90,209
Contracted & Other Services	289,080	795,789	294,356	400,000	1,779,225
Total	$ 317,423	$ 857,655	$ 294,356	$ 400,000	$ 1,869,434

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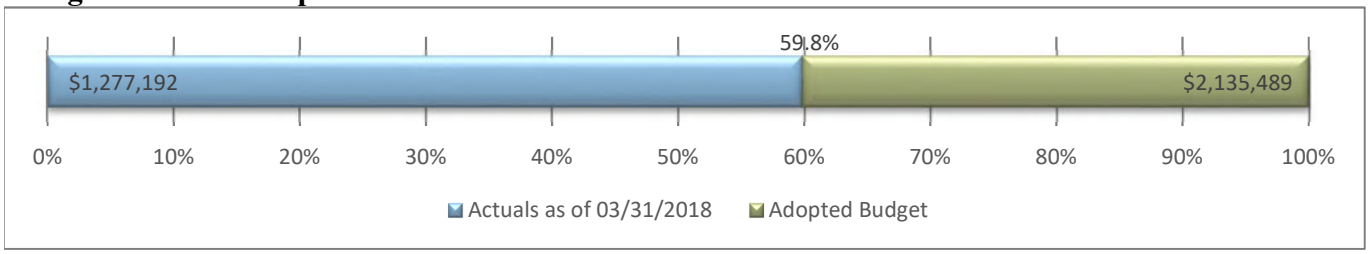
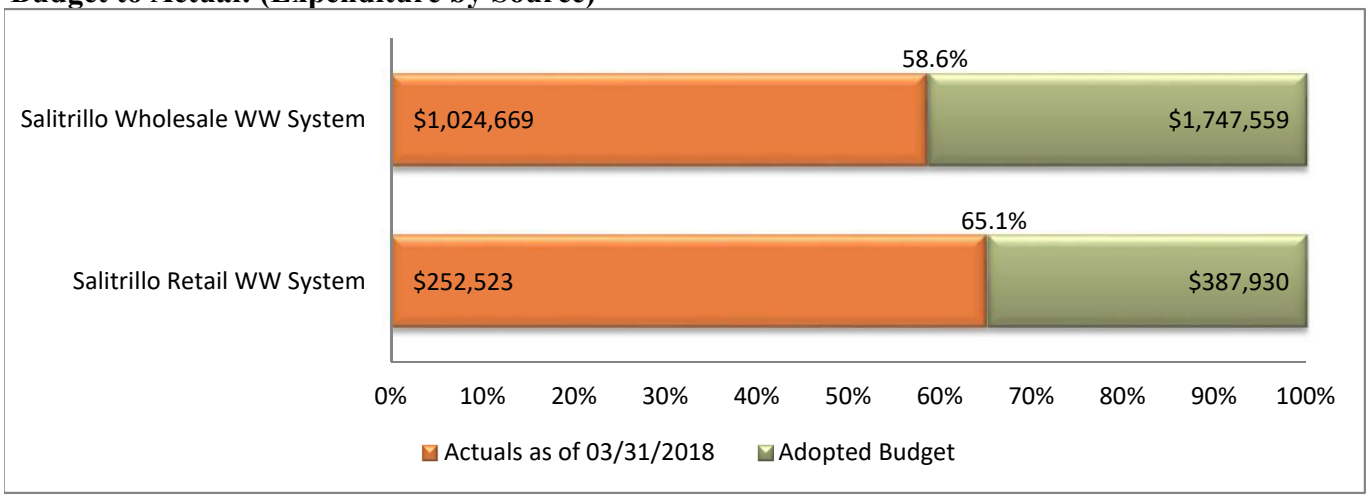
Project Name: Salitrillo Collection System Inflow & Infiltration **Project #** 0314

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Salitrillo Collection System Inflow & Infiltration**	**Project #**	**0314**
Managing Department:	Utilities		
		Adopted Budget:	$ 2,135,489
		SARA Contribution:	$ -
Project Start Date:	5/4/2011	Unfunded Plan:	$ 846,875
Project Finish Date:	6/30/2021	Total Project:	$ 2,982,364

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. This includes the Salitrillo Wastewater System. Reducing I&I, which is water that enters into the collection system through leaks in the pipes and manholes, reduces flow into the treatment plant. The flow into the plant determines when additional plant capacity is required. Excess flow attributed to I&I also increases operating costs, can put more stress on the wastewater treatment plant, and can result in sanitary sewer overflows.

The I&I project repairs defective manholes and defective 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.

In FY 2018/19, $858,297 is expected to be expended on this project to repair defective lines and manholes. River Authority staff will work with a contractor to rehabilitate 330 linear feet of 24 inch pipe by cast in place pipe (CIPP), 22 linear feet of 21 inch pipe by cast in place (CIPP) and seven manholes by installing new rings and covers and spraying the manhole's interior with epoxy liner. Future operations and maintenance expenditures could be reduced as a result of repair and replacement of aging pipe infrastructure.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Construction	$ 1,277,192	$ 858,297	$ 846,875	$ -	$ 2,982,364
Total	$ 1,277,192	$ 858,297	$ 846,875	$ -	$ 2,982,364

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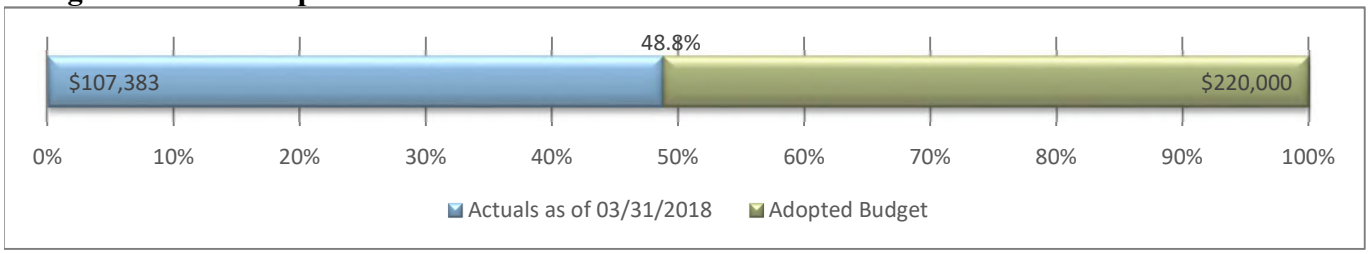
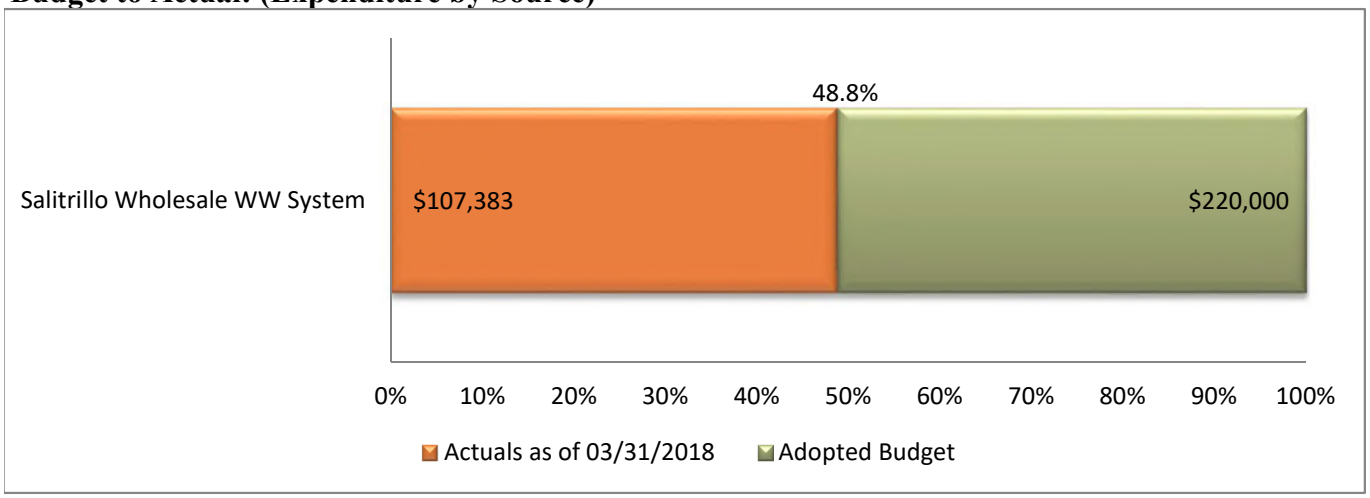
Project Name: Salitrillo WW Capital Improvement Program **Project #** 0579

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



Return to TOC

Project Name:	**Salitrillo WW Capital Improvement Program**		**Project #**	**0579**
Managing Department:	Utilities			
		Adopted Budget:	$	220,000
		SARA Contribution:	$	-
Project Start Date:	7/1/2017	Unfunded Plan:	$	-
Project Finish Date:	6/30/2022	Total Project:	$	220,000

The Salitrillo Capital Improvement Program Project will support the Utility's Ten Year Capital Plan and the Replacement and Renewal Program by replacing equipment that is nearing, or is beyond, its useful life. Staff has identified various improvements needed at the Salitrillo Wastewater Treatment Plant based on age and condition of the equipment.

In FY 2017/18, staff replaced four brush aerators due to age and continuous repairs. In FY 2018/19, staff will replace electrical cubicle boxes. Future operations and maintenance expenditures could be reduced as a result of repair and replacement of this equipment.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Capital Outlay	$ 107,383	$ 112,617	$ -	$ -	$ 220,000
Total	$ 107,383	$ 112,617	$ -	$ -	$ 220,000

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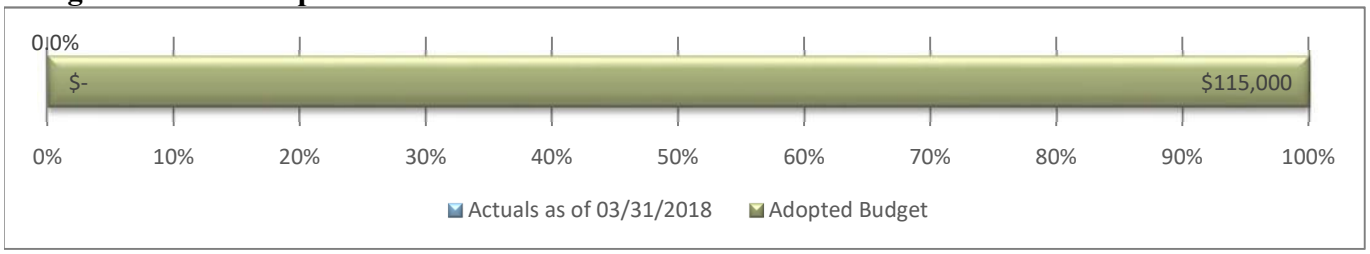
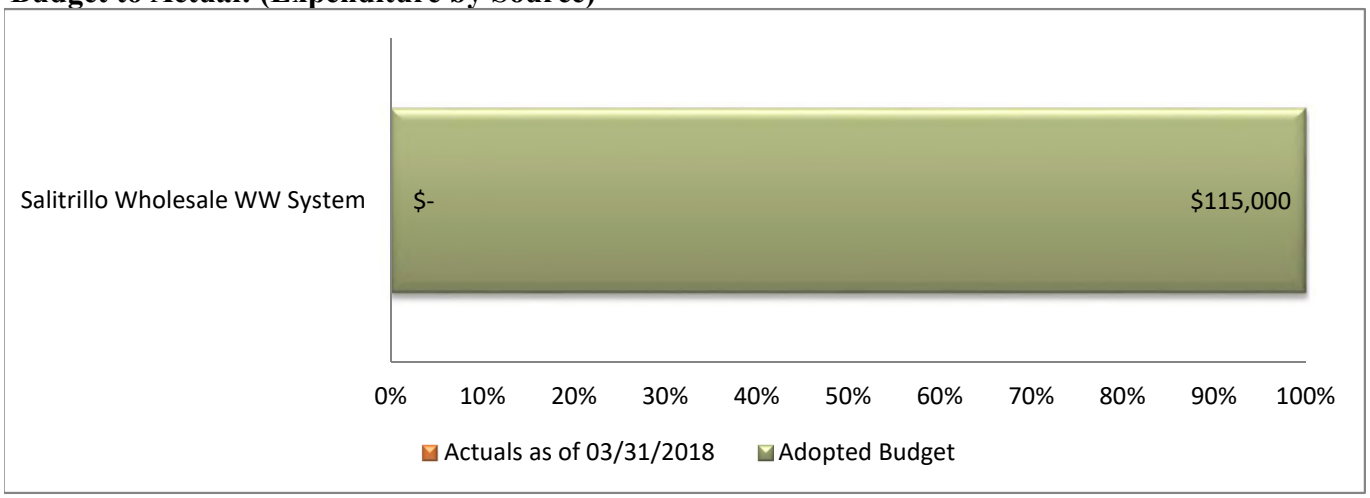
Project Name: **Salitrillo WWTP Expansion** **Project #** **0612**

Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**Salitrillo WWTP Expansion**	**Project #**	**0612**
Managing Department:	Utilities		
		Adopted Budget:	$ 115,000
		SARA Contribution:	$ -
Project Start Date:	10/1/2018	Unfunded Plan:	$ 16,500,000
Project Finish Date:	6/30/2021	Total Project:	$ 16,615,000

The Salitrillo Wastewater Treatment Plant (WWTP) continues to operate at over 75 percent of its permitted daily average flow of 5.83 million gallons per day (MGD) and needs to be expanded to the final phase of 7.33 MGD to accommodate development and growth in the Salitrillo Service Area.

In FY 2018/2019, an environmental study will be conducted and an Environmental Information Document will be drafted in preparation for plant expansion. This will protect the health and safety of the Salitrillo Service Area and position the Utility to be eligible to apply for various funding or other financing opportunities. Upon completion staff will be ready to begin the process for the design and construction of the Salitrillo Plant Expansion.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Construction	$ -	$ -	$ 16,500,000	$ -	$ 16,500,000
Contracted & Other Services	-	115,000	-	-	115,000
Total	$ -	$ 115,000	$ 16,500,000	$ -	$ 16,615,000

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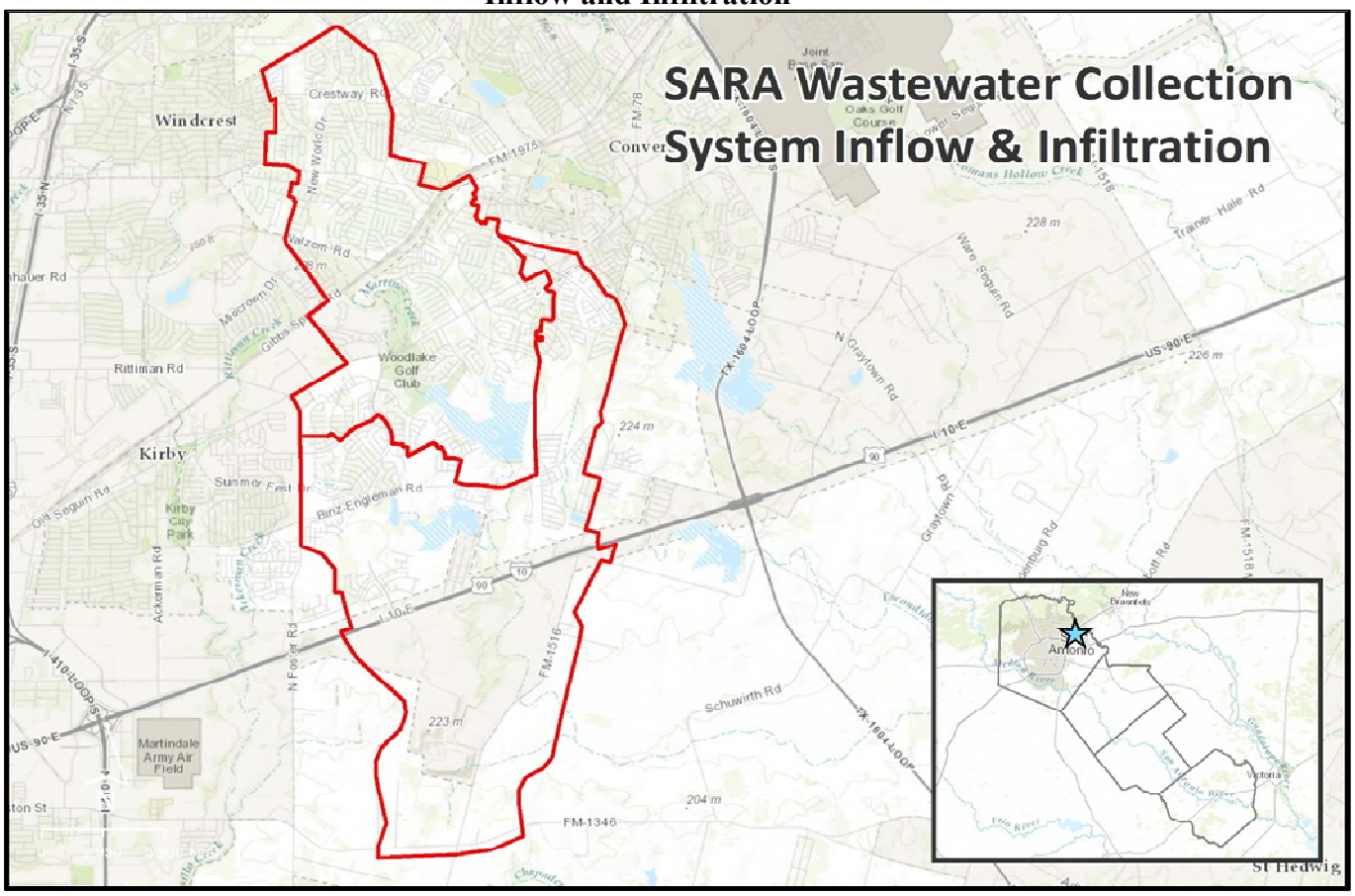
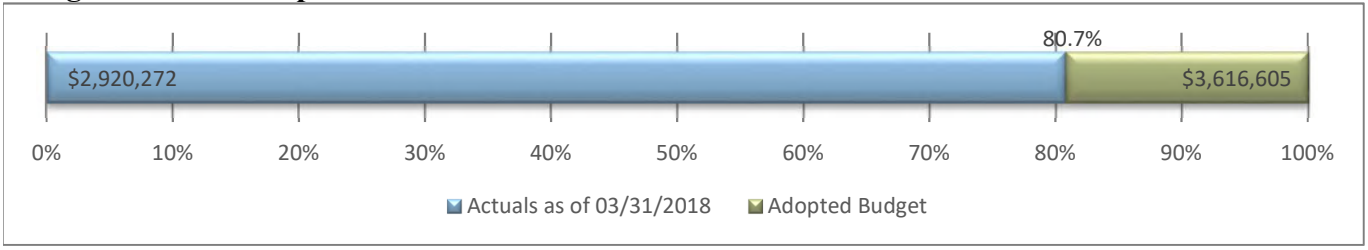
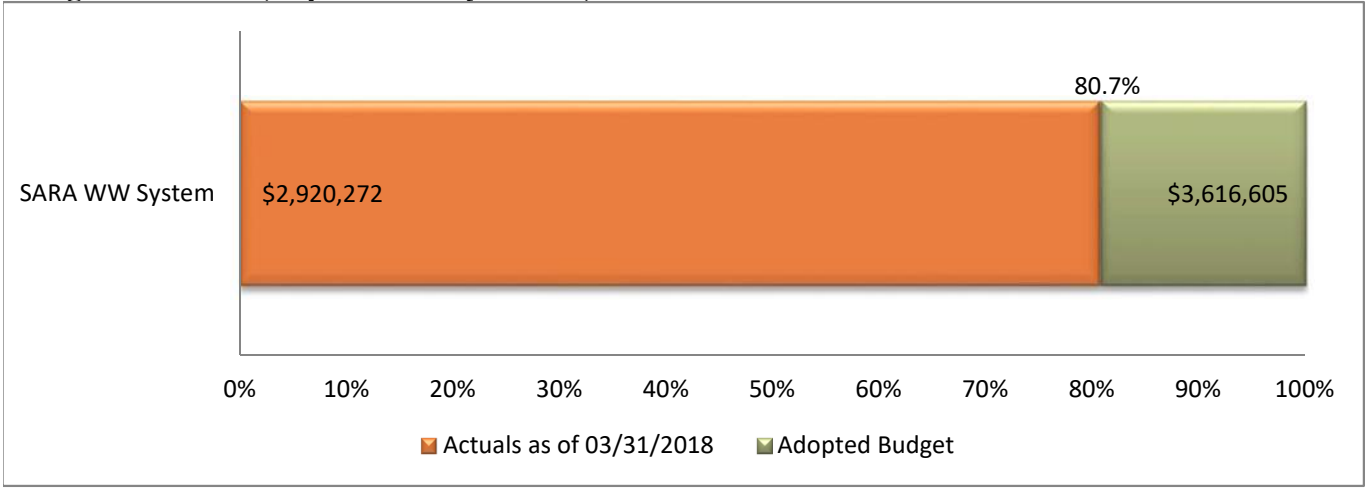
Project Name:	SARA Wastewater Collection System Inflow and Infiltration	Project #	0315



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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Project Name:	**SARA Wastewater Collection System Inflow and Infiltration**	**Project #**	**0315**
Managing Department:	Utilities		
		Adopted Budget:	$ 3,616,605
		SARA Contribution:	$ -
Project Start Date:	5/4/2011	Unfunded Plan:	$ 758,458
Project Finish Date:	6/30/2021	Total Project:	$ 4,375,063

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. This includes the San Antonio River Authority Wastewater System. Reducing I&I, which is water that enters into the collection system through leaks in the pipes and manholes, reduces flow into the treatment plants. The flow into the plant determines when additional plant capacity is required. Excess flow attributed to I&I also increases operating costs, can put more stress on the wastewater treatment plant, and can result in sanitary sewer overflows.

The I&I project repairs defective manholes and defective 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.

In FY 2018/19, $696,333 is expected to be expended on this project to repair defective lines and manholes. River Authority staff will work with Texas Department of Transportation on relocating wastewater lines within its FM 1976 project. Future operations and maintenance expenditures could be reduced as a result of repair and replacement of aging pipe infrastructure.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Construction	$ 2,920,272	$ 696,333	$ 438,042	$ 320,416	$ 4,375,063
Total	$ 2,920,272	$ 696,333	$ 438,042	$ 320,416	$ 4,375,063

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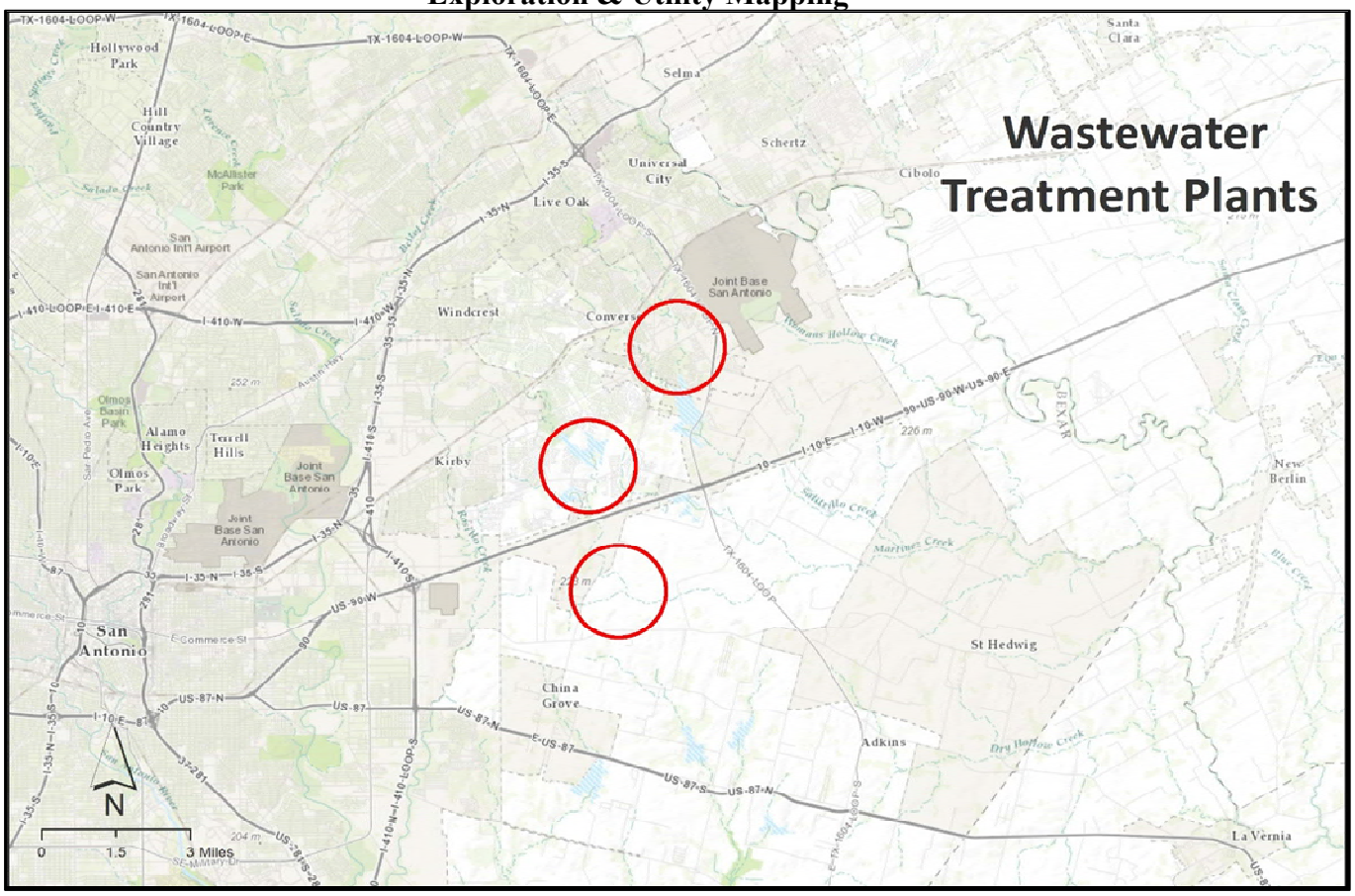
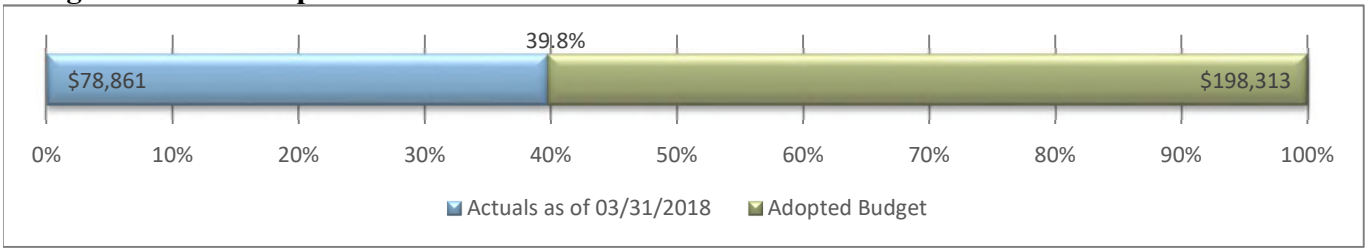
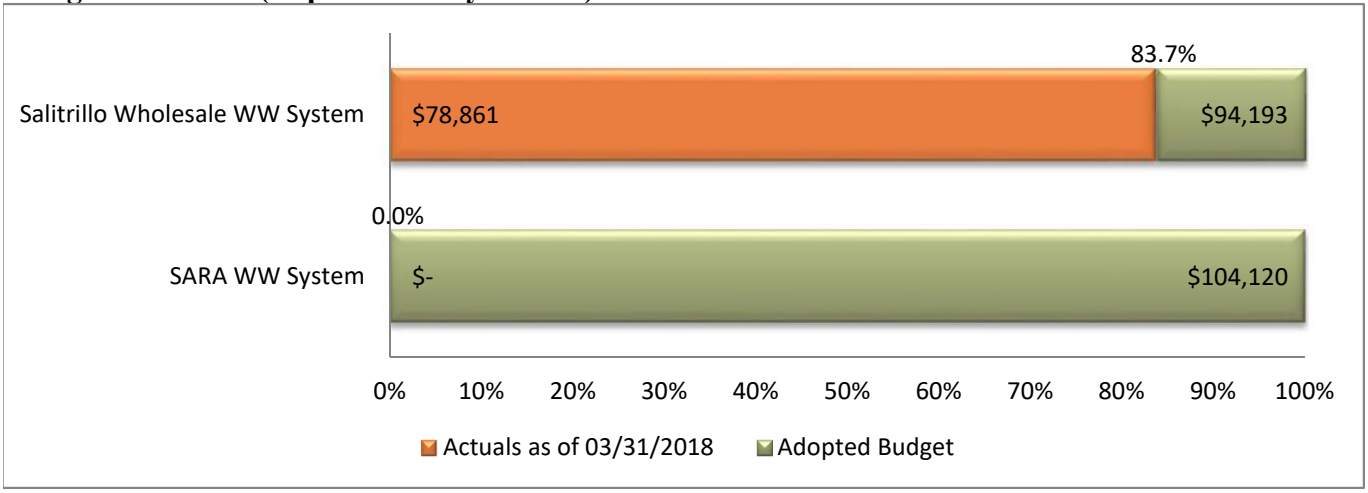
Project Name:	WWTP Subsurface Utility Exploration & Utility Mapping	Project #	0548



Budget to Actual: Expenditure



Budget to Actual: (Expenditure by Source)



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

Managing Department:	Utilities			
		Adopted Budget:	$	198,313
		SARA Contribution:	$	-
Project Start Date:	7/1/2016	Unfunded Plan:	$	-
Project Finish Date:	12/1/2018	Total Project:	$	198,313

The Wastewater Treatment Plant (WWTP) Subsurface Utility Exploration and Utility Mapping Project provides the Utility department with better information on the existing utility lines at the WWTPs. This project supports future utility projects and expansions at Martinez II and Salitrillo WWTPs and ensures all infrastructure at these WWTPs are recorded and kept up to date. In addition, data can be coordinated with internal maintenance procedures. This mapping effort is being performed in phases.

In FY 2018/19, the mapping and conflict analysis of the Martinez II WWTP will be completed. The consultant will use existing maps and use both above and below ground methods and equipment to fill in the gaps. Some of the exploration methods and equipment that may be used are digging test holes, magnetic finders, and metal detectors. GIS data will be created for Salitrillo and Martinez II WWTPs that will be compatible with the Lucity software, allowing for maintenance management. This project will not require any future operations and maintenance expenditures.

Spending Plan of Total Project Budget

Expenditures	Actuals as of March 31, 2018	April 1, 2018 to June 2019	2019/20	Succeeding from 2020	Total
Personnel	$ 5,036	$ 10,459	$ -	$ -	$ 15,495
Contracted & Other Services	73,825	108,993	-	-	182,818
Total	$ 78,861	$ 119,452	$ -	$ -	$ 198,313

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Appendix

Branch River Park, Tour de Goliad
City of Goliad, Goliad County

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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

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PROJECT MANAGEMENT CENTER OF EXPERTISE

FINAL 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

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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.

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

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- 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

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- 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

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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

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PROJECT MANAGEMENT PROCESS FLOWCHART

INITIATING

Concept development and initial planning phases can occur any time of year.

Project Idea

Discuss with DM and Division Director

Consistent with Strategic Plan? Responding to need or regulation?

Yes

No

End

Assign PM (if not already in place)

Project Charter:

Scope summary, estimated start and finish dates, and other high-level elements as noted in the PM Processes checklist.[1]

PLANNING

Project Classification (form)

Project Proposal:

Details based on checklist for Project Classification. Initial budget with finance (tool available if needed). If ILA or grant, make sure terms addressed.

Endorsed by DM or ET Sponsor?

Yes

No

End

Work Breakdown Structure:

Additional task, budget, and schedule detail required depending on Project Classification (see checklist). Begin resource planning with support depts.

Coordinate Reviews[2]- Strategic Assessment, Environmental, Support Departments, Project Delivery

Endorsed by Review Teams?

No

Yes

Authorized off cycle projects[1]

Project is considered at budget workshop and project review meeting.

Management and support departments confirm resource allocation and program assignment.

Approved by ET?

Yes

No

End

Board Review

Approved by Board?

Yes

No

End

Convert to Active Project

Project Management Plan:

Complete additional components required depending on Project Classification (see checklist).

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

[1]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.

[2]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.

EXECUTING

Coordination with Finance, Purchasing, IGCR, GIS, and any other support departments is critical during project setup. They should already be aware of the project from the planning phase.

- Review file folder set-up and remove unnecessary folders.
- Work with Finance to complete budget and set up Kronos Codes.
- Work with IGCR, GIS, and other support departments to confirm project needs and staff assignments.
- Procurement (if applicable)
- Hold Kick-off Meeting* with Project Team including IGCR and Support Departments.

MONITORING

These tasks will be performed on an iterative basis during the execution of the project. Timing and frequency will be defined in each project's work plan.

- Monitor project dashboard and track milestone progress.
- Prepare monthly updates.
- Document lessons learned.
- Hold progress meetings* (as appropriate—see checklist)
- Manage files and records.
- Review and approve invoices.
- Submit request if changing scope, schedule, or budget.
- Arrange for quality assurance review of deliverables.

CLOSING

- Initiate Project Closeout
- Request Final Financials 30 to 45 days after contract work is complete.
- Close out contracts
- Close out Kronos codes and accounting codes with Finance
- Coordinate close-out with Support Services Liaisons and Real Estate
- Hold closeout/review meeting.*
- File Lessons Learned
- Archive files
- Recognize the project team.
- End

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

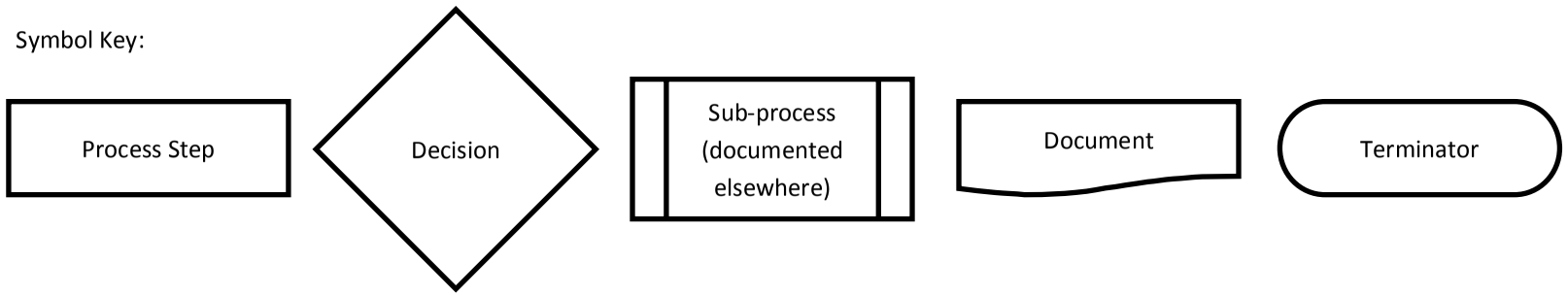
DM Department Manager

ET Executive Team

PL Program Leader

PM Project Manager

Symbol Key:



Appendix C.

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)

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- ☐ 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

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PROJECT CLASSIFICATION TOOL

What kind of project is it?		Organizational or Asset Improvemer
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
Project Classification		**I**

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

Organizational or Asset Improvement	1	1	2	3	4	5	6	7	8	9	10	11	12
Study	4												
Activity	7												
Engineering Design and/or Construction	10												

		Organizational or Asset Improvement			Study			Activity			Engineering Design and/or Construction		
		Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
What is the estimated project cost?		<= $300,000	$300,000 to $1,000,000	>$1,000,000	<= $300,000	$300,000 to $1,000,000	>$1,000,000	<= $300,000	$300,000 to $1,000,000	>$1,000,000	<= $800,000	$800,000 to $5,000,000	>$5,000,000
What is the duration of the project?	Longer projects are more likely to drift off schedule and budget.	< 24 months	24 to 60 months	> 60 months	< 24 months	24 to 60 months	> 60 months	< 24 months	24 to 60 months	> 60 months	< 24 months	24 to 60 months	> 60 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	yes		no	yes		no	yes		no	yes	
Was the project requested by an executive or a board member?	Sponsor may have additional expectations.	no	yes		no	yes		no	yes		no	yes	
Does the project require cross-departmental support?	Extra coordination effort needed. Risk of schedule delay and/or rework.	no	yes		no	yes		no	yes		no	yes	
How many SARA staff are on the project team?	Extra coordination effort needed. Risk of schedule delay and/or rework.	<= 5	> 5		<= 5	> 5		<= 5	> 5		<= 5	> 5	
Does the project involve a consultant and/or a contractor?	Legal agreement.	no	yes		no	yes		no	yes		no	yes	
Does the project have any State or Federal reporting requirements?	Penalties may be imposed if in non-compliance.	no	yes		no	yes		no	yes		no	yes	
Does the project require permits?	Penalties may be imposed if in non-compliance.	no	yes		no	yes		no	yes		no	yes	
Does the project team have experience with the proposed means and methods?	Effort and needs may be underestimated.	yes	minimal		yes	minimal		yes	minimal		yes	minimal	
Does the project involve field work?	Additional safety concerns. Also weather may impact schedule and budget.	no	yes		no	yes		no	yes		no	yes	
What impact would going over schedule have?		None	May require supplement from department budget	Could incur fine or cost beyond available funds	None	May require supplement from department budget	Could incur fine or cost beyond available funds	None	May require supplement from department budget	Could incur fine or cost beyond available funds	None	May require supplement from department budget	Could incur fine or cost beyond available funds

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?