

American goldfinch • *Spinus tristis*



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THE SAN ANTONIO  RIVER AUTHORITY

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*A political subdivision of the State of Texas.*

# PROGRAM BUDGET

*Fiscal Year 2015-2016*

*Inspiring Actions for Healthy Creeks and Rivers*

An aerial photograph of a river winding through a lush, green forest. The river is the central focus, flowing from the top center towards the bottom center. The surrounding trees are dense and vibrant green, with some areas showing slight variations in color, possibly due to sunlight filtering through the canopy. The overall scene is peaceful and natural.

**VISION:**

Inspiring Actions for Healthy Creeks and Rivers

**MISSION:**

Protect and enhance our creeks and rivers  
through service, leadership and expertise

**SAN ANTONIO RIVER AUTHORITY  
TEXAS**

**PROGRAM BUDGETS**

**July 1, 2015 - June 30, 2016**

Presented to the  
**Board of Directors**

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Steven J. Raabe	Director of Technical Services
John A. Chisholm III	Director of Operations
Bruce E. Knott	Director of Human Resources
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Melissa Bryant	Environmental Sciences Manager
John Gomez	Utilities Manager
Kristen Hansen	Watershed and Park Operations Manager
Claude Harding	Real Estate Manager
Art Herrera	Information Technology Manager
Russell Persyn	Watershed Engineering Manager
Steven Schauer	External Communications Manager
Rick Trefzer	Budget Services Manager

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# Program Overview



San Antonio River  
Improvement Project Mission  
Reach, Bexar County

## Definitions

Programs, projects, and efforts have specific definitions as used in this book. Below are the definitions of each as used by the San Antonio River Authority (River Authority) so all stakeholders have a common understanding. The River Authority has a portfolio of work grouped by programs and under them are projects and efforts.

### **Program**

A program is a group of projects that serve the River Authority's mission in a similar way; they are managed collectively to obtain benefits not available from managing them individually. A program leader is designated for each defined program to ensure the most effective communication and coordination. (Programs can have an end date or can be ongoing.)

### **Project**

A project is an endeavor that has a defined start and end date and that will produce a unique product or service. The River Authority's threshold for an activity to be a project is a budget of at least \$50,000 over the project life and six months or longer in duration. All programs and projects are listed in the River Authority's project management software system and are managed in a consistent fashion.

### **Effort**

An effort is an activity that does not fit into the project definition either because of budget amount or duration, but does require expending significant amounts of the River Authority's resources, and/or represents an activity that is of interest to the River Authority's constituents. The costs related to efforts, including staff time, are tracked in a similar fashion to projects.



## Processes

For project-driven organizations like the River Authority, managing projects consistently and effectively is critical to good stewardship of the public funds entrusted to the River Authority and to successfully serving 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.

Branch River Park,  
Goliad County



## Project Proposal and Evaluation Process

The majority of the River Authority's projects start with a staff developed idea; some projects result from legal or legislative mandate. During the budgeting process, programs put forth their project ideas for the upcoming fiscal year. These project ideas are scrutinized by what is called the Project Evaluation Process.

Evaluation of each project is first done at the concept level. As a result, all projects are evaluated against the River Authority's strategic plan, goals and priorities. A comprehensive and dynamic evaluation questionnaire has been developed and is used to integrate the River Authority's strategic goals, priorities and triple bottom line (described in the next paragraph) into projects. At the end of the evaluation process, a priority score is established for each project. The projects that are funded by the River Authority have been through this process. Partner funded projects are not scored in the same way.

Sustainable projects are optimized through Triple Bottom Line analysis, which utilizes an objective accounting matrix to evaluate and seek balance among the economic, environmental, and quality of life project components. A balance among these factors is best achieved if multidiscipline teams, including the landscape architect, incorporate sustainable land use best management practices into initial site selection, project planning, and lifecycle operations and maintenance planning.

- Environmental: A sustainability outlook recognizes the value of environmental services.
- Economic: Evaluates immediate costs and life-cycle costs.
- Quality of Life: Generally considered to be the quality of jobs, education, health, safety, recreation and social interaction possible in a community.

## Project Management Process

Contemporary, project-driven organizations are implementing project management best practices and disciplines to manage their projects. The River Authority initiated the Project Management Program in 2002; it includes implementation and use of project management best practices as well as common processes and tools for all River Authority-managed projects. The River Authority's portfolio of projects includes engineering projects, utilities projects, watershed management projects, parks projects, water resources projects, information technology projects, study projects, and support projects.

The River Authority now has processes to take these projects from the idea stage, prioritize them, and then implement those that are consistent with the strategic goals and priorities. The River Authority's benefits from use of the process include efficiency of resources, operational synergy and productivity. All the project management processes and templates are gathered in one concise collaborative Project Portfolio Management (PPM) software application that has enabled transparency and efficiency.

Now programs and projects are accessible by all stakeholders, are executed cost-effectively and are 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.

The River Authority continuously reviews its programs and projects and, when there is a need, programs, projects and efforts are rearranged or consolidated. Currently projects are consolidated under six programs with some stand-alone projects and efforts. Program Leaders (PL) are assigned for each program and are responsible for managing these programs.

The River Authority utilizes the project management process and best practices established by the Project Management Institute's (PMI). PMI is a nonprofit association established for project management profession.

San Antonio River  
Improvement Project Museum  
Reach, Bexar County





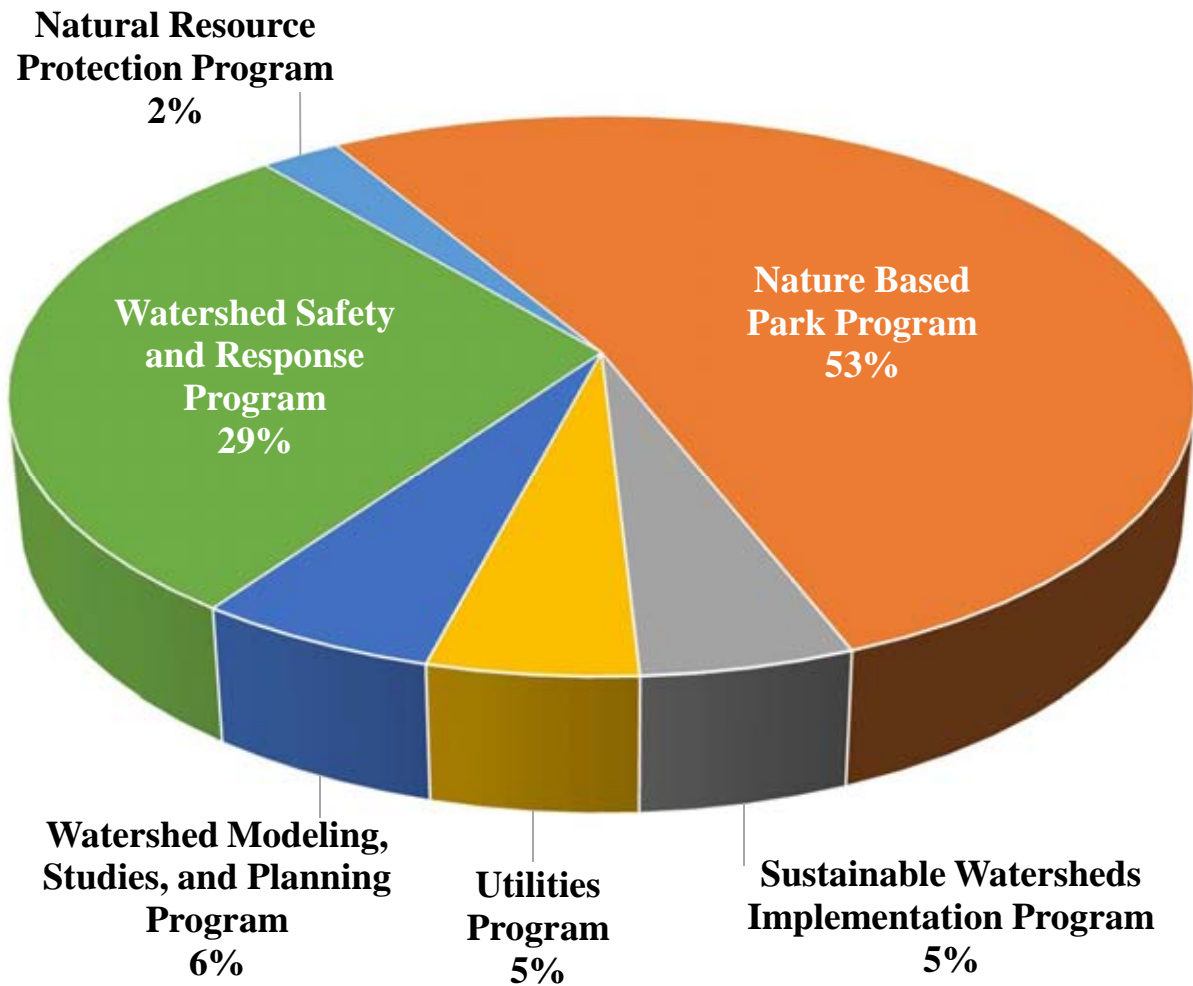
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RIVER AUTHORITY

Leaders in Watershed Solutions

# FY 2015/16 Program Funding



Natural Resource Protection Program	\$ 1,692,581
Nature Based Park Program	\$ 35,133,804
Sustainable Watersheds Implementation Program	\$ 3,374,594
Utilities Program	\$ 3,318,718
Watershed Modeling, Studies, and Planning Program	\$ 3,810,536
Watershed Safety and Response Program	\$ 19,417,476
<b>Total</b>	<b>\$ 66,747,709</b>



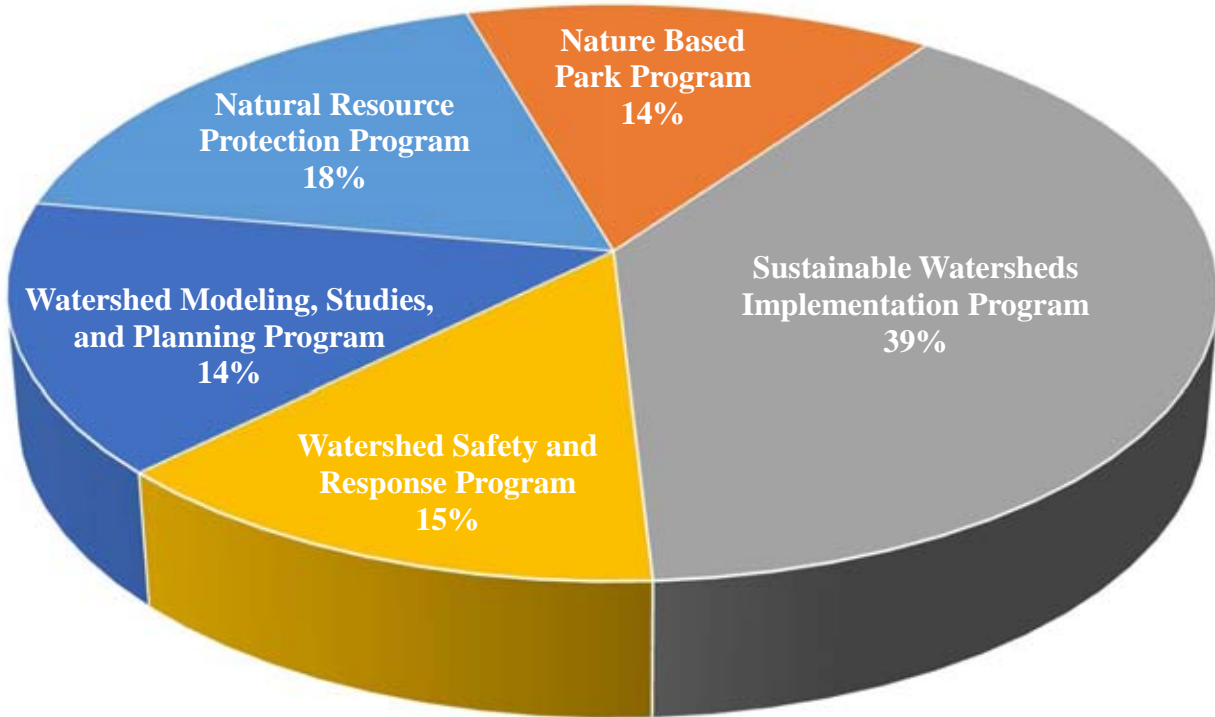
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RIVER AUTHORITY

Leaders in Watershed Solutions

# Programs Receiving General Fund Funding in FY 2015/16 Adopted Budget



Natural Resource Protection Program	\$ 815,800
Nature Based Park Program	\$ 660,000
Sustainable Watersheds Implementation Program	\$ 1,805,525
Watershed Modeling, Studies, and Planning Program	\$ 619,000
Watershed Safety and Response Program	\$ 700,000
<b>Total</b>	<b>\$ 4,600,325</b>



SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

## Programs

### Natural Resource Protection Program

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

- Automated Stormwater Data Collection Project
- Bacterial Source Tracking
- Clean Rivers Program 2013
- Clean Rivers Program 2015
- Environmental Flows Validation
- Feral Hog Management
- Holistic Freshwater Mussel Project
- Lower Leon Creek Use Attainability Analysis (UAA)
- Rangia Clam Investigation
- San Antonio River Basin Guadalupe Bass
- Urban Reach E. coli Monitoring
- US Geological Survey (USGS)
  - USGS Huisache Brush Management
  - USGS Oil and Gas Production Constituents Phase II
  - USGS Westside Creek Sediment Study
- Water Quality Data Analytics

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

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2015/16 San Antonio River Authority Strategic Plan.

#### Goals:

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

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

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

#### Fiscal Year Objectives:

1. Expand expertise by implementing techniques for water quality monitoring by developing bacteria source tracking (BST) capabilities and obtaining the NELAC Institute accreditation for metals in sediment.



5. Engage in the endangered species listing process for mussels by providing completed mussel surveys of Cibolo Creek and the San Antonio River to the US Fish and Wildlife Services.
8. Implement agricultural and wildlife best management practices in our District that improves water quality and promotes riparian health.

**Nature Based Park Program**

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

Escondido Creek Parkway  
 Graytown Park on the San Antonio River  
 John William Helton San Antonio River Nature Park  
 Mann’s Crossing Park on the Medina River  
 Mission Reach  
 Mission Reach Avian Study  
 Museum Reach (Park Segment)  
 Nature Park Signage Development  
 Trueheart Park  
 Westside Creeks Elmendorf Lake Park  
 Westside Creeks Linear Creekway Trails  
 Westside Creeks San Pedro Creek

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2015/16 San Antonio River Authority Strategic Plan.

**Goal:**

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

**Fiscal Year Objectives:**

3. Increase attendance and improve visitor experience at San Antonio River Authority (SARA) parks.
4. Improve and expand SARA parks and paddling trail infrastructure to facilitate increased utilization of SARA parks.

**Sustainable Watersheds Implementation Program**

This program improves the San Antonio River basin’s sustainability by influencing changes in land-use development practices, expanding expertise and maximizing the sustainability of the San Antonio River Authority’s services. This is accomplished by ensuring projects, efforts, and practices adhere to the principles of the triple bottom line (described below).

2015 Unified Development Code (UDC)/Stormwater Best Management Practices  
 Bexar Regional Watershed Management (BRWM) Stream Mitigation Bank  
 Edwards Aquifer Watershed Protection  
 Guenther/Euclid Stormwater Retrofit

Olmos Creek Aquatic Ecosystem Restoration  
San Antonio Housing Authority – Wheatley Courts  
School Green Infrastructure Grant  
Stormwater Best Management Practices Rebate Program  
Stormwater Monitoring City of San Antonio Pilots  
Stormwater Training and Tools  
Trash and Floatables Mitigation

Triple Bottom Line: utilizes an objective accounting matrix to evaluate and seek balance among the economic, environmental, and quality of life project components.

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2015/16 San Antonio River Authority Strategic Plan.

Goals:

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

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

Fiscal Year Objectives:

6. Increase the community awareness of Low Impact Development (LID)/Natural Channel Design (NCD) through public outreach and the development of a LID rebate program.
7. Ensure approval and implementation of LID/NCD in the City of San Antonio's 2015 Unified Development Code (UDC) amendment process.

Utilities Program

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

City Metering for Salatrillo Wastewater Treatment Plant  
Graytown Road Wastewater System  
Randolph Air Force Base Year 13 (2016)  
Randolph Air Force Base Years 14-50  
Rehabilitation Upper Martinez Clarifier  
Salatrillo Collection Wholesale System Inflow and Infiltration  
Salatrillo Wastewater Treatment Plant Screw Pump  
San Antonio River Authority Wastewater Collection System Inflow and Infiltration  
Utilities Supervisory Control and Data Acquisition (SCADA) System

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2015/16 San Antonio River Authority Strategic Plan.

Goals:

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

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

Fiscal Year Objectives:

3. Encourage the growth of our utility systems by adding 300 connections to the wastewater treatment system and by expanding our customer base for reuse water.

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

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

Cibolo Creek Holistic Watershed Master Plan  
City of San Antonio Drainage Master Plan  
City of San Antonio Outfalls Project  
Conservation Innovation Grant  
Ecosystem Dynamic Simulation (EDYS)  
    Goliad and Refugio Counties Model Development  
    Karnes and Wilson Counties Model Development  
    San Antonio Bay Model Development  
Environmental Monitoring System  
Medina River Holistic Watershed Master Plan  
Resource Conservation Partnership Program  
South Central Texas Regional Water Planning Group – 2016 Regional Water Plan  
    Fourth Cycle  
US Geological Survey (USGS) Lower San Antonio River (LSAR) Groundwater  
    Surface Water Interaction Modeling  
University of Texas at San Antonio (UTSA) Sediment Source Mobility  
Wilson, Karnes, Goliad Watershed Master Plan

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2015/16 San Antonio River Authority Strategic Plan.

Goals:

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

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

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

### **Watershed Safety and Response Program**

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

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

This program supports the following Agency Goals and Fiscal Year Objectives from the FY 2015/16 San Antonio River Authority Strategic Plan.

#### **Goals:**

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

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

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

#### **Fiscal Year Objectives:**

2. Develop a strategic plan to identify homes in low risk areas within the floodplain which have a potential to be removed from the floodplain designation with more detailed study rather than a capital improvement project.



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RIVER AUTHORITY

Leaders in Watershed Solutions

# Natural Resource Protection Program

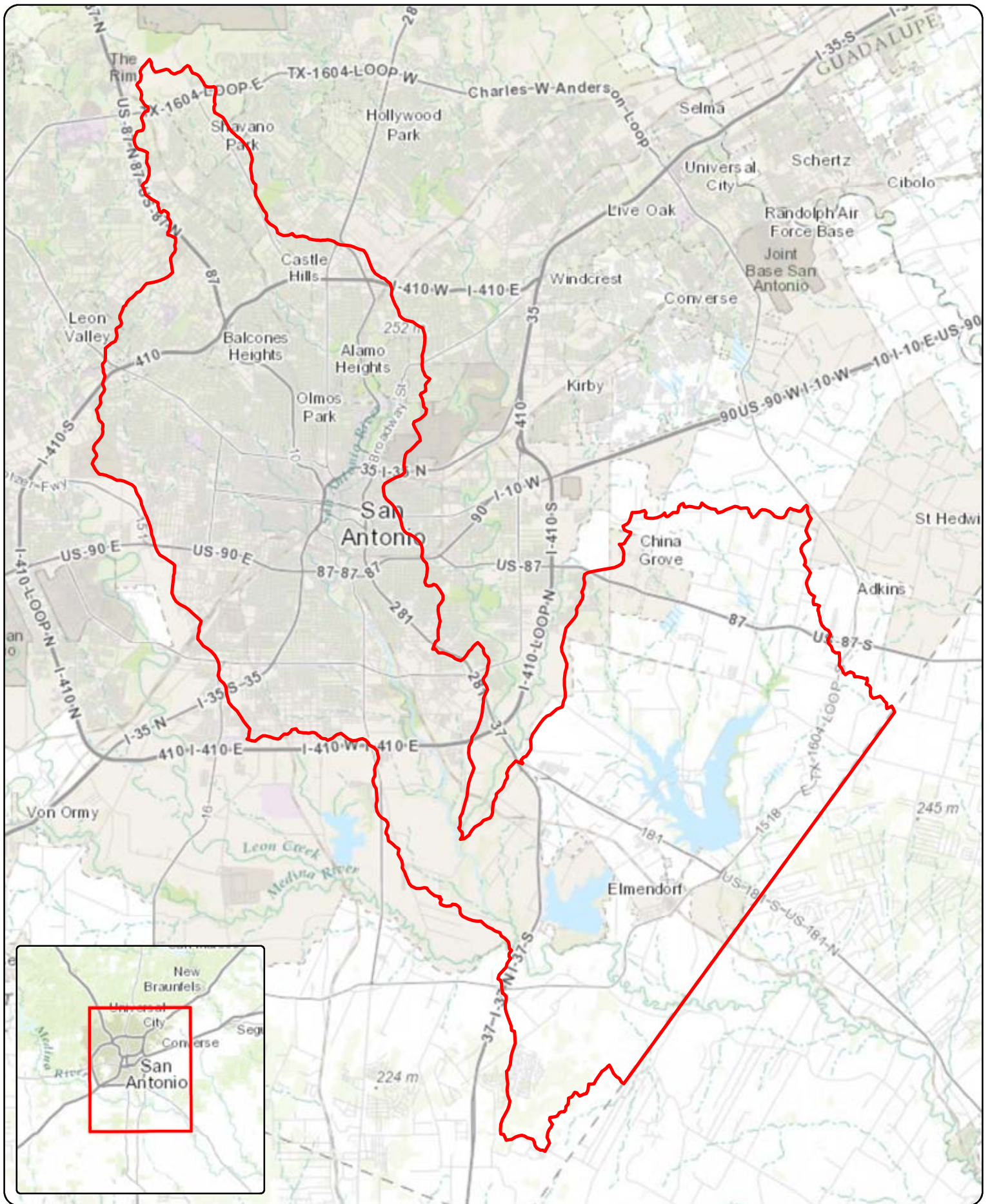


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RIVER AUTHORITY

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**Project Name:** Automated Stormwater Data Collection Project      **Project #** 00000406

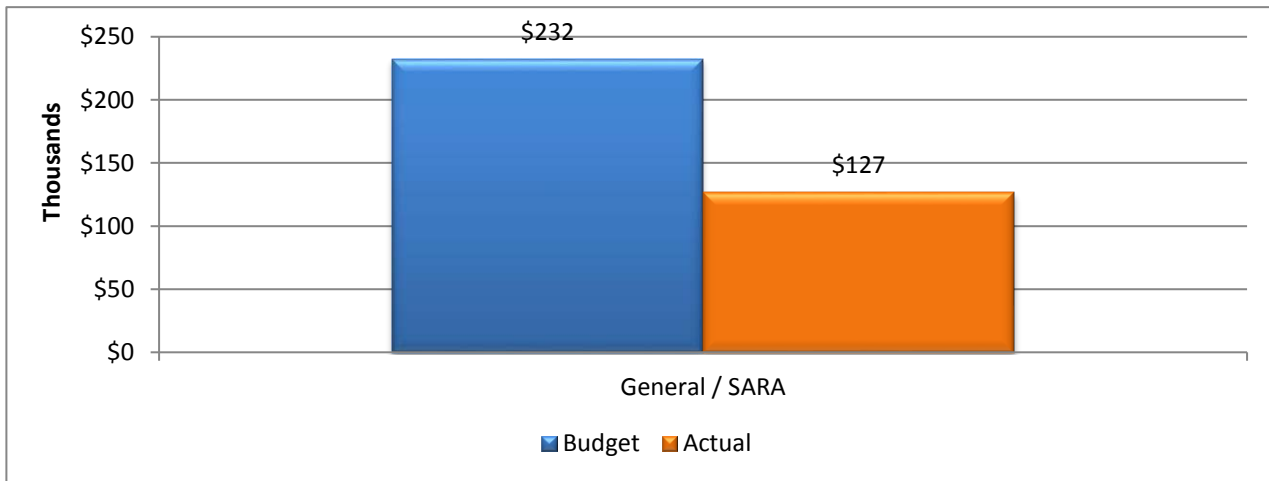
Project Start Date: 07/01/13      Total Project Budget: \$ 232,462  
 Project Finish Date: 06/30/16      Managing Department: Environmental Sciences

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

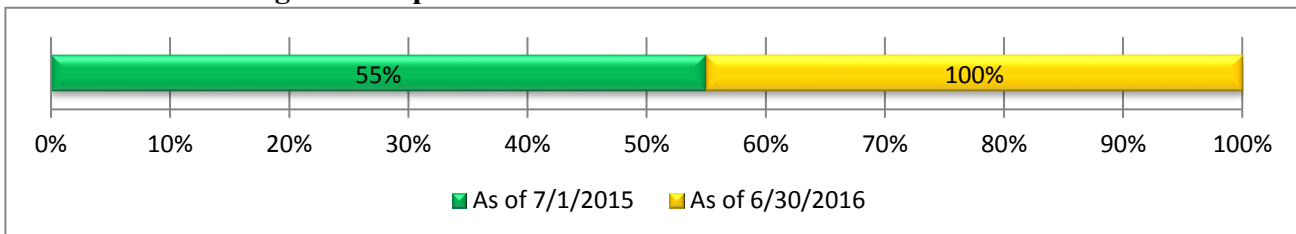
In FY 2015/16, SARA will research and construct two permanent long-term automated stream monitoring stations at locations within the SAR watershed. The purpose of these monitoring stations is to collect long-term water quality data under stormwater runoff conditions to help characterize stream water quality within the watershed.

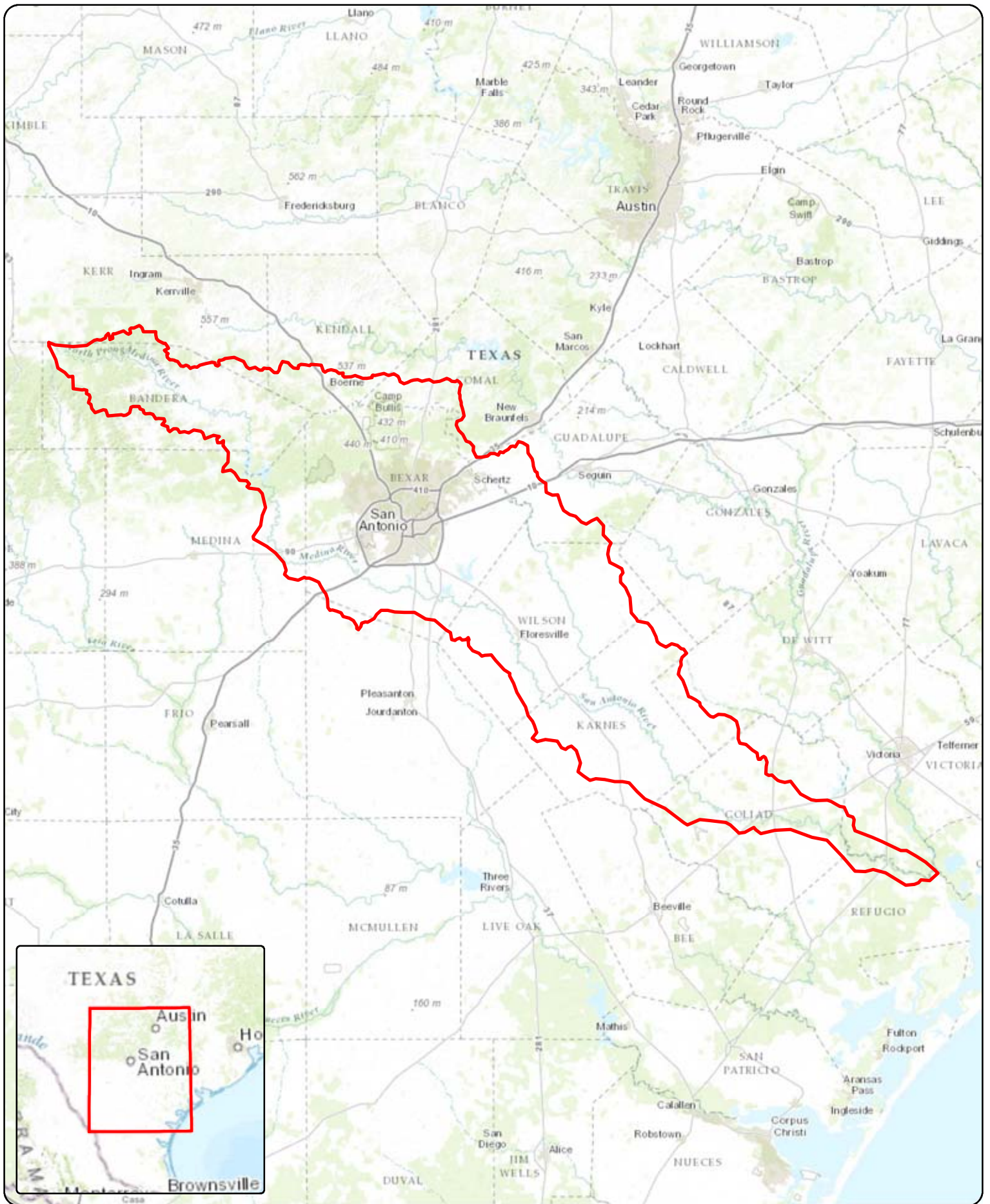
<b>Expenditures</b>	Estimate as of			Succeeding from		<b>Total</b>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>		
Personnel	\$ 61,492	\$ 35,874	\$ -	\$ -	\$ 97,366	
Commodities	65,096	70,000	-	-	135,096	
Contracts	-	-	-	-	-	
<b>Total</b>	<b>\$ 126,588</b>	<b>\$ 105,874</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 232,462</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**




**Estimated Percentage of Completion:**

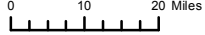




**Project Name:**  
Bacterial Source Tracking

 Project Service Area and/or Boundaries



 0 10 20 Miles

**Project Name:** Bacterial Source Tracking **Project #** 00000443

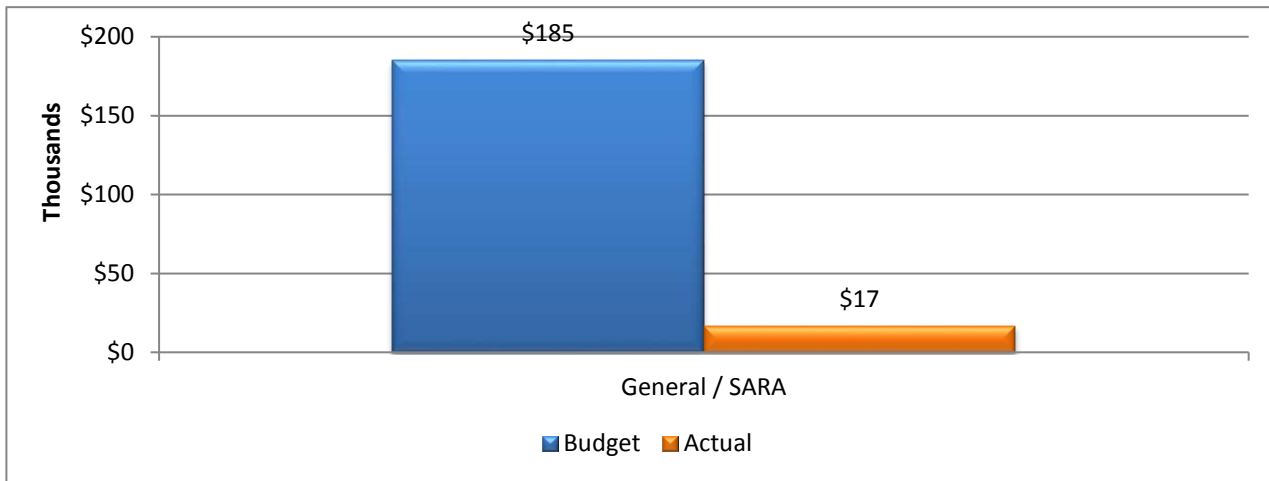
Project Start Date: 07/01/14 Total Project Budget: \$ 185,144  
 Project Finish Date: 06/30/16 Managing Department: Environmental Sciences

Bacterial Source Tracking (BST) is an emerging scientific discipline used to determine the source of fecal indicator bacteria in the environment. This project researches various BST methodologies and instrumentation, along with technical and facility requirements needed to successfully incorporate this capability into laboratory operations. The development and implementation of this method supports and enhances efforts to identify and reduce bacteria levels in the river.

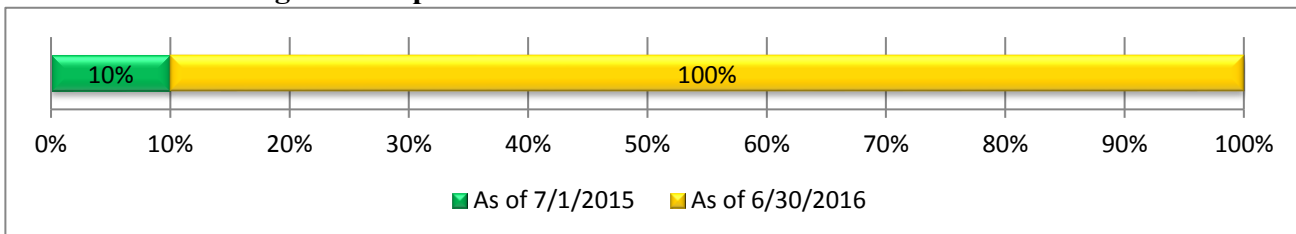
In FY 2015/16, this project will include the purchase of a quantitative polymerase chain reaction (qPCR) instrument, the completion of lab modifications for the analysis, and the hands-on application of bacterial source tracking. Analysts will perform trial runs, write standard operating procedures, train quality assurance in validation, and demonstrate capabilities in the new parameter. The overall goal of FY 2015/16 is to get the BST parameter up and running for real world samples.

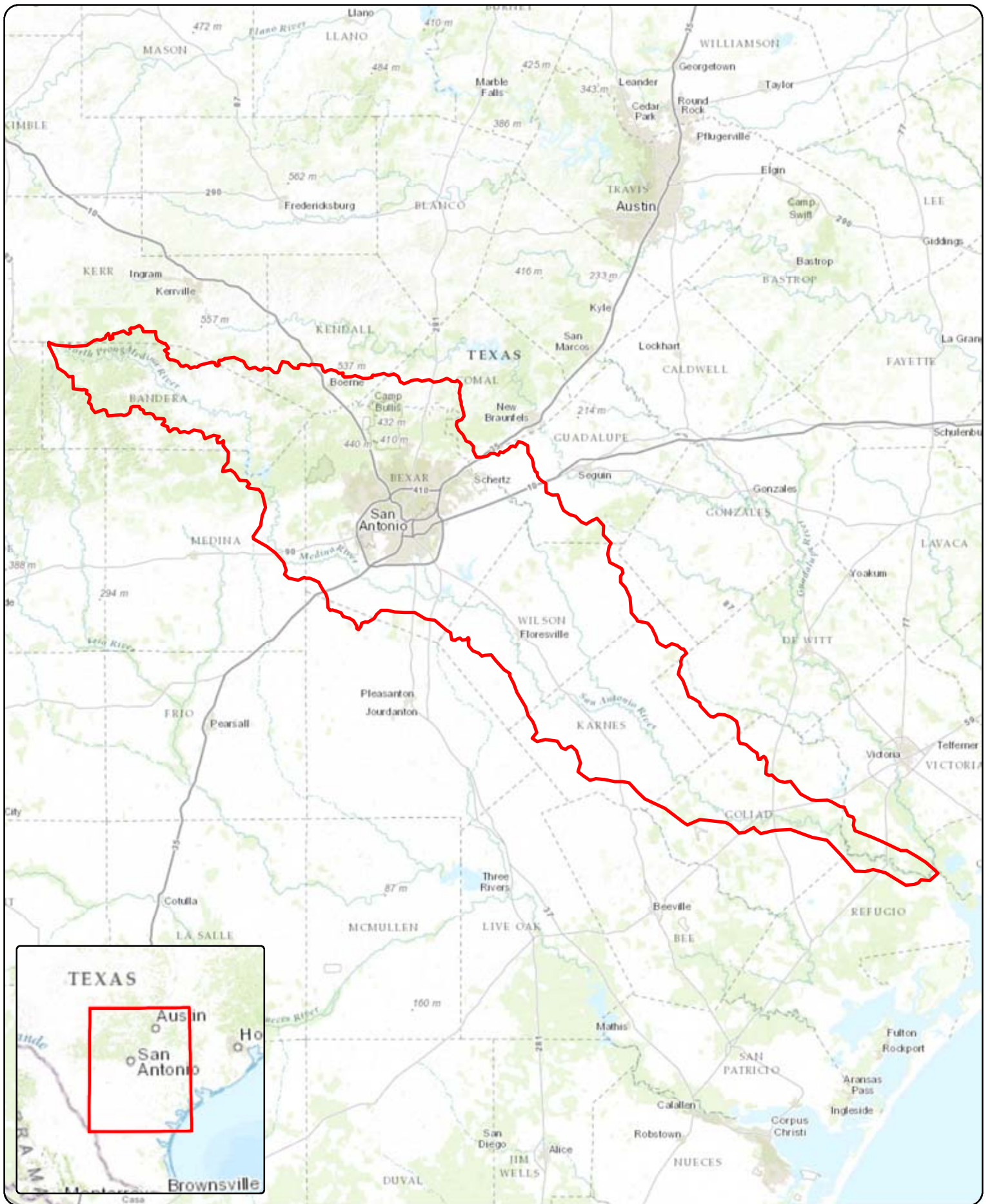
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 8,595	\$ 20,049	\$ -	\$ -	\$ 28,644	
Commodities	8,000	148,500	-	-	156,500	
Contracts	-	-	-	-	-	
<b>Total</b>	<b>\$ 16,595</b>	<b>\$ 168,549</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 185,144</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**




**Estimated Percentage of Completion:**

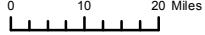




**Project Name:**  
Clean Rivers Program 2013

 Project Service Area and/or Boundaries



 0 10 20 Miles

**Project Name:** Clean Rivers Program 2013 **Project #** 00000404

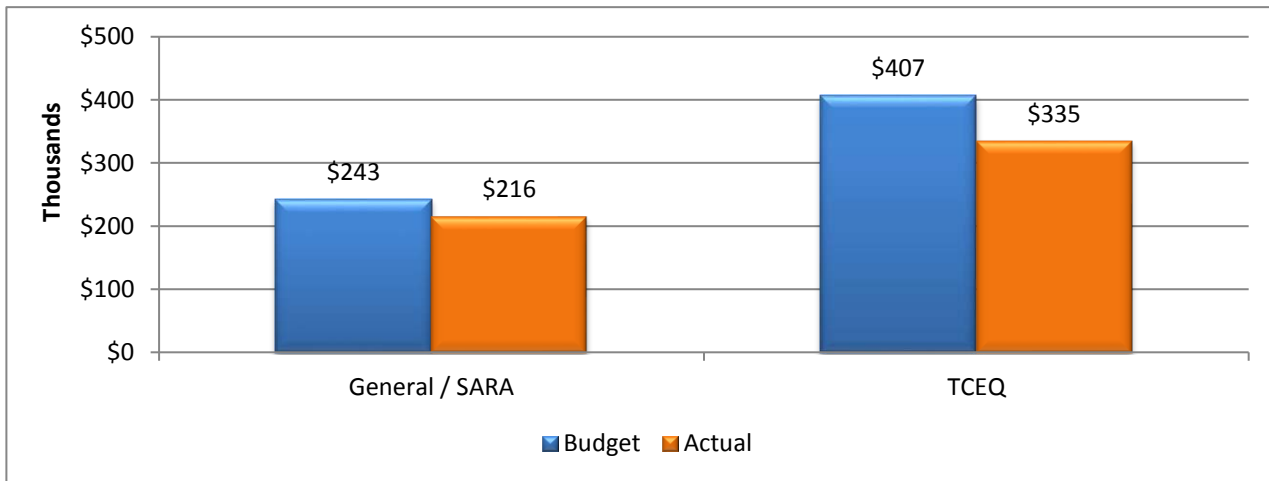
Project Start Date: 09/01/13 Total Project Budget: \$ 650,303  
 Project Finish Date: 12/31/15 Managing Department: Environmental Sciences

There are two programs collecting routine surface water quality data in the San Antonio River Basin. One is the San Antonio River Authority Stream Monitoring Project funded by the River Authority's General Fund. The second is the Texas Clean Rivers Program (CRP) funded by the Texas Commission on Environmental Quality (TCEQ). The CRP, which has been on-going since 1992, provides funding to analyze and manage data gathered from surface water samples collected throughout the basin. The CRP produces quality assured water quality data for the assessment of current water quality conditions and long-term trends. Information is shared with the community and stakeholders.

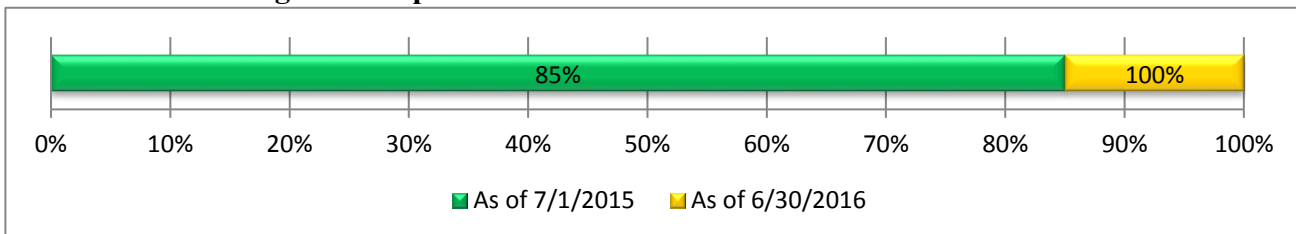
In FY 2015/16, the CRP will continue to collect, analyze, and manage surface water quality data collected throughout the San Antonio River Basin. The San Antonio River Authority CRP utilizes a watershed approach to address impairments, concerns, and long-term trends while coordinating the monitoring resources of partnering agencies.

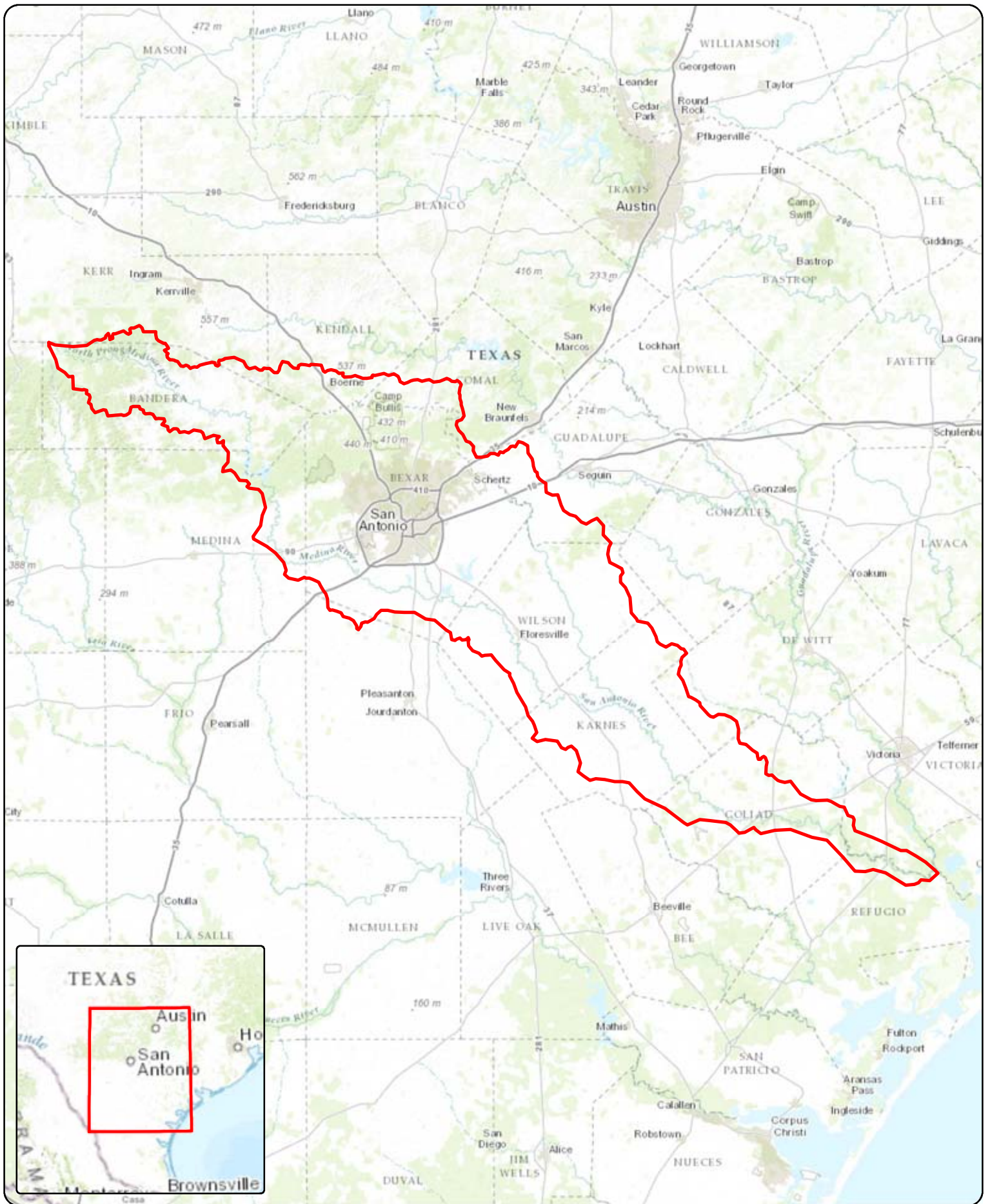
<b>Expenditures</b>	Estimate as of			Succeeding from		<b>Total</b>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>		
Personnel	\$ 502,161	\$ 92,141	\$ -	\$ -	\$ 594,302	
Commodities	49,214	6,788	-	-	56,002	
Contracts	-	-	-	-	-	
<b>Total</b>	<b>\$ 551,374</b>	<b>\$ 98,929</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 650,303</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Clean Rivers Program 2015 **Project #** 00000490

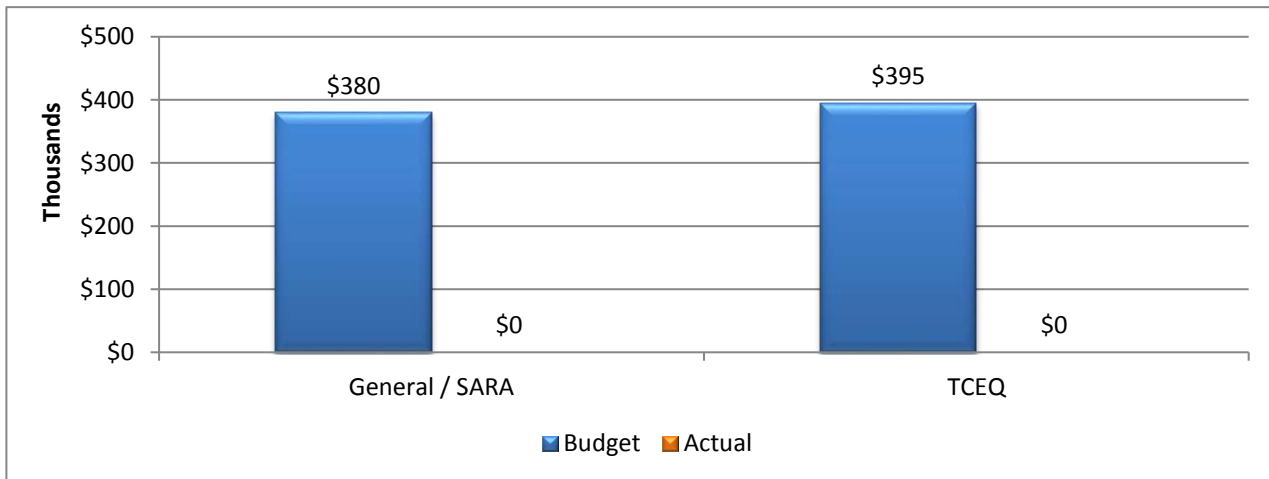
Project Start Date: 09/01/15 Total Project Budget: \$ 775,276  
 Project Finish Date: 10/31/17 Managing Department: Environmental Sciences

There are two programs collecting routine surface water quality data in the San Antonio River basin. One is the Texas Clean Rivers Program (CRP) funded by the Texas Commission on Environmental Quality (TCEQ). The second is the San Antonio River Authority Stream Monitoring Project funded by the River Authority's General Fund. Both programs provide funding to analyze and manage data gathered from surface water samples collected throughout the basin. These programs produce quality assured water quality data for the assessment of current water quality conditions and long-term trends. The TCEQ funding for the project includes two annual contract periods - FY 2015/16 and FY 2016/17.

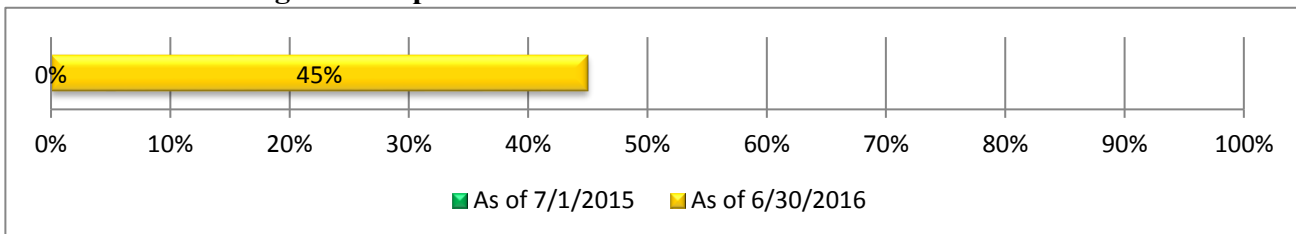
In FY 2015/16, the CRP and River Authority monitoring projects will collect, analyze, and manage surface water quality data collected throughout the San Antonio River basin. These programs utilize a watershed approach to address impairments, concerns, and long-term trends while coordinating the monitoring resources of partnering agencies.

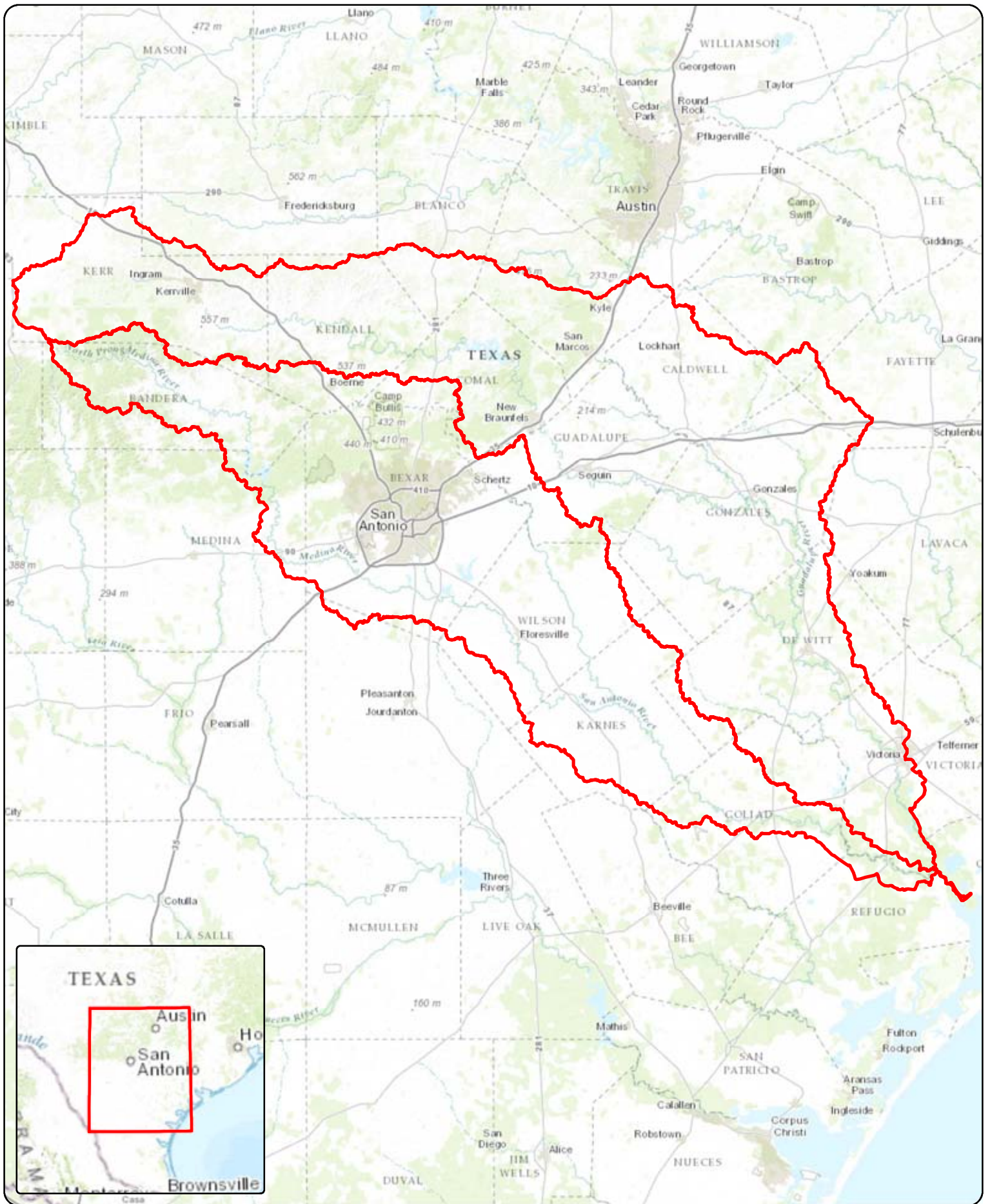
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 266,666	\$ 300,427	\$ 86,175	\$ 653,268
Commodities	-	37,840	38,504	664	77,008
Contracts	-	45,000	-	-	45,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 349,506</b>	<b>\$ 338,931</b>	<b>\$ 86,839</b>	<b>\$ 775,276</b>

**Budget to Actual by Funding Source as of 7/1/2015:**




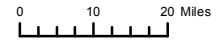
**Estimated Percentage of Completion:**





**Project Name:**  
Environmental Flows Validation

 Project Service Area and/or Boundaries





**Project Name:** Environmental Flows Validation **Project #** 00000447

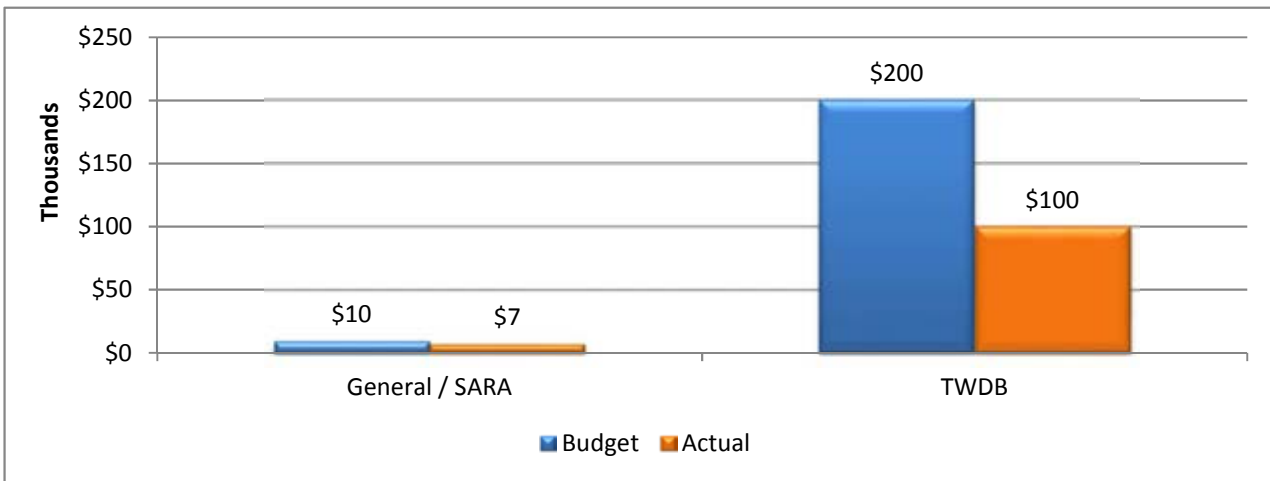
Project Start Date: 04/15/14 Total Project Budget: \$ 209,545  
 Project Finish Date: 06/30/16 Managing Department: Environmental Sciences

The goal of this project is to develop methodologies to validate environmental flows adopted by the State of Texas. This will be accomplished by first conducting a workshop with an expert panel to develop several theories on how certain chemical and physical parameters as well as biological indicators will respond to the various tiered flow recommendations. These indicators are identified by the expert panel. Then the selected indicators are studied at several sites and under several flow regimes to validate the theories and the associated flow recommendations. This information will then be used to refine future environmental flow recommendations.

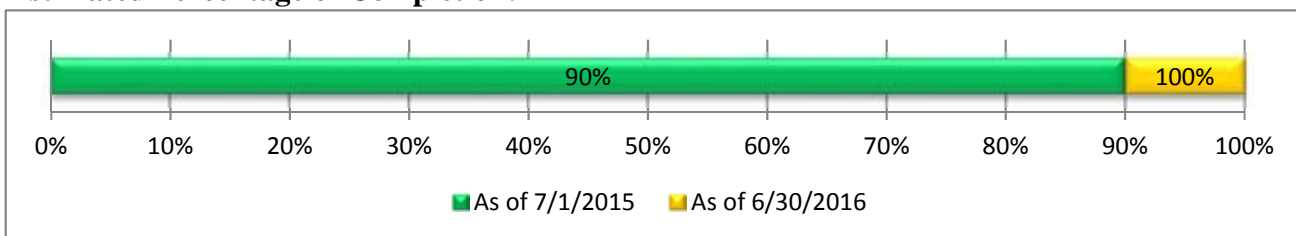
In FY 2015/16, sampling will be concluded and the report generated and submitted to the Texas Water Development Board.

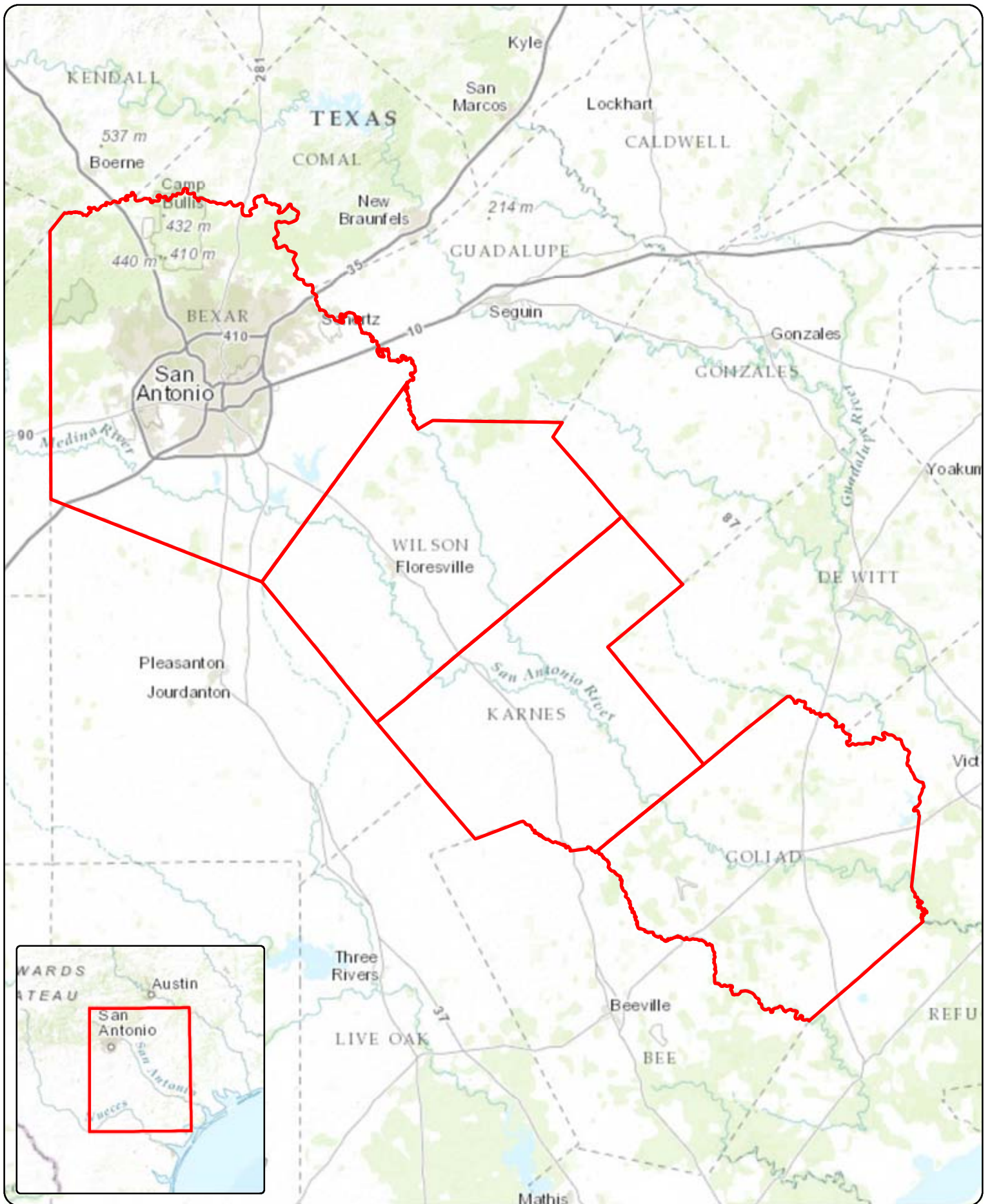
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 7,105	\$ 2,432	\$ -	\$ -	\$ -	\$ 9,537
Commodities	8	-	-	-	-	8
Contracts	<b>100,000</b>		-		200,000	
<b>Total</b>	<b>\$ 102,432</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 209,545</b>	<b>\$ -</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Feral Hog Management

**Project #** 00000510

Project Start Date: 07/01/15

Total Project Budget: \$ 211,924

Project Finish Date: 06/30/17

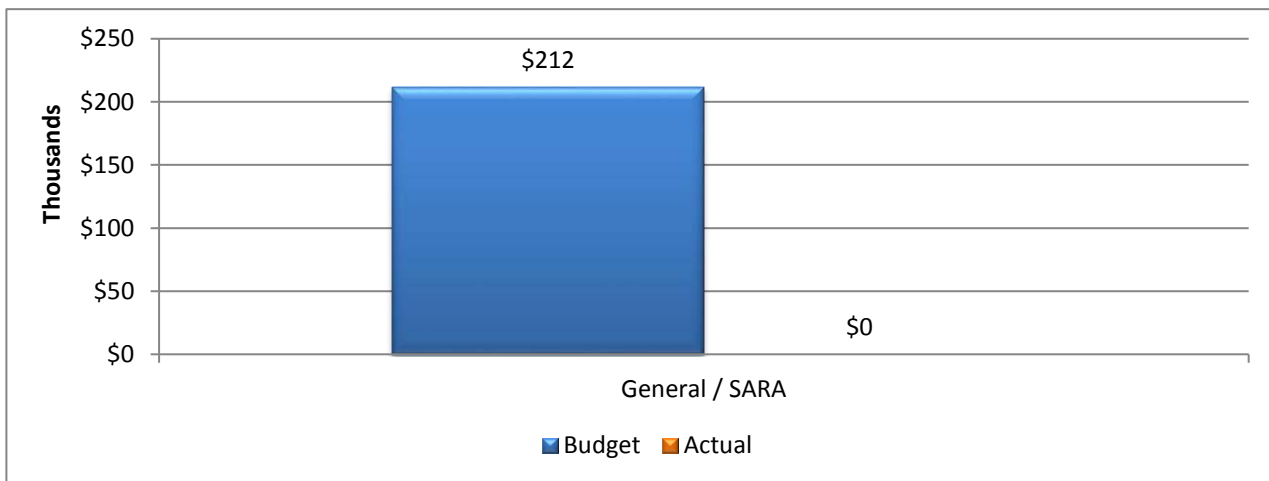
Managing Department: Environmental Sciences

Texas is home to about 2.6 million feral hogs which cause an estimated \$500 million in damages to rural and urban areas in Texas each year. They 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. This project seeks to develop relationships and fund activities with other agencies of the State to develop strategies that will work to manage the feral hog population in the San Antonio River Authority (SARA) District through programs that both educate land owners and provide support for eliminating feral hogs.

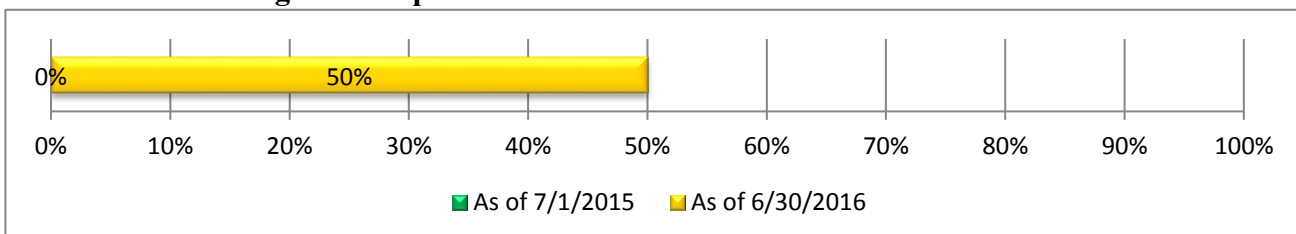
In FY 2015/16, SARA with Texas AgriLife will host a workshop to educate landowners in the district about feral hog management. SARA will also work with Wildlife Services to actively manage populations of feral hogs in the district.

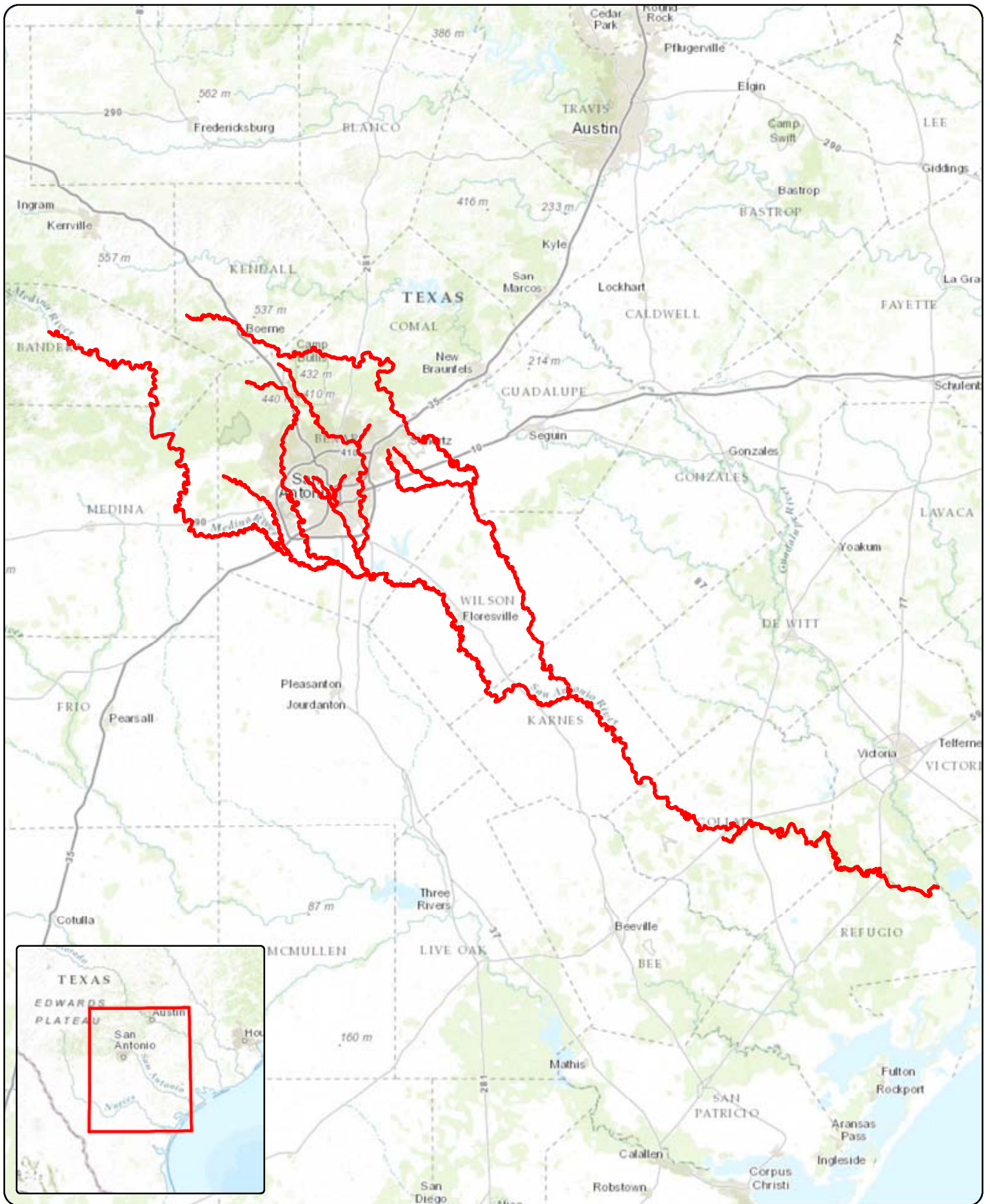
<b>Expenditures</b>	Estimate as of			Succeeding from		<b>Total</b>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>		
Personnel	\$ -	\$ 5,859	\$ 6,065	\$ -	\$ -	\$ 11,924
Commodities	-	-	-	-	-	-
Contracts	-	100,000	100,000	-	-	200,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 105,859</b>	<b>\$ 106,065</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 211,924</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Holistic Freshwater Mussel Project **Project #** 00000442

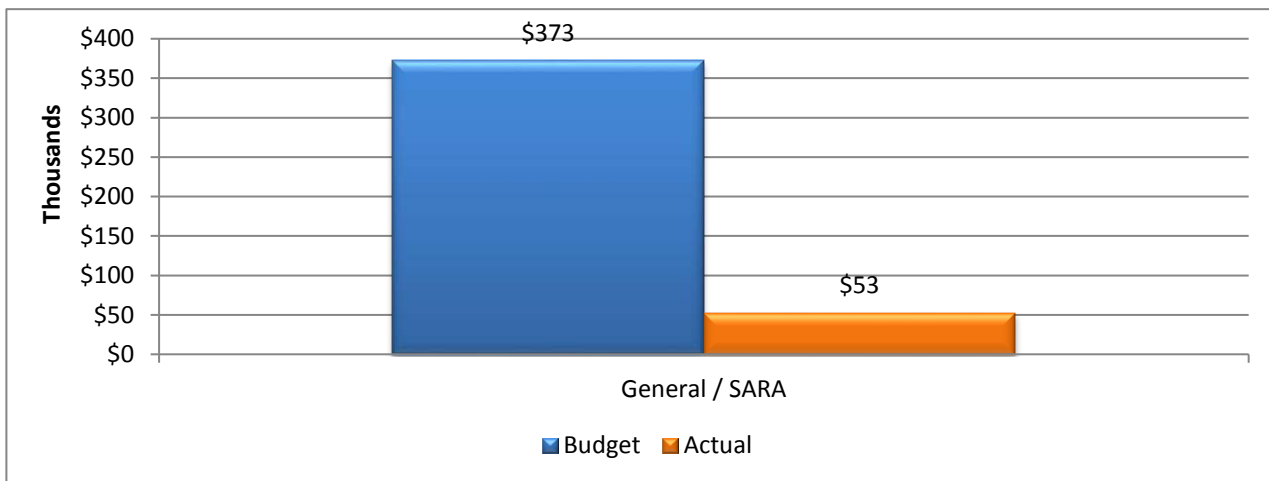
Project Start Date: 07/01/14 Total Project Budget: \$ 372,794  
 Project Finish Date: 12/31/19 Managing Department: Environmental Sciences

In an effort to determine mussel densities and species richness for the entire native mussel community in the San Antonio River Basin, the River Authority conducts reconnaissance surveys and mussel sample collections efforts throughout the basin. Data collected is distributed to regulatory agencies to assist in decision-making for listing or delisting candidate species. Sampling locations include the San Antonio River, Cibolo Creek, Salado Creek, Lower Leon Creek, Salatrillo and Martinez Creeks, lower Medina River, Medio Creek and Westside Creeks.

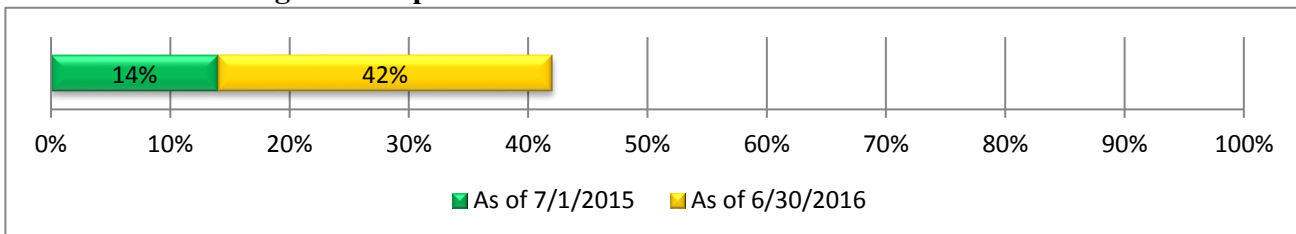
In FY 2015/16, River Authority biologists will conduct reconnaissance surveys, quantitative, and qualitative sampling efforts on the lower San Antonio River and the San Antonio River remnant channel collecting data to estimate population parameters which includes species richness, mussel densities, variance, population size and recruitment.

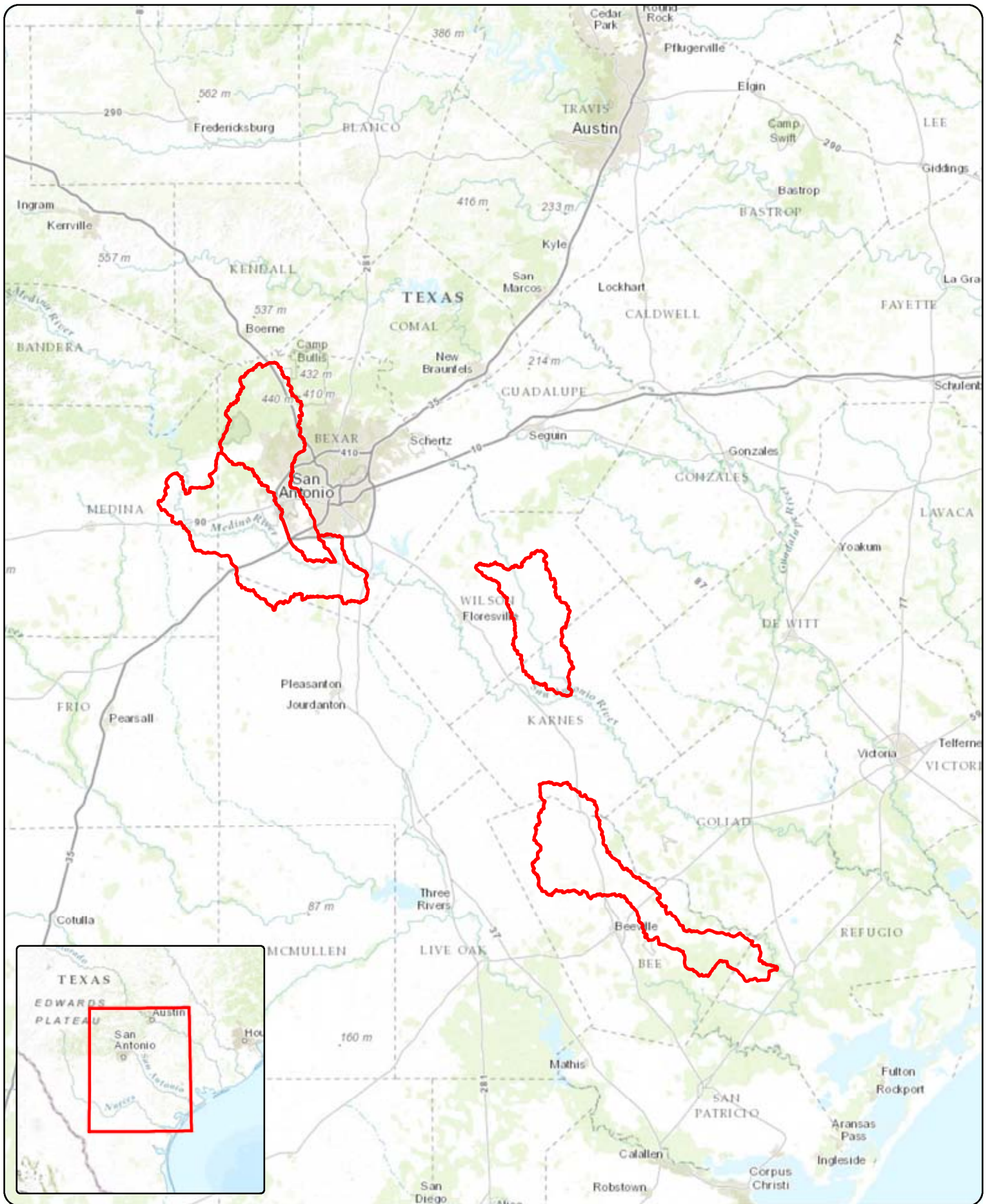
Expenditures	Estimate as of			Succeeding from	Total
	2014/15	2015/16	2016/17	2017/18	
Personnel	\$ 37,756	\$ 75,249	\$ 77,881	\$ 80,608	\$ 271,494
Commodities	3,700	3,700	3,700	3,700	14,800
Contracts	11,500	25,000	25,000	25,000	86,500
<b>Total</b>	<b>\$ 52,956</b>	<b>\$ 103,949</b>	<b>\$ 106,581</b>	<b>\$ 109,308</b>	<b>\$ 372,794</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Lower Leon Creek Use Attainability Analysis **Project #** 00000428

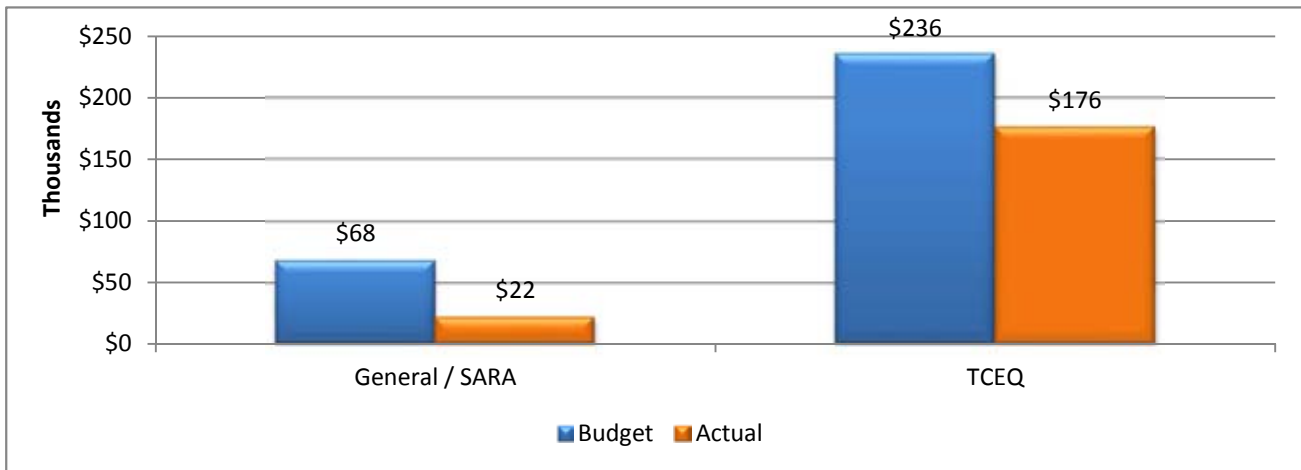
Project Start Date: 03/03/14 Total Project Budget: \$ 304,240  
 Project Finish Date: 01/01/16 Managing Department: Environmental Sciences

The objective of the Lower Leon Creek Use Attainability Analysis is to complete the water quality monitoring and write a Lower Leon Creek Use Attainability Analysis Report detailing the correlation of water quality, flow and biological data to assist the Texas Commission on Environmental Quality (TCEQ) in assigning the appropriate aquatic life use and dissolved oxygen (DO) criteria in the Lower Leon Creek. Additional quarterly routine monitoring is also collected in the Cibolo Creek, Medina River and Medio Creek Watersheds.

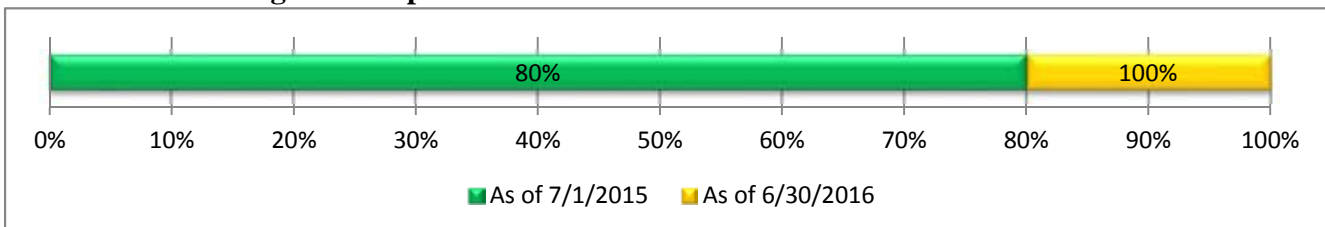
For FY 2015/16, aquatic life, routine chemistry, 24-hour dissolved oxygen and flow measurements will be collected at ten monitoring stations along the Lower Leon Creek; additional quarterly routine monitoring will be conducted at six stations in the Cibolo Creek, Medina River and Medio Creek Watersheds.

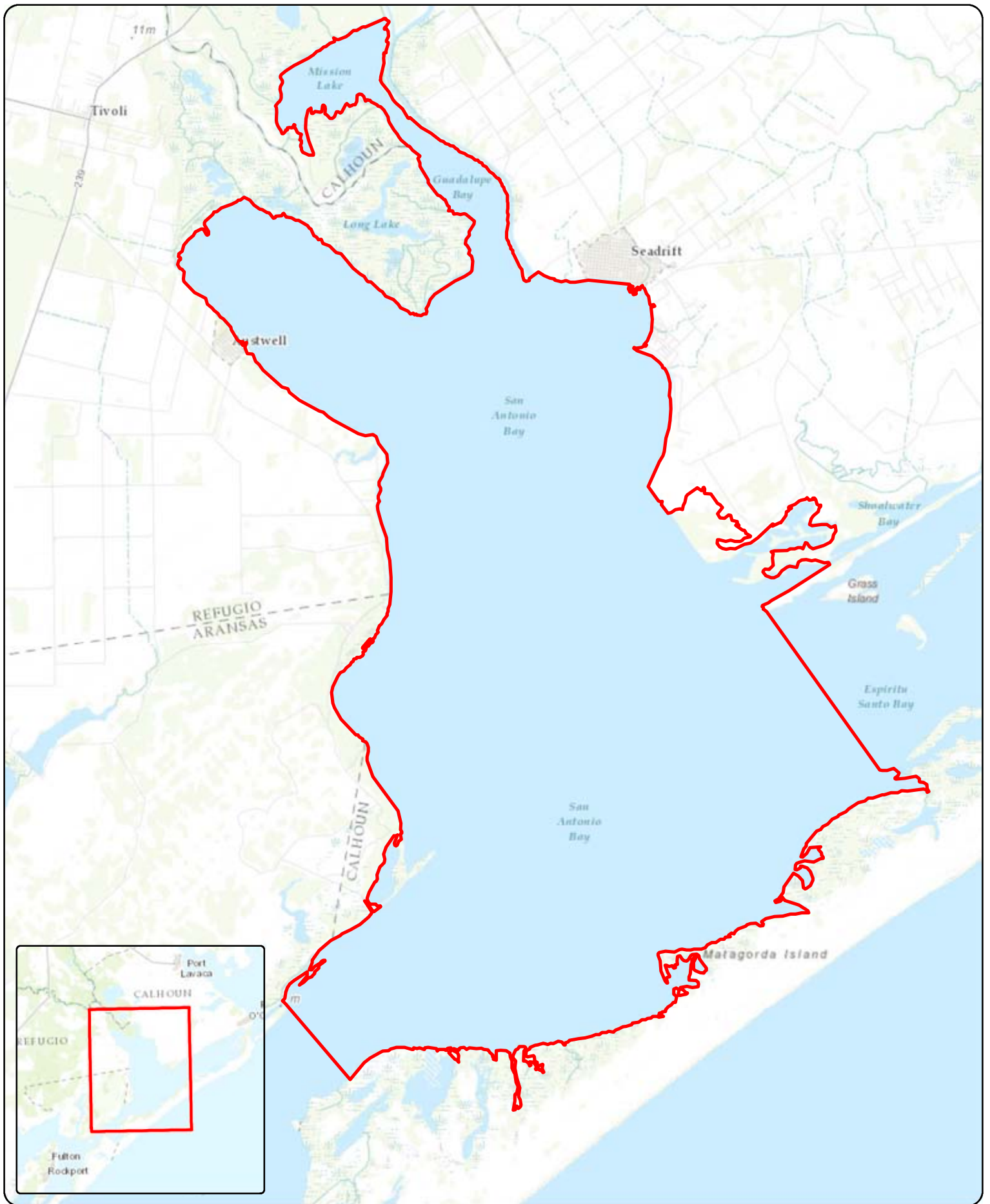
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 163,849	\$ 69,781	\$ -	\$ -	\$ 233,630	
Commodities	34,610	36,000	-	-	70,610	
Contracts	-	-	-	-	-	
<b>Total</b>	<b>\$ 198,459</b>	<b>\$ 781</b>	<b>\$ -</b>	<b>\$ -304,</b>	<b>\$ 240</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Rangia Clam Investigation **Project #** 00000446

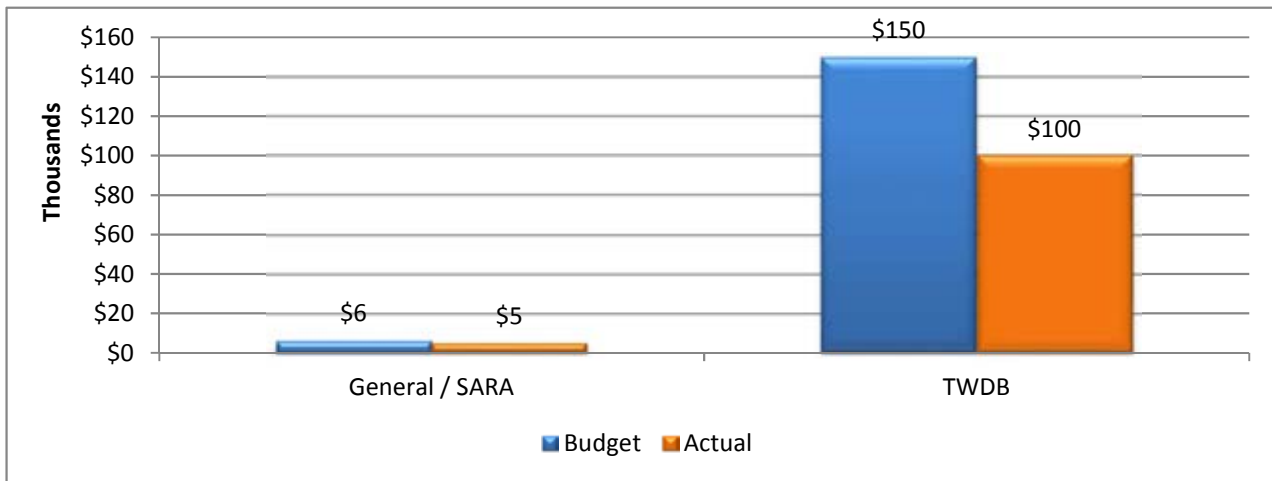
Project Start Date: 04/15/14 Total Project Budget: \$ 156,134  
 Project Finish Date: 09/14/15 Managing Department: Environmental Sciences

The adopted environmental flow standards developed by the Guadalupe, San Antonio, Mission, and Aransas Rivers and Mission, Copano, Aransas, and San Antonio Bays Basin and Bay Stakeholder Committee (BBASC) relied on limited data about the location, reproduction and recruitment of Rangia clams for the spring months. This study develops maps of Rangia clam beds in Mission Lake, Guadalupe Bay and parts of Hynes and San Antonio Bay. Rangia clam growth rings are examined to establish correlations between growth and recruitment with environmental flow conditions.

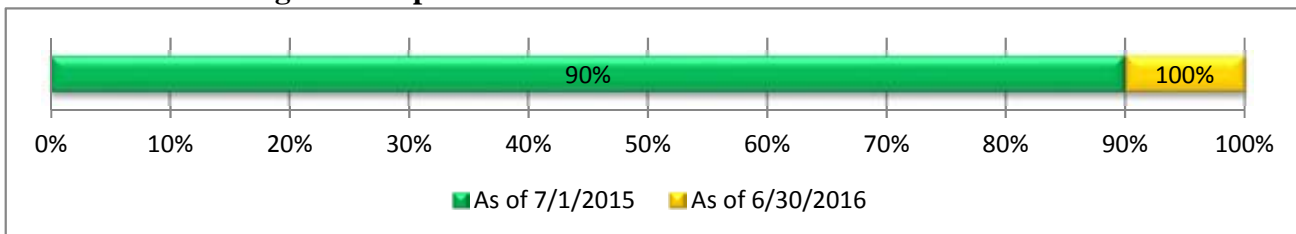
In FY 2015/16, a workshop will be held to discuss findings to local residents, organizations and agencies. A report will be completed and submitted to the Texas Water Development Board.

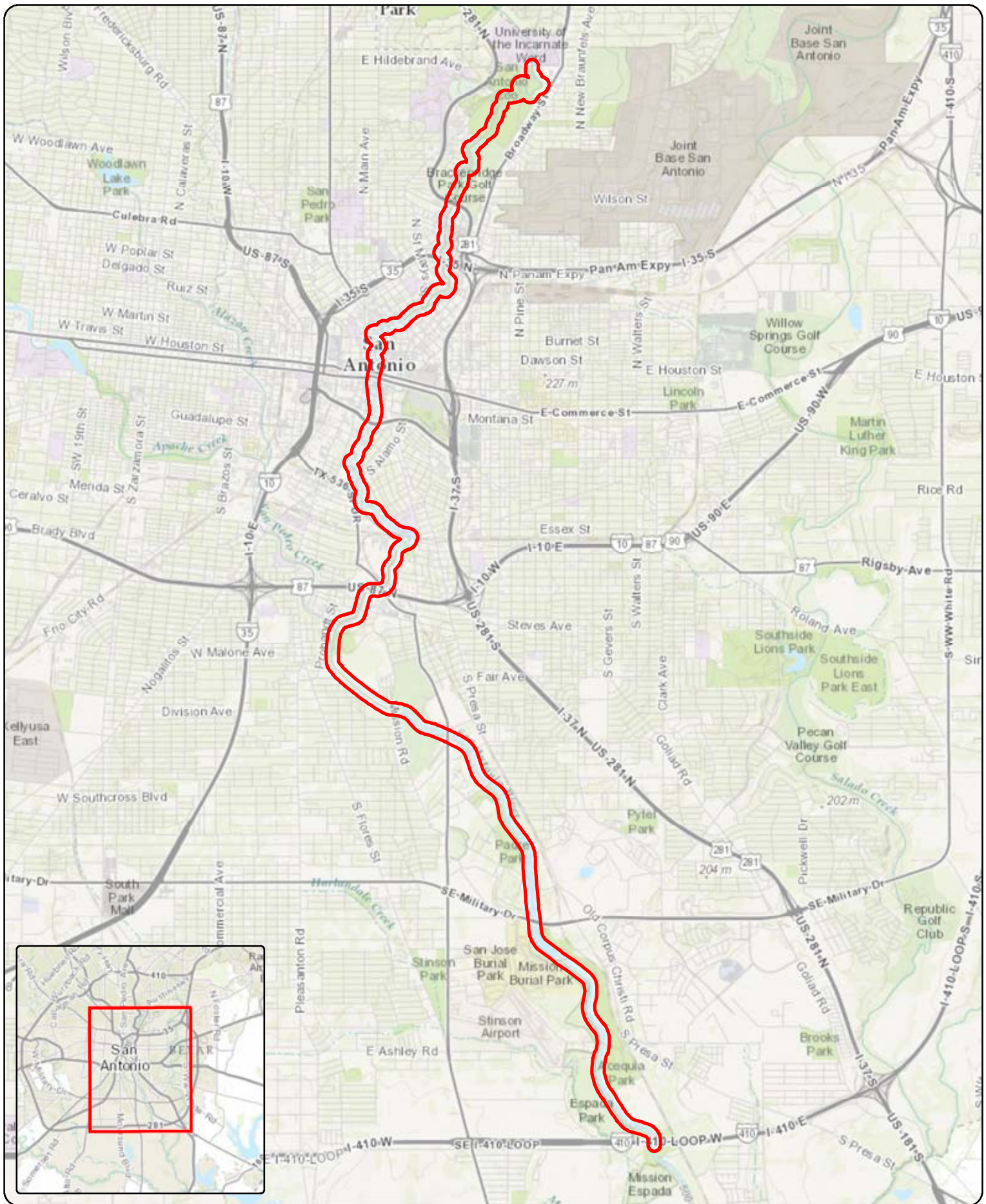
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 4,876	\$ 1,258	\$ -	\$ -	\$ 6,134	
Commodities	-	-	-	-	-	
Contracts	<del>500,000</del>		-	150,000		
<b>Total</b>	<b>\$ <del>504,876</del></b>	<b>\$</b>	<b>\$ -</b>	<b>\$ 156,134</b>		

**Budget to Actual by Funding Source as of 7/1/2015:**




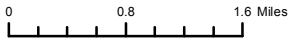
**Estimated Percentage of Completion:**





**Project Name:**  
San Antonio River Basin Guadalupe Bass

 Project Service Area and/or Boundaries



**Project Name:** San Antonio River Basin Guadalupe Bass **Project #** 00000395

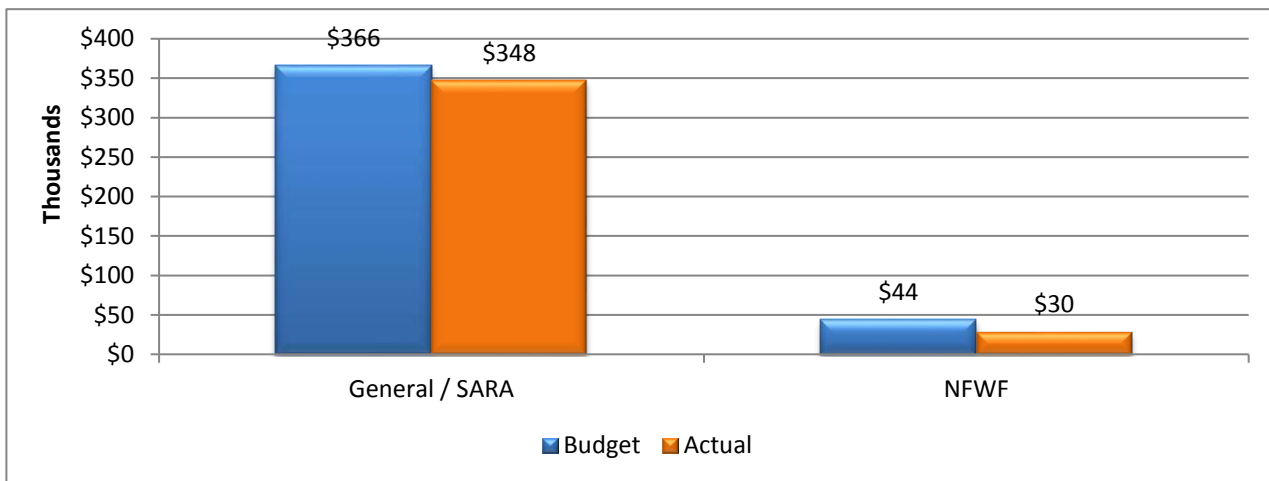
Project Start Date: 07/01/12 Total Project Budget: \$ 411,483  
 Project Finish Date: 01/31/16 Managing Department: Environmental Sciences

This project assesses the abundance of Guadalupe Bass *Micropterus treculi* in the San Antonio River (SAR) watershed and collects, tags and reintroduces the species to a restored reach of the SAR where the species had been extirpated. An assessment of Guadalupe bass in the SAR watershed is being completed to gather genetic and baseline abundance information. Collected adults are tagged, checked for genetic integrity, and stocked in restored stream reaches. Evaluation of efforts begin six months after stocking to document movement, reproduction and recruitment. Habitat association data is collected to help guide future habitat restoration efforts. Overall outcomes expected are including reintroducing the Guadalupe Bass to the Upper SAR, expanding its range and distribution and improving the biotic integrity of the Upper SAR.

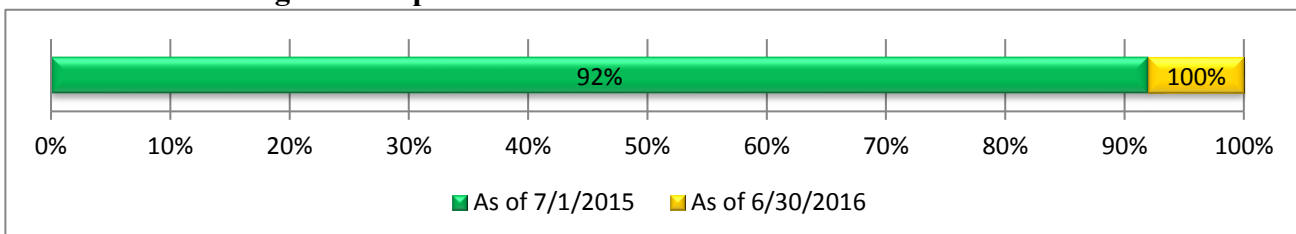
In FY 2015/16, this project will continue establishing in-stream habitat structure, map Guadalupe Bass genetic information, collect brood fish, and transplant adult Guadalupe Bass to the restored reach of the Upper SAR and produce a final report for the project.

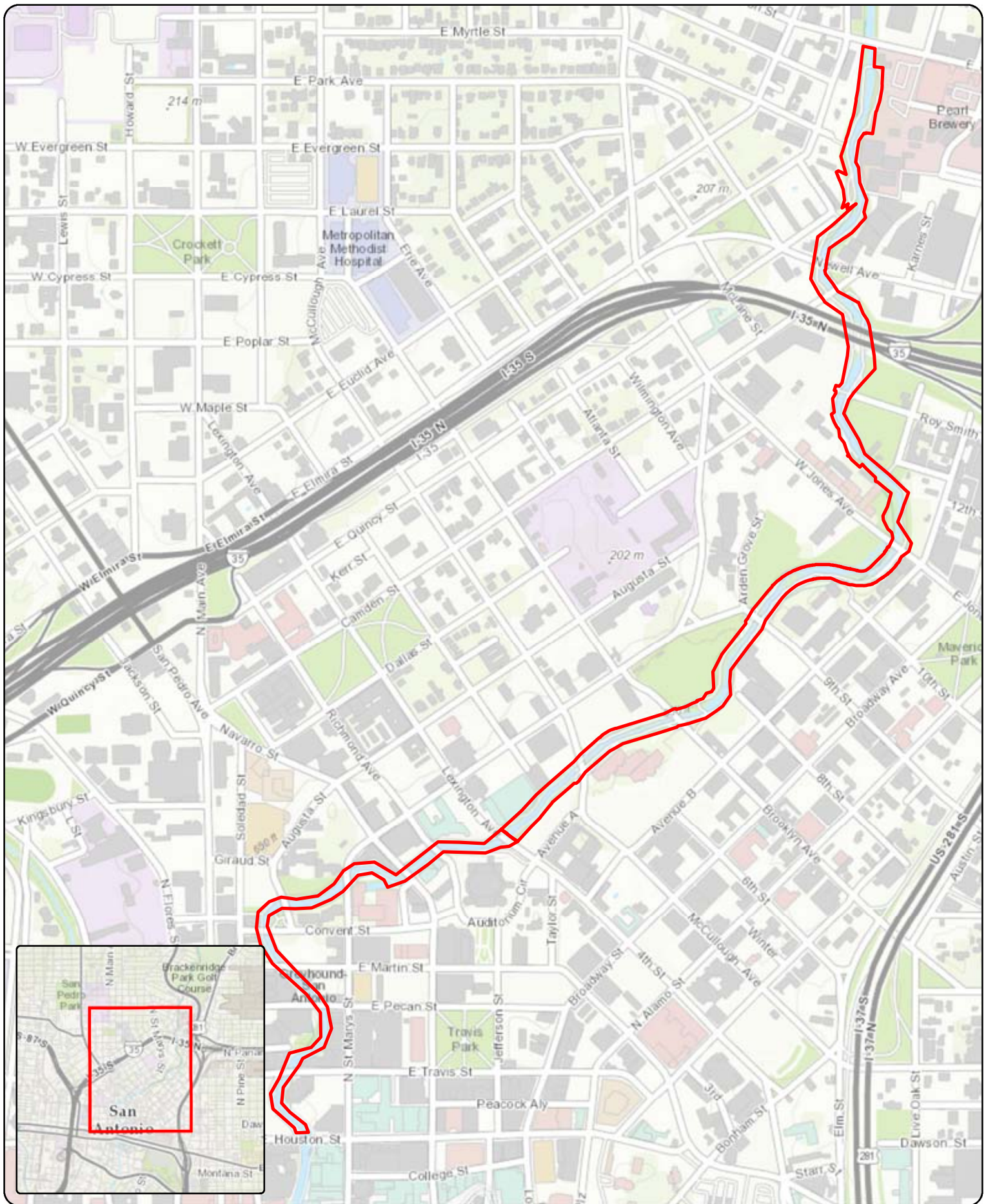
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 149,940	\$ 23,419	\$ -	\$ -	\$ 173,359	
Commodities	5,145	2,455	-	-	7,600	
Contracts	223,065	7,459	-	-	230,524	
<b>Total</b>	<b>\$ 378,150</b>	<b>\$ 33,333</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 411,483</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Urban Reach E. coli Monitoring **Project #** 00000494

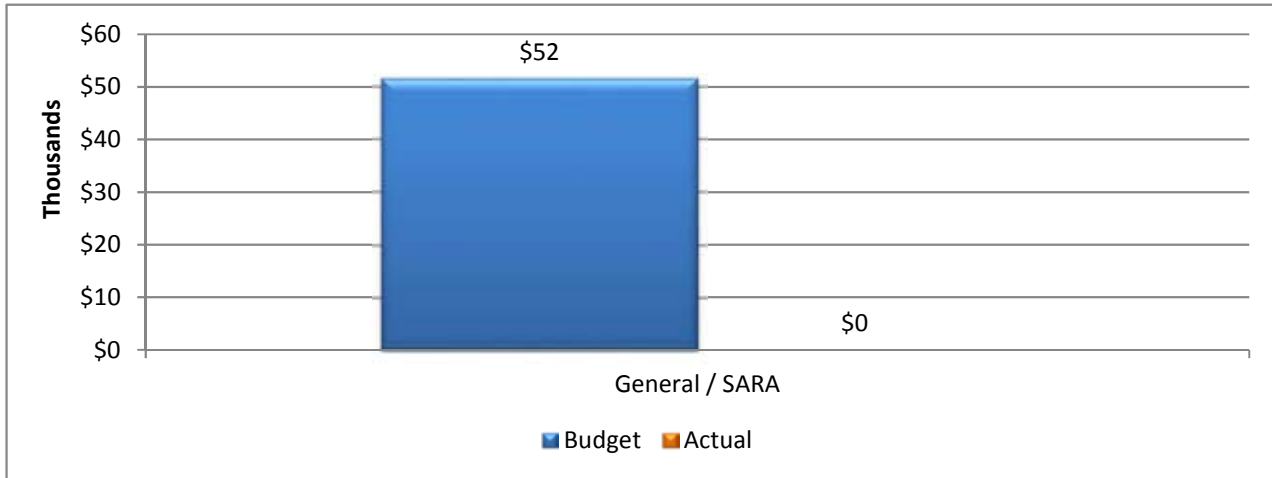
Project Start Date: 07/01/15 Total Project Budget: \$ 51,521  
 Project Finish Date: 06/30/16 Managing Department: Environmental Sciences

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

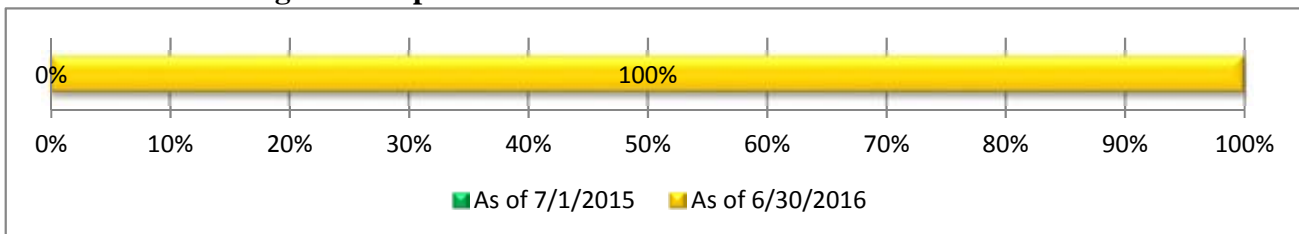
In FY 2015/16, E. coli and water quality parameters will be monitored at two locations in the urban reach of the San Antonio River. A sonar scan on the river bed will be conducted prior to the first monitoring event. A report summarizing all findings and recommendations will be created.

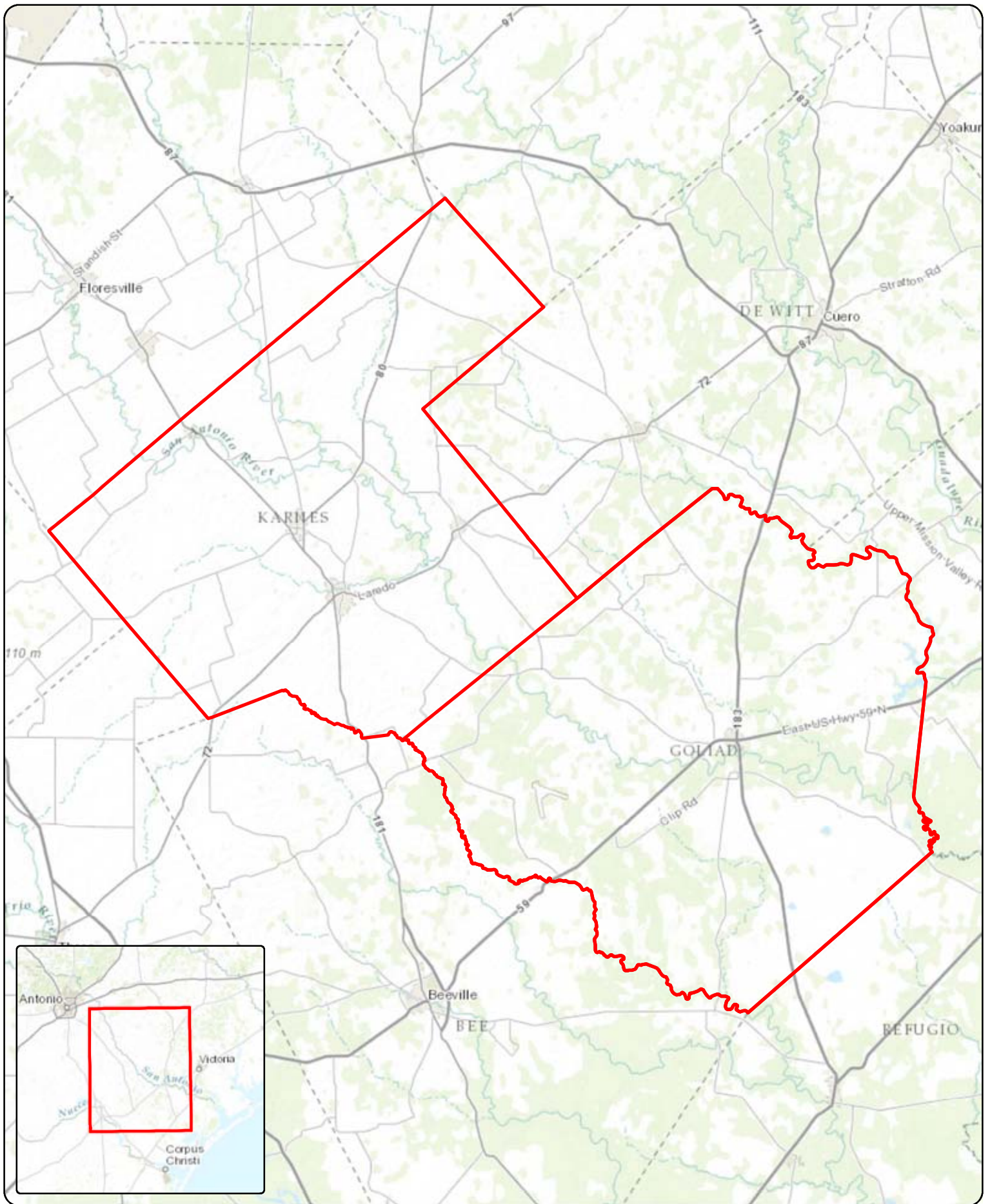
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 23,521	\$ -	\$ -	\$ 23,521
Commodities	-	23,000	-	-	23,000
Contracts	5,000		-	5,000	
<b>Total</b>	<b>\$ -51,521</b>		<b>\$ -</b>	<b>\$ 51,521</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** USGS Huisache Brush Management **Project #** 00000454

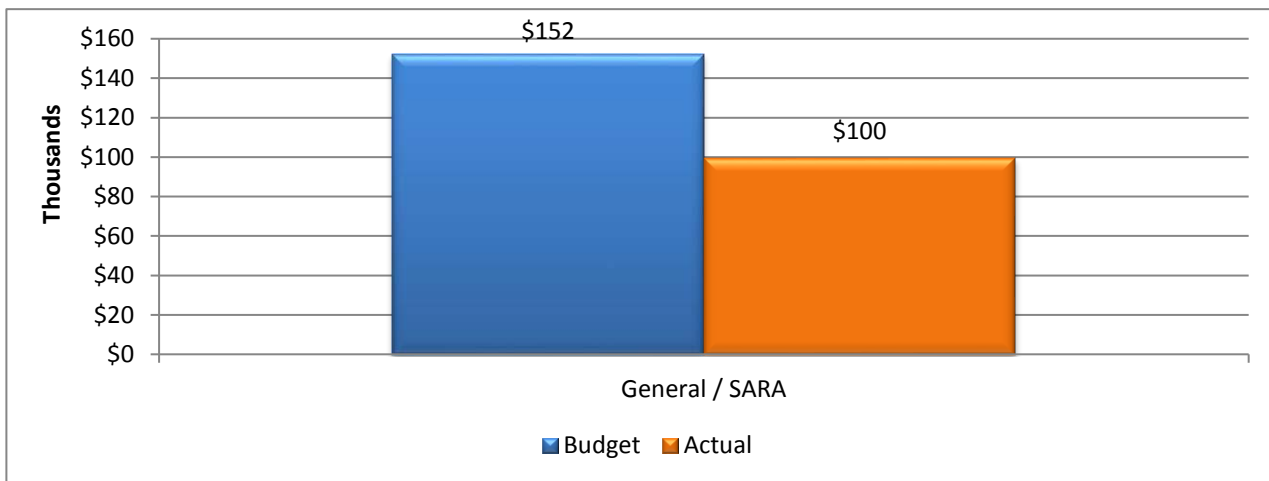
Project Start Date: 03/25/14 Total Project Budget: \$ 152,268  
 Project Finish Date: 06/09/20 Managing Department: Environmental Sciences

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

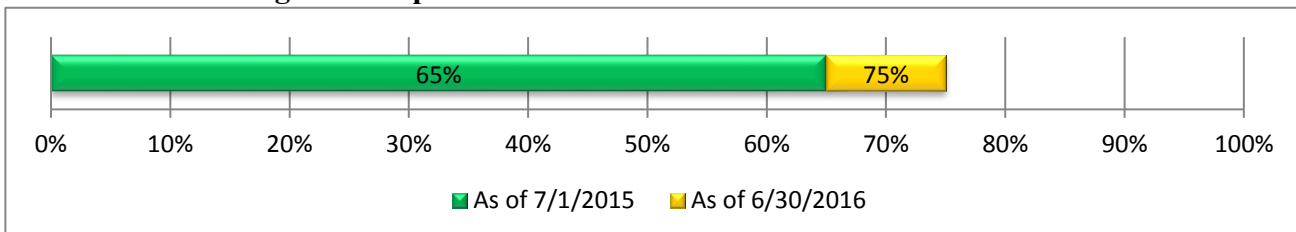
In FY 2015/16, the United States Geological Survey (USGS) will install and maintain towers on two plots of land, a managed grassland and a huisache brushland, to collect meteorological and rainfall data. In addition, remote sensing imagery will be evaluated for scaling up evapotranspiration estimations to a regional scale. The data will be analyzed to advance evaluation of the different components of the water cycle.

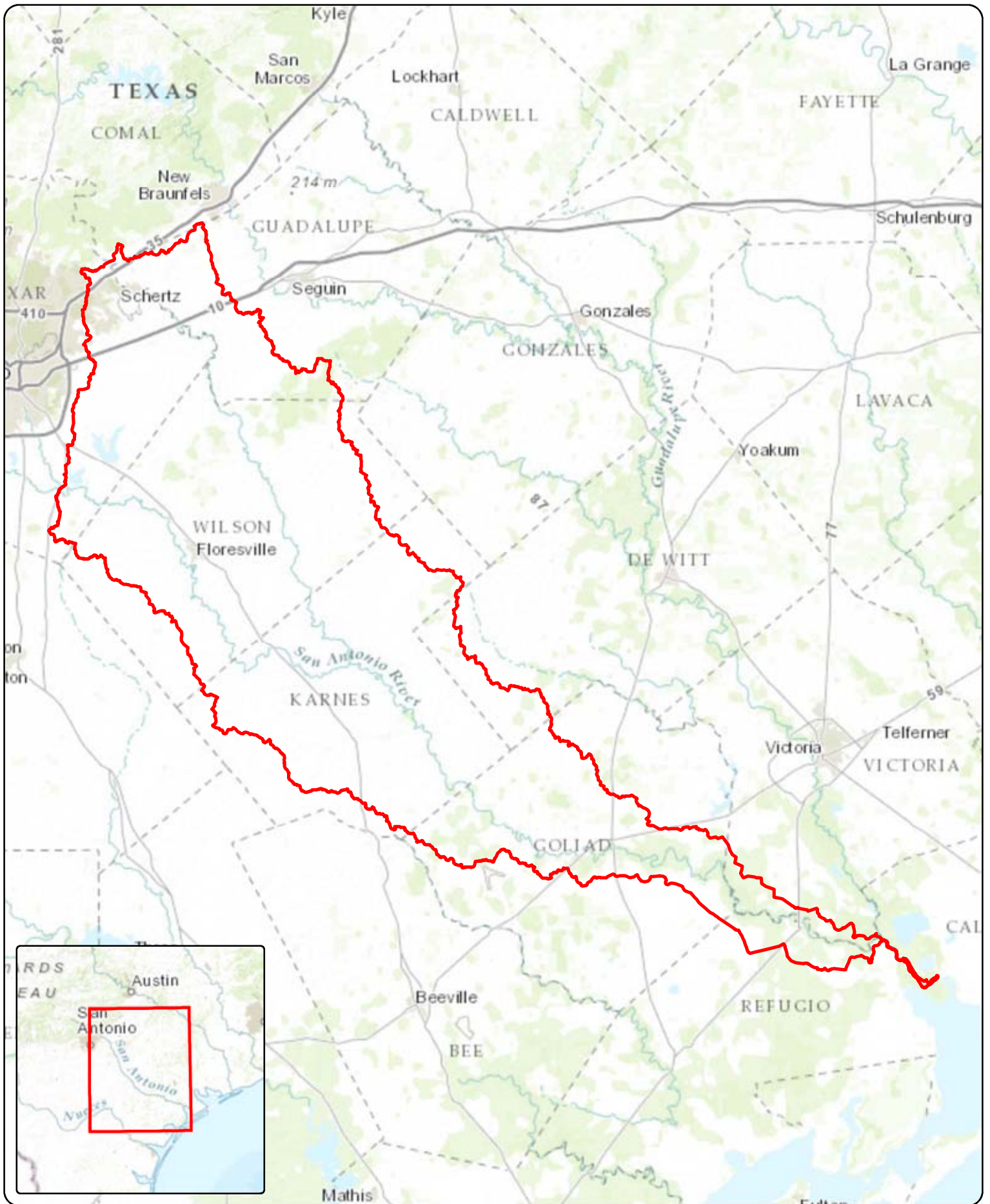
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 2,043	\$ 1,013	\$ 1,998	\$ 4,714	\$ 9,768	
Commodities	-	-	-	-	-	
Contracts	97,500	15,000	15,000	15,000	142,500	
<b>Total</b>	<b>\$ 99,543</b>	<b>\$ 16,013</b>	<b>\$ 16,998</b>	<b>\$ 19,714</b>	<b>\$ 152,268</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** USGS Oil and Gas Production Constituents Phase II **Project #** 00000445

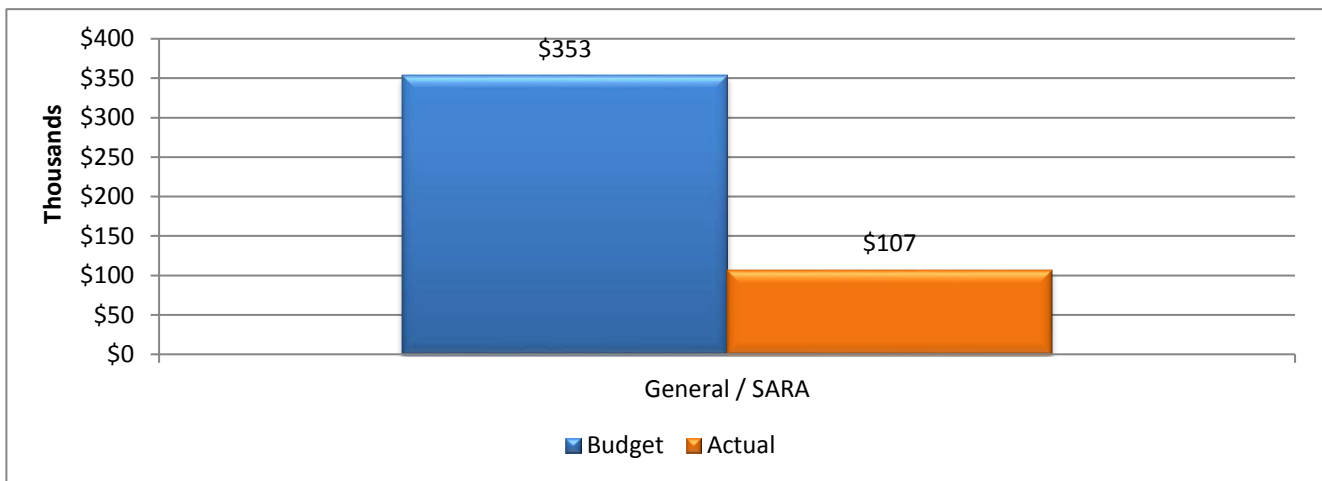
Project Start Date: 10/01/14 Total Project Budget: \$ 353,253  
 Project Finish Date: 11/30/17 Managing Department: Environmental Sciences

In Karnes and Wilson counties, the number of new oil and gas production wells has increased substantially since completion of the Phase I USGS report. Few surface water and sediment samples have been collected in the area. The USGS proposes both continued long-term sampling at a subset of currently-sampled stream sites and new focused sampling of additional stream sites within the Lower San Antonio River (LSAR) Basin where oil and gas production is most active. The study estimates the change in land cover in the central portion of the LSAR Basin due to the conversion of rangeland to well pads sites, new roads, and storage ponds. In addition, streambed-sediment samples are collected where oil and gas production is most active and are analyzed for polyaromatic hydrocarbon (PAH) concentrations.

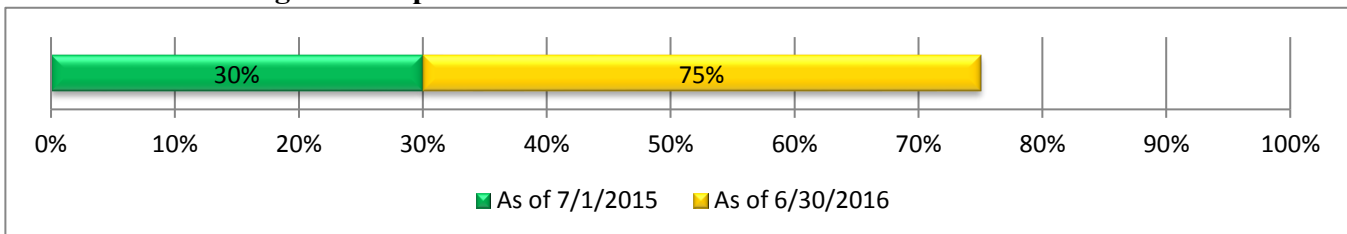
For FY 2015/16, the USGS Baseline Study of Oil and Gas Production Constituents Phase II activities include water and streambed-sediment sampling and land cover analysis in subwatersheds of the lower San Antonio River, Cibolo Creek, and Ecleto Creek.

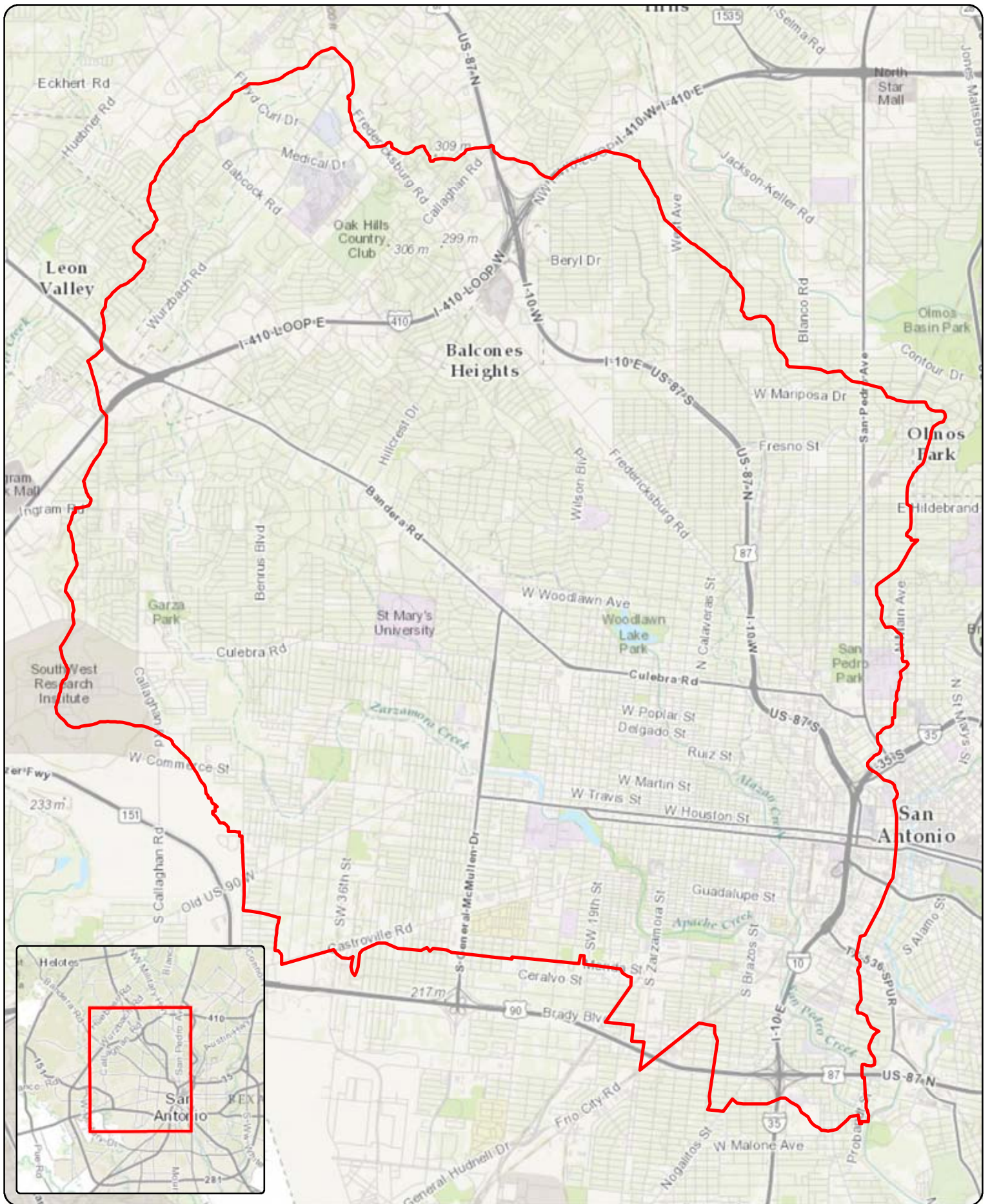
<b>Expenditures</b>	Estimate as of			Succeeding from		<b>Total</b>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>		
Personnel	\$ 486	\$ 671	\$ 1,561	\$ 135	\$ 2,853	
Commodities	-	-	-	-	-	
Contracts	106,200	154,600	89,600	-	350,400	
<b>Total</b>	<b>\$ 106,686</b>	<b>\$ 155,271</b>	<b>\$ 91,161</b>	<b>\$ 135</b>	<b>\$ 353,253</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** USGS Westside Creeks Sediment Study **Project #** 00000409

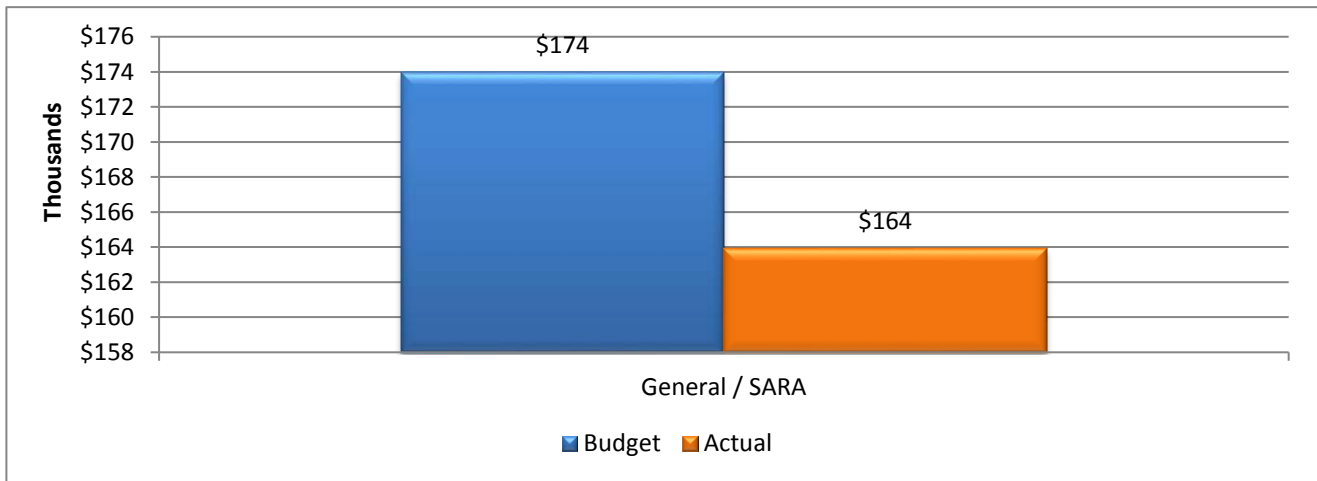
Project Start Date: 10/01/13 Total Project Budget: \$ 173,981  
 Project Finish Date: 11/30/16 Managing Department: Environmental Sciences

The Westside Creeks are a cluster of tributaries to the San Antonio River that flow through San Antonio’s westside. In 2014, an ecosystem restoration feasibility study was completed by the U.S. Army Corps of Engineers and San Antonio River Authority for the ecological restoration of the Westside Creeks. However, the current sediment and water quality conditions are unknown. The data collected from this project provides information about the current creek conditions and helps to determine if there are concerns about disturbing the stream-bed during potential restoration activities.

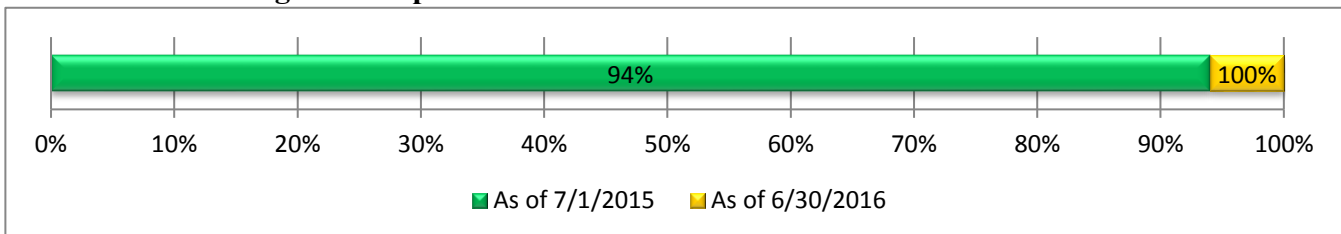
For FY 2015/16, activities include interpretation of the analytical results and completion of the Scientific Investigation Report by the United States Geological survey staff.

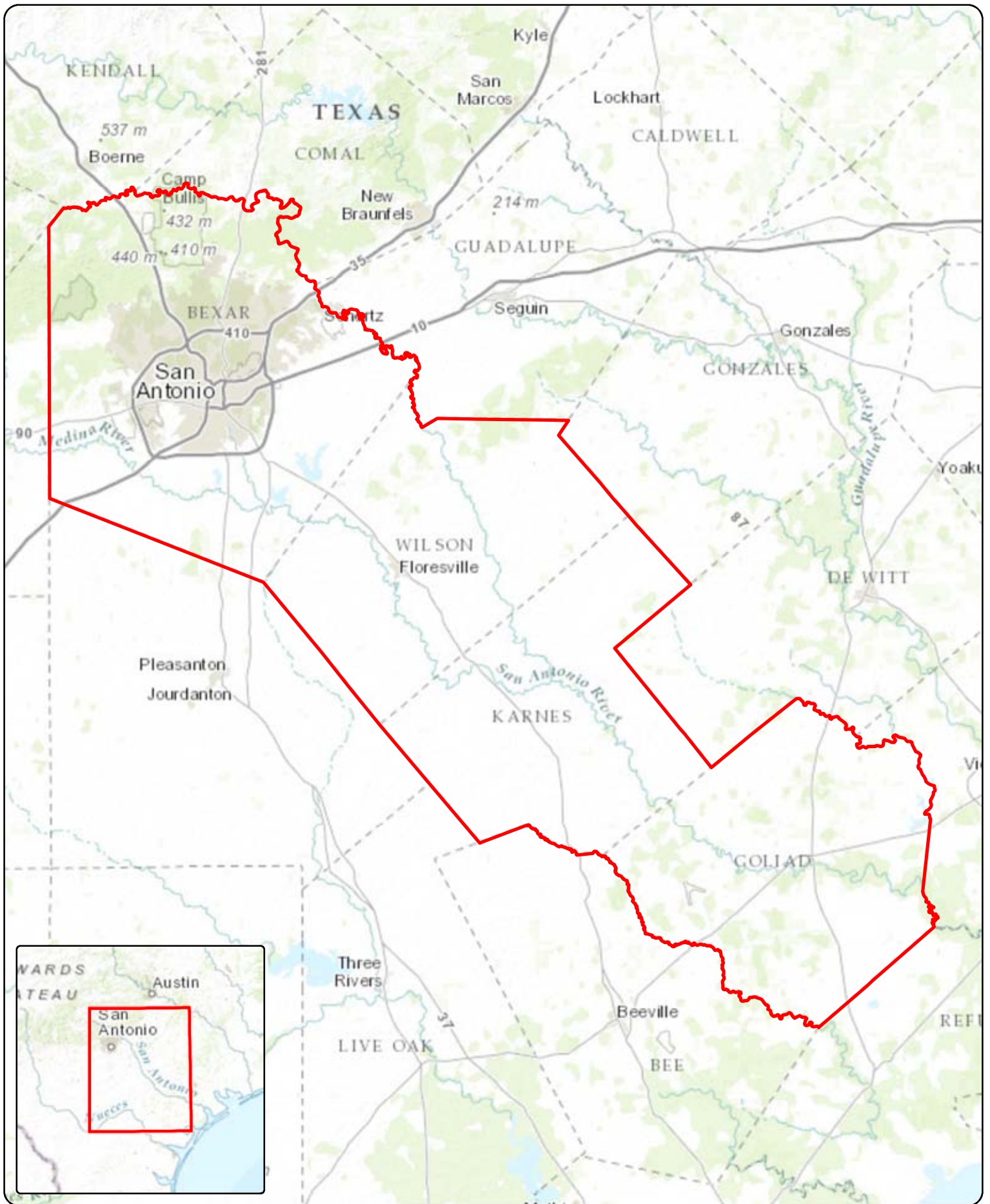
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 2,422	\$ 3,059	\$ -	\$ -	\$ 5,481	
Commodities	-	-	-	-	-	
Contracts	161,500	7,000	-	-	168,500	
<b>Total</b>	<b>\$ 163,922</b>	<b>\$ 10,059</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 173,981</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Water Quality Data Analytics **Project #** 00000460

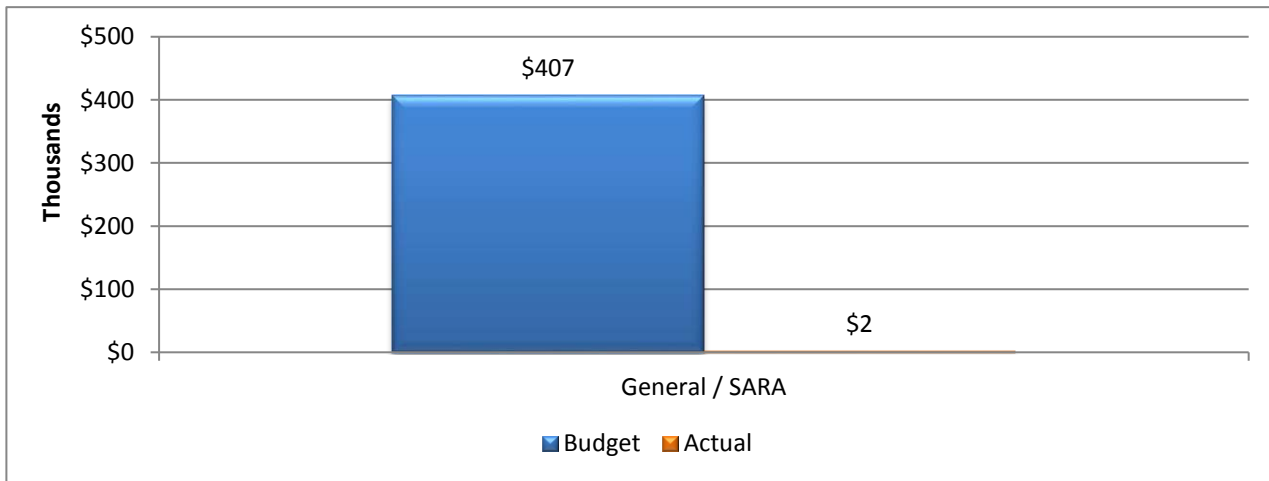
Project Start Date: 07/01/15 Total Project Budget: \$ 407,037  
 Project Finish Date: 05/30/18 Managing Department: Watershed Engineering

While the River Authority collects extensive water quality and biological data, the technical analysis of the data 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, scientists and engineers are able to draw conclusions that assess the condition of the watershed, develop recommendations for addressing watershed concerns and impairments, and improve future sampling plans.

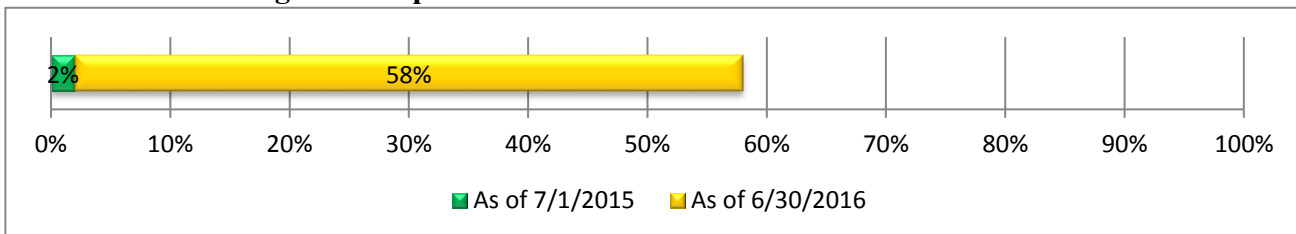
For FY 2015/16, the River Authority will scope, develop and begin testing a data analysis tool for rapid statistical analysis of water quality and environmental data. Relevant stakeholders will collaborate to design the tool interface and technical structure. Analyses that are commonly required for reporting, project support or public inquiry will be identified and built into the tool development.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 2,314	\$ 34,247	\$ 34,632	\$ 35,844	\$ 107,037
Commodities	-	-	-	-	-
Contracts	-	200,000	100,000	-	300,000
<b>Total</b>	<b>\$ 2,314</b>	<b>\$ 234,247</b>	<b>\$ 134,632</b>	<b>\$ 35,844</b>	<b>\$ 407,037</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

# **Nature Based Park Program**



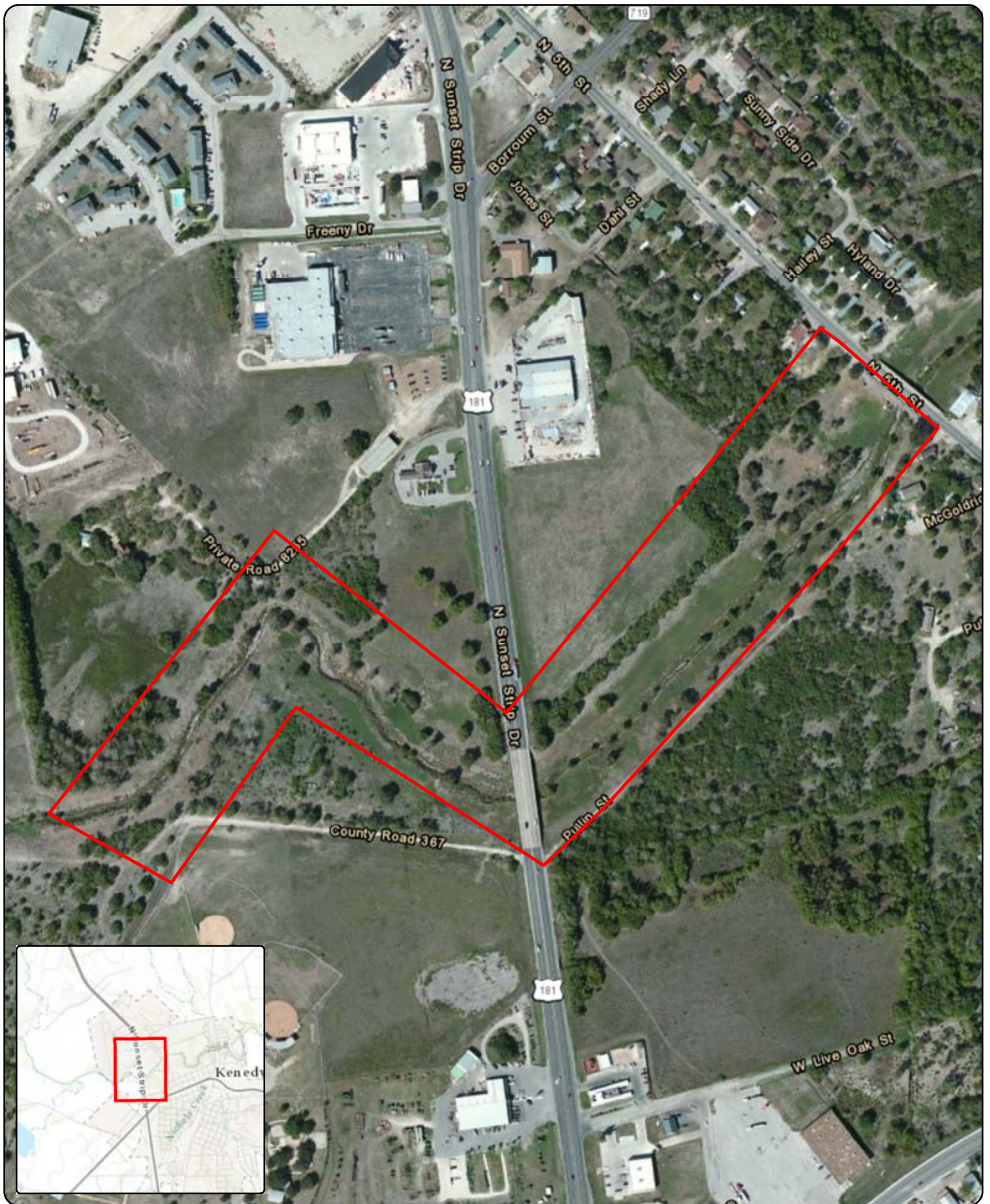
SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions





**Project Name:** Escondido Creek Parkway

**Project #** 0000397

Project Start Date: 07/01/12

Total Project Budget: \$ 235,322

Project Finish Date: 06/30/16

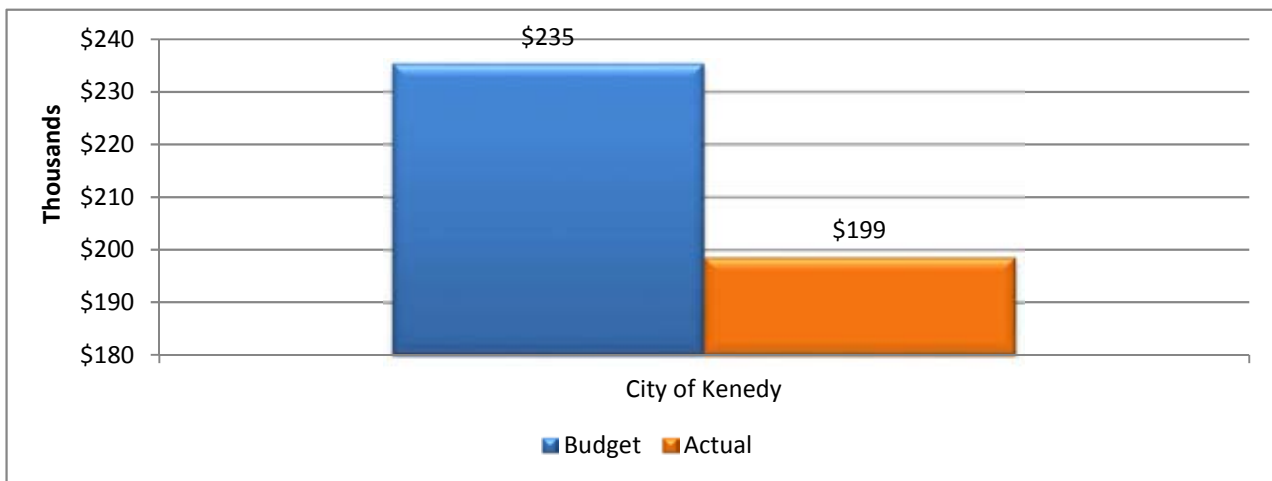
Managing Department: Watershed Parks Ops

Escondido Creek meanders between 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. SARA is expanding its vision for this area, and is working with the local community to develop the Escondido Creek Parkway. The initial development will extend between Joe Gulley Park north 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.

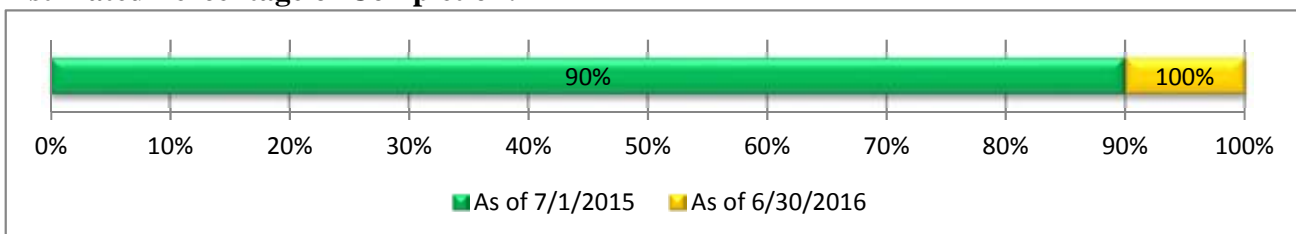
In FY 2015/16, SARA will finish acquiring the needed real estate for the planned parkway. As part of the next steps, master planning will begin to include public meetings and design of the park.

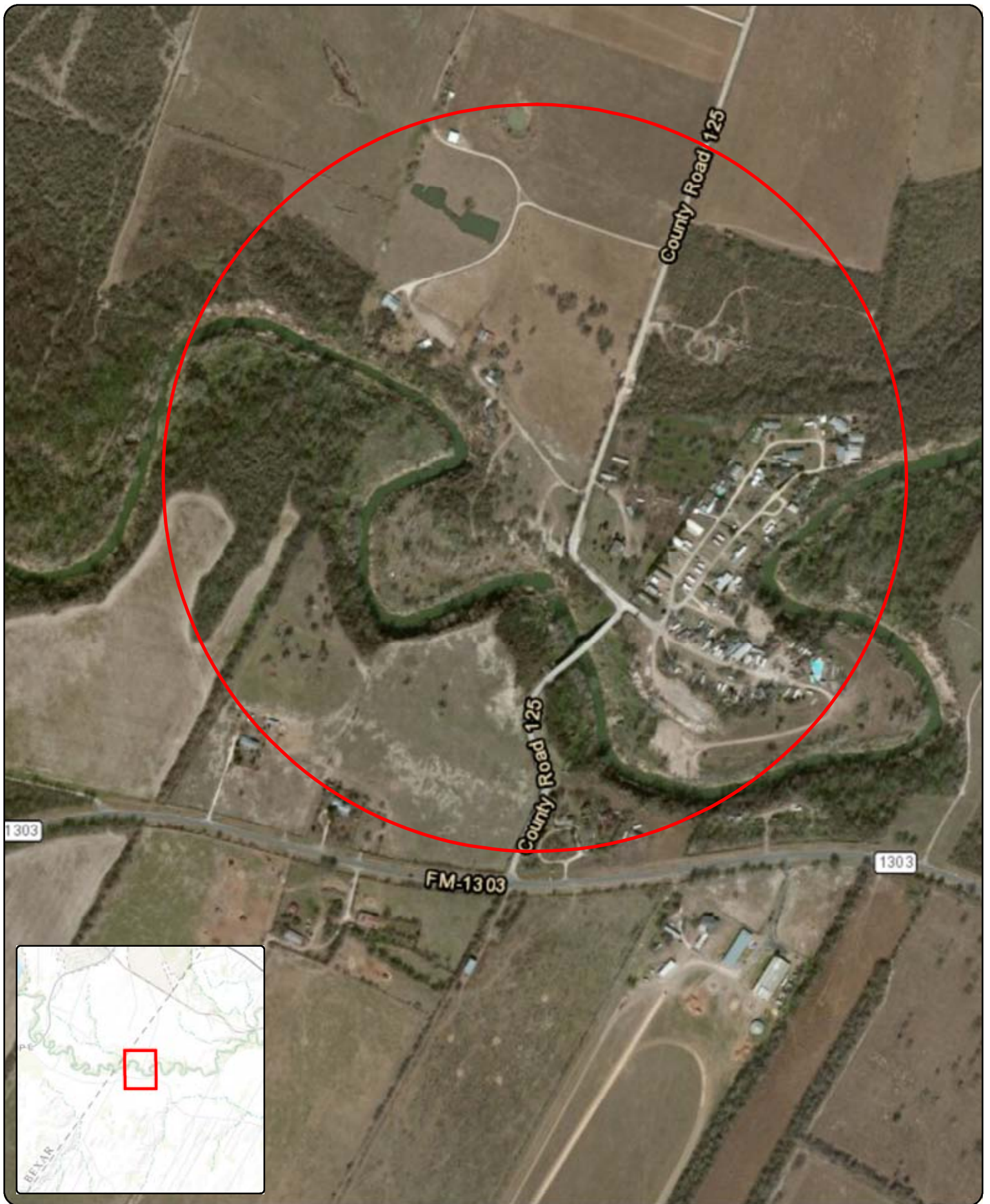
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 52,522	\$ -	\$ -	\$ -	\$ 52,522	\$ 52,522
Commodities	59,837	29,609	-	-	89,446	89,446
Contracts	<del>82,076</del>		-	93,353		
<b>Total</b>	<b>\$ <del>188,506</del></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 235,322</b>		

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Graytown Park on the San Antonio River **Project #** 00000298

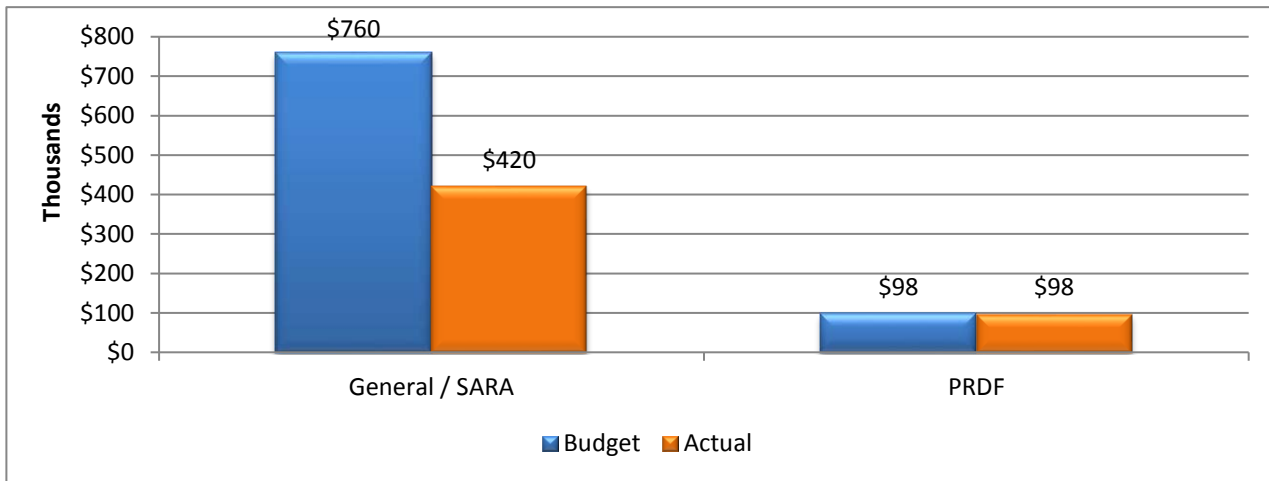
Project Start Date: 02/01/11 Total Project Budget: \$ 858,077  
 Project Finish Date: 06/30/17 Managing Department: Watershed Parks Ops

Formerly referenced as County Road 125 (CR125), Graytown Park on the San Antonio River is approximately 22 acres situated midway between the Loop 1604 river access site and Helton San Antonio River Nature Park. This location is an alternative put-in and takeout for the SASPAMCO paddling trail located near SASPAMCO, Texas. This location also provides an additional area for day use recreational park activities, such as picnic pads and walking trails.

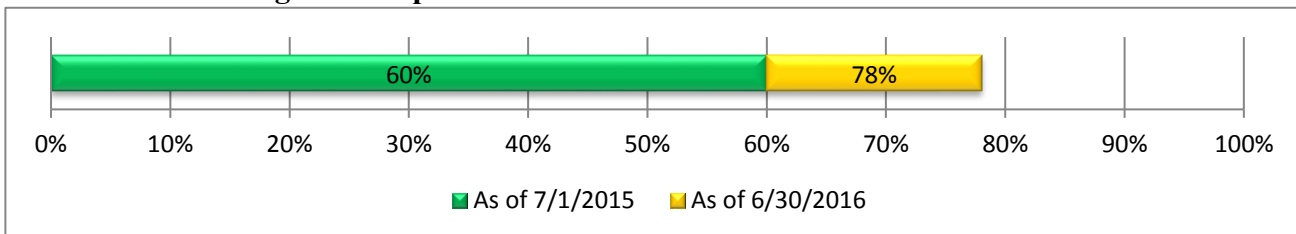
In FY 2015/16, the River Authority may develop a fishing pond in the current agricultural lease area that is within the 100 year floodplain. Additional activities will include improvements that support use of the fishing pond.

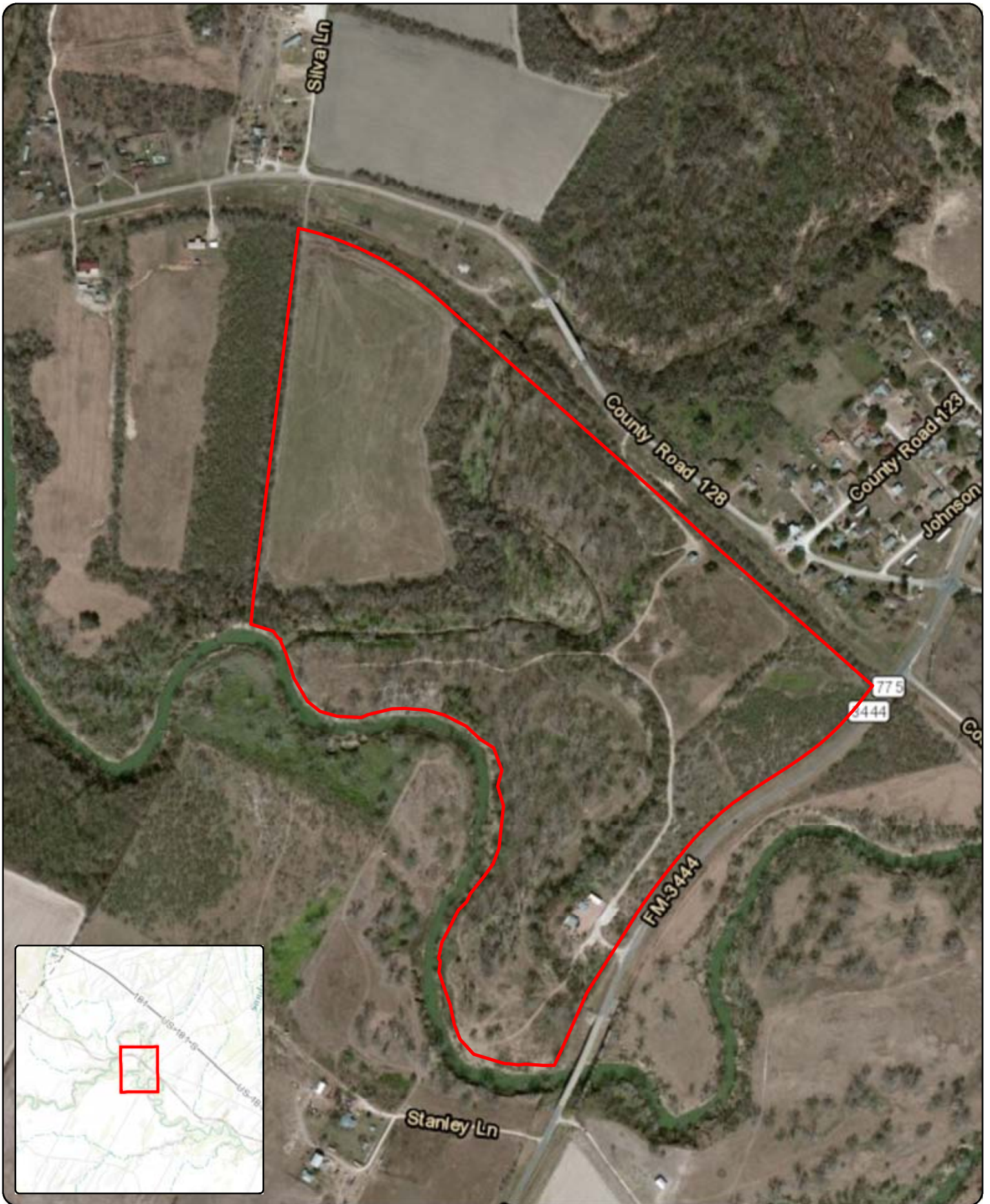
Expenditures	Estimate as of			Succeeding from	Total
	2014/15	2015/16	2016/17	2017/18	
Personnel	\$ 76,993	\$ 21,594	\$ 22,351	\$ -	\$ 120,938
Commodities	329,263	125,000	170,000	-	624,263
Contracts	112,877	-	-	-	112,877
<b>Total</b>	<b>\$ 519,132</b>	<b>\$ 146,594</b>	<b>\$ 192,351</b>	<b>\$ -</b>	<b>\$ 858,077</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** John William Helton Nature Park **Project #** 0000067

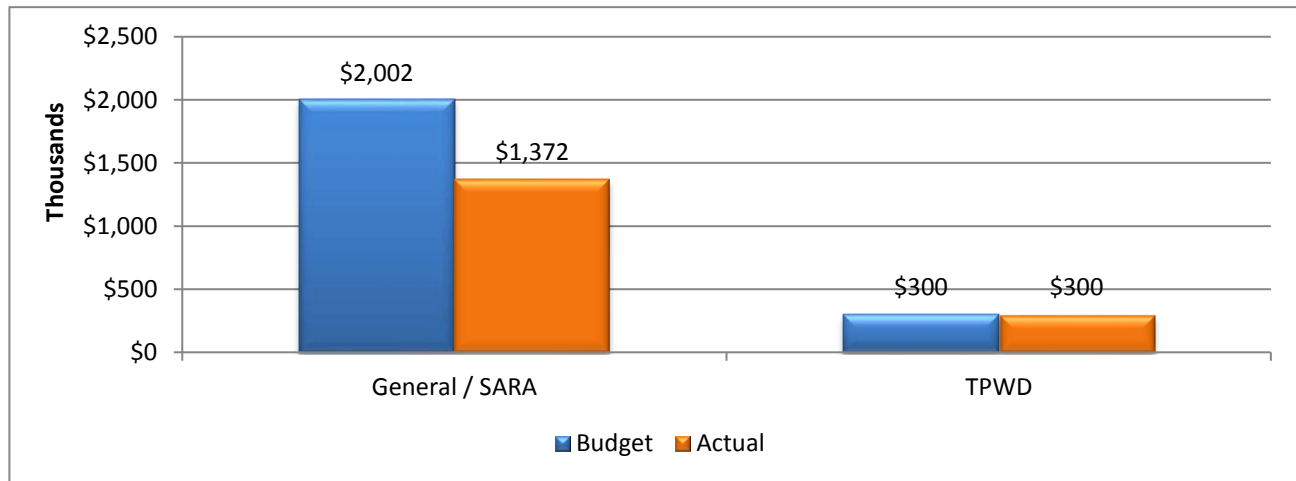
Project Start Date: 07/01/07 Total Project Budget: \$ 2,302,202  
 Project Finish Date: 06/30/17 Managing Department: Watershed Parks Ops

Over the past several years, the River Authority has made improvements to the John William Helton Nature Park to provide a multi-use pavilion, picnic units, signage, educational panels, paddling trail access, and a riparian land management demonstration area. The entire region benefits from the riparian land management demonstration area and also from the paddling trail access. Bexar, Wilson, and other counties' students and visitors benefit from the educational panels/signage and potential classes and camps. The funding included in this project allows for continued development of the park to increase usage.

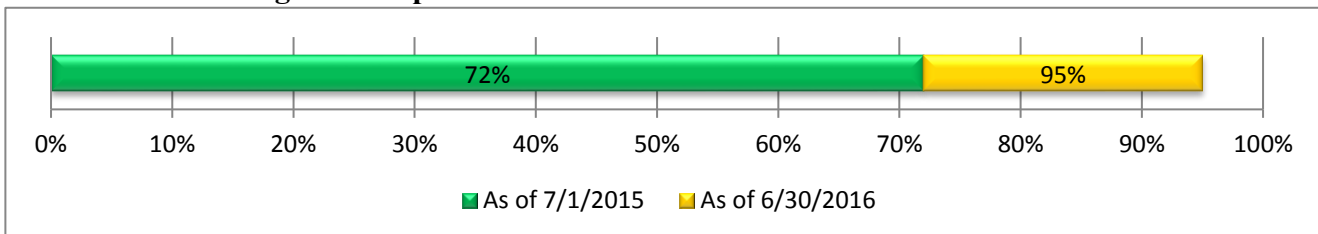
In FY 2015/16, the River Authority will construct a road through the South Orchard camping area, construct a restroom with showers, a playground and develop primitive campsites.

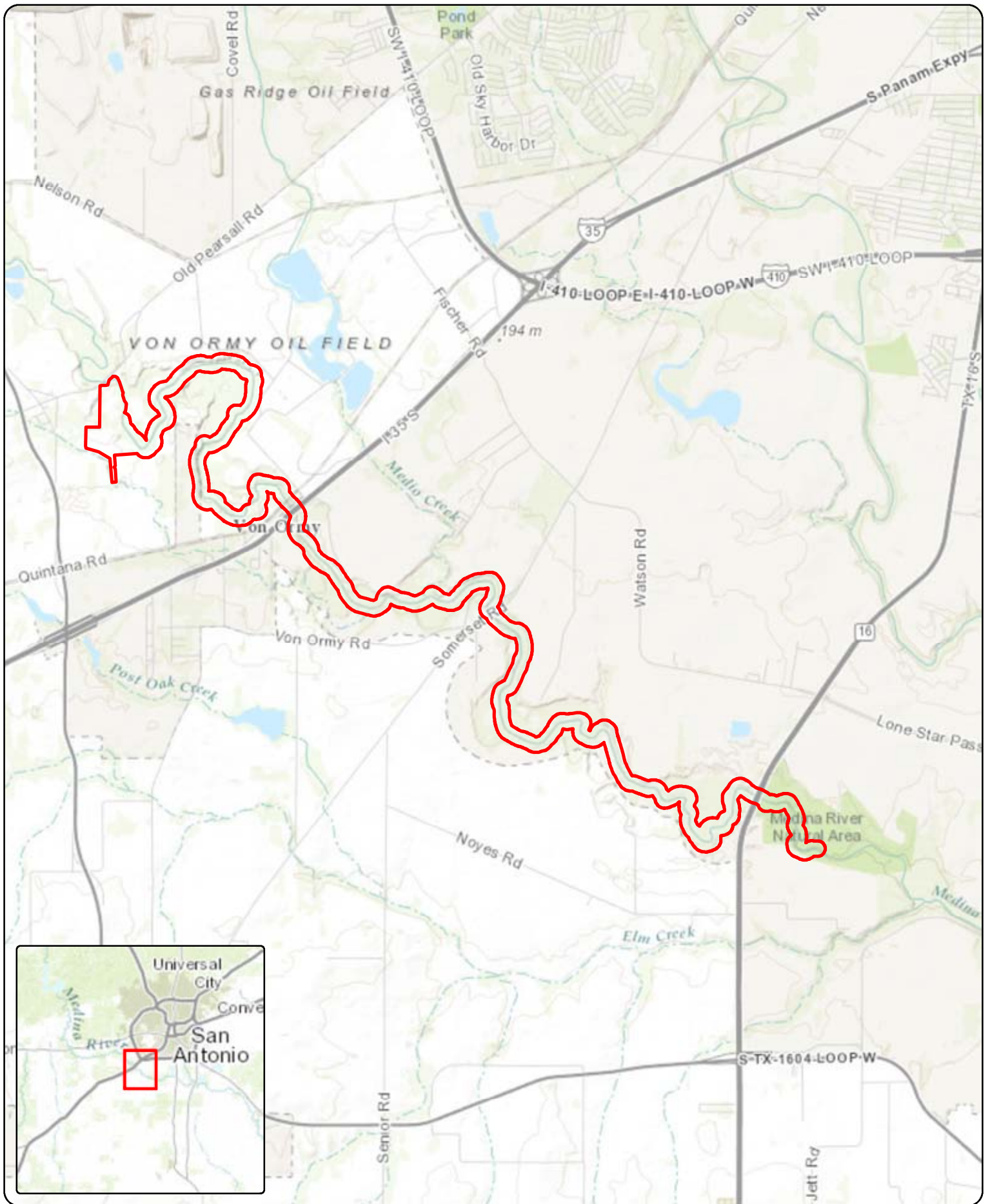
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 85,819	\$ 114,434	\$ 116,065	\$ -	\$ -	\$ 316,318
Commodities	1,296,074	400,000	-	-	-	1,696,074
Contracts	289,809	-	-	-	-	289,809
<b>Total</b>	<b>\$ 1,671,703</b>	<b>\$ 514,434</b>	<b>\$ 116,065</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,302,202</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Mann's Crossing Park on the Medina River **Project #** 00000410

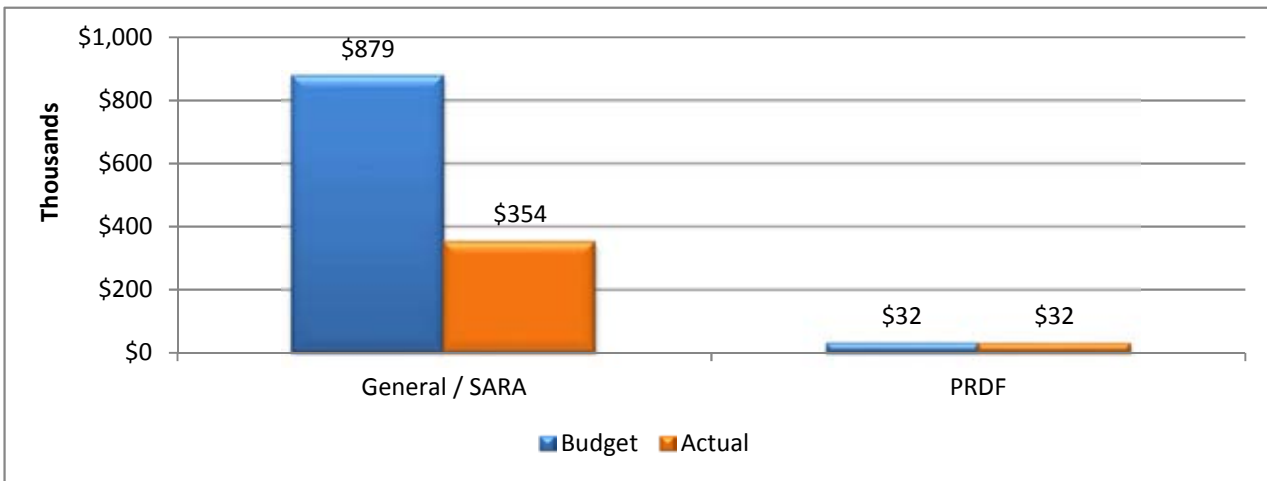
Project Start Date: 07/01/13 Total Project Budget: \$ 910,904  
 Project Finish Date: 06/30/18 Managing Department: Watershed Parks Ops

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

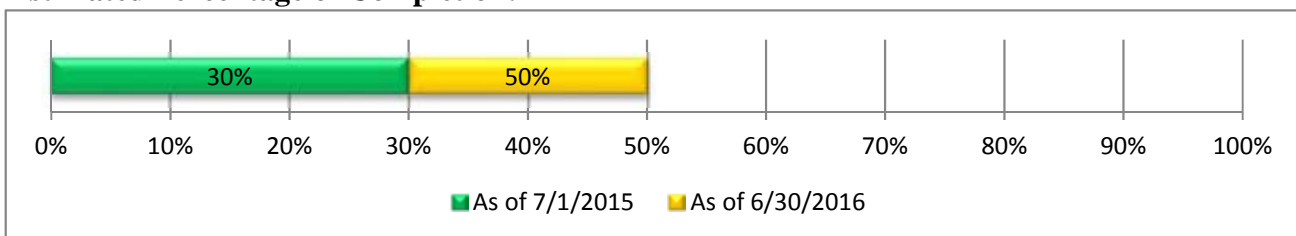
In FY 2015/16 funding will be used to design an entry road off Old Pearsall Road into the park.

Expenditures	Estimate as of			Succeeding from	Total
	2014/15	2015/16	2016/17	2017/18	
Personnel	\$ 13,970	\$ 9,907	\$ 38,826	\$ 32,252	\$ 94,955
Commodities	371,949	75,000	185,000	184,000	815,949
Contracts	-	-	-	-	-
<b>Total</b>	<b>\$ 385,919</b>	<b>\$ 223,826</b>	<b>\$ 216,252</b>	<b>\$ 910,904</b>	<b>\$</b>

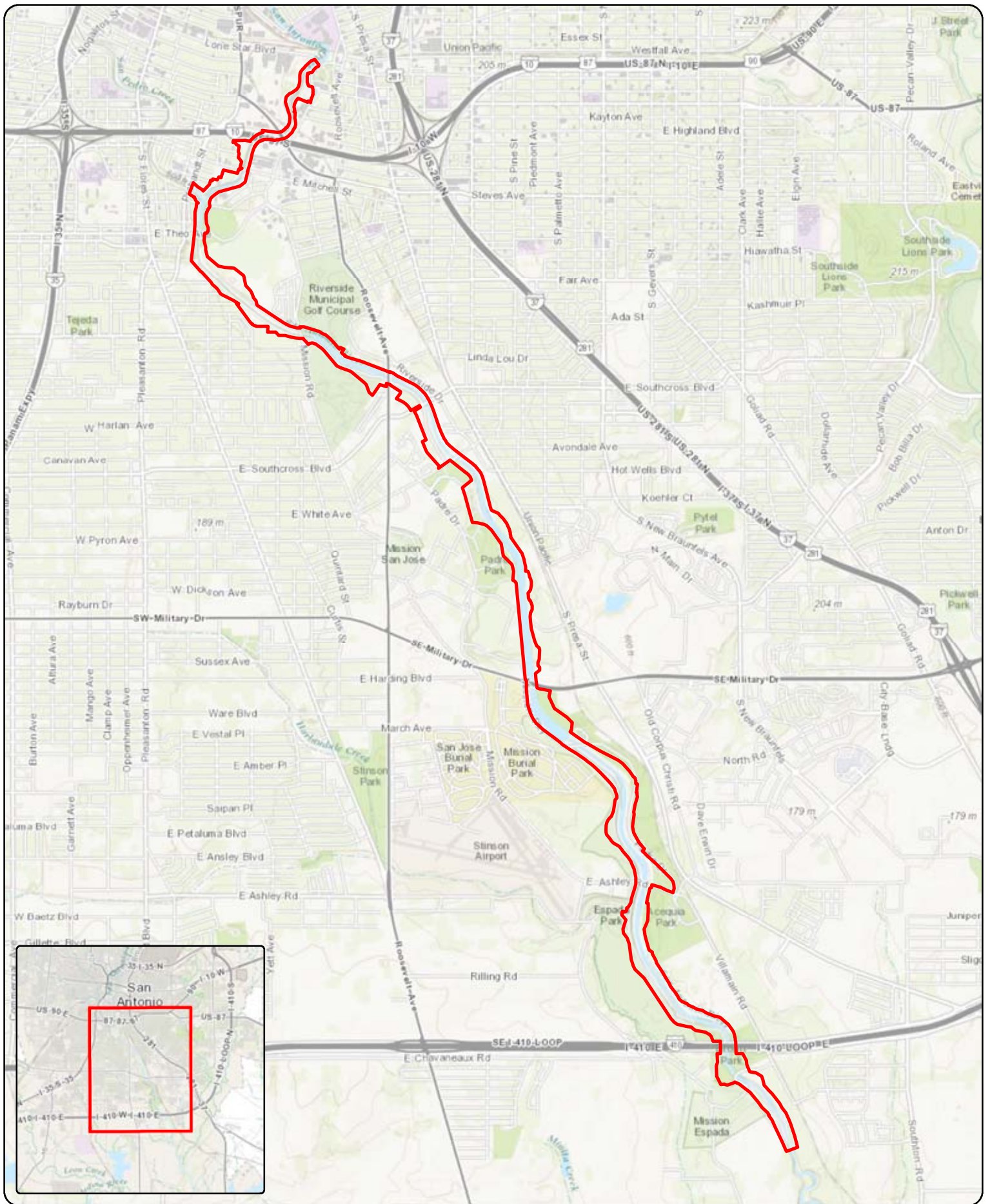
**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Mission Reach **Project #** 00000136

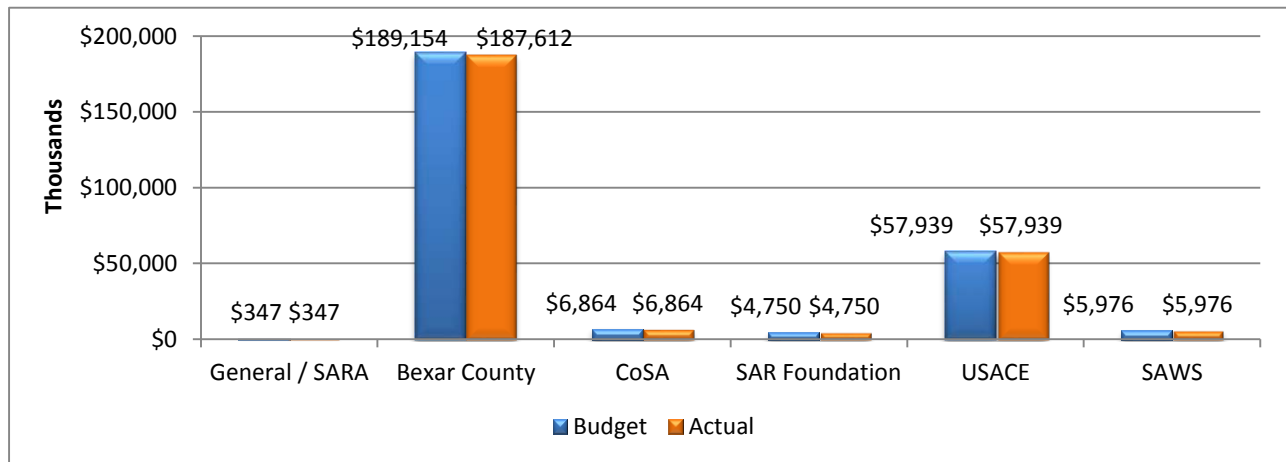
Project Start Date: 01/01/98 Total Project Budget: \$ 265,029,795  
 Project Finish Date: 06/30/16 Managing Department: Watershed Engineering

The Mission Reach project is a joint effort between the U. S. Army Corps of Engineers (USACE), Bexar County, City of San Antonio, and 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 provides public direction and input. Preliminary authorization for the Historic Mission Reach occurred 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 I construction was completed in December of 2009. Phase 2 construction was completed in May of 2011 with a formal Grand Opening of Phases I and 2 in June 2011. Phase 3 construction was completed in August 2013.

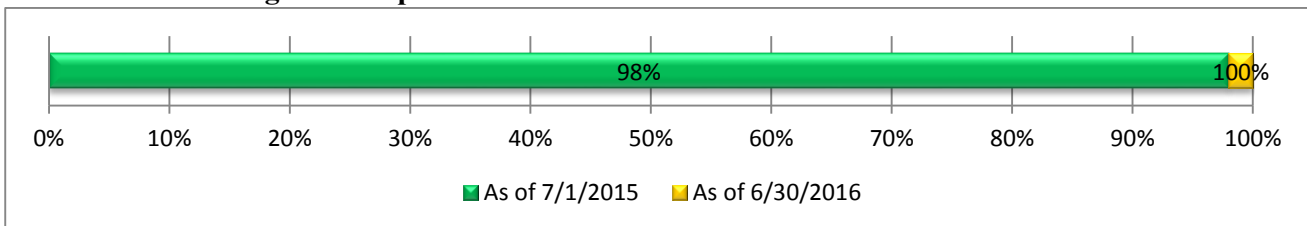
In FY 2015/16, this project will complete the floodplain Letter of Map Revision, US Army Corps of Engineers reimbursement requirements, National Park Service mitigation property exchange, and revised signage.

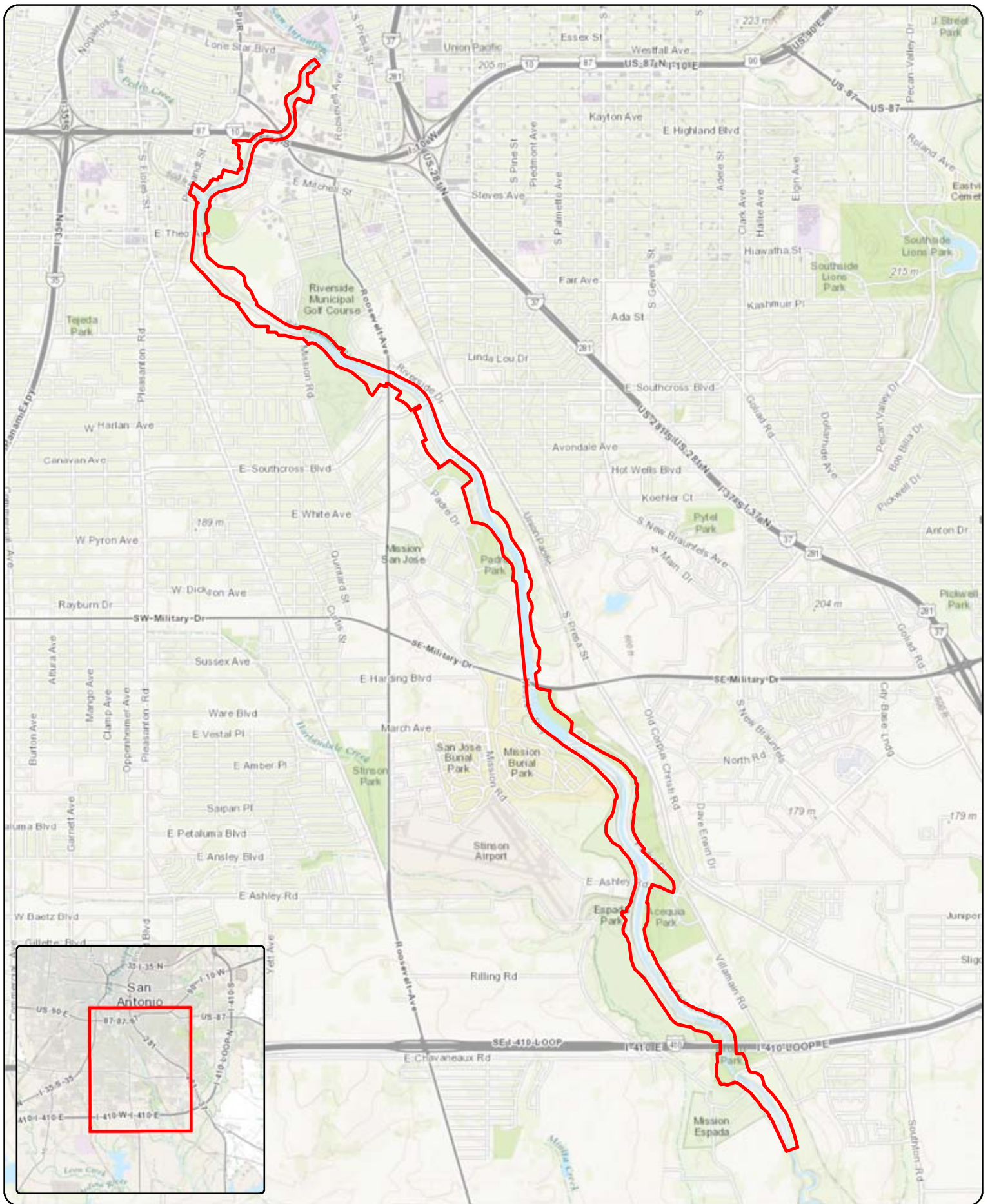
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 7,095,458	\$ -	\$ -	\$ -	\$ 7,095,458	
Commodities	12,995,094	-	-	-	12,995,094	
Contracts	243,397,928	1,541,314	-	-	244,939,242	
<b>Total</b>	<b>\$ 263,488,481</b>	<b>\$ 1,541,314</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 265,029,795</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Mission Reach Avian Study **Project #** 00000502

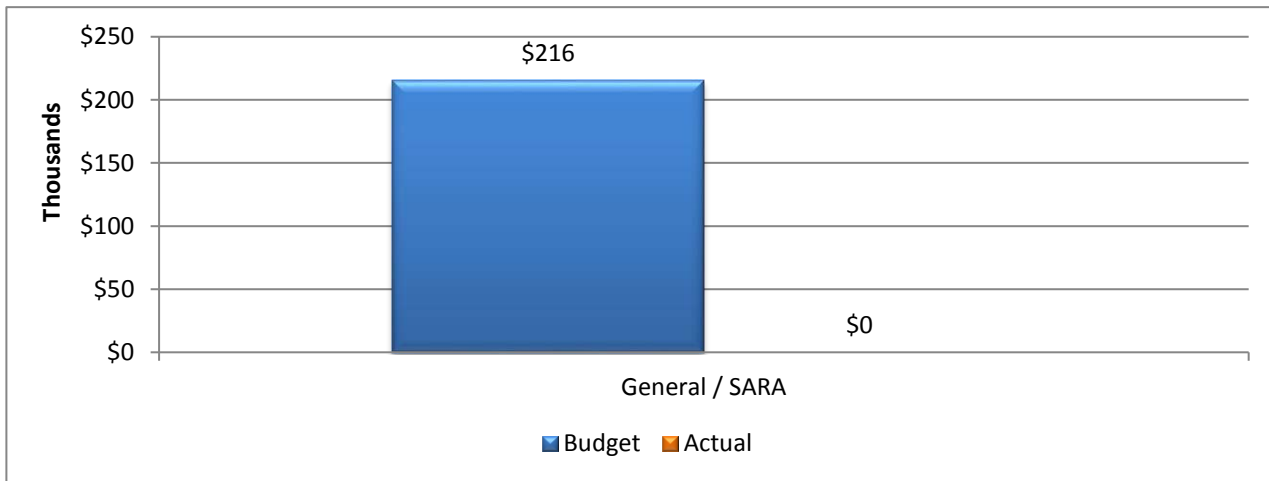
Project Start Date: 07/01/15 Total Project Budget: \$ 215,625  
 Project Finish Date: 06/30/18 Managing Department: Watershed Parks Ops

This project documents avian species within the Mission Reach Ecosystem Restoration and Recreation Project. Incidental and point count surveys will be used to document avian species within the project. The incidental survey data will be used to prepare an avian checklist for the project that can be used for a variety of education and outreach purposes. The point count survey data will establish 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 by the project.

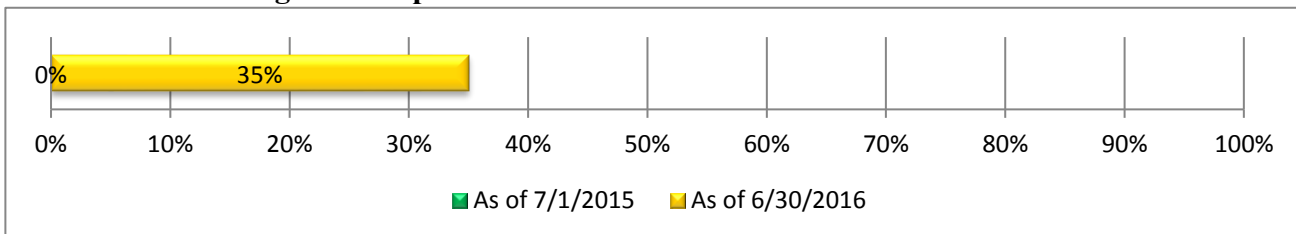
In FY 2015/16, SARA will hire a consultant with specific expertise to complete the three-year study. Initial work will include evaluation of the study needs and development of survey data collection forms and protocols. Data collection will occur throughout the Mission Reach Project.

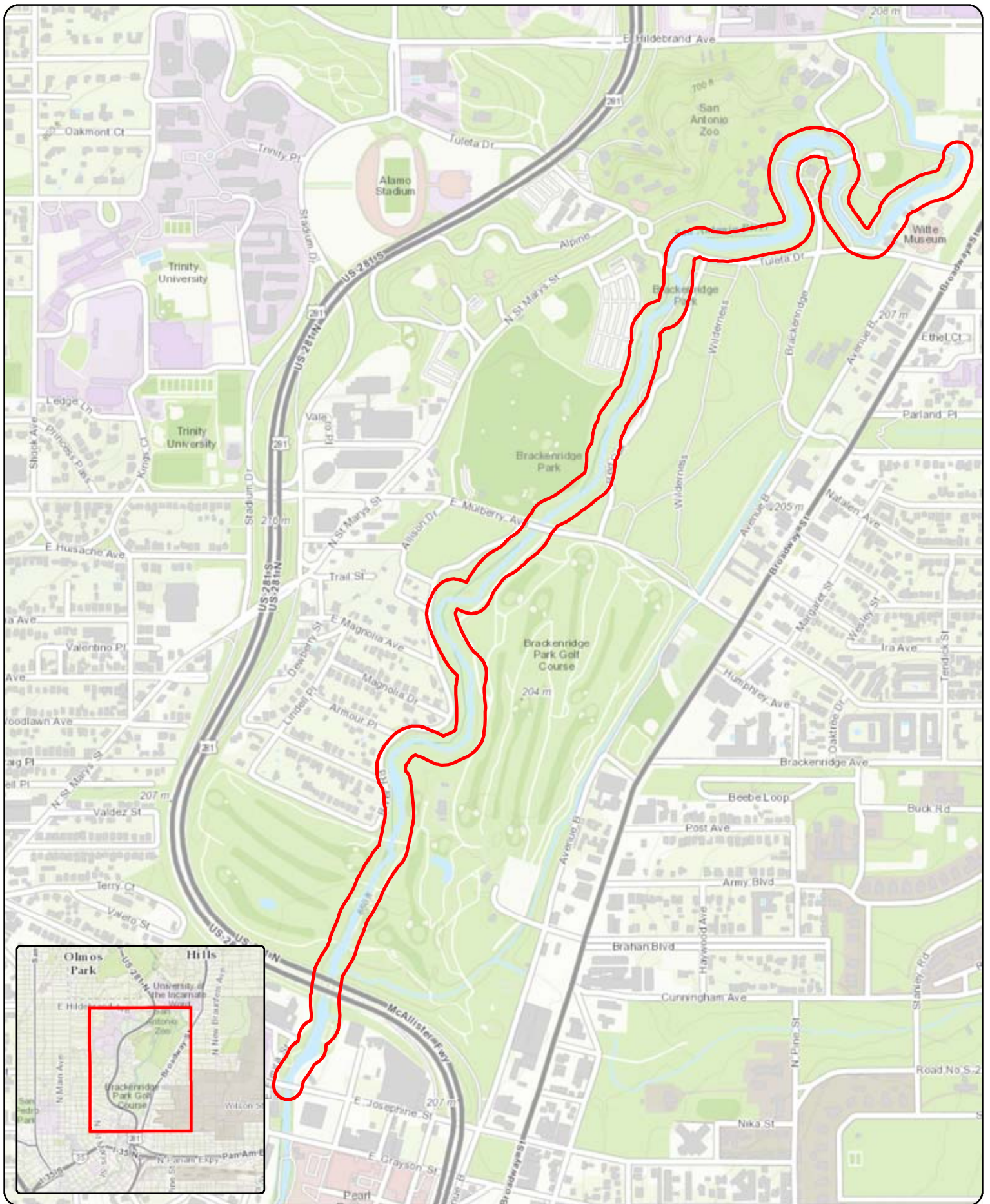
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 14,367	\$ 14,869	\$ 15,389	\$ 44,625
Commodities	-	-	-	-	-
Contracts	-	55,000	57,000	59,000	171,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 69,367</b>	<b>\$ 71,869</b>	<b>\$ 74,389</b>	<b>\$ 215,625</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Museum Reach (Park Segment) **Project #** 00000139

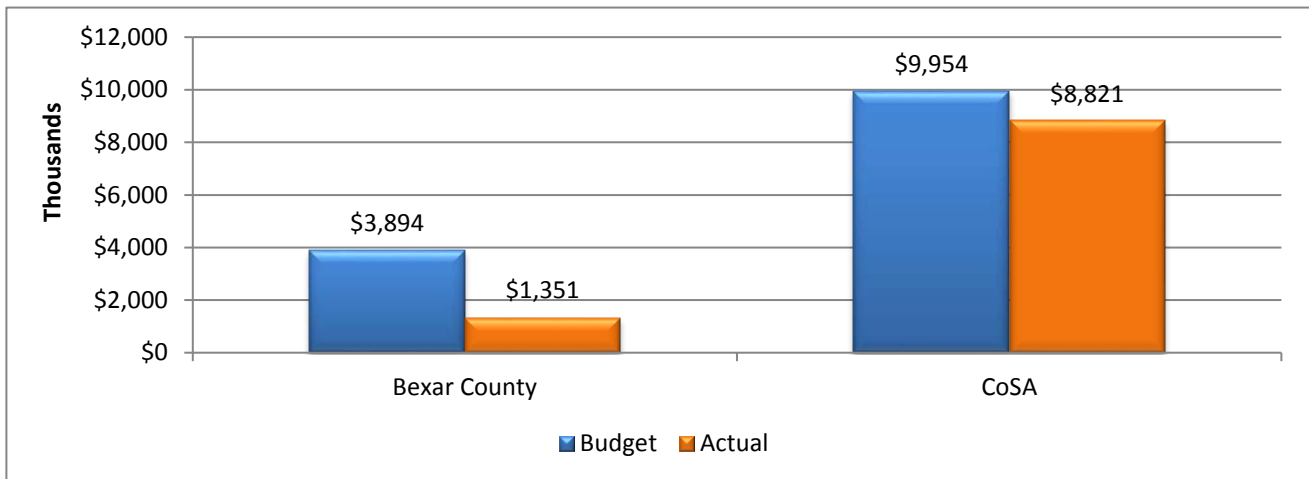
Project Start Date: 10/31/03 Total Project Budget: \$ 13,848,021  
 Project Finish Date: 06/30/16 Managing Department: Watershed Engineering

As a component of the San Antonio River Improvement Project, this project funds investments in flood control, amenities, ecosystem restoration, and recreational improvements to the river, north of U. S. Highway 281 and south of Hildebrand Road.

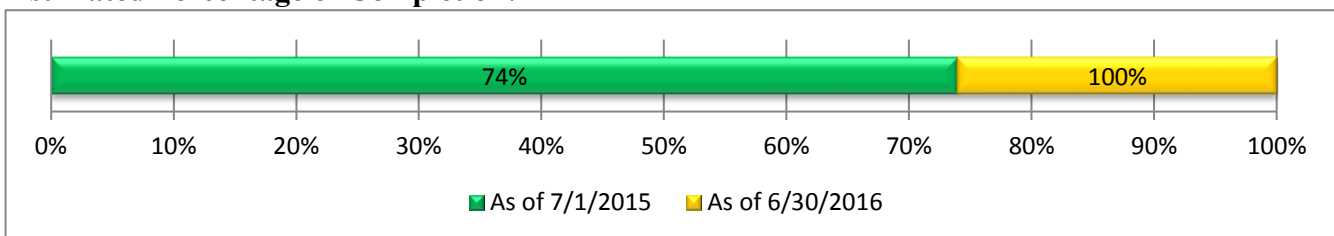
In FY 2015/16, the Museum Reach Urban Segment trail system will be extended with Trail 17, which is located on Tuleta Street east to Broadway and west to Red Oak Drive. The deliverables include: concrete sidewalks, electrical, demolition, signage, asphalt paving, cast-in-place concrete and storm drainage work. Construction of Trail 23 (Broadway Connection) including concrete sidewalks, a low water crossing, signage, partial demolition and reconstruction of an existing stone wall, stone paving and lighting will be part of the deliverables as well.

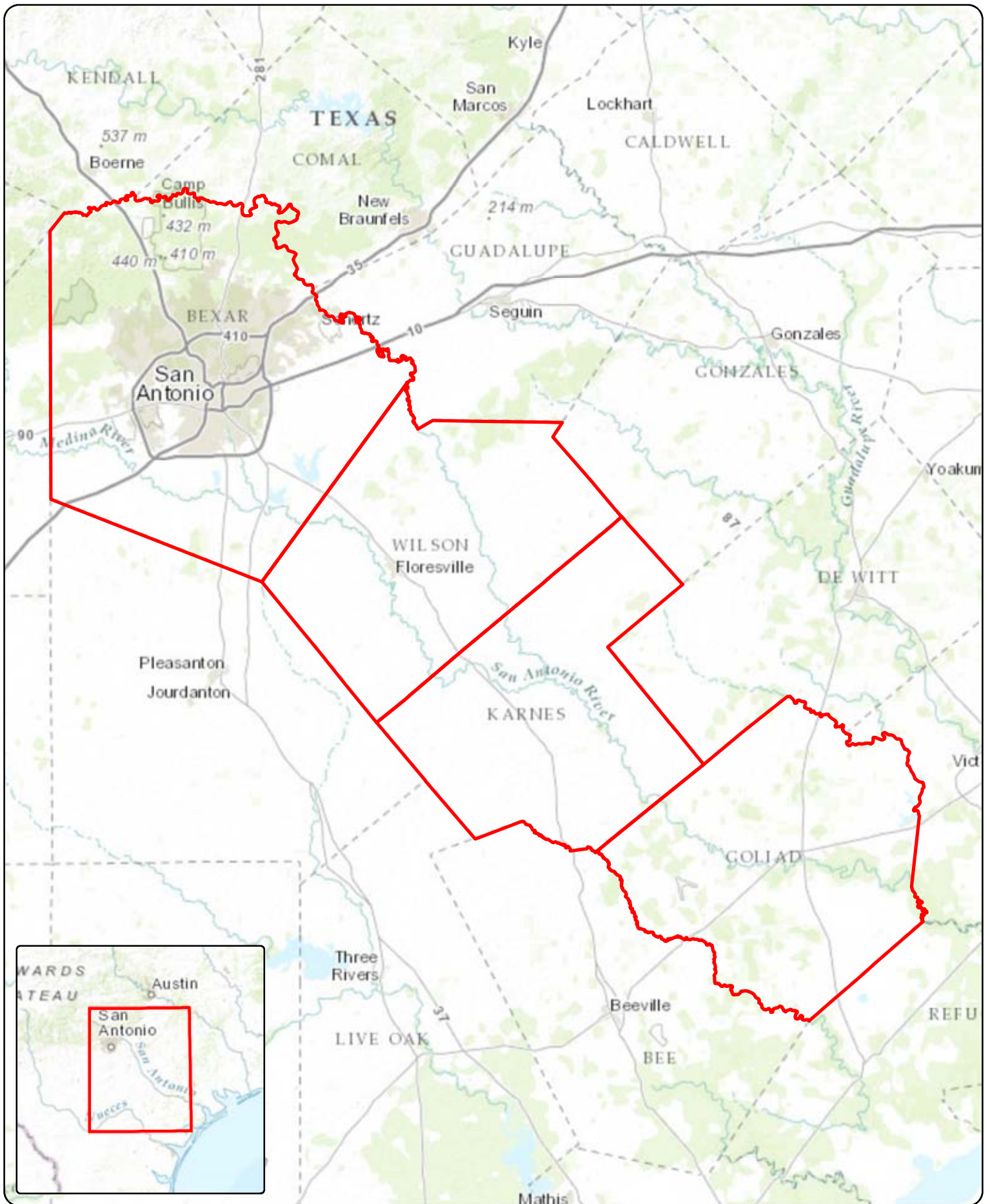
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 367,996	\$ 85,169	\$ -	\$ -	\$ 453,165	
Commodities	24,557	-	-	-	24,557	
Contracts	9,779,033	3,591,266	-	-	13,370,299	
<b>Total</b>	<b>\$ 10,171,586</b>	<b>\$ 3,676,435</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,848,021</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Nature Park Signage Development **Project #** 00000501

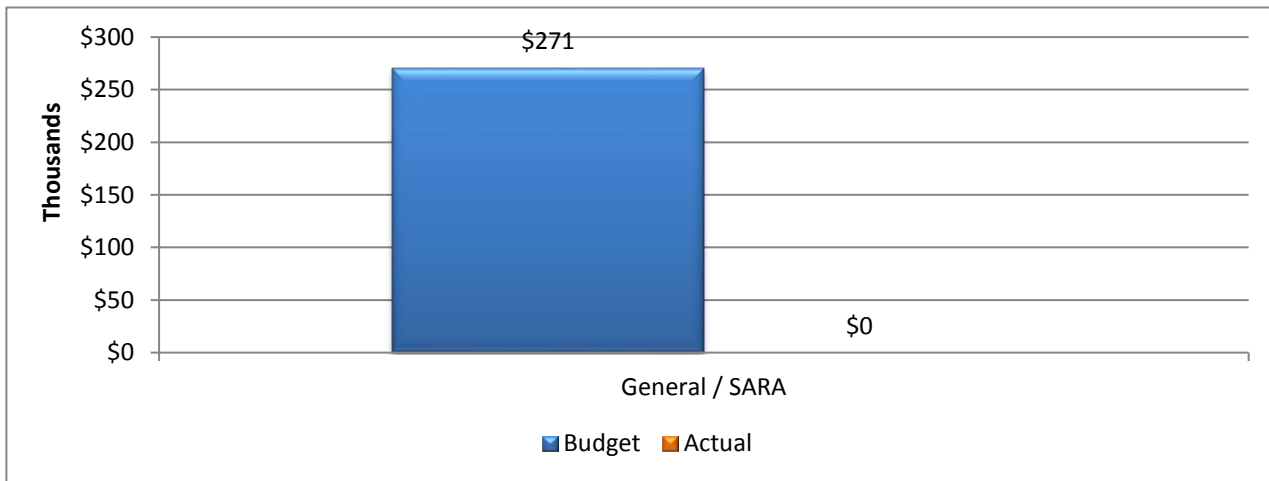
Project Start Date: 07/01/15 Total Project Budget: \$ 270,690  
 Project Finish Date: 06/30/18 Managing Department: Watershed Parks Ops

This project will design, construct, and install a holistic parks signage package that is consistent between all of the current River Authority owned nature parks; it will also provide templates for all future park development. Signs to be designed include: way finding signage to the park, gateway signs, maps (both to the park and within each park, print and online), directional signage for attractions, interpretive signage, and coordination with appropriate entities for applicable state and federal signage for national and state designations (El Camino Real National Historic Trail, Texas Inland Paddling Trail, etc.).

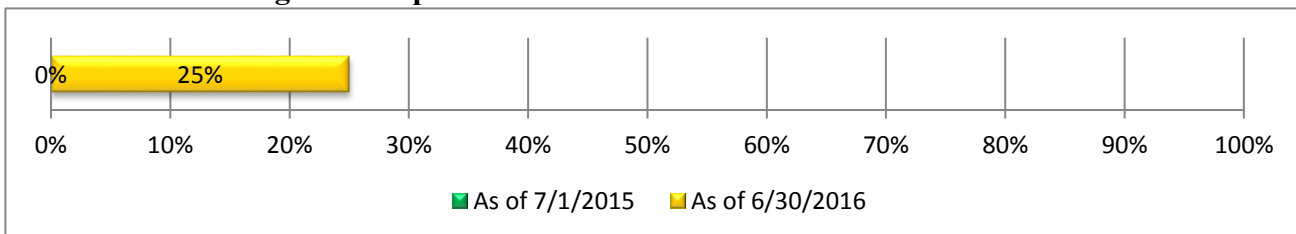
In FY 2015/16, this project will complete the design phase to create physical and design templates for the different types of signs/maps/panels that will go in each park. It will also deliver an inventory of needs for all current parks. This inventory will then be cost estimated to develop budgetary requests for future years.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 11,517	\$ 25,282	\$ 33,891	\$ 70,690
Commodities	-	-	75,000	75,000	150,000
Contracts	-	50,000	-	-	50,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 61,517</b>	<b>\$ 100,282</b>	<b>\$ 108,891</b>	<b>\$ 270,690</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name: Trueheart Park**

**Project # 00000436**

Project Start Date: 04/01/14

Total Project Budget: \$ 69,173

Project Finish Date: 06/30/17

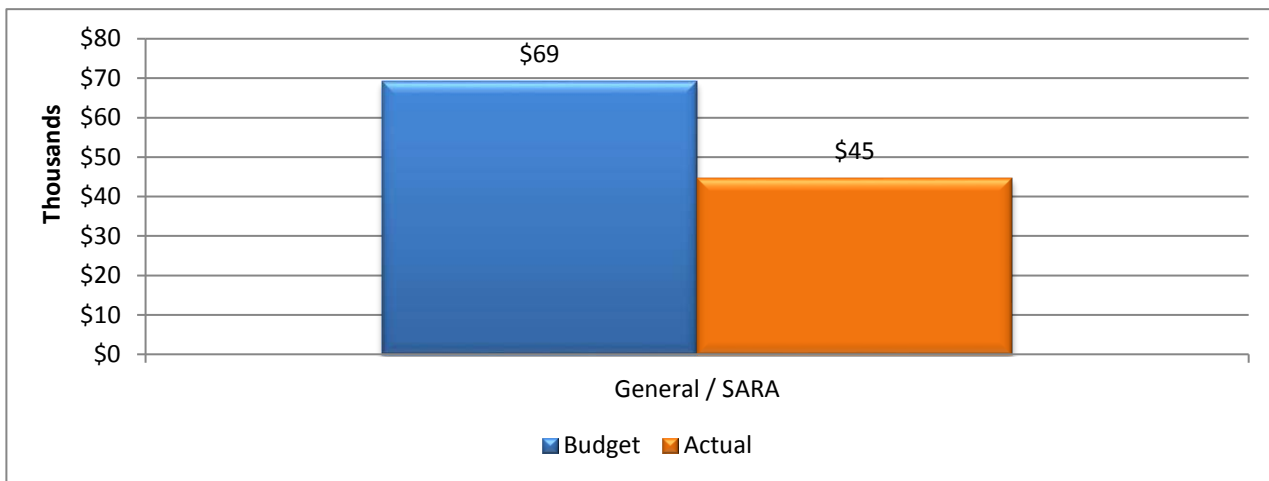
Managing Department: Watershed Parks Ops

Trueheart Ranch is located in southern Bexar County off Blue Wing Road. The River Authority acquired the property to improve and expand parks and paddling trail opportunities as identified in the Nature Based Park Resources Plan Update. This 300 plus acre park property will allow the River Authority to offer more monthly park programs and activities for the community. The overall master plan for this park is expected to be completed and may include sports fields, nature trails, hike and bike trails, camping, paddling access, playgrounds and parking for the community.

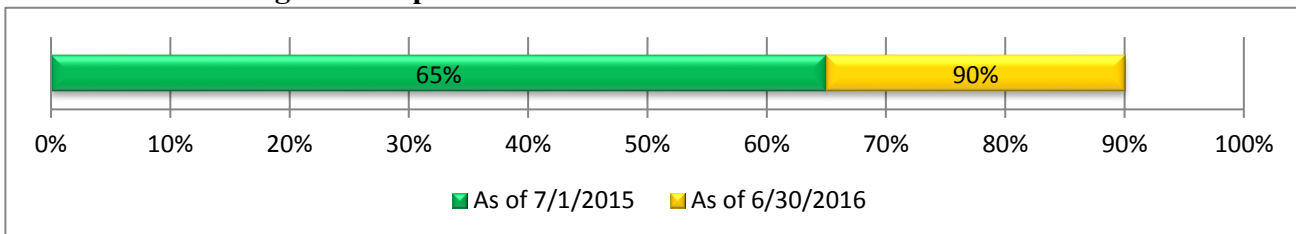
During FY 2015/16, funding will be used to develop a conservation plan.

Expenditures	Estimate as of		Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18	
Personnel	\$ 7,459	\$ 7,135	\$ 7,385	\$ -	\$ 21,979
Commodities	37,194	-	-	-	37,194
Contracts	-	10,000	-	-	10,000
<b>Total</b>	<b>\$ 44,653</b>	<b>\$ 17,135</b>	<b>\$ 7,385</b>	<b>\$ -</b>	<b>\$ 69,173</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Westside Creeks Elmendorf Lake Park **Project #** 00000380

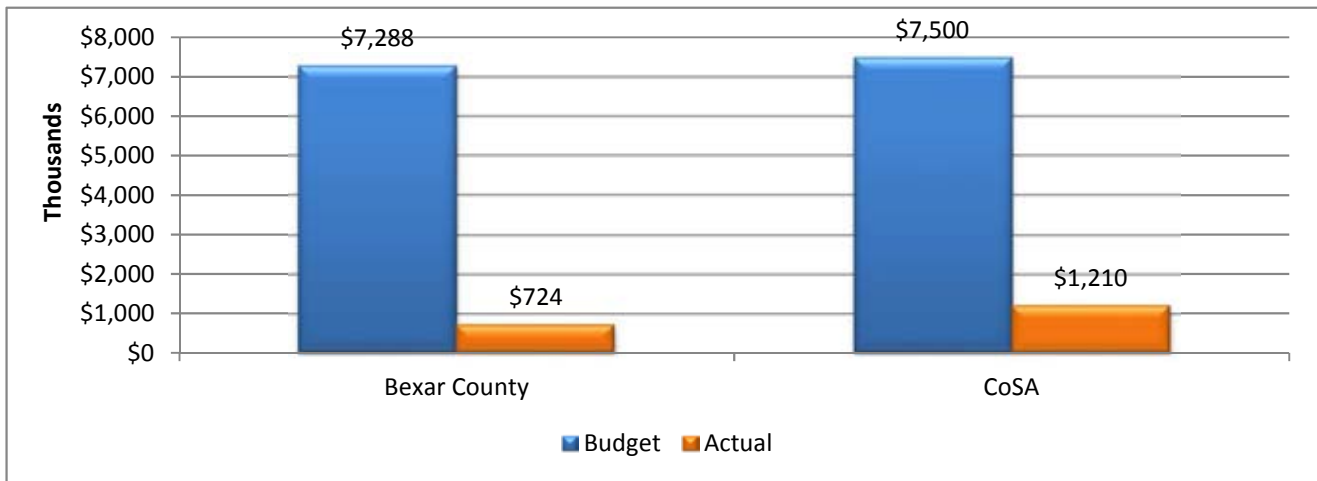
Project Start Date: 07/01/12 Total Project Budget: \$ 14,500,000  
 Project Finish Date: 07/12/16 Managing Department: Program Support

The Elmendorf Lake Park Improvements Project was approved by voters in 2012 through the passage of the 2012 City of San Antonio bond. The project stretches from 19th Street to Commerce Street. With support from the City of San Antonio and Bexar County, the total improvements project budget is \$14.25 million. The improvements will include recreation enhancements such as a renovated swimming pool and shade structures, playgrounds, 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 recreation elements, lake fountains and aeration bubblers, rain gardens and bio-swales will help to improve the lake’s water quality. Design is complete and a construction contract has been awarded.

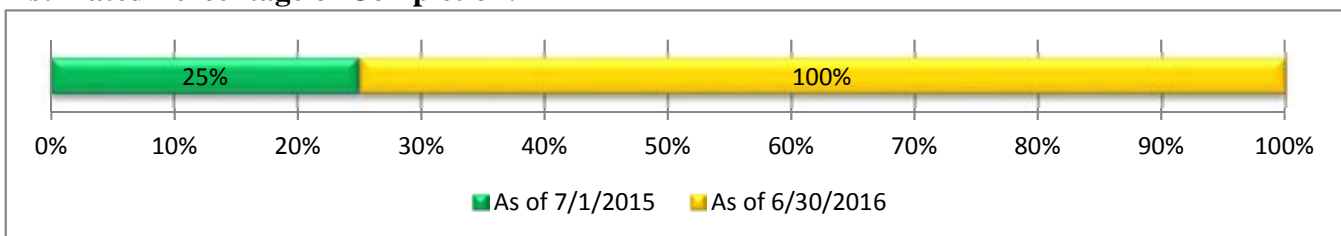
Construction of the project is expected to be completed in FY 2015/16.

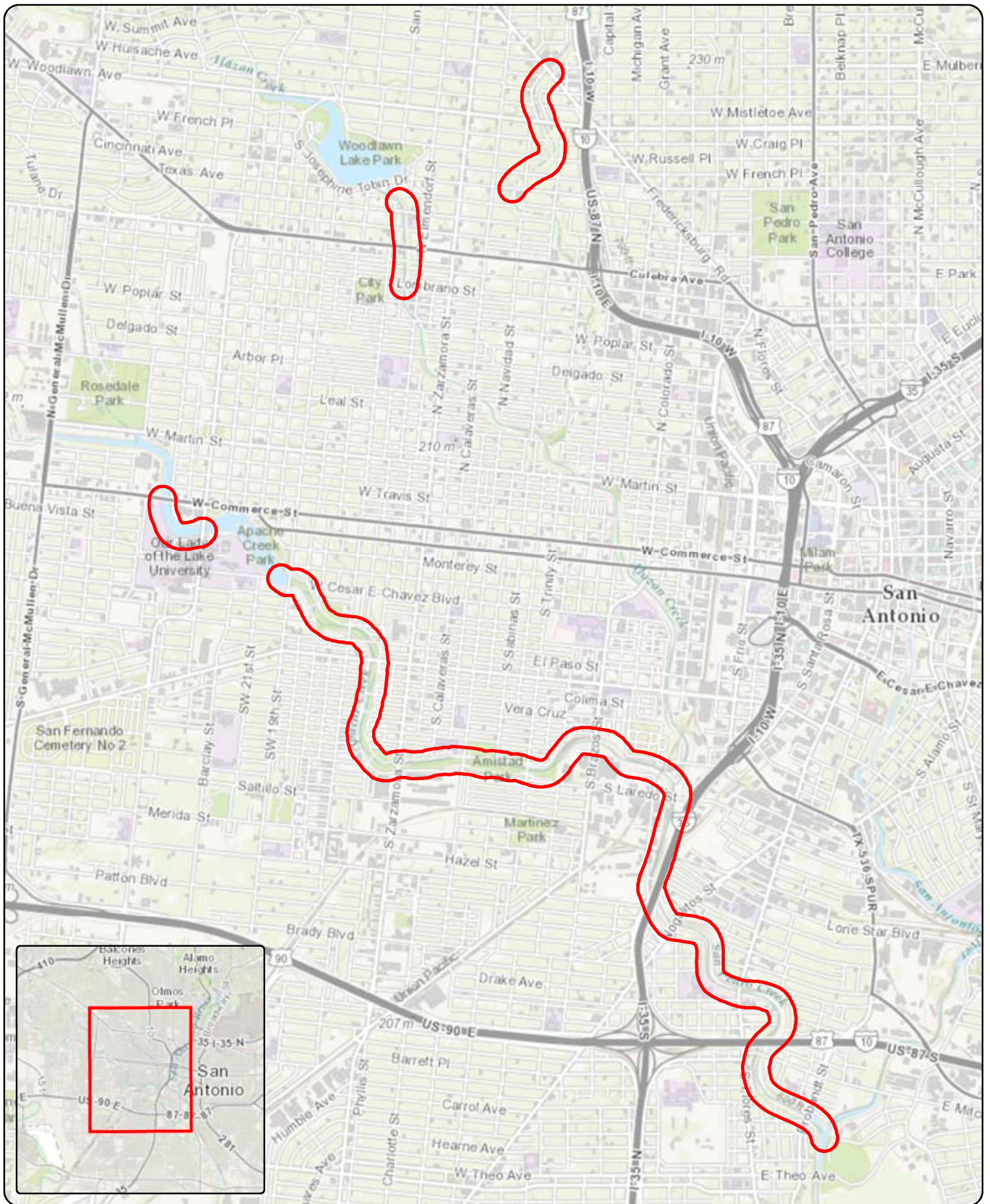
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 74,255	\$ 127,791	\$ -	\$ -	\$ 202,046	
Commodities	185,275	517,445	-	-	702,720	
Contracts	<del>1,692,376</del> 1,692,376		-	13,595,233		
<b>Total</b>	<b>\$ 12,363,682</b>	<b>\$</b>	<b>\$ -</b>	<b>\$ 14,500,000</b>		

**Budget to Actual by Funding Source as of 7/1/2015:**




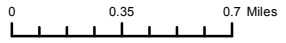
**Estimated Percentage of Completion:**





**Project Name:**  
Westside Creeks Linear Creekway Trails

 Project Service Area and/or Boundaries



**Project Name:** Westside Creeks Linear Creekway Trails **Project #** 00000379

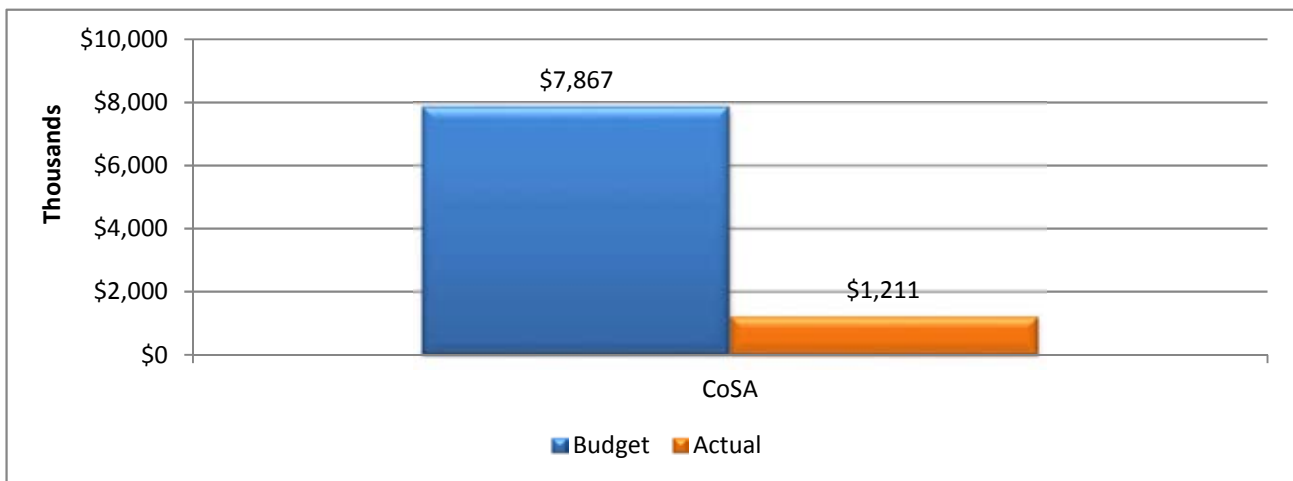
Project Start Date: 03/01/12 Total Project Budget: \$ 7,866,980  
 Project Finish Date: 05/17/16 Managing Department: Program Support

Through the voter approved Proposition 2 in 2010, the City of San Antonio funded \$10.1 million for creekway trail improvements along the Westside Creeks. The improvements' design and construction is managed by the San Antonio River Authority and provides increased opportunities for community enjoyment. The Apache and San Pedro Creeks trail connects Elmendorf Lake Park to the San Antonio River. The 10-foot wide trail includes amenities such as shade structures, drinking fountains, signage, and seating. The Alazan Creek trail connects Woodlawn Lake Park to West End Park, and along Martinez Creek, the trail connects Fredericksburg Road to Cincinnati Avenue. This connection develops multimodal connections by linking VIA's Primo bus station to the creekway trail and a bike lane along Cincinnati Avenue that extends into Woodlawn Lake Park.

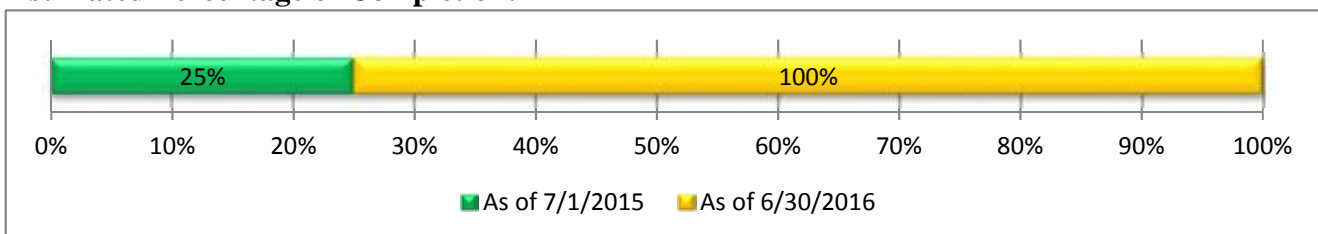
Construction of the project began in June 2015 with an estimated project completion of early 2016.

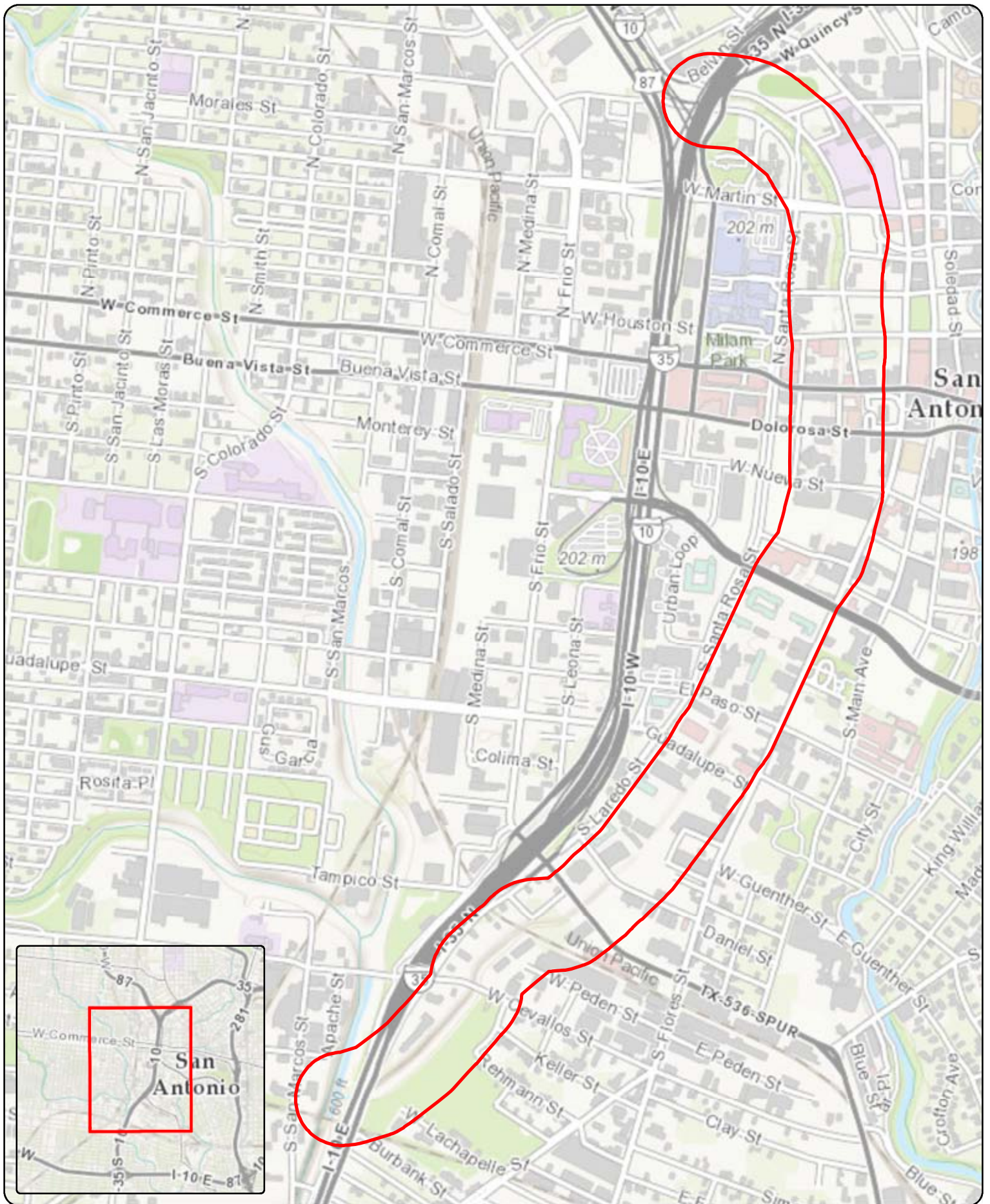
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	17,709	-	-	-	-	17,709
Contracts	<del>6,656,073</del>		-		7,849,271	
<b>Total</b>	<b>\$ <del>6,656,073</del></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>7,866,980</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**




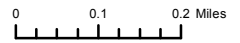
**Estimated Percentage of Completion:**





**Project Name:**  
Westside Creeks San Pedro Creek

 Project Service Area and/or Boundaries



**Project Name:** Westside Creeks San Pedro Creek

**Project #** 0000378

Project Start Date: 08/01/12  
 Project Finish Date: 06/30/16

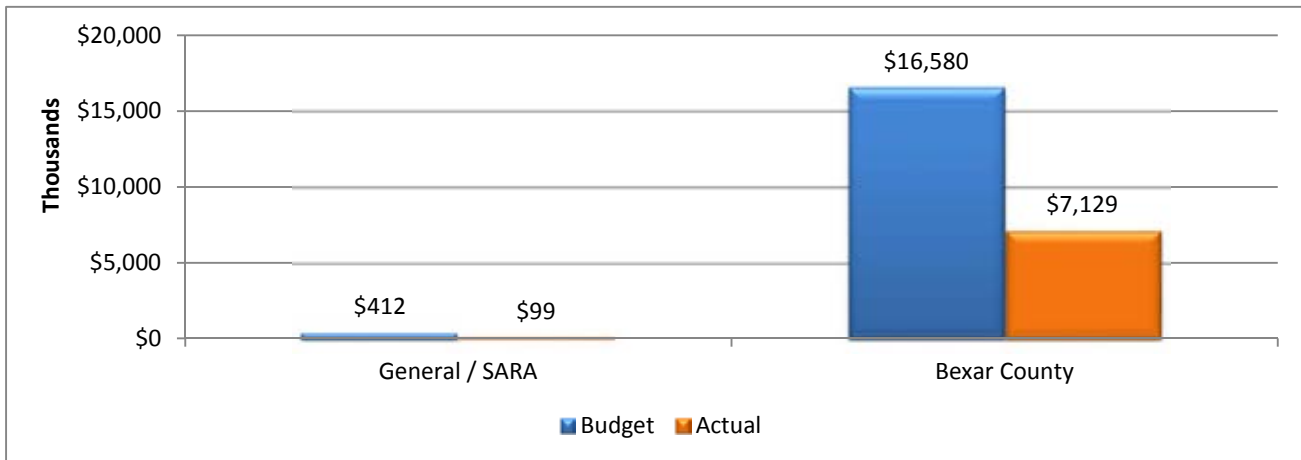
Total Project Budget: \$ 16,991,858  
 Managing Department: Watershed Engineering

In May 2013, the San Pedro Creek Study, also known as the Preliminary Engineering Report or PER, identified opportunities for containing the 100-year floodplain, restoring and improving water quality and creek functions, and reconnecting people to the community’s storied and historic natural resource. In February 2014, Bexar County entered into an agreement with the San Antonio River Authority to begin the design phase of an ambitious \$175 million revitalization project along a two-mile downtown creek segment. The design phase builds upon the results of the PER and will take approximately 24 months, from February 2014 to March 2016. Following final design, construction is anticipated to begin in 2016 and be completed in 2018 in celebration of the 300th anniversary of the establishment of the City.

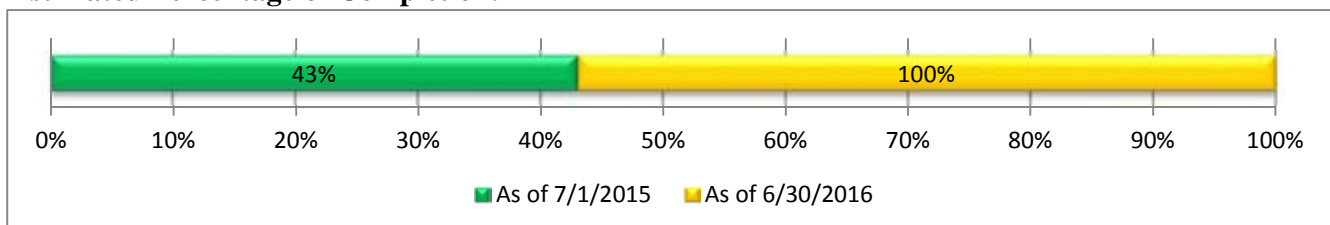
In April 2015, the preliminary designs were presented and reviewed by all the funding partners to determine whether to proceed with full design, and if so, what options and alternatives would be pursued. The partners accepted preliminary designs and agreed to move forward to full design of the project. During FY 2015/16, the project's design will be completed and phase 1 will be bid for construction. Construction is estimated to begin in May 2016 between the San Pedro Creek flood control inlet tunnel and Cesar Chavez.

Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 275,548	\$ 706,103	\$ -	\$ -	\$ 981,651	
Commodities	-	-	-	-	-	
Contracts	<del>0,952,750</del>			46,010,207		
<b>Total</b>	<b>\$ <del>9,208,300</del></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 46,991,858</b>		

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

# **Sustainable Watersheds Implementation Program**

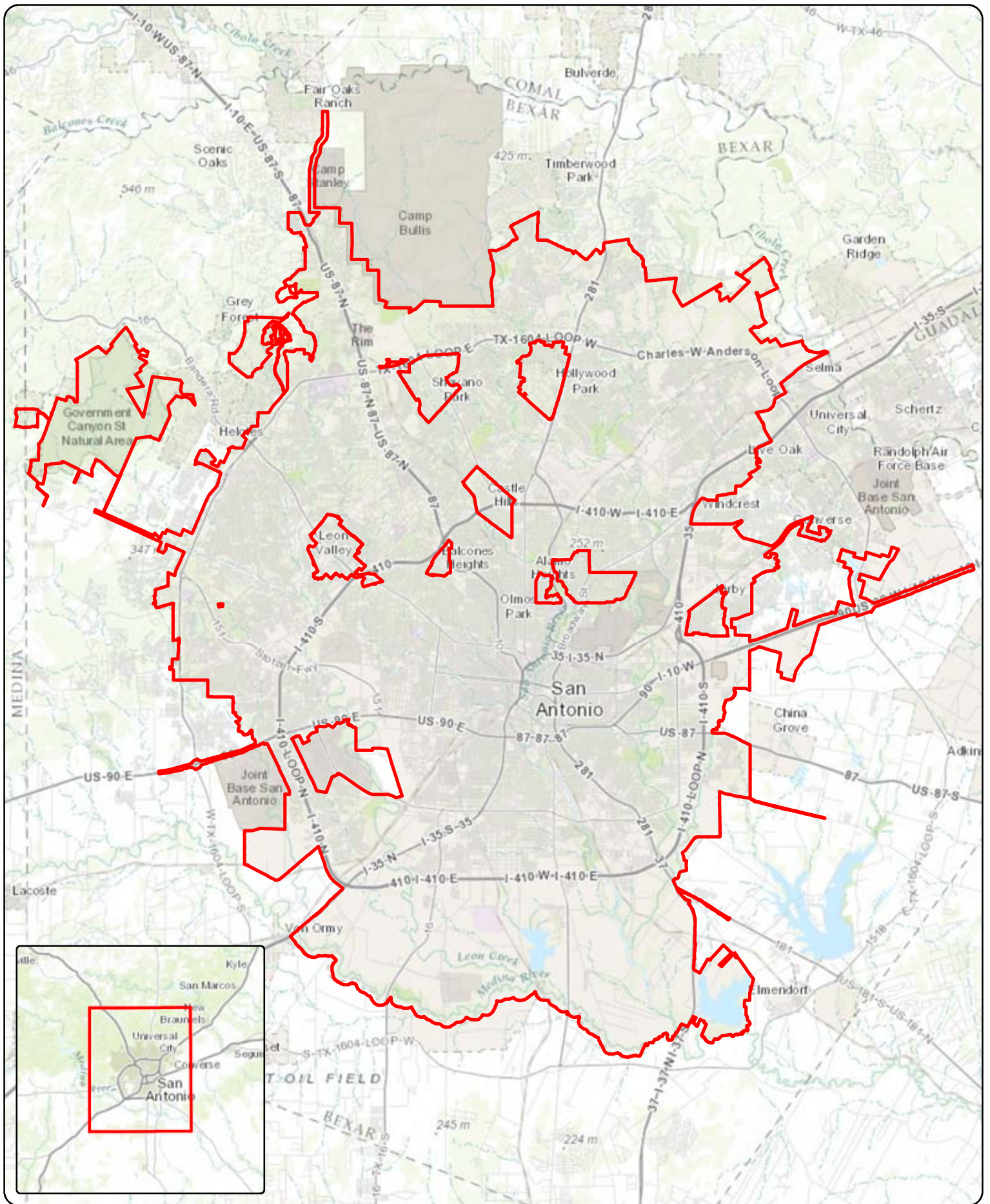


SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions



**Project Name: 2015 Unified Development Code Amendments / Stormwater Best Management Practices**      **Project # 00000455**

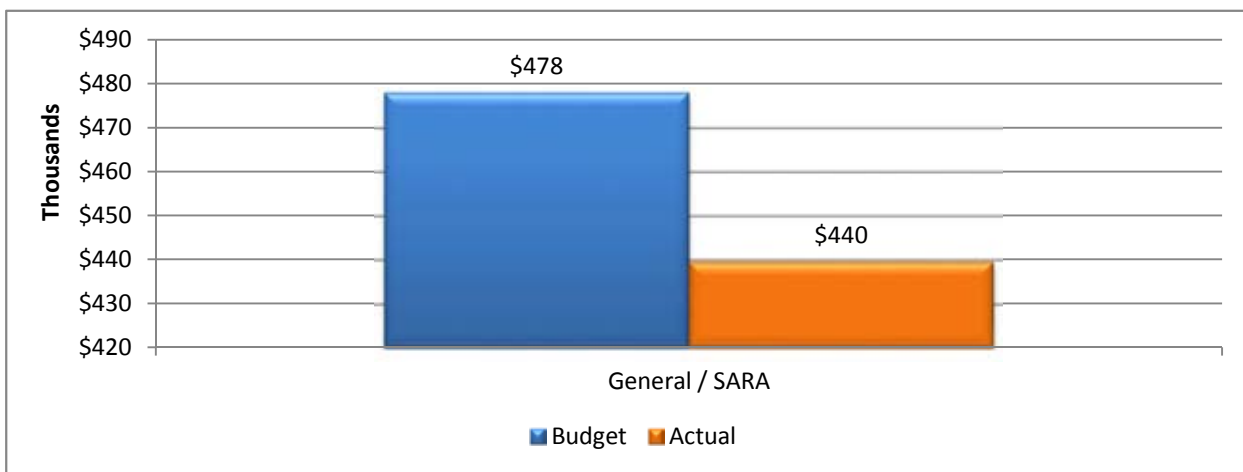
Project Start Date: 02/03/14      Total Project Budget: \$ 477,988  
 Project Finish Date: 06/30/16      Managing Department: Environmental Sciences

In 2012, the San Antonio River Authority (SARA) funded Low Impact Development (LID) Implementation Plan recommended that the community identify and eliminate barriers to LID design found in the Unified Development Code (UDC). With FY 2013/14 funding, staff initiated the project to create a new, voluntary LID and natural channel design development track within the UDC. City of San Antonio staff requested that SARA include in the scope incentivizing the Conservation Subdivision Code toward greater use. The new draft code and code amendments have been completed and submitted to the City of San Antonio. The City has an established review and approval process that will culminate by December 2015 with City Council consideration.

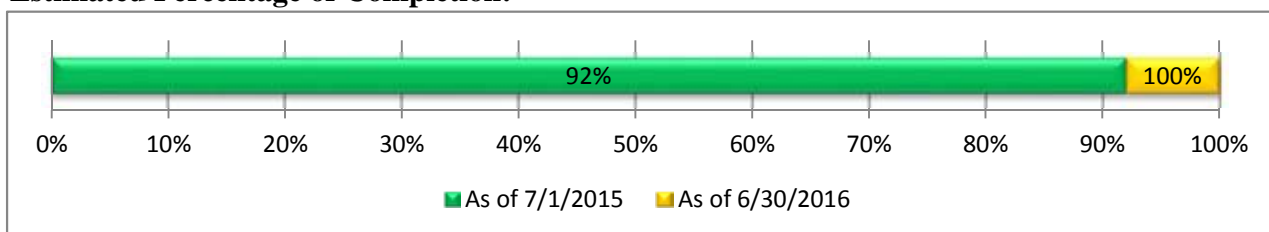
During FY 2015/16, this project will: 1) usher the draft code language through the City's approval process, 2) assist with development of the agency processing procedures that will be required under the code language, and 3) research and develop a SARA funded rebate program to provide greater incentives for the use of LID in the San Antonio region.

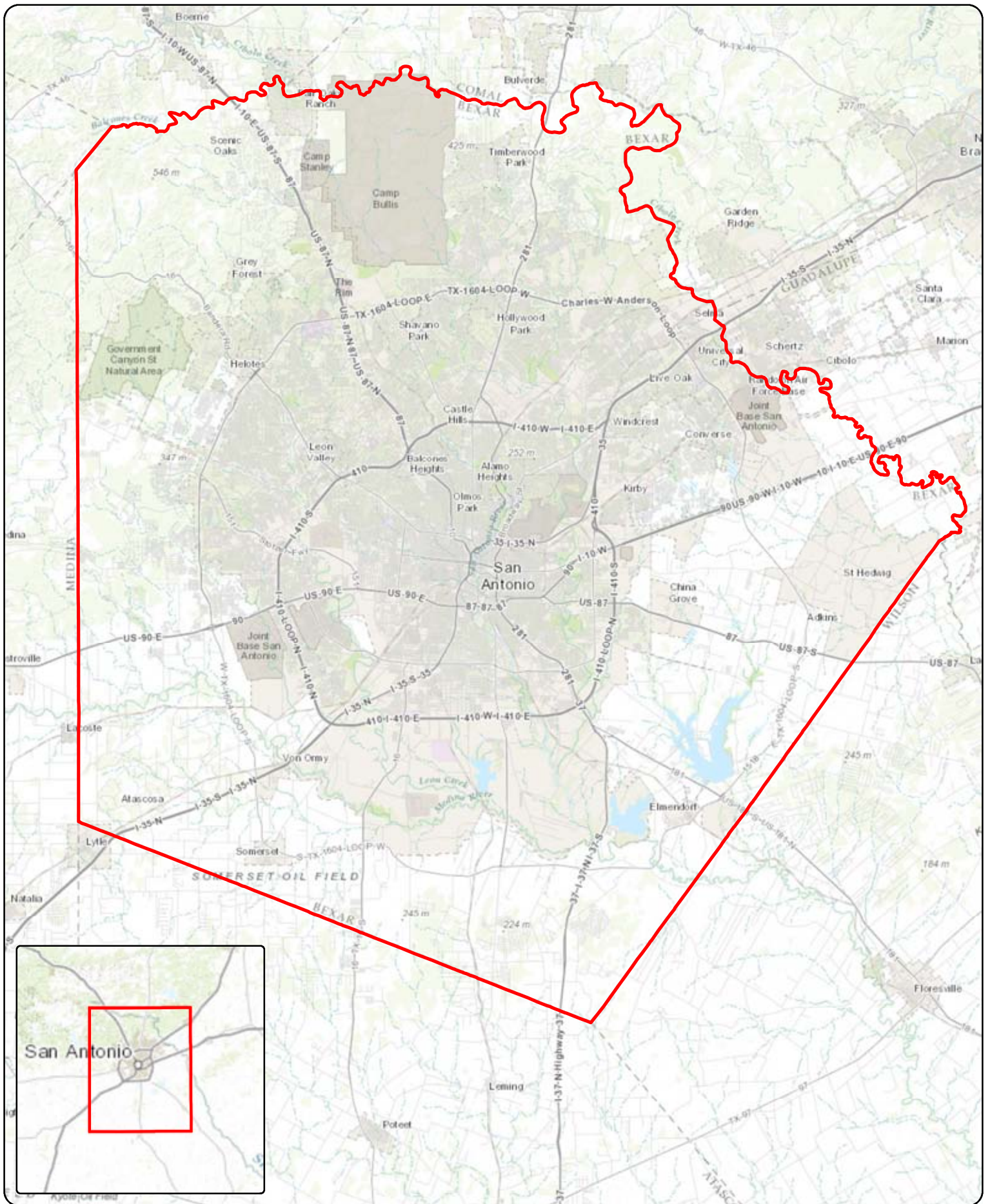
<b>Expenditures</b>	Estimate as of			Succeeding from	<u>Total</u>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>	
Personnel	\$ 27,873	\$ 21,434	\$ -	\$ -	\$ 49,307
Commodities	-	-	-	-	-
Contracts	<u>471,681</u>	<u>000</u>	<u>-</u>	<u>428,</u>	<u>681</u>
<b>Total</b>	<b>\$ <del>39,554</del></b>	<b>\$ 434</b>	<b>\$ -</b>	<b>\$ 477,</b>	<b>\$ 988</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Bexar Regional Watershed Management Stream Mitigation Bank** **Project # 00000466**

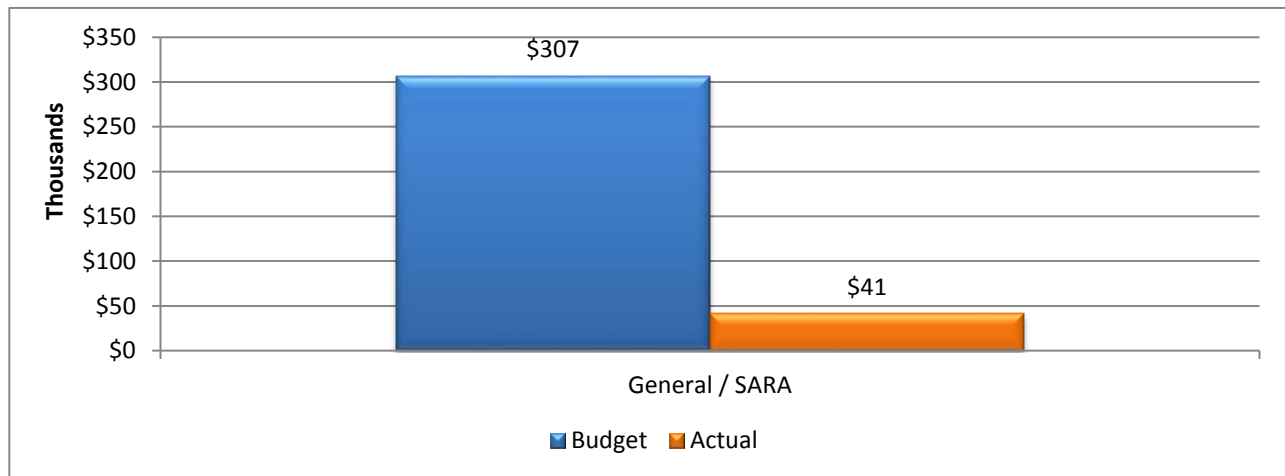
Project Start Date: 07/01/14 Total Project Budget: \$ 306,885  
 Project Finish Date: 03/31/17 Managing Department: Watershed Engineering

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 Bexar Regional Watershed Management (BRWM) funded a study to evaluate developing an urban stream mitigation bank within Bexar County. Based on the recommendations of the study, the prospectus was submitted in FY 2014/15 and the Mitigation Banking Instrument (MBI) will be submitted in FY 2015/16.

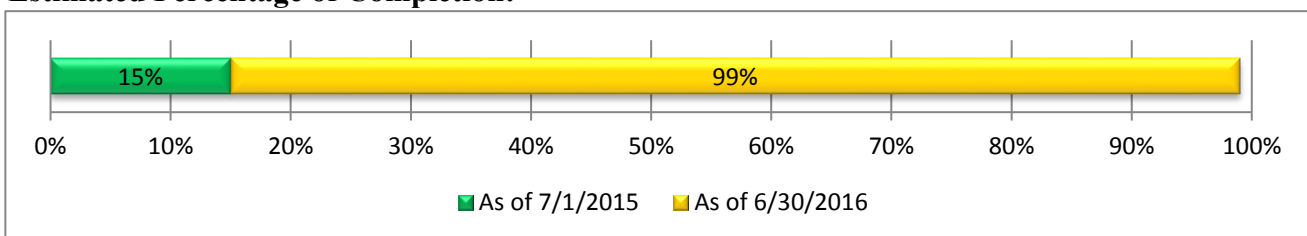
In FY 2015/16, the MBI will be developed and submitted to the USACE. The MBI is documentation that includes design plans and establishes guidelines for the establishment, operation, and maintenance of the proposed mitigation bank.

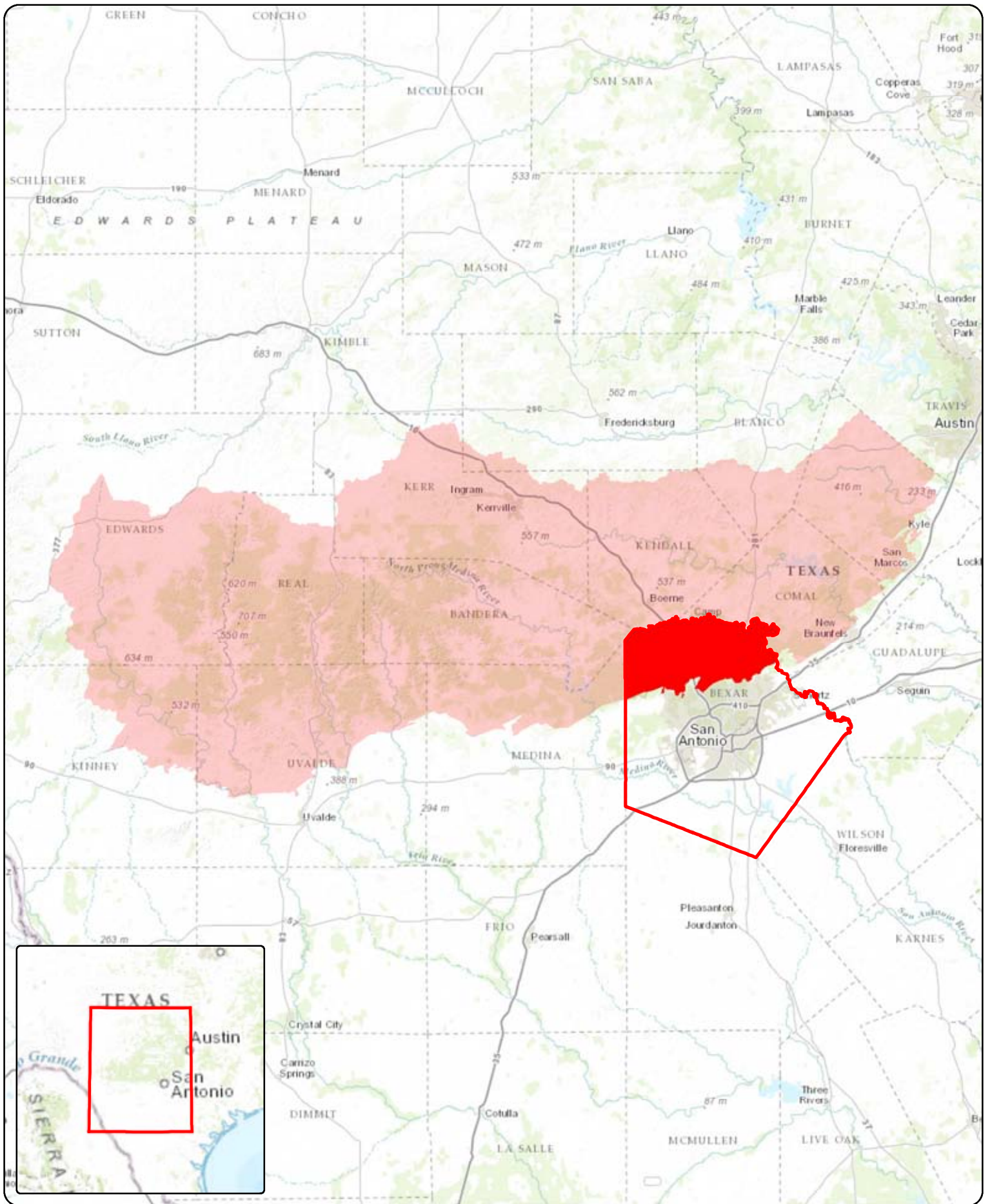
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 311	\$ 3,019	\$ 2,610	\$ -	\$ 5,940	
Commodities	-	-	-	-	-	
Contracts	40,945	260,000	-	-	300,945	
<b>Total</b>	<b>\$ 41,256</b>	<b>\$ 263,019</b>	<b>\$ 2,610</b>	<b>\$ -</b>	<b>\$ 306,885</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Edwards Aquifer Watershed Protection **Project #** 00000512

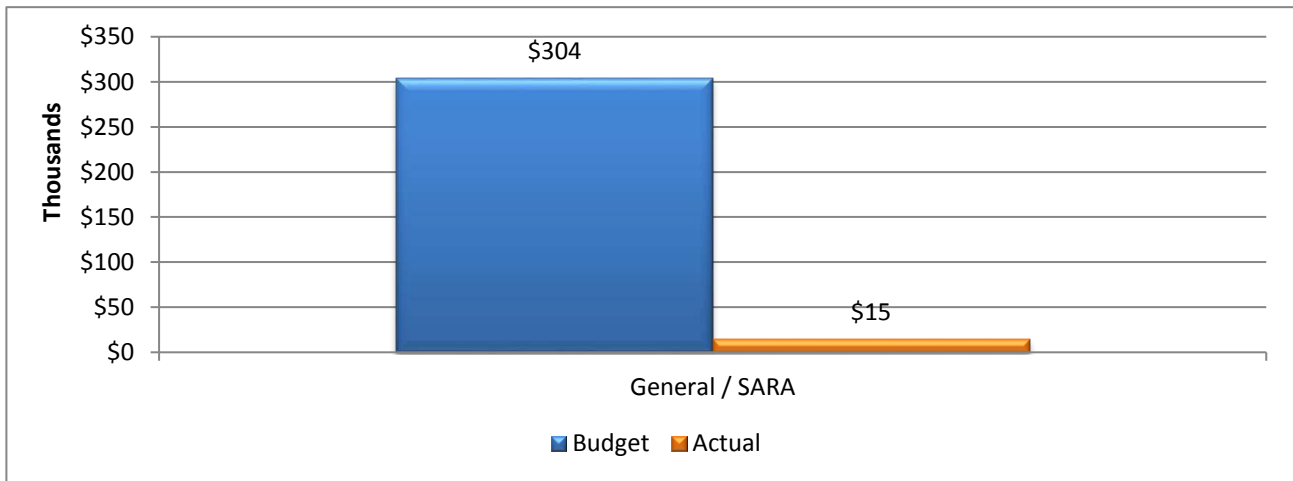
Project Start Date: 06/01/15 Total Project Budget: \$ 303,652  
 Project Finish Date: 06/30/20 Managing Department: Environmental Sciences

This project funds implementation of water quality best management practices (BMPs) over the Edwards Aquifer. The project scope includes research into BMP placement and type, BMP design, pre- and post-construction stormwater monitoring, and BMP construction. It also includes grant writing or other fundraising activities as well as securing partner agreements.

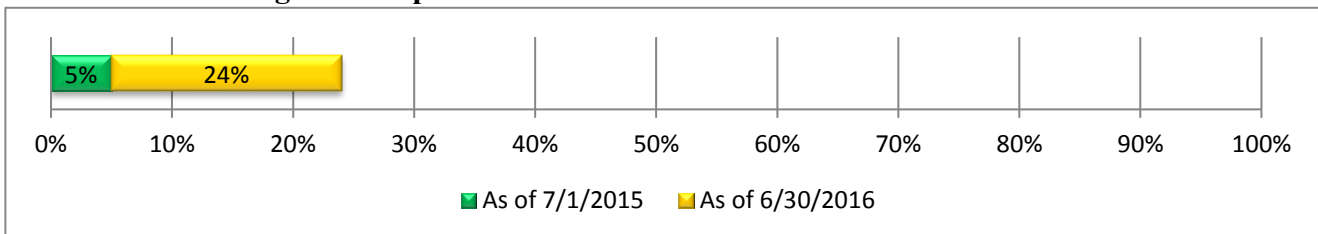
The FY 2015/16 budget funds staff time to pursue project partners, grants or other funding, and research into BMP placement and type. It also provides professional services funding toward the design of the BMPs. Initial conversations have been held with the University of Texas at San Antonio, the Edwards Aquifer Authority, and the Greater Edwards Aquifer Alliance to partner on this project.

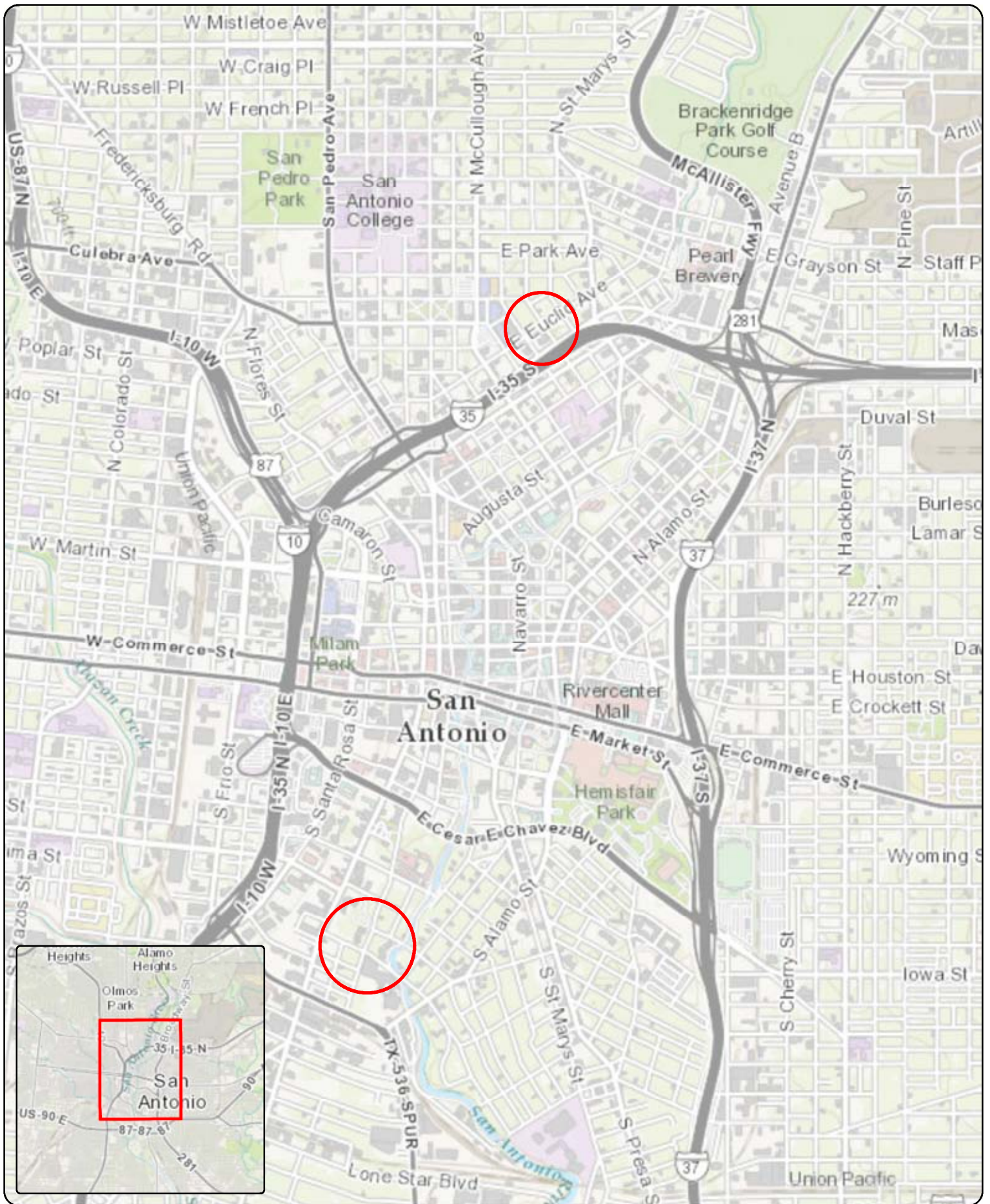
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ 44,799	\$ 43,573	\$ 138,280	\$ 226,652	
Commodities	-	-	5,000	8,000	13,000	
Contracts	15,000	15,000	6,000	28,000	64,000	
<b>Total</b>	<b>\$ 15,000</b>	<b>\$ 59,799</b>	<b>\$ 54,573</b>	<b>\$ 174,280</b>	<b>\$ 303,652</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Guenther/Euclid Stormwater Retrofit **Project #** 00000358

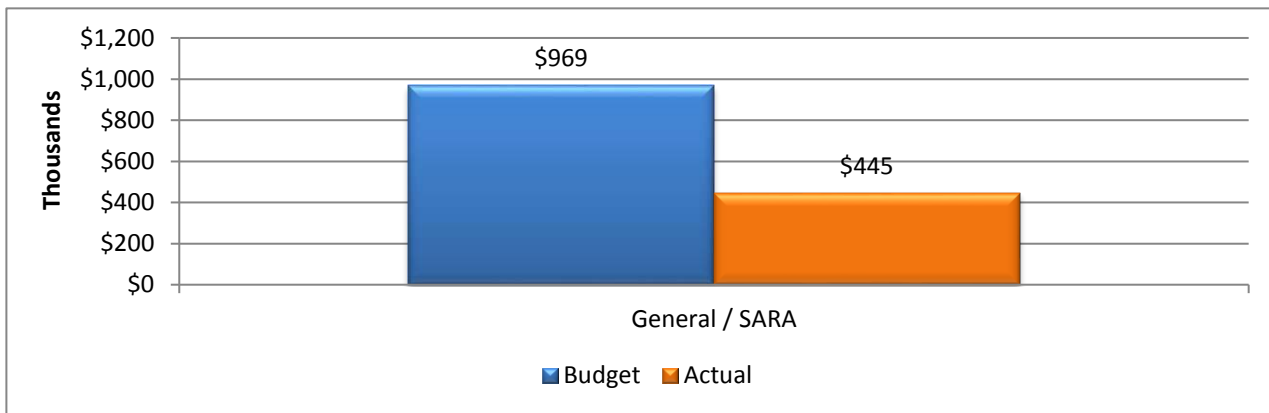
Project Start Date: 06/18/12 Total Project Budget: \$ 968,920  
 Project Finish Date: 06/30/18 Managing Department: Facilities

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

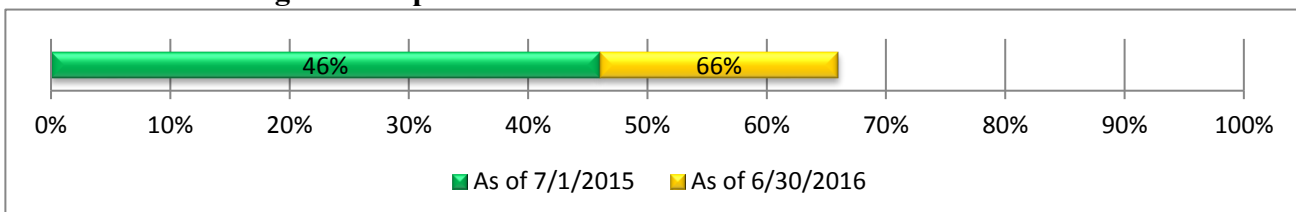
During FY 2015/16, if grant funds are received, LID features will be constructed at Euclid and Guenther facilities, providing the community examples of successful LID retrofit projects. The River Authority's grant application for Environmental Protection Agency (EPA) funding, administered through the Texas Commission on Environmental Quality (TCEQ), has been supported by TCEQ and forwarded to EPA for approval. If awarded, the grant will fund the majority of construction. The River Authority will provide training to the community based on the project and will utilize the retrofits as urban retrofit demonstrations.

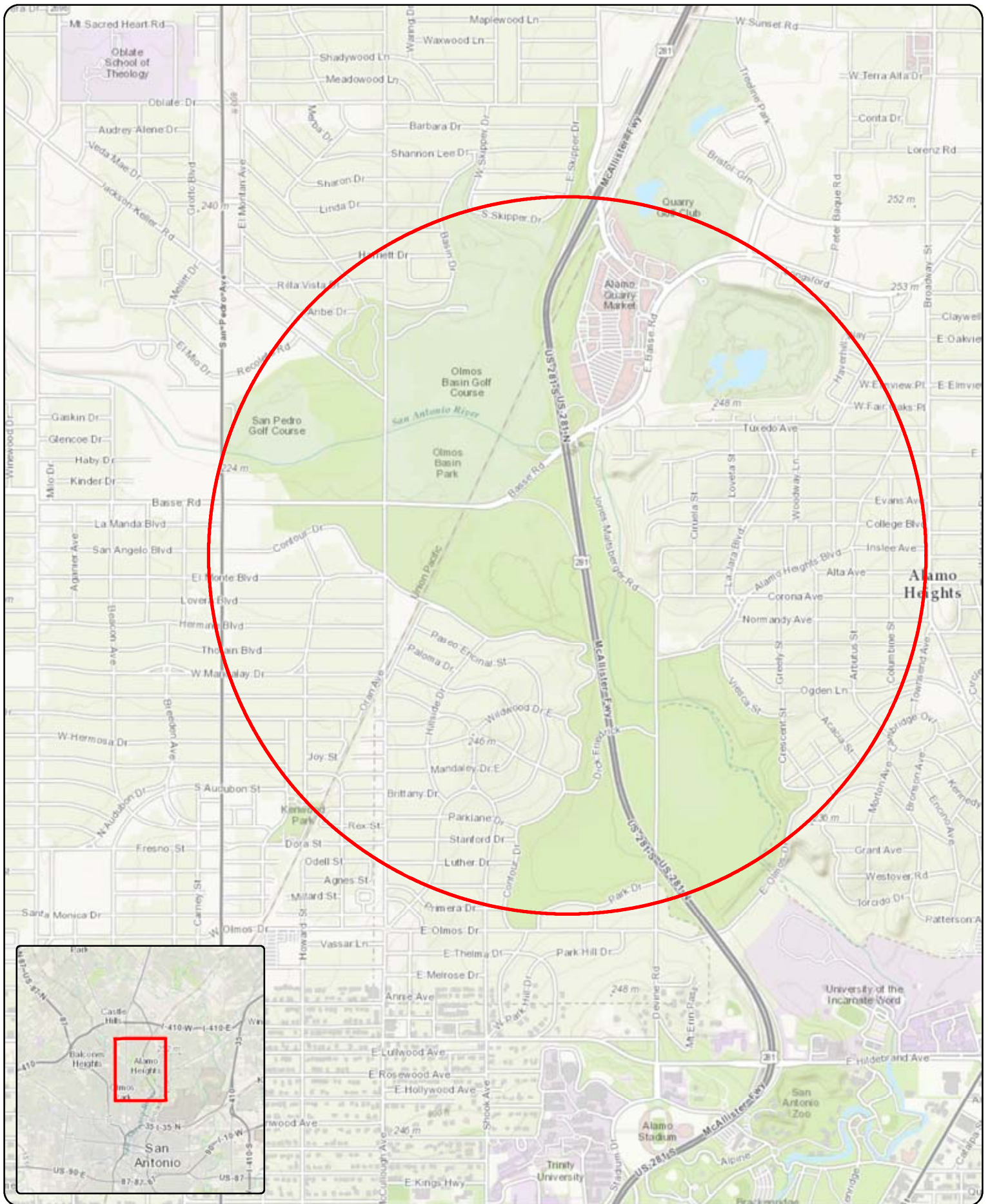
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 54,998	\$ 40,727	\$ 41,238	\$ 30,515	\$ 167,478	
Commodities	19,816	-	81,073	-	100,889	
Contracts	370,526	150,000	180,027	-	700,553	
<b>Total</b>	<b>\$ 445,340</b>	<b>\$ 190,727</b>	<b>\$ 302,338</b>	<b>\$ 30,515</b>	<b>\$ 968,920</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Olmos Creek Aquatic Ecosystem Restoration **Project #** 00000458

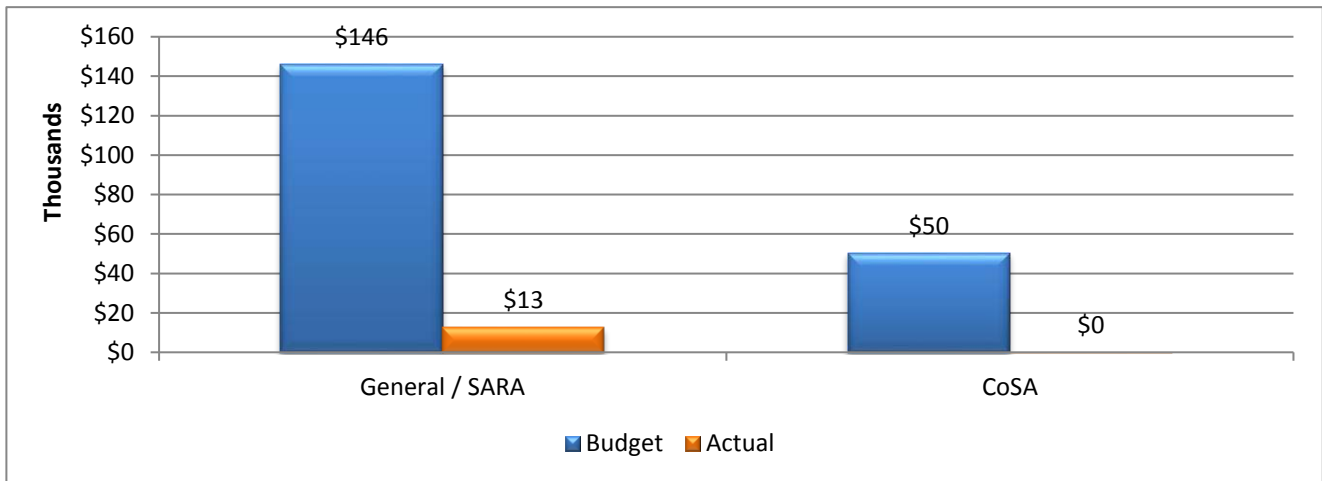
Project Start Date: 04/16/14 Total Project Budget: \$ 196,613  
 Project Finish Date: 03/16/22 Managing Department: Watershed Engineering

This project is managed by the United States Army Corps of Engineers (USACE) and funded by USACE and the City of San Antonio. This project restores instream habitat and the riparian corridor in and along Olmos Creek between San Pedro Avenue and Olmos Dam. Instream habitat are restored through erosion control techniques and an increase in stream shade. Riparian corridor restoration is accomplished through invasive/exotic plant control, selective thinning and accompanied by woody and herbaceous plantings.

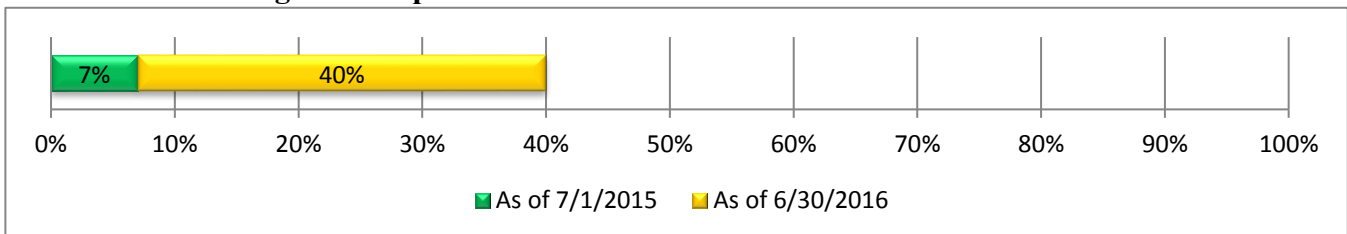
During FY 2015/16, the project will complete the design phase and begin construction.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 11,303	\$ 51,533	\$ 53,777	\$ 51,270	\$ 167,883
Commodities	-	10,000	7,000	-	17,000
Contracts	1,730	5,000	5,000	-	11,730
<b>Total</b>	<b>\$ 13,033</b>	<b>\$ 66,533</b>	<b>\$ 65,777</b>	<b>\$ 51,270</b>	<b>\$ 196,613</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** San Antonio Housing Authority - **Project #** 00000430  
**Wheatley Courts**

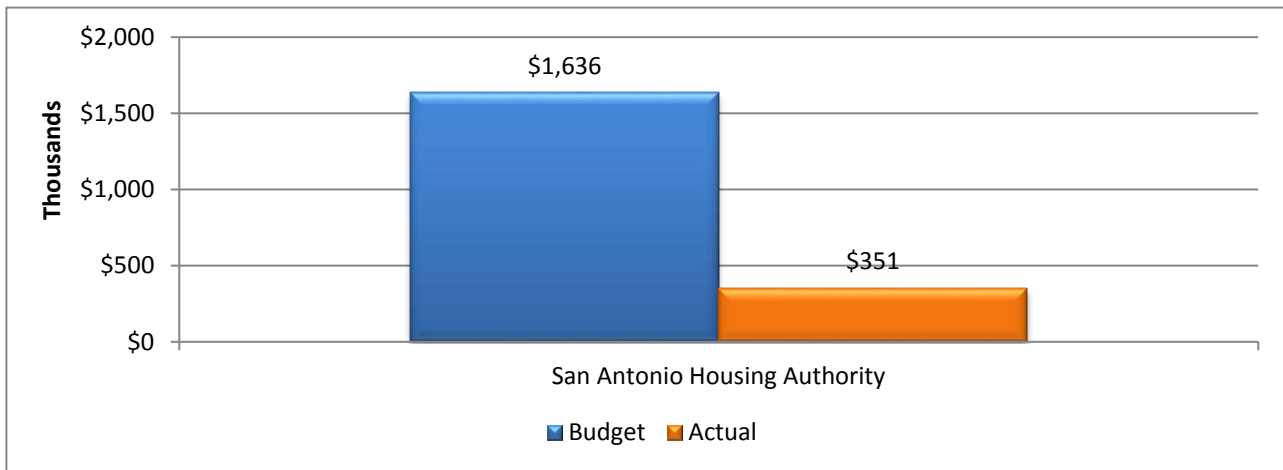
Project Start Date: 01/31/14 Total Project Budget: \$ 1,635,864  
 Project Finish Date: 09/30/15 Managing Department: Real Estate

The San Antonio Housing Authority (SAHA), working with the Department of Housing and Urban Development’s (HUD) CHOICE Neighborhood program, has developed a neighborhood transformation plan to develop a revitalized, mixed-income, low-impact, safe, and walkable community where residents have access to new parks and recreational opportunities along the Menger Creek. SAHA has developed an Interlocal Agreement (ILA) with the San Antonio River Authority (SARA) that allows SARA to provide real estate acquisition services for the proposed SAHA Wheatley Courts Redevelopment Project. SAHA will incorporate Low Impact Design (LID) features to its storm management plan for this project.

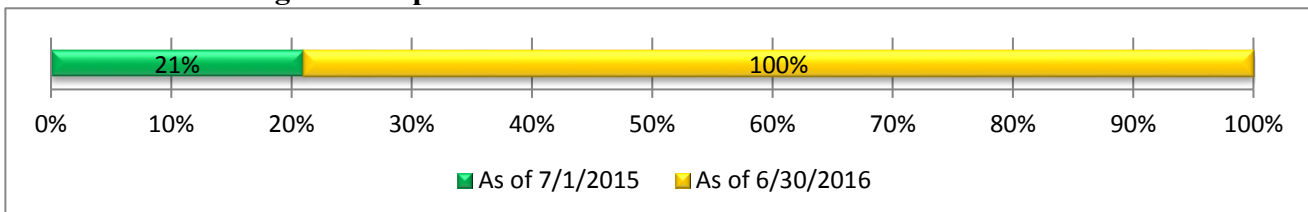
In FY 2015/16, SARA will continue to provide acquisition services and oversight of consultants, including survey, appraisal and relocation. SARA will also provide project management and record keeping for the acquisition process and LID training.

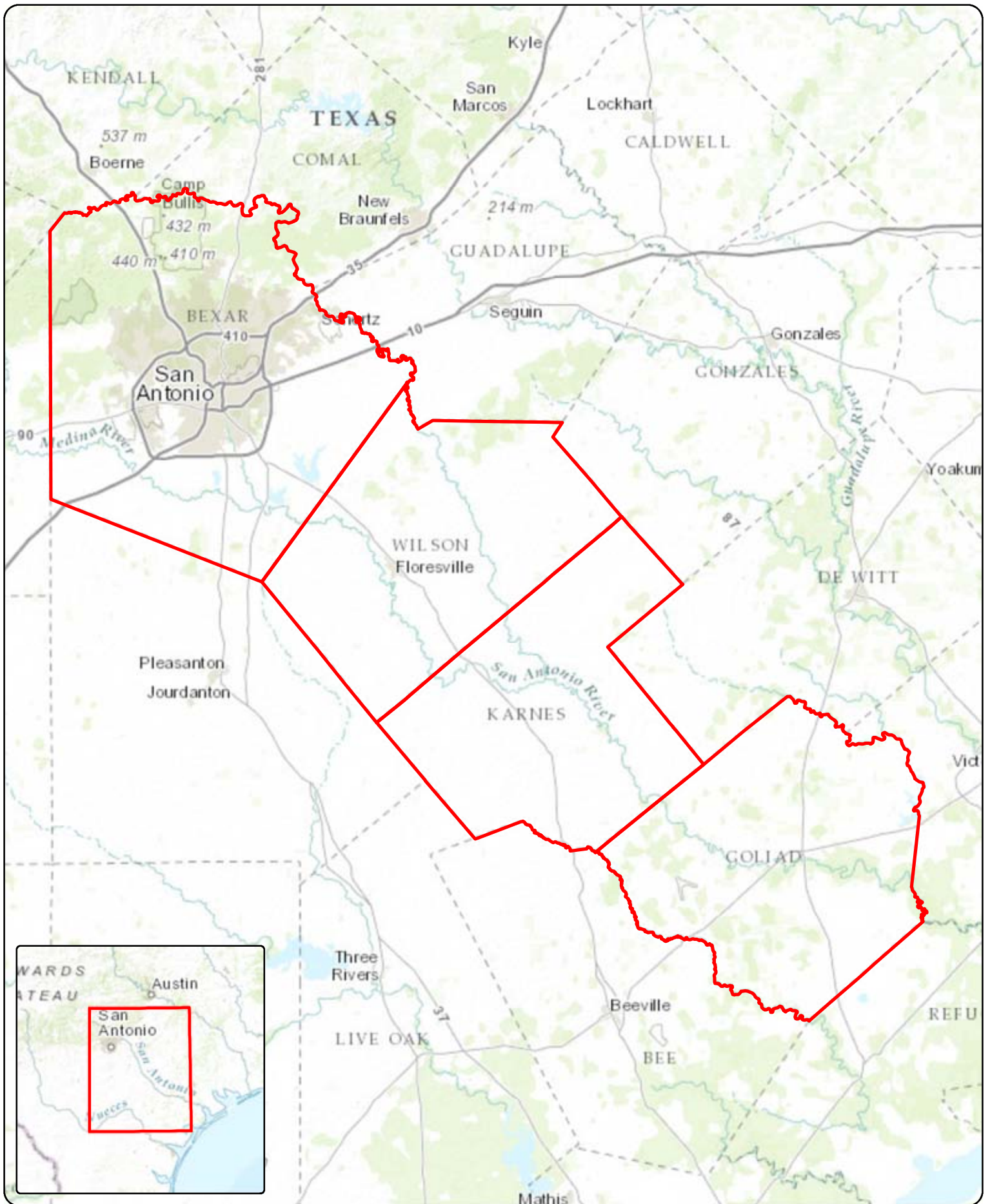
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 117,770	\$ 58,294	\$ -	\$ -	\$ 176,064
Commodities	711	899,289	-	-	900,000
Contracts	232,309	327,491	-	-	559,800
<b>Total</b>	<b>\$ 350,790</b>	<b>\$ 1,285,074</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,635,864</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** School Green Infrastructure Grant **Project #** 00000474

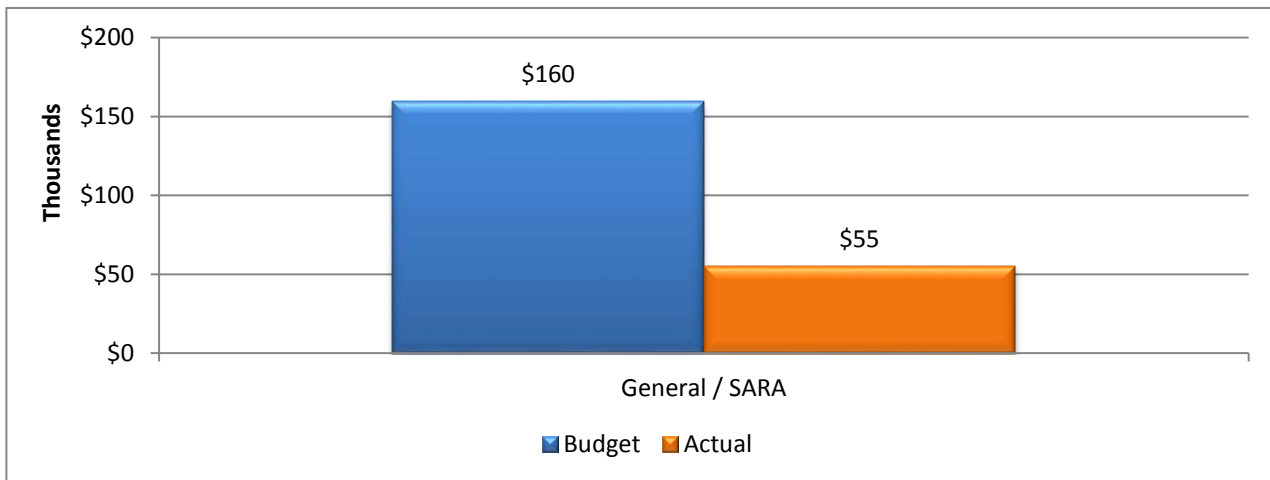
Project Start Date: 10/31/14 Total Project Budget: \$ 159,713  
 Project Finish Date: 06/30/16 Managing Department: Intergovernmental and Community Relations

This project provides up to \$25,000 each to schools in the four counties served by the River Authority to design and build a rain garden or select other green infrastructure best management practices for on-site stormwater management. The winning schools are responsible for operation and maintenance of the installed green infrastructure.

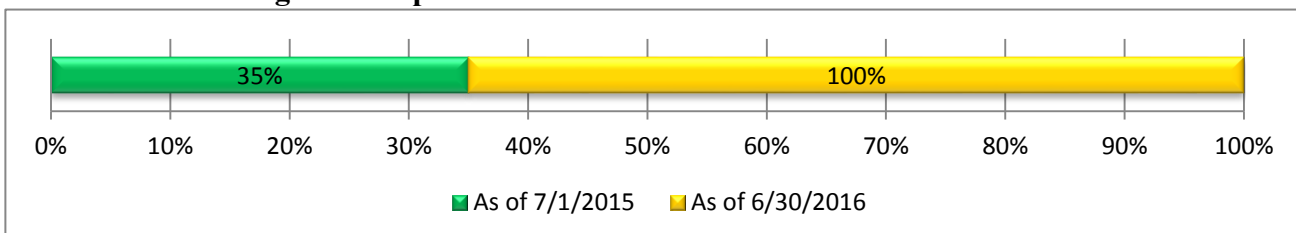
In FY 2015/16, deliverables include green infrastructure design and installation on four school campuses.

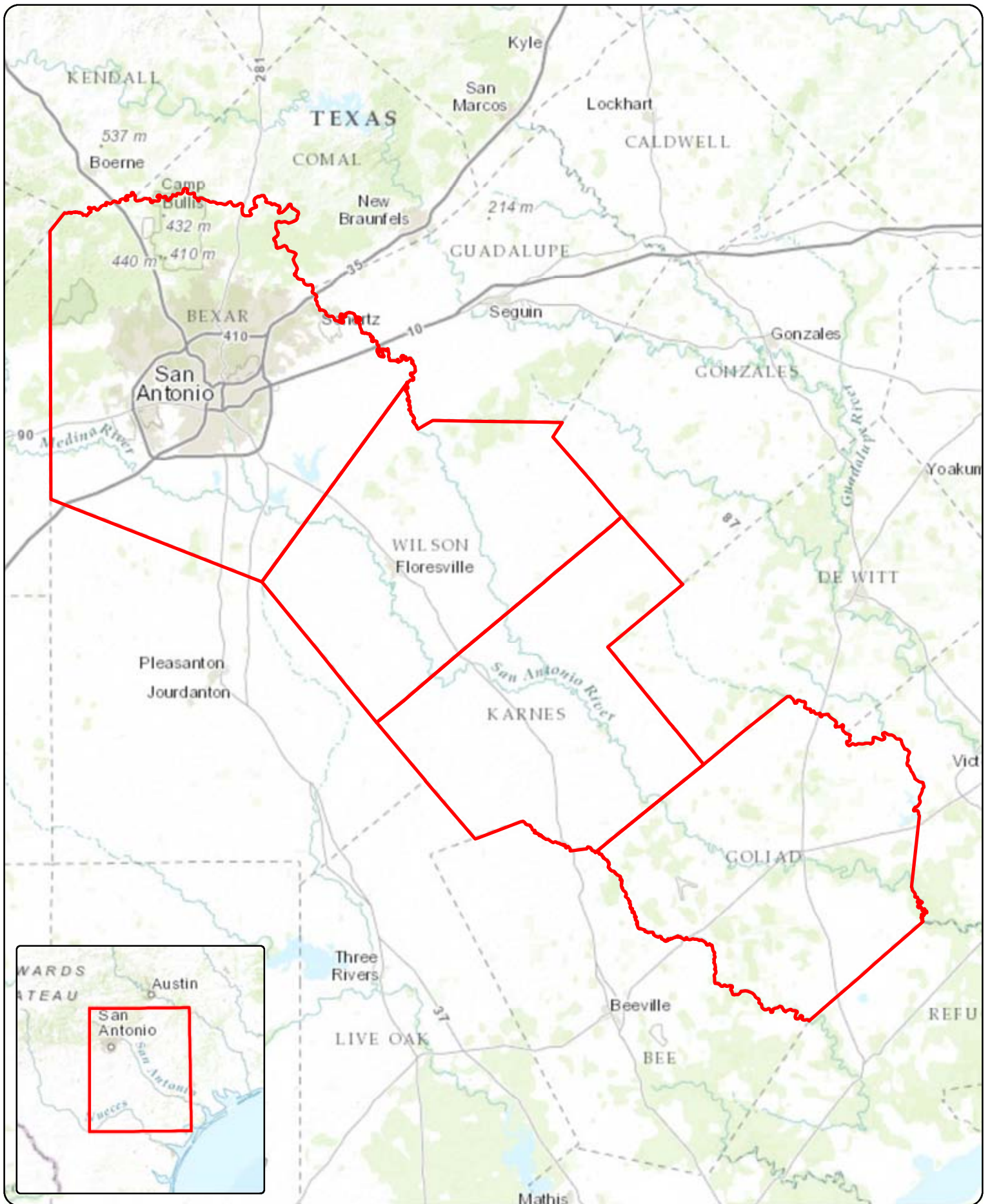
Expenditures	Estimate as of			Succeeding from	Total
	2014/15	2015/16	2016/17	2017/18	
Personnel	\$ 5,226	\$ 4,487	\$ -	\$ -	\$ 9,713
Commodities	50,000	100,000	-	-	150,000
Contracts	-	-	-	-	-
<b>Total</b>	<b>\$ 55,226</b>	<b>\$ 104,487</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 159,713</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Stormwater Best Management Practices **Project #** 00000513  
**Rebate Program**

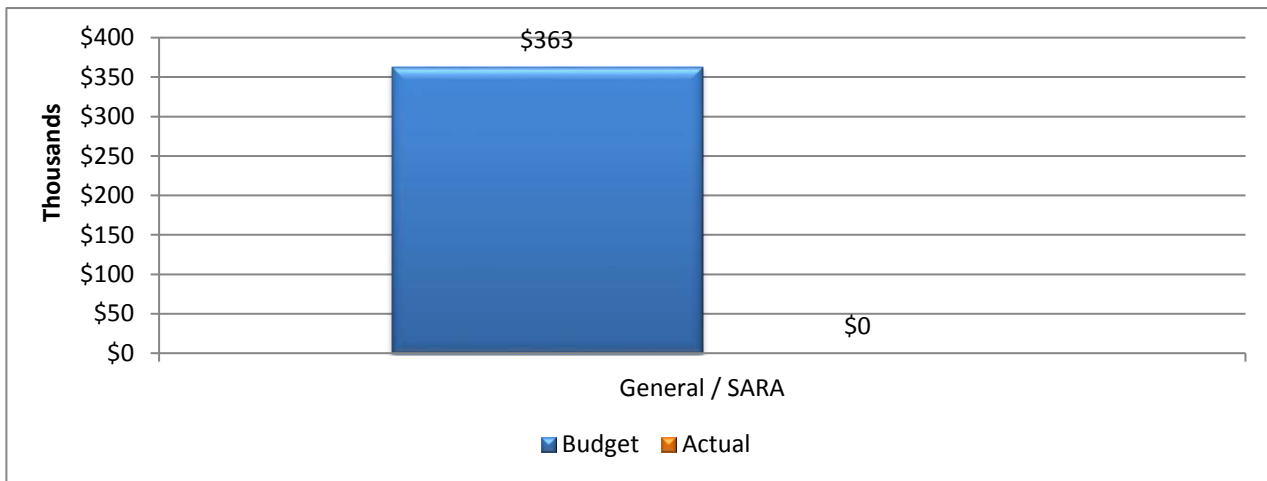
Project Start Date: 07/01/15 Total Project Budget: \$ 362,975  
 Project Finish Date: 06/30/16 Managing Department: Environmental Sciences

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 San Antonio River Authority (SARA) is developing a rebate program. Through the program, SARA will assist in covering LID costs where those costs reflect an increase over traditional design requirements.

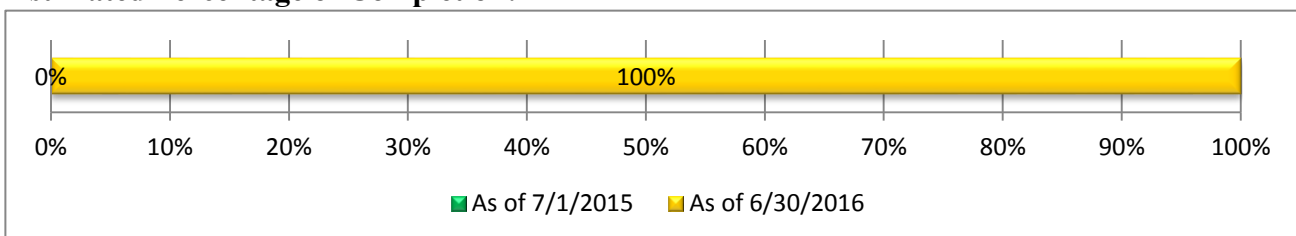
During FY 2015/16, SARA will develop the requirements for application and the outreach materials to promote the rebate program, begin accepting applications for the rebate where LID is incorporated in the design plans, and award rebates as appropriate.

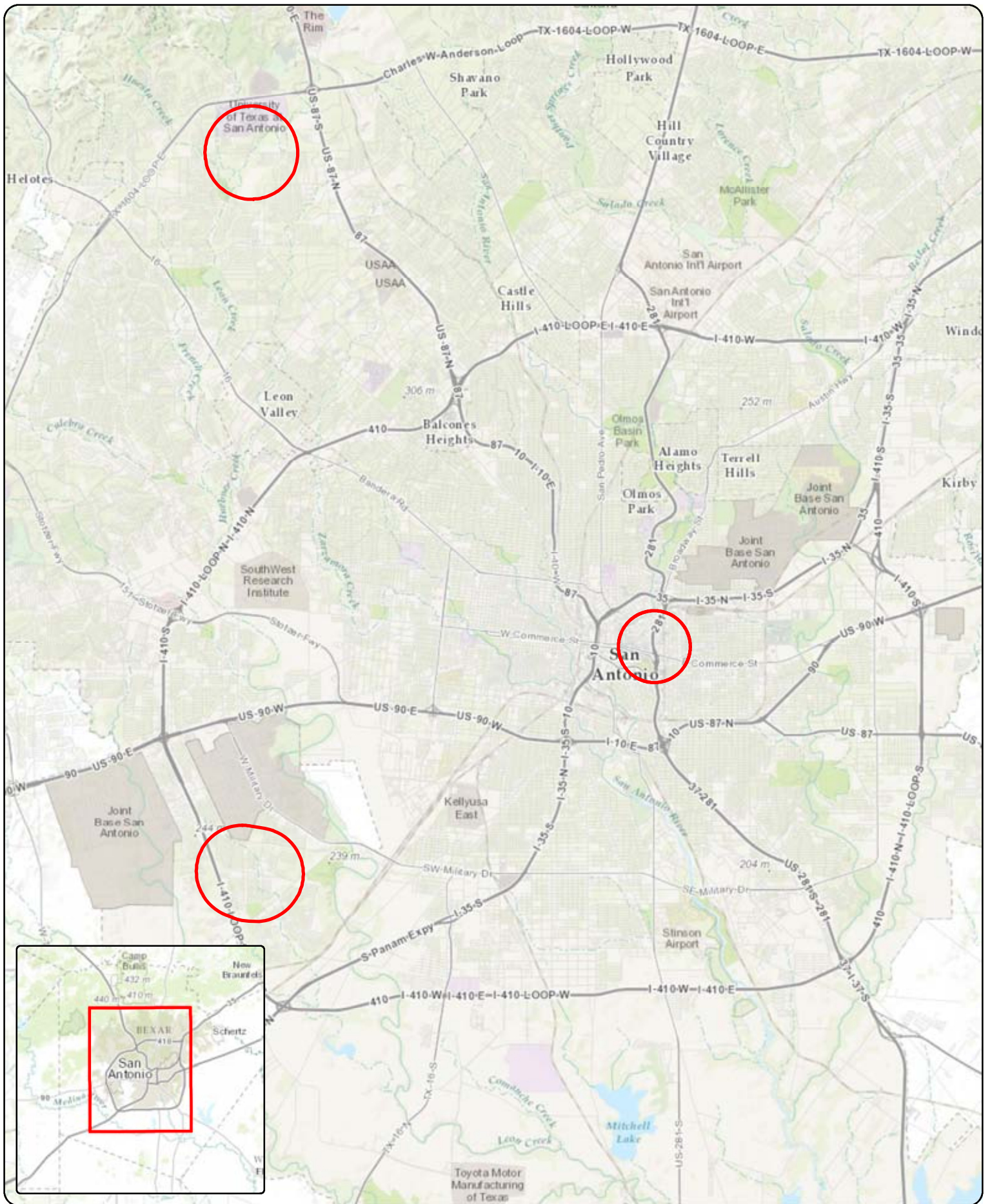
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 12,975	\$ -	\$ -	\$ 12,975
Commodities	-	1,000	-	-	1,000
Contracts	-	349,000	-	-	349,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 362,975</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 362,975</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Stormwater Monitoring **Project #** 00000400  
**City of San Antonio Pilot**

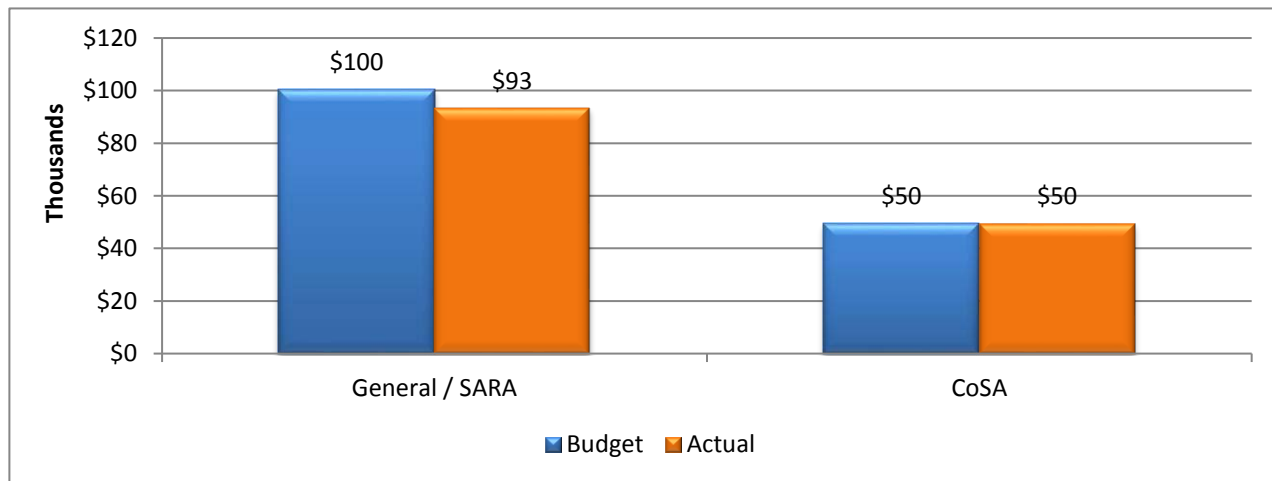
Project Start Date: 07/01/13 Total Project Budget: \$ 149,966  
 Project Finish Date: 12/01/16 Managing Department: Environmental Sciences

In accordance with an interlocal agreement with the City of San Antonio, the San Antonio River Authority (SARA) collects data on three bond project sites (Hemisfair Park, Hausman Road, and Ray Ellison Drive) prior to stormwater control measure best management practice (SCM-BMP) installation with the intent of documenting the preconstruction water quality of the runoff. On the three bond projects, four locations are sampled for a suite of parameters, the data compiled, and the approach documented. Where accompanying runoff flow rate data is not feasibly measured, the site is modeled and the flow rate simulated.

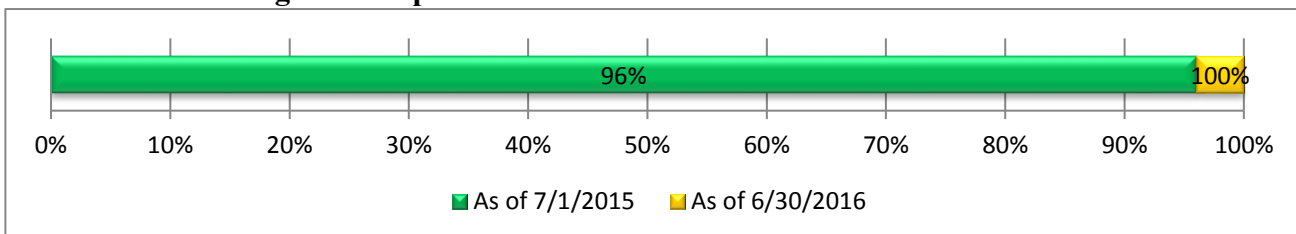
In FY 2015/16, water quality data will be collected during five storm events for three projects: Hemisfair Park, Hausman Road, and Ray Ellison Drive.

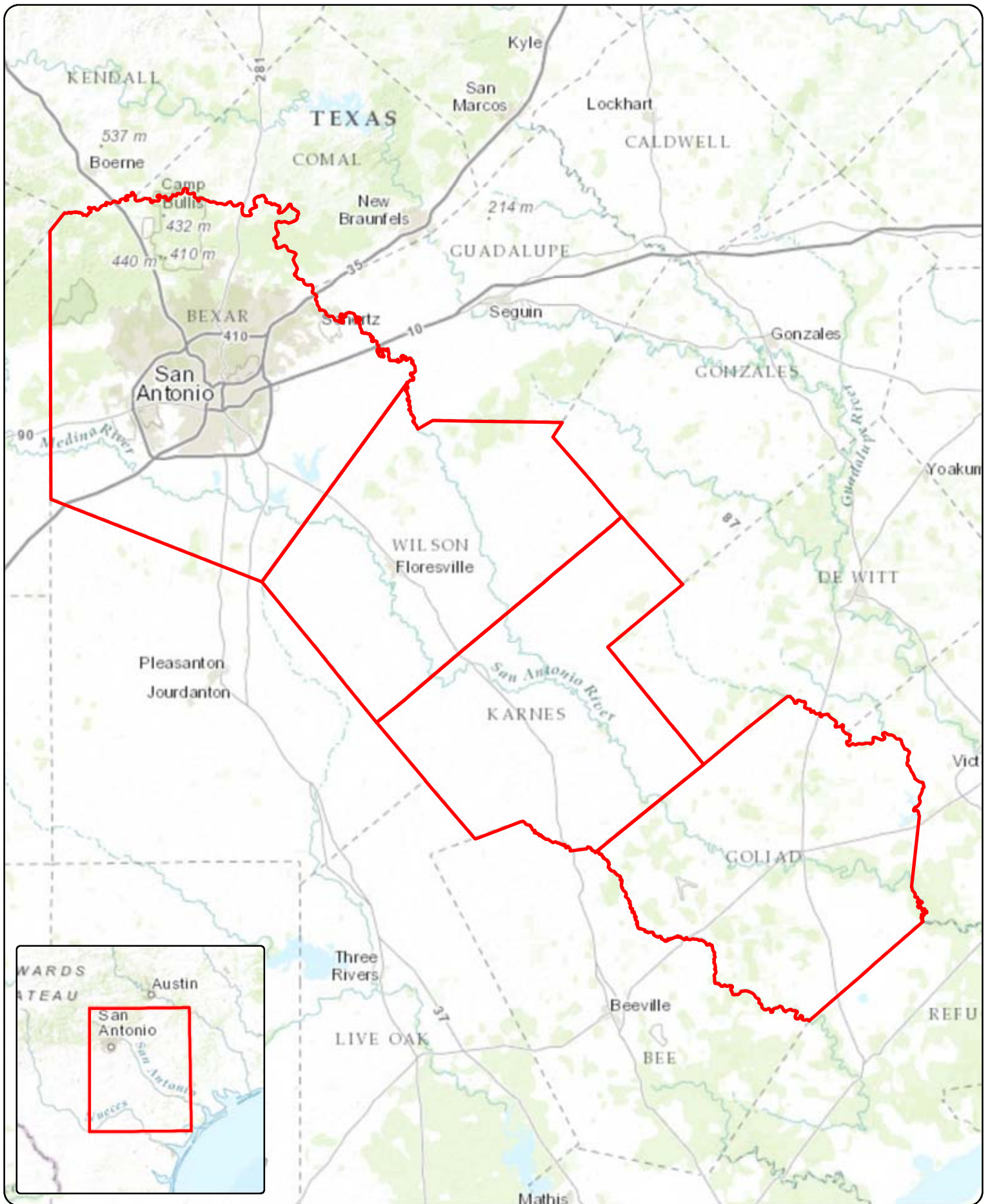
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 71,839	\$ 7,147	\$ -	\$ -	\$ -	\$ 78,986
Commodities	31,939	-	-	-	-	31,939
Contracts	39,041	-	-	-	-	39,041
<b>Total</b>	<b>\$ 142,819</b>	<b>\$ 7,147</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 149,966</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Stormwater Training and Tools **Project #** 00000514

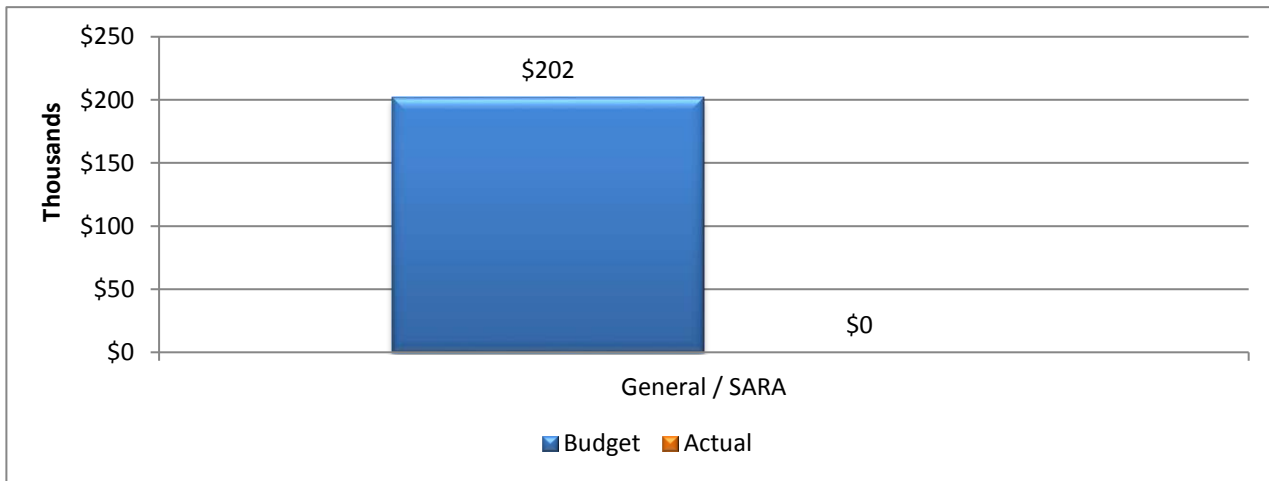
Project Start Date: 07/01/15 Total Project Budget: \$ 202,119  
 Project Finish Date: 06/30/16 Managing Department: Environmental Sciences

The River Authority promotes low impact development (LID) stormwater best management practices (BMPs) through LID training to targeted audiences and development of tools to guide and expedite LID design. Training assists government agencies, the private design and development community and staff to better design, construct, and maintain LID BMPs. Tools such as the LID Design Guidance Manual previously developed by the River Authority facilitate the LID design process.

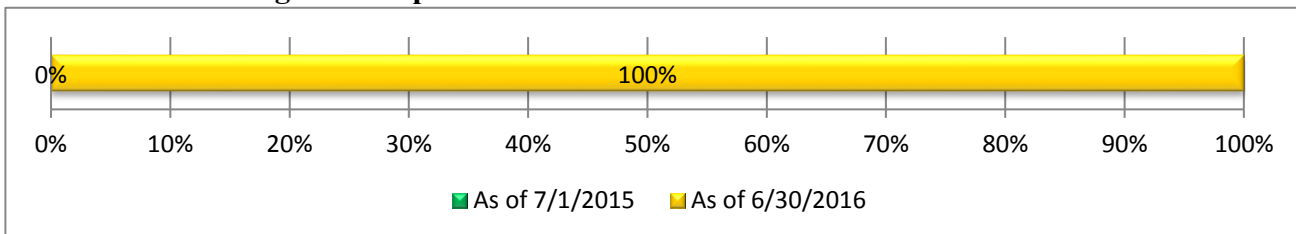
During FY 2015/16, funding will support development of a LID certification program to ensure design and installation of LID practices is consistent with design guidance in the LID manual. The need for a LID certification program for designers and installers has arisen from the stakeholder input process associated with SARA’s project to amend the City of San Antonio’s Unified Development Code (2015 UDC Amendment Project) to define and incentivize LID and natural channel design. In addition, funding will support tailored training for contractors and utility personnel and development of tools to improve design and evaluation of sustainable development.

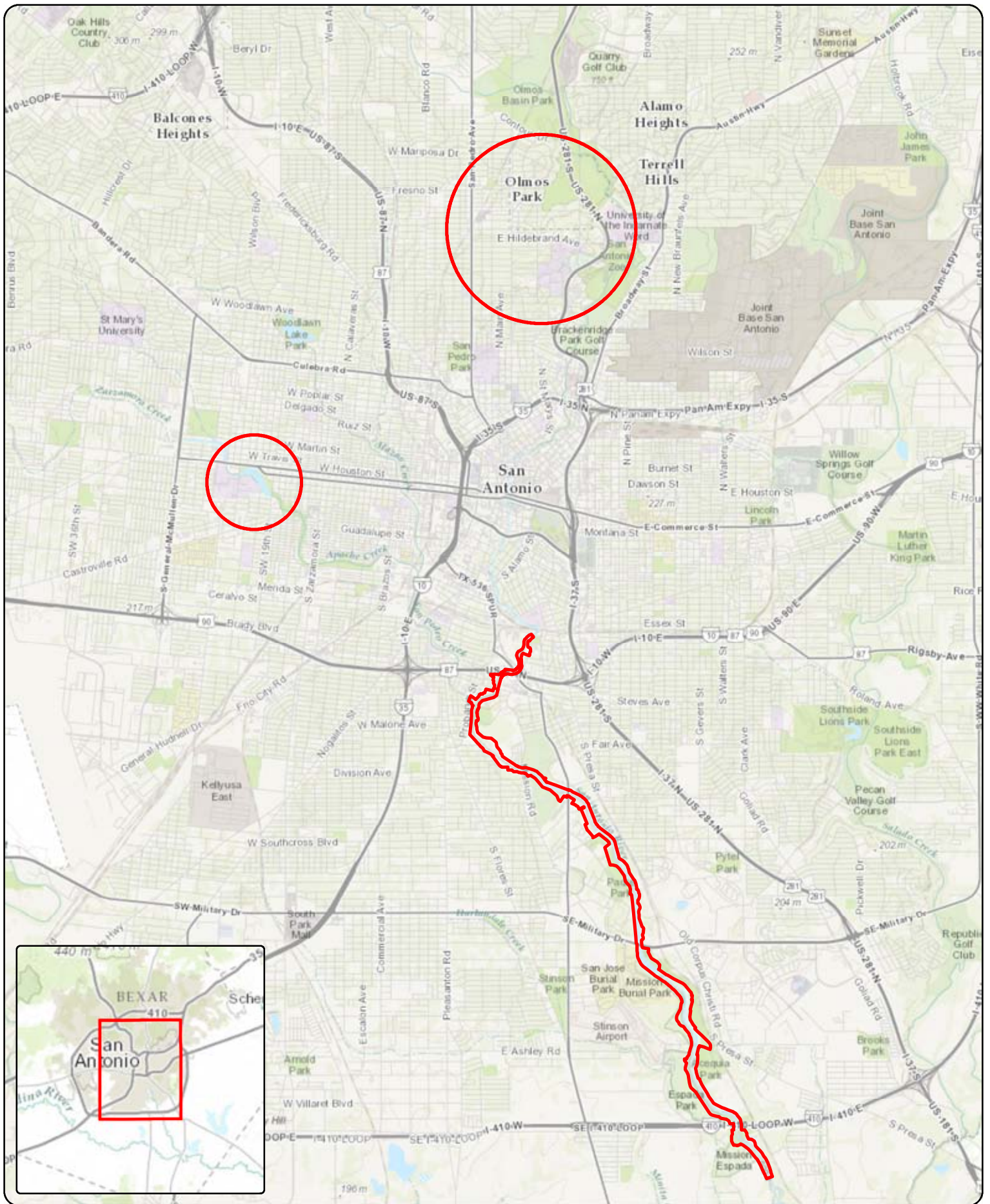
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 77,119	\$ -	\$ -	\$ 77,119
Commodities	-	6,000	-	-	6,000
Contracts	-	119,000	-	-	119,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 202,119</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 202,119</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Trash and Floatables Mitigation **Project #** 00000515

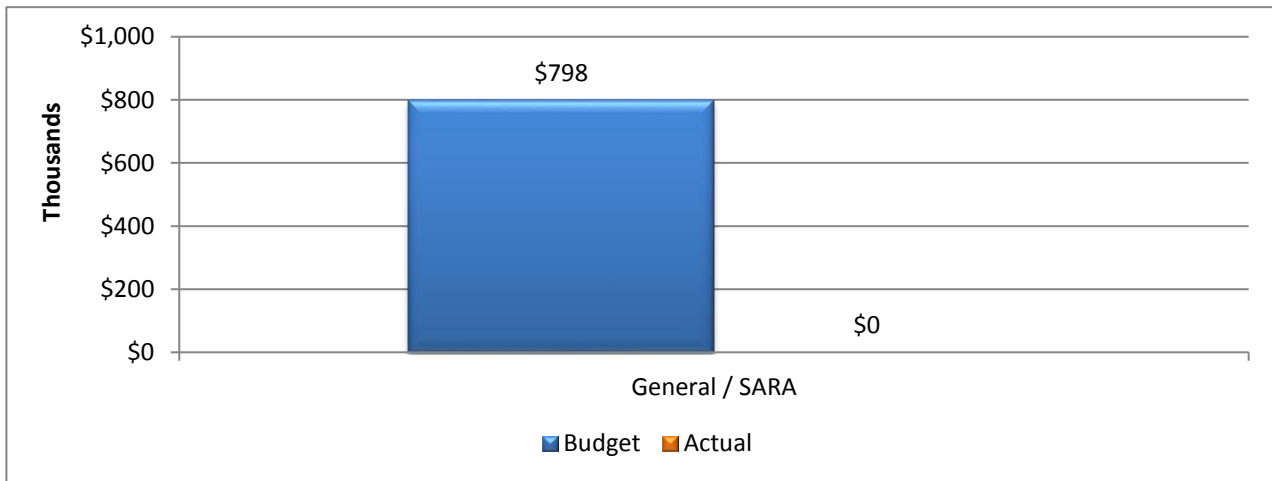
Project Start Date: 07/01/15 Total Project Budget: \$ 798,029  
 Project Finish Date: 12/30/16 Managing Department: Environmental Sciences

Trash and floatables are unsightly and require an extensive labor effort by government agency staff or local volunteers to remove by hand. Trash and floatables also have adverse impacts on aquatic and riparian habitats and impede recreational use of local parks and waterways. This study builds on a number of recent trash and floatable studies within the San Antonio River Basin and will result in the implementation of an in-stream trash collection system.

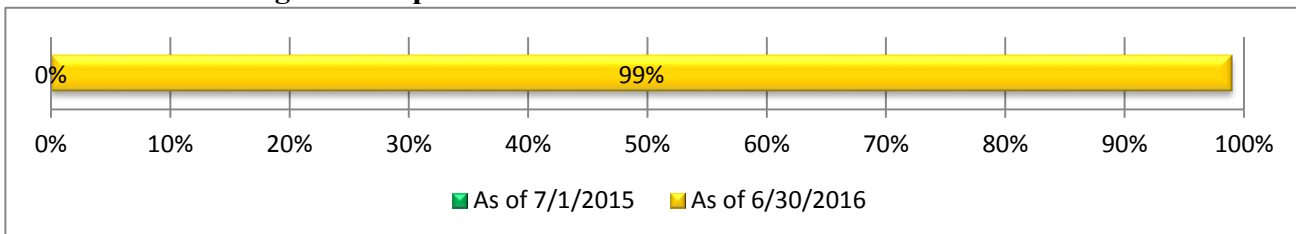
During FY 2015/16, the project will identify and prioritize areas of concern, recommend appropriate trash collection systems, and construct a trash collection system as appropriate.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 20,755	\$ 3,749	\$ -	\$ 24,504
Commodities	-	10,000	-	-	10,000
Contracts	-	763,525	-	-	763,525
<b>Total</b>	<b>\$ -</b>	<b>\$ 794,280</b>	<b>\$ 3,749</b>	<b>\$ -</b>	<b>\$ 798,029</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





SAN ANTONIO  

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RIVER AUTHORITY

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# Utilities Program

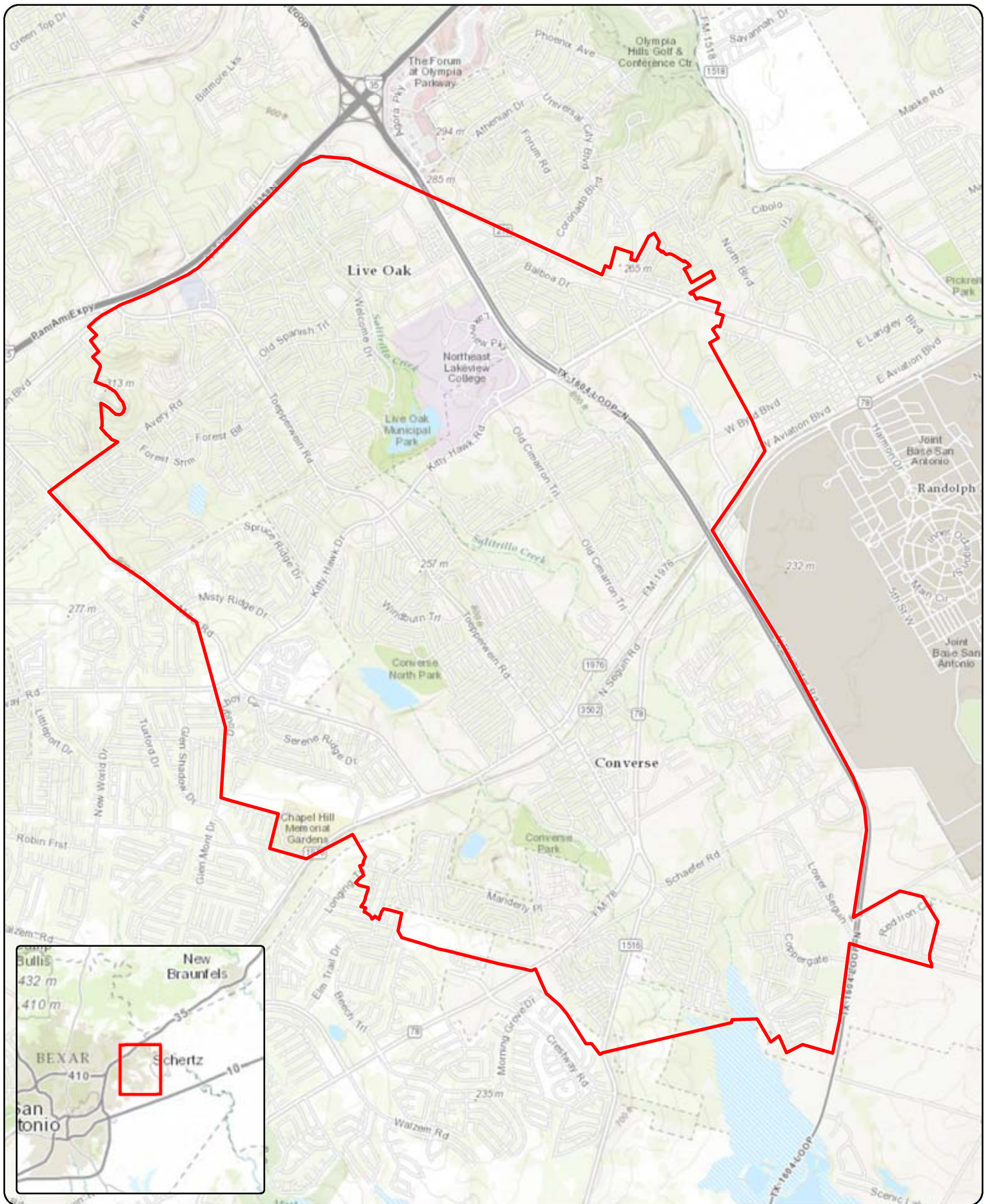


SAN ANTONIO  

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RIVER AUTHORITY

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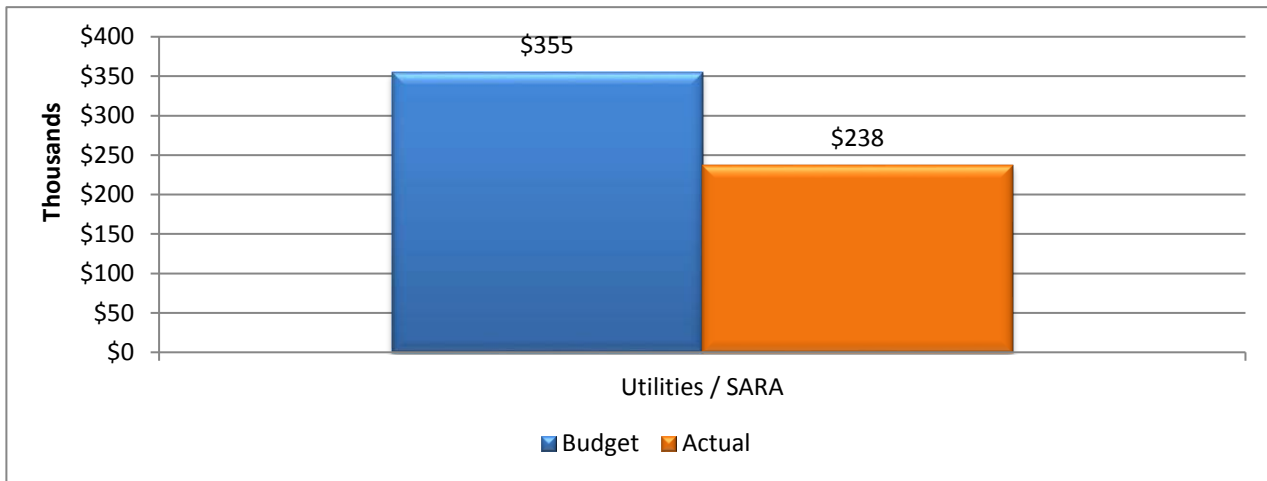
**Project Name:** City Metering for **Project #** 00000251  
**Salatrillo Wastewater Treatment Plant**  
 Project Start Date: 11/01/10 Total Project Budget: \$ 354,664  
 Project Finish Date: 06/30/17 Managing Department: Utilities

The City Metering project meters actual flows coming from each of the cities - Universal City, Live Oak and Converse - that San Antonio River Authority (SARA) serves, including the SARA facilities. The project has placed the meters in agreed upon locations that show not only flow rates but also any inflow or infiltration issues coming from the cities of Universal City, Live Oak and Converse and SARA facilities.

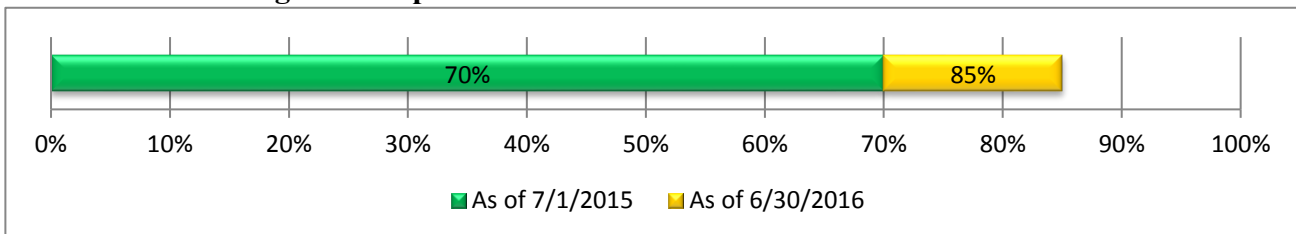
During FY 2015/16 and FY 2016/17 SARA will continue to monitor meters to show any inflow or infiltration problems coming from these cities and SARA facilities.

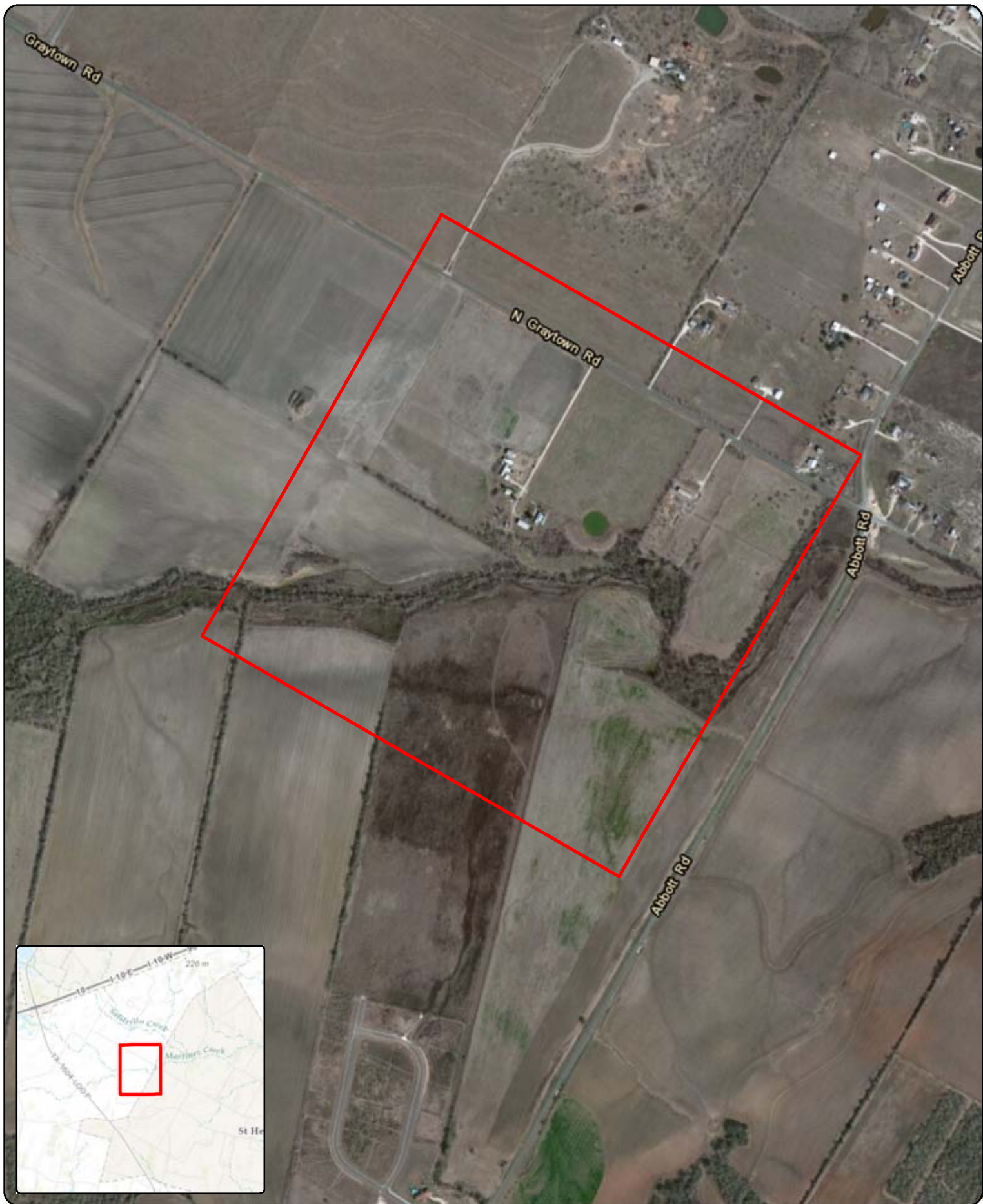
Expenditures	Estimate as of			Succeeding from	Total
	2014/15	2015/16	2016/17		
Personnel	\$ 57,722	\$ -	\$ -	\$ -	\$ 57,722
Commodities	-	-	-	-	-
Contracts	180,072	70,980	45,890	-	296,942
<b>Total</b>	<b>\$ 237,794</b>	<b>\$ 70,980</b>	<b>\$ 45,890</b>	<b>\$ -</b>	<b>\$ 354,664</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Graytown Road Wastewater System **Project #** 00000107

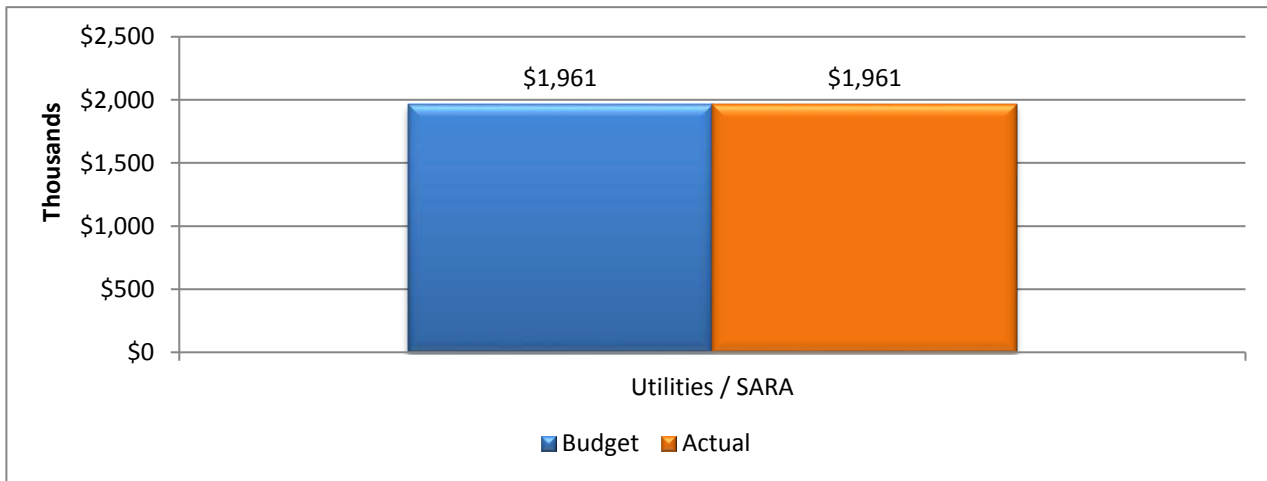
Project Start Date: 11/16/06 Total Project Budget: \$ 1,961,343  
 Project Finish Date: 06/30/20 Managing Department: Utilities

As development in Bexar County expands east, the San Antonio River Authority continues to receive requests for sewer service in the Martinez III and Graytown Road service areas. The demand has now reached a point where it is advantageous to being the process to design and construct a regional treatment plant in the area. Through a design/build agreement between the River Authority and M4 LTD, the River Authority has constructed segments 1-6 of the Wastewater Collection system. In addition, segments 11-12 (or Phase III) were constructed in FY 2013/14.

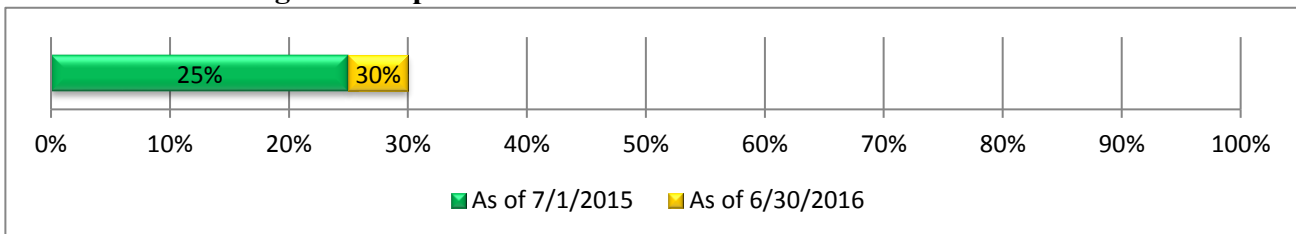
For the FY 2015/16, Watershed Engineering staff has evaluated alternatives for treating wastewater generated in Segments 3-6 of the system and has determined that pump and hauling the minimal flow for these segments is the most cost effective measure at this time.

Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 695,019	\$ -	\$ -	\$ -	\$ -	\$ 695,019
Commodities	93,470	-	-	-	-	93,470
Contracts	1,172,854	-	-	-	-	1,172,854
<b>Total</b>	<b>\$ 1,961,343</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,961,343</b>

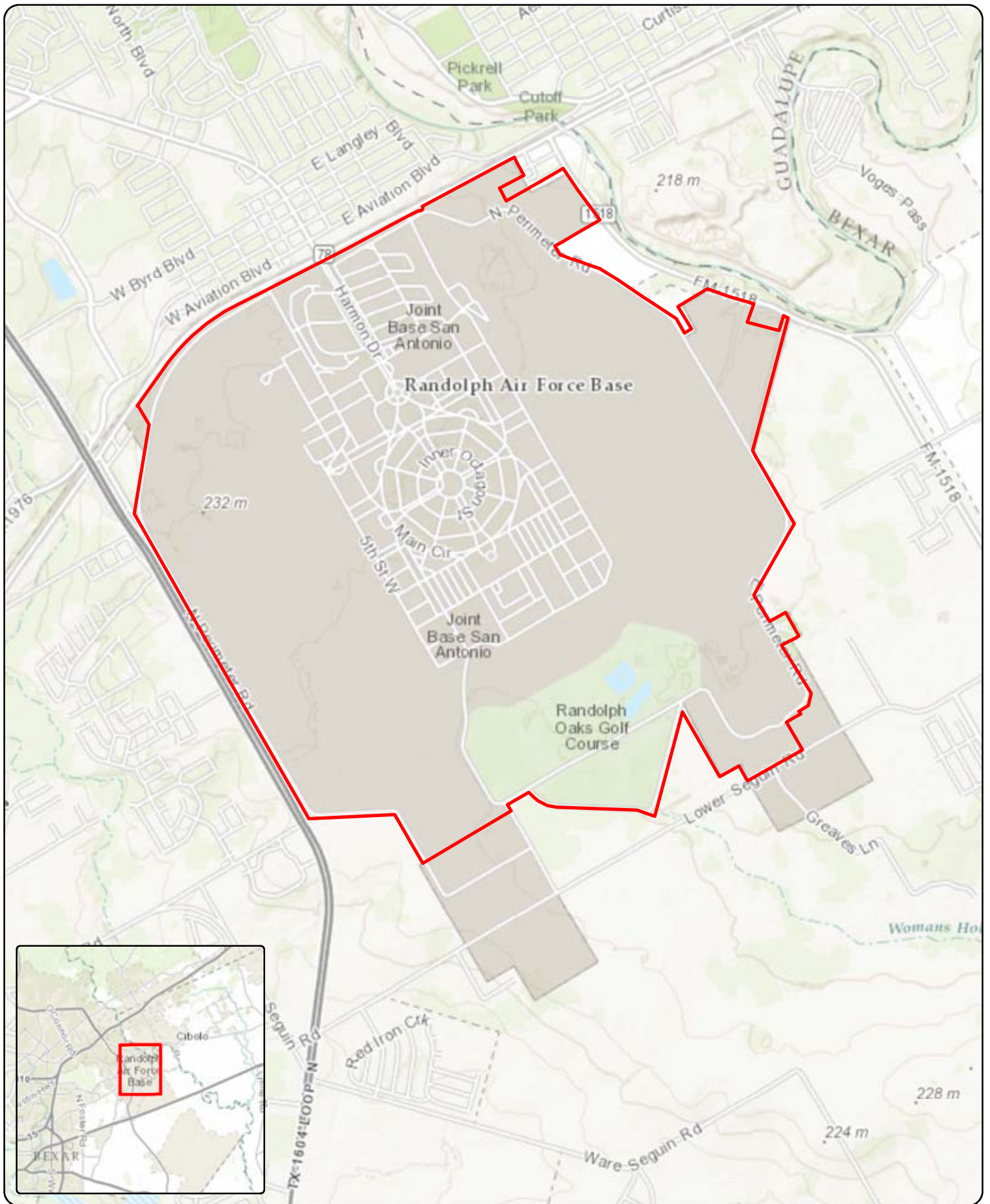
**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name: Randolph Air Force Base Year 13**

**Project # 00000488**

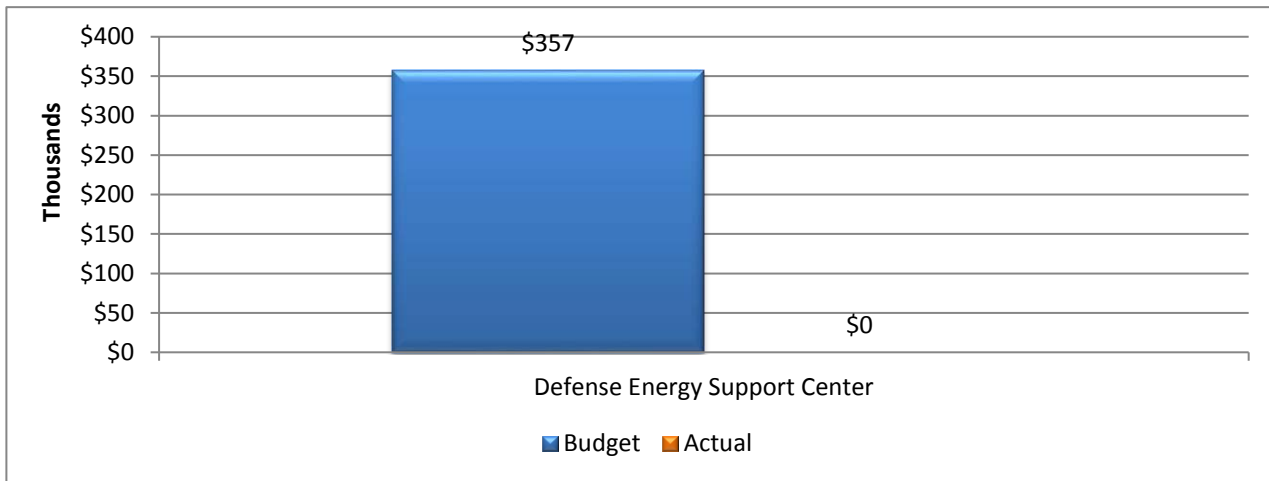
Project Start Date: 07/01/15 Total Project Budget: \$ 357,300  
 Project Finish Date: 06/30/16 Managing Department: Utilities

This project consists of rehabilitating portions of the Randolph Air Force Base (RAFB) collection system that are in great need of rehabilitation and is part of a larger 50 year plan to complete necessary improvements. The project involves re-assessing the sewer lines by Closed Circuit Television (CCTV) to determine lateral locations which are in poor condition, determining the best type of rehabilitation, and completing the needed improvements.

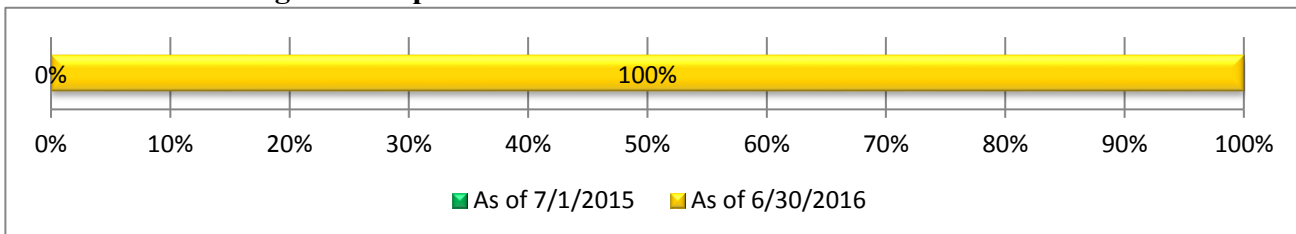
This project is capturing the activity that is scheduled to occur in FY 2015/16, year 13 of the 50 year plan. Activities are listed in the renewal and replacement schedule approved by RAFB and the Air Force Contracting division. For FY 2015/16, six projects for unique segments of the base have been submitted for approval.

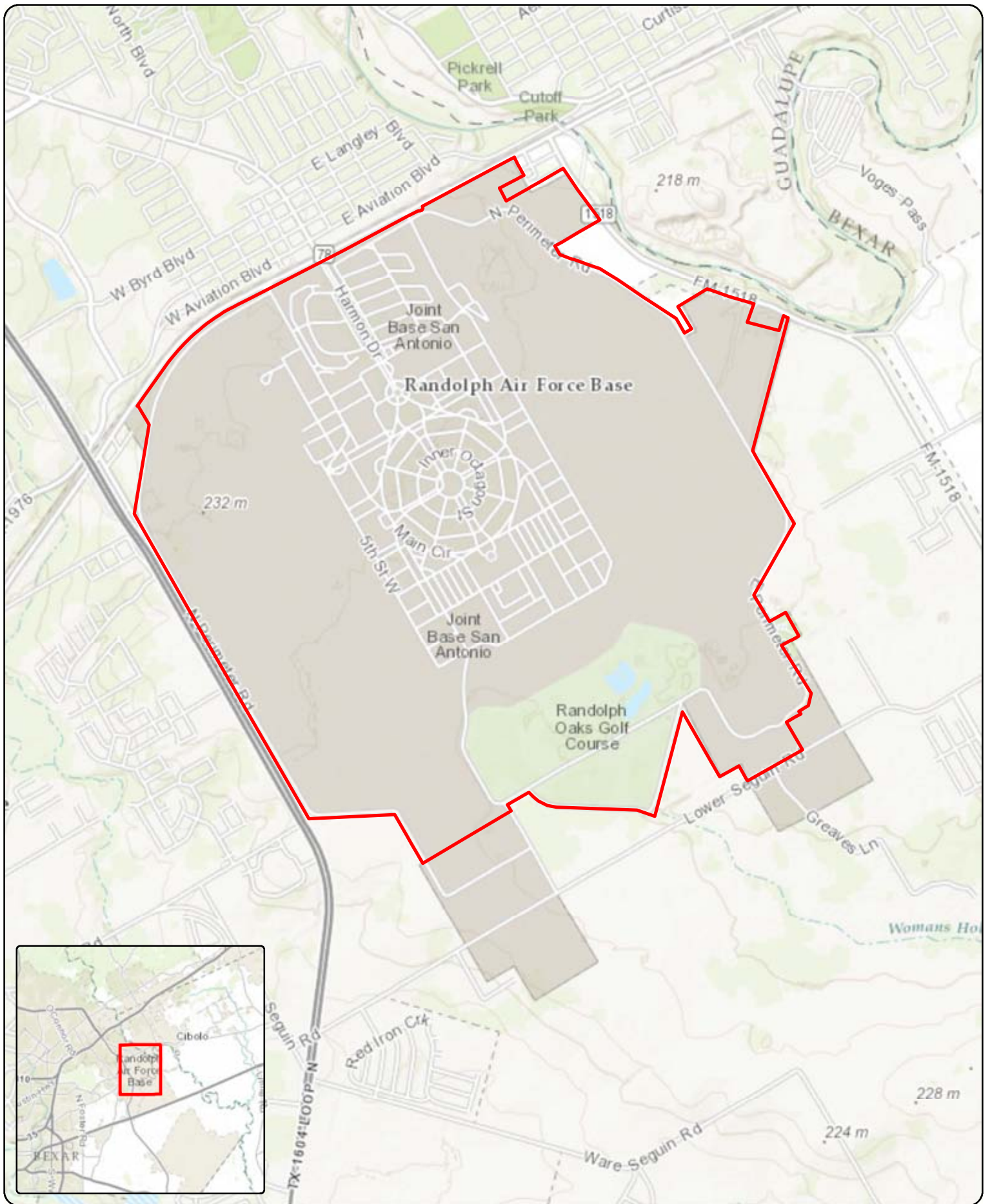
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	-	-	-	-	-	-
Contracts	-	357,300	-	-	-	357,300
<b>Total</b>	<b>\$ -</b>	<b>\$ 357,300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 357,300</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Randolph Air Force Base Years 14 - 50      **Project #** 00009998

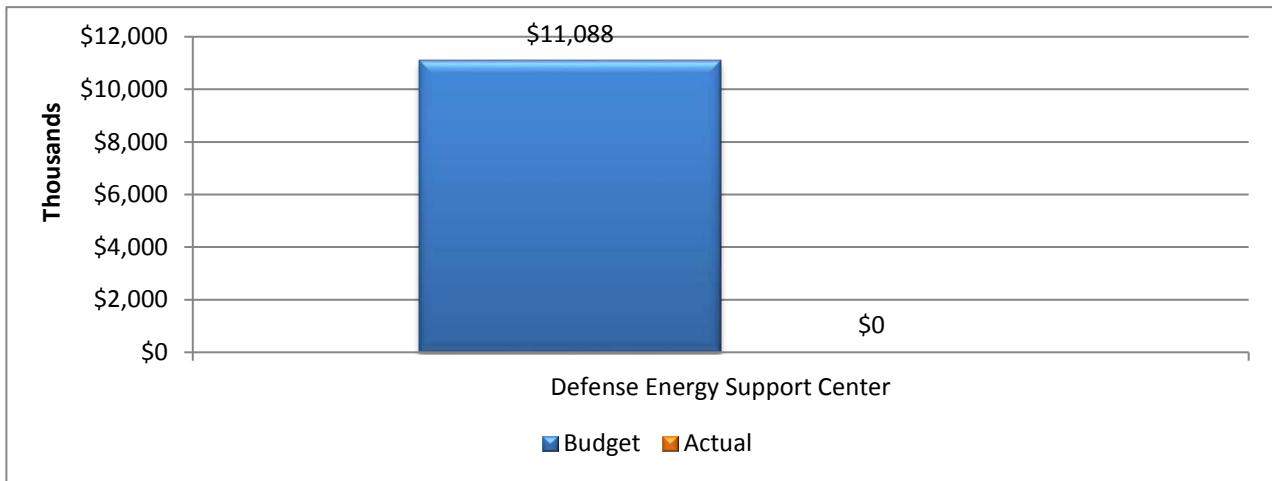
Project Start Date: 07/01/03      Total Project Budget: \$ 11,088,302  
 Project Finish Date: 07/01/52      Managing Department: Utilities

This project consists of rehabilitating portions of the Randolph Air Force Base (RAFB) collection system that are in great need of rehabilitation and is part of a larger 50 year plan to complete necessary improvements. The project involves re-assessing the sewer lines by Closed Circuit Television (CCTV) to determine lateral locations which are in poor condition, determining the best type of rehabilitation, and completing the needed improvements.

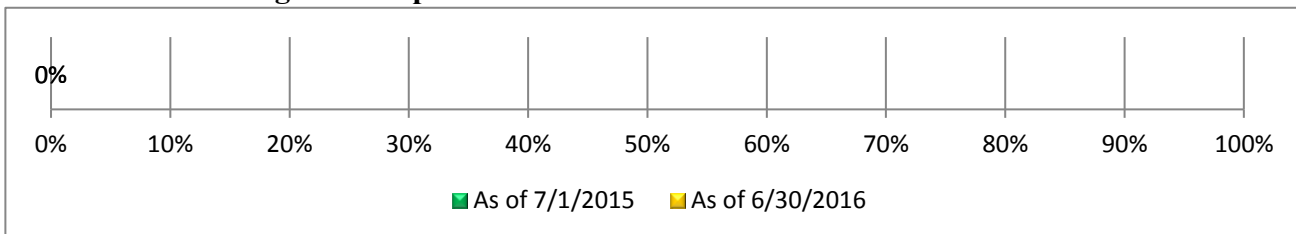
Annually, SARA will complete projects identified on the 50 year plan. Projects are prioritized based on current conditions of the infrastructure.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	-	-	-	-	-
Contracts	-	-	520,366	10,567,936	11,088,302
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 520,366</b>	<b>\$ 10,567,936</b>	<b>\$ 11,088,302</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Rehabilitation Upper Martinez Clarifier **Project #** 00000363

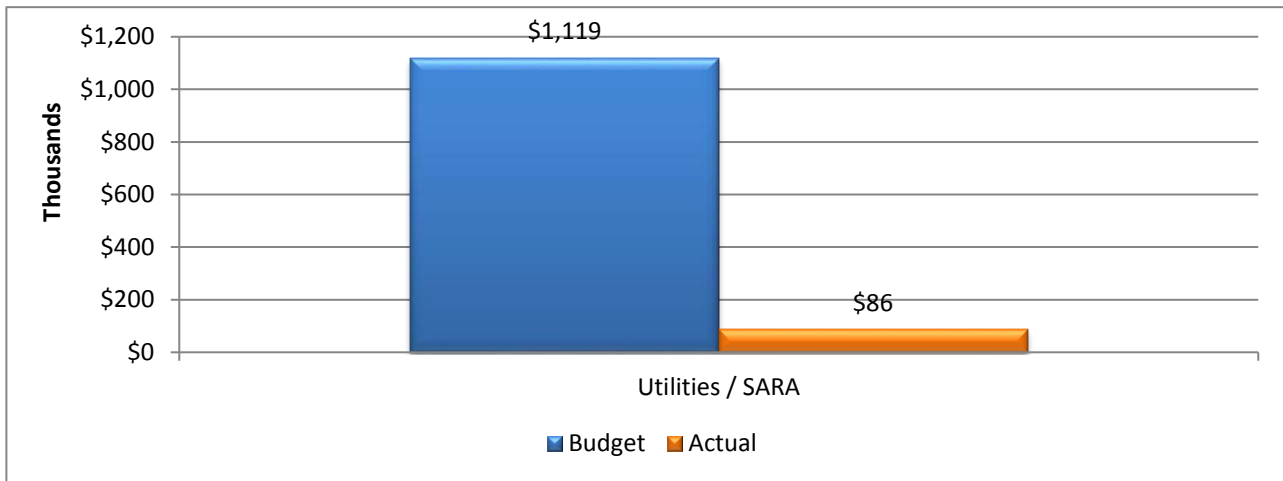
Project Start Date: 10/09/13 Total Project Budget: \$ 1,118,500  
 Project Finish Date: 02/28/16 Managing Department: Utilities

This project evaluates treatment technologies, selects an appropriate engineered solution, designs modifications for project integration, procures new equipment, directs and manages the construction at the plant site and finally provide training for San Antonio River Authority staff to efficiently operate the equipment.

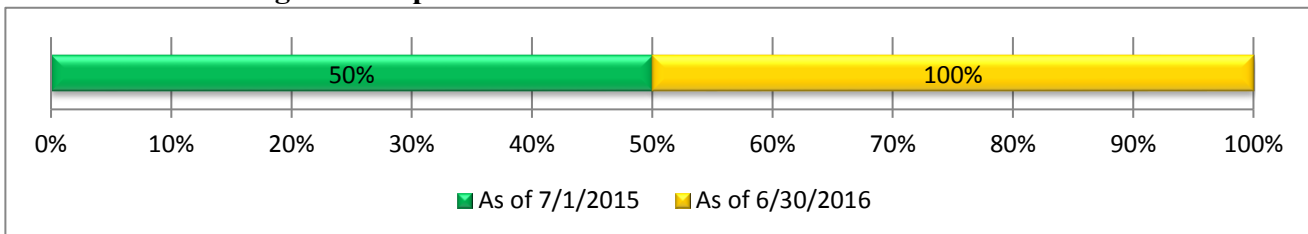
The project has been designed, bid and is currently under construction. In FY 2015/16 construction of the clarifier and staff training will be completed.

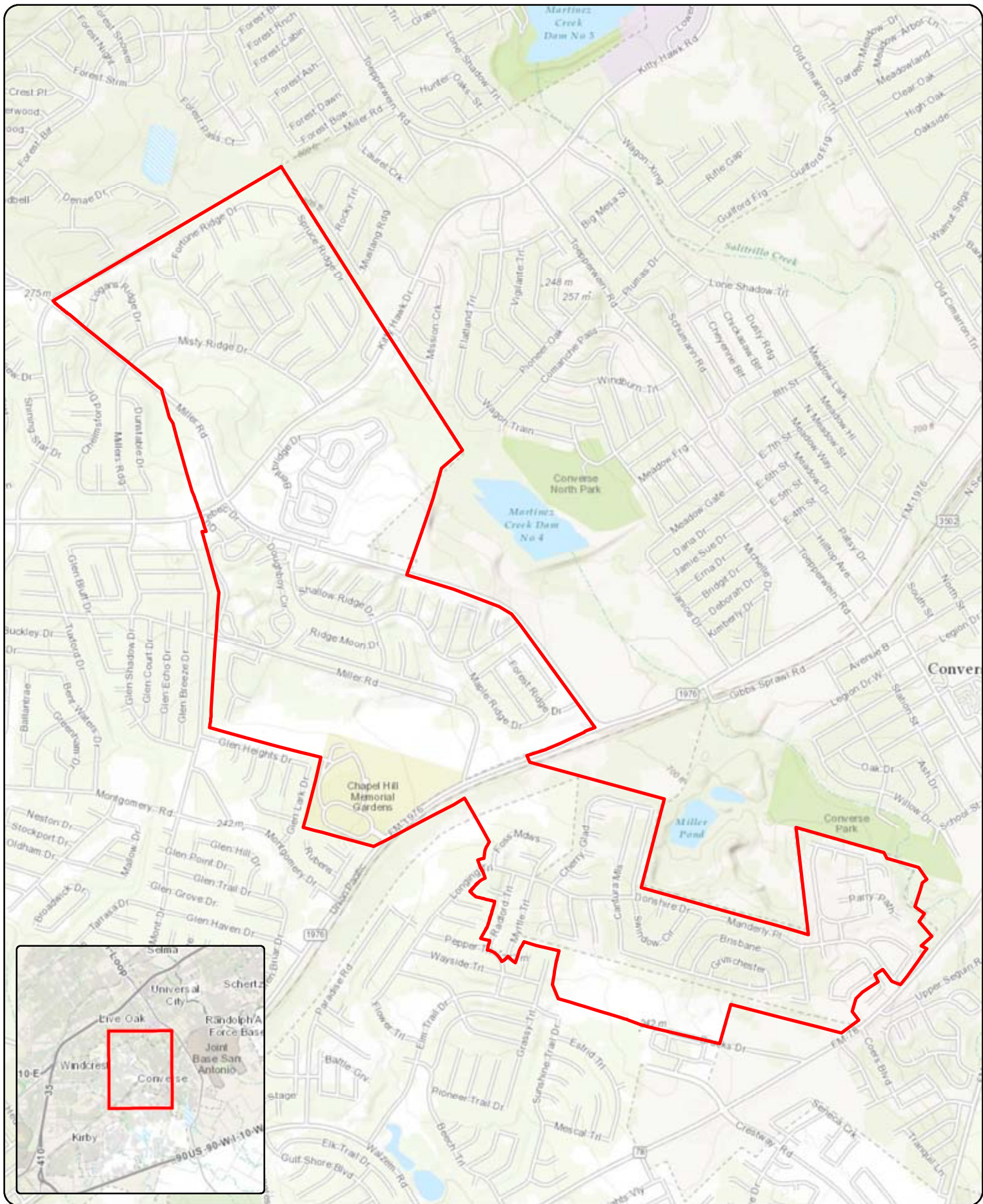
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 35,266	\$ -	\$ -	\$ -		\$ 35,266
Commodities	-	-	-	-		-
Contracts	50,652	1,032,582	-	-		1,083,234
<b>Total</b>	<b>\$ 85,918</b>	<b>\$ 1,032,582</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ 1,118,500</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





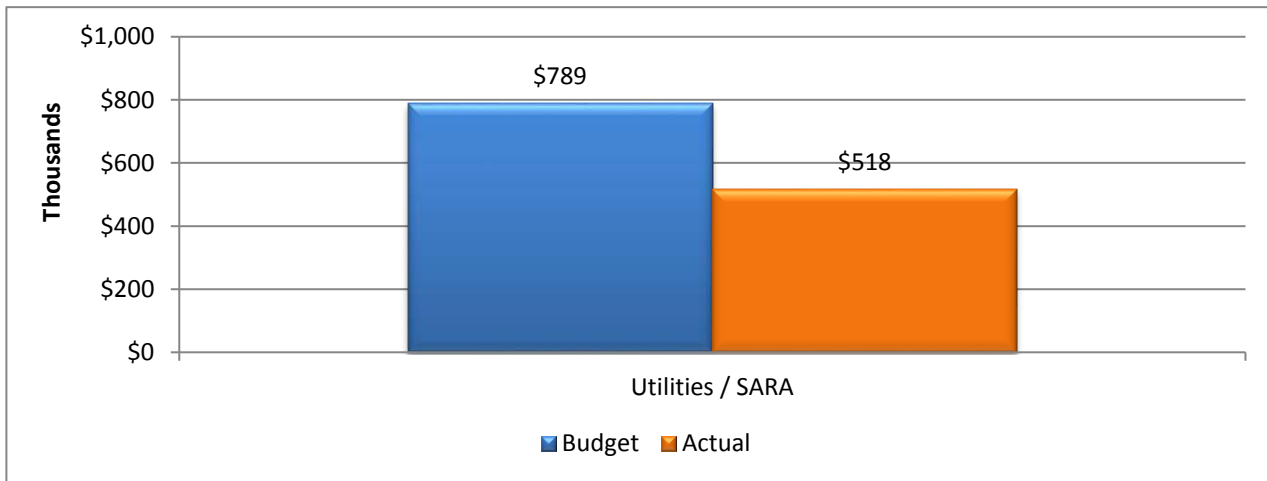
**Project Name:** Salatrillo Collection Wholesale System **Project #** 00000314  
**- Inflow and Infiltration**  
 Project Start Date: 05/04/11 Total Project Budget: \$ 789,173  
 Project Finish Date: 06/30/21 Managing Department: Utilities

The project repairs defective manholes and defective lines in the Salatrillo Wholesale System according to a 1 to 5 rating, with 5 being in the worst condition. Correction of 5-rated lines and manholes reduces inflow and system infiltration (I/I) in identified areas of the system to help reduce or eliminate sanitary sewer overflows. In addition, a reduction of flow to the treatment plants postpones the need to add plant capacity through expansion. Repairs throughout the whole system will be done over a 10 year period based on an Infra Matrix assessment of the system.

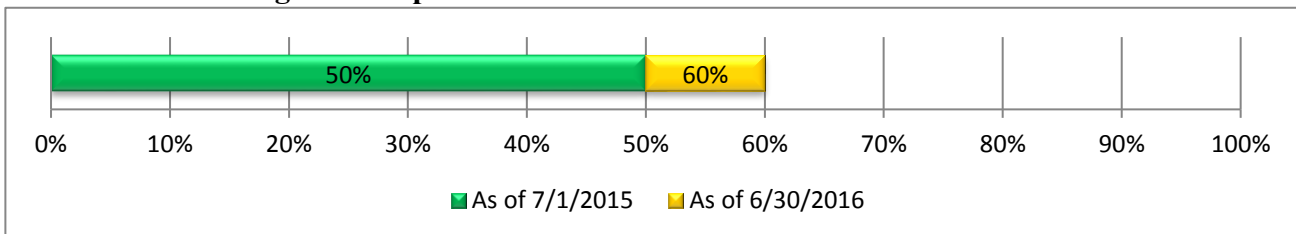
This year's project funds will repair 10 percent of the defective lines and manholes, which are all 4-rated.

Expenditures	Estimate as of			Succeeding from	Total
	2014/15	2015/16	2016/17		
Personnel	\$ 3,962	\$ -	\$ -	\$ -	\$ 3,962
Commodities	-	-	-	-	-
Contracts	514,082	271,129	-	-	785,211
<b>Total</b>	<b>\$ 518,044</b>	<b>\$ 271,129</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 789,173</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







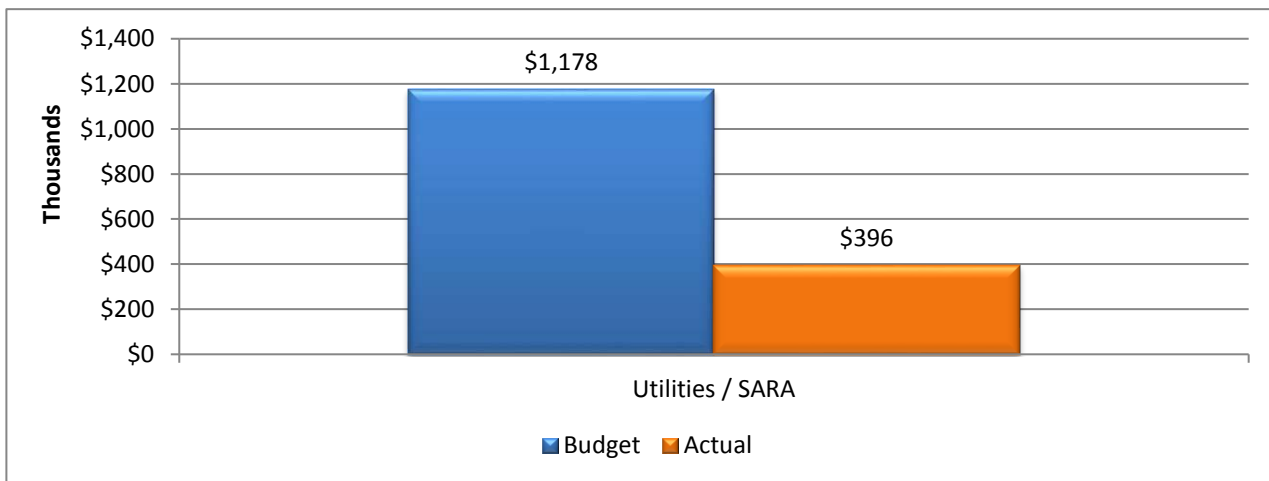
**Project Name:** Salatrillo Wastewater Treatment Plant **Project #** 00000441  
**Screw Pump**  
**Project Start Date:** 01/14/14 **Total Project Budget:** \$ 1,178,473  
**Project Finish Date:** 07/16/15 **Managing Department:**

This project replaces an existing, failing screw pump and adds an additional screw pump at the Salatrillo Wastewater Treatment Plant. This project involves removal of a 54-inch existing screw pump and addition of a new 54-inch screw pump which involves structural, electrical and instrumentation and control modifications. This is an emergency project that required an immediate start due to one existing pump that failed. The wastewater treatment plant is operating on one functional screw pump and rented backup pumps while the failed pump is being replaced.

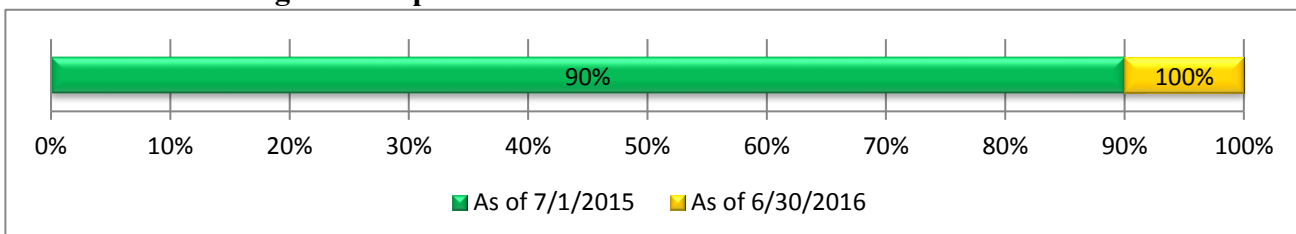
Construction of the pumps is substantially complete. Project closing is taking place and is on track for final completion in FY 2015/16.

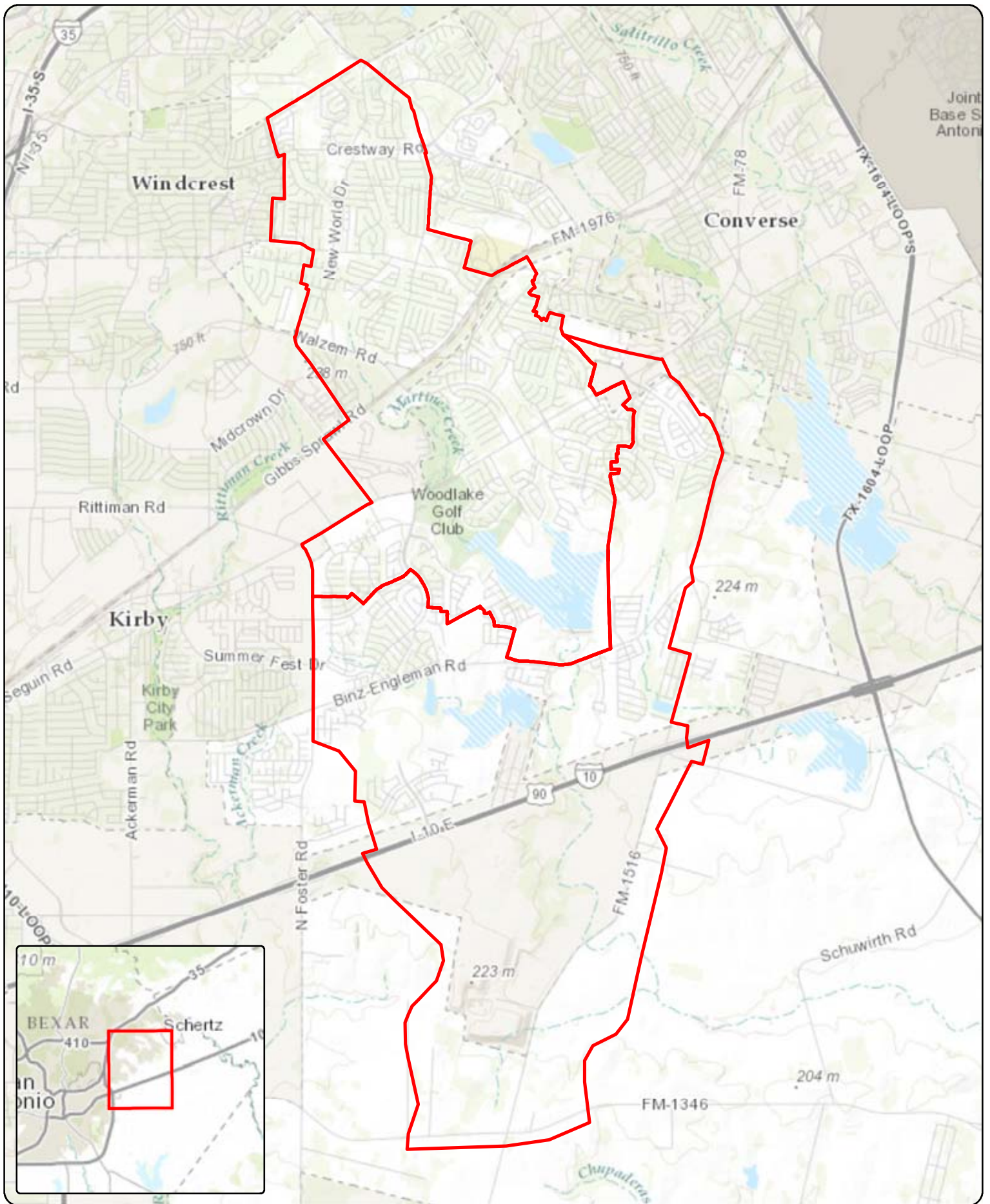
<b>Expenditures</b>	Estimate as of			Succeeding	<u>Total</u>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>from 2017/18</u>	
Personnel	\$ 19,875	\$ -	\$ -	\$ -	\$ 19,875
Commodities		-	-	-	-
Contracts	375,685	782,913	-	-	1,158,598
<b>Total</b>	<b>\$ 395,560</b>	<b>\$ 782,913</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,178,473</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





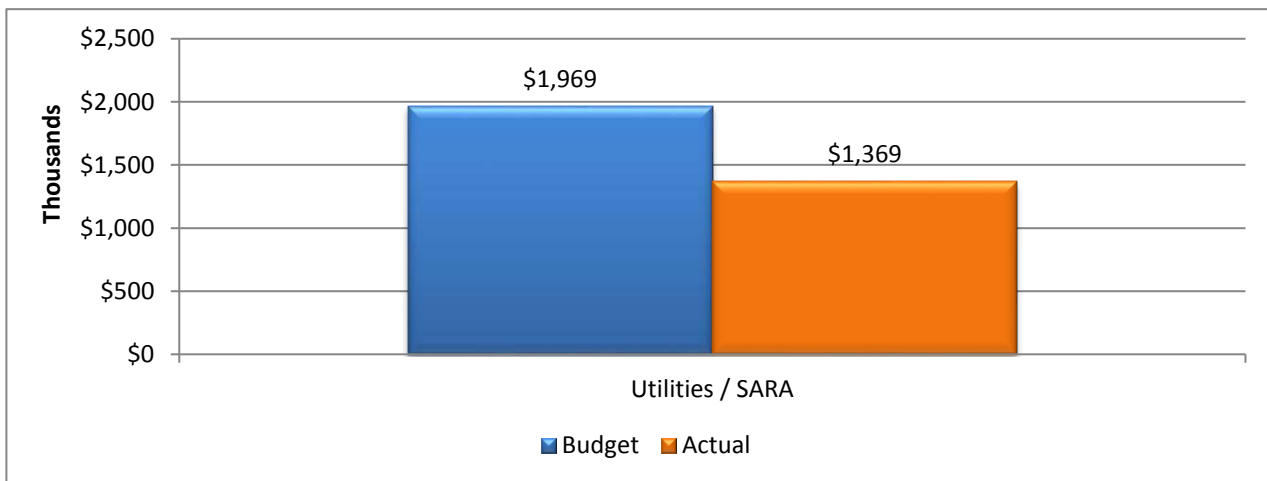
**Project Name:** SARA Wastewater Collection System - Inflow and Infiltration **Project #** 00000315  
**Project Start Date:** 05/04/11 **Total Project Budget:** \$ 1,969,206  
**Project Finish Date:** 06/30/21 **Managing Department:** Utilities

This project is focused on repairing defective manholes and lines in the San Antonio River Authority (SARA) Wastewater System according to a 1 to 5 rating, with 5 being in the worst condition. Correction of 5-rated lines and manholes will reduce inflow and infiltration (I/I) in identified areas of the system to help reduce or eliminate sanitary sewer overflows. In addition, a reduction of flow to the treatment plants postpones the need to add plant capacity through expansion. Repairs throughout the whole system will be done over a 10-year period based on an Infra Matrix report on the assessment of the system.

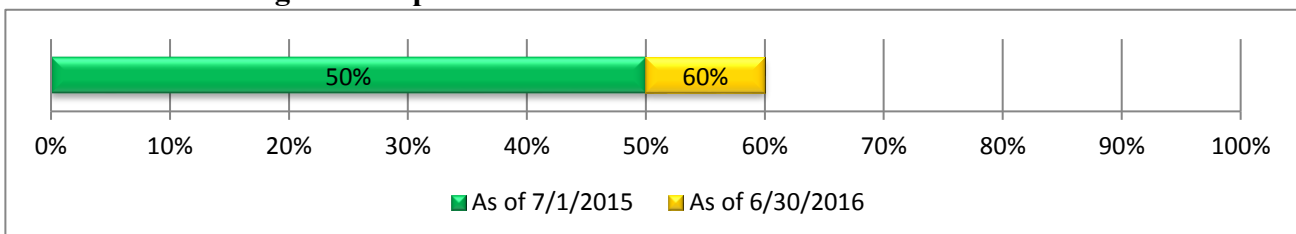
During this FY 2015/16, the project will repair lines and manholes, which are rated numbers 3 through 5.

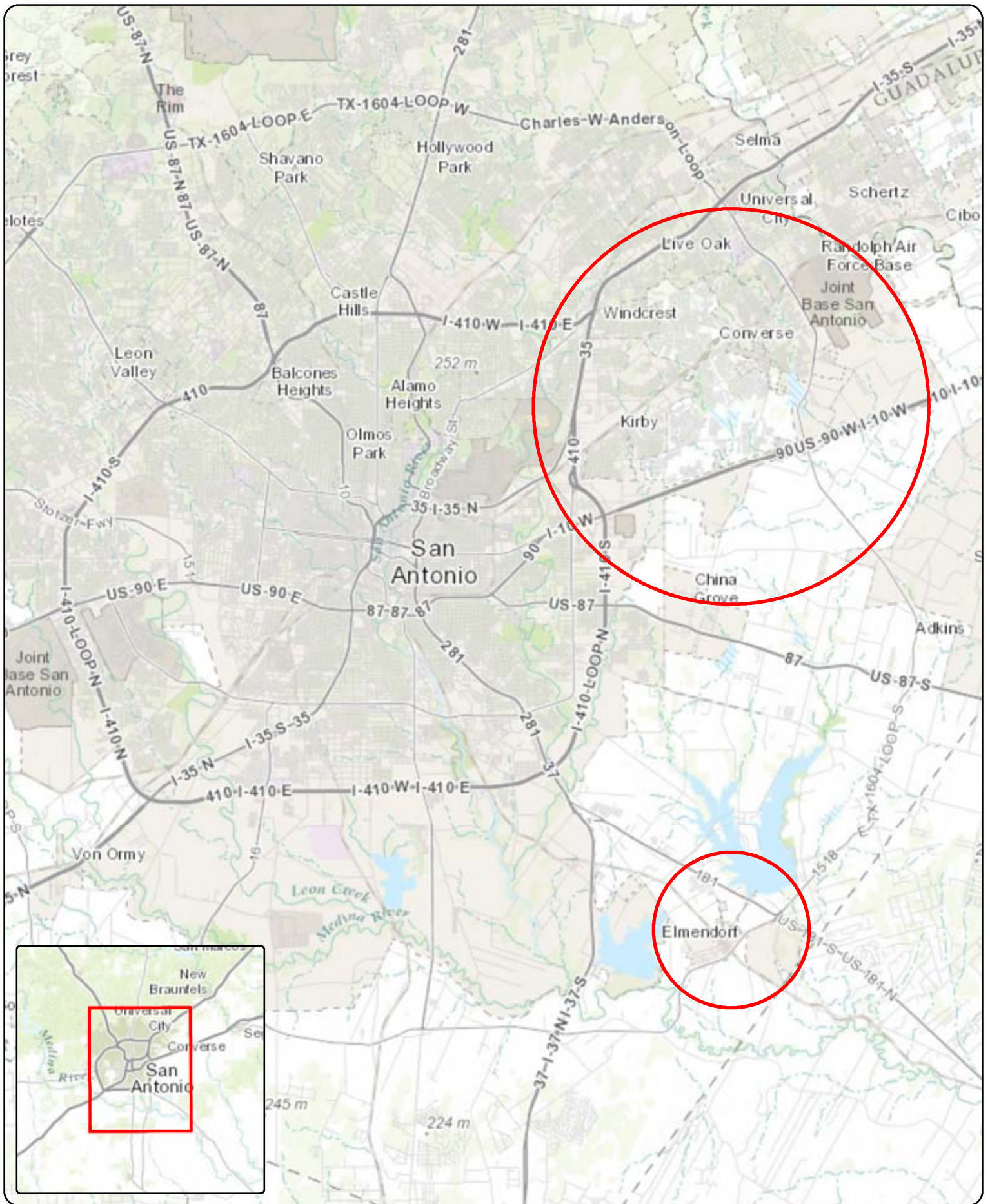
<b>Expenditures</b>	Estimate as of			Succeeding from	<b>Total</b>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>	
Personnel	\$ 13,116	\$ 6,853	\$ -	\$ -	\$ 19,969
Commodities	-	-	-	-	-
Contracts	1,356,090	593,147	-	-	1,949,237
<b>Total</b>	<b>\$ 1,369,206</b>	<b>\$ 600,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,969,206</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





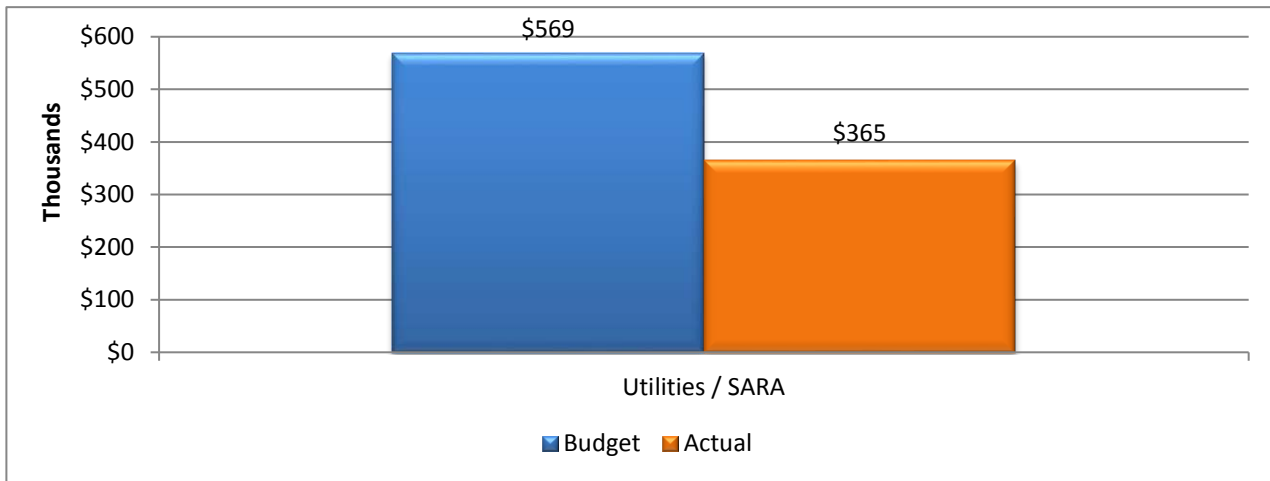
**Project Name:** Utilities Supervisory Control and Data Acquisition (SCADA) System **Project #** 00000101  
**Project Start Date:** 04/02/07 **Total Project Budget:** \$ 568,760  
**Project Finish Date:** 06/30/16 **Managing Department:** Utilities

The Supervisory Control and Data Acquisition (SCADA) program provides communications and controls for the River Authority wastewater systems from one central computer system. This application helps comply with homeland security requirements within the region; it also provides a real time monitoring and control system for SARA utility operators to improve operating efficiency.

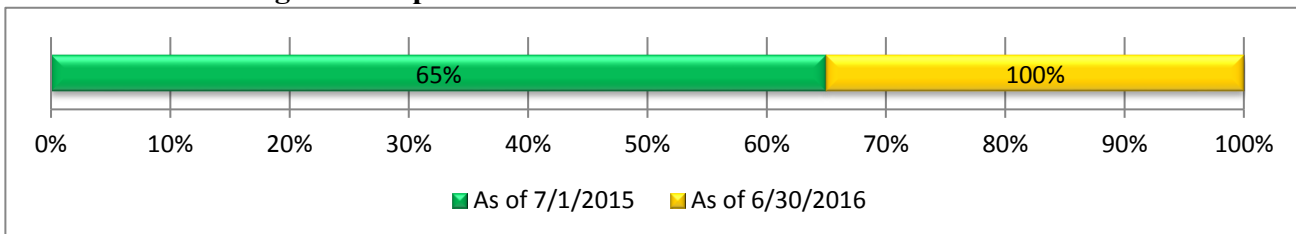
During the last fiscal year (2014/15), the remaining lift stations and package treatment plants were retrofitted into the SARA SCADA system. For FY 2015/16, work will continue to enhance capabilities and bring additional plant operations online to the SCADA program.

Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	-	-	-	-	-	-
Contracts	364,946	203,814	-	-	-	568,760
<b>Total</b>	<b>\$ 364,946</b>	<b>\$ 203,814</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 568,760</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





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RIVER AUTHORITY

Leaders in Watershed Solutions

# **Watershed Modeling Studies and Planning Program**



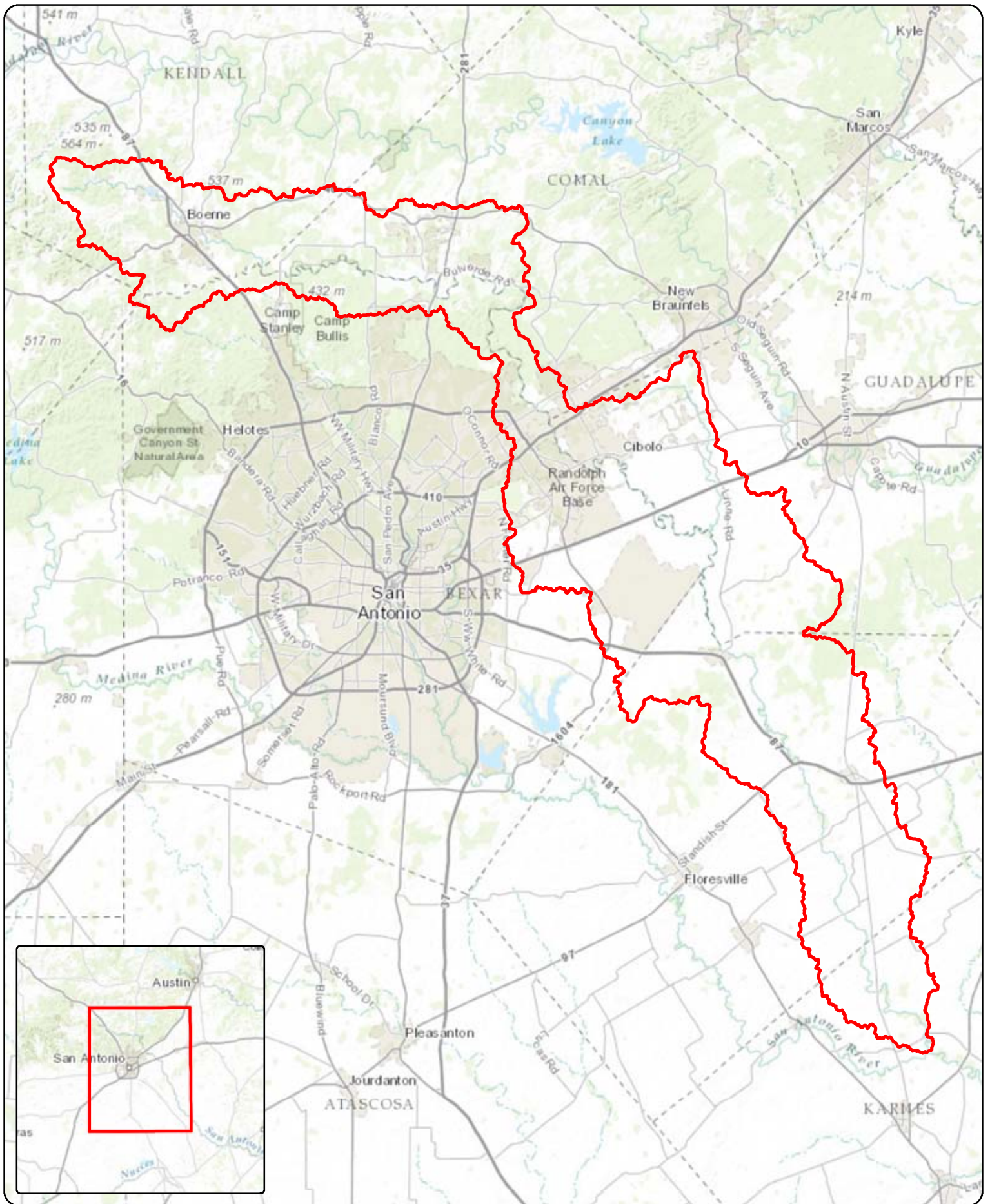


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**Project Name:** Cibolo Creek Holistic Watershed Master Plan **Project #** 00000305

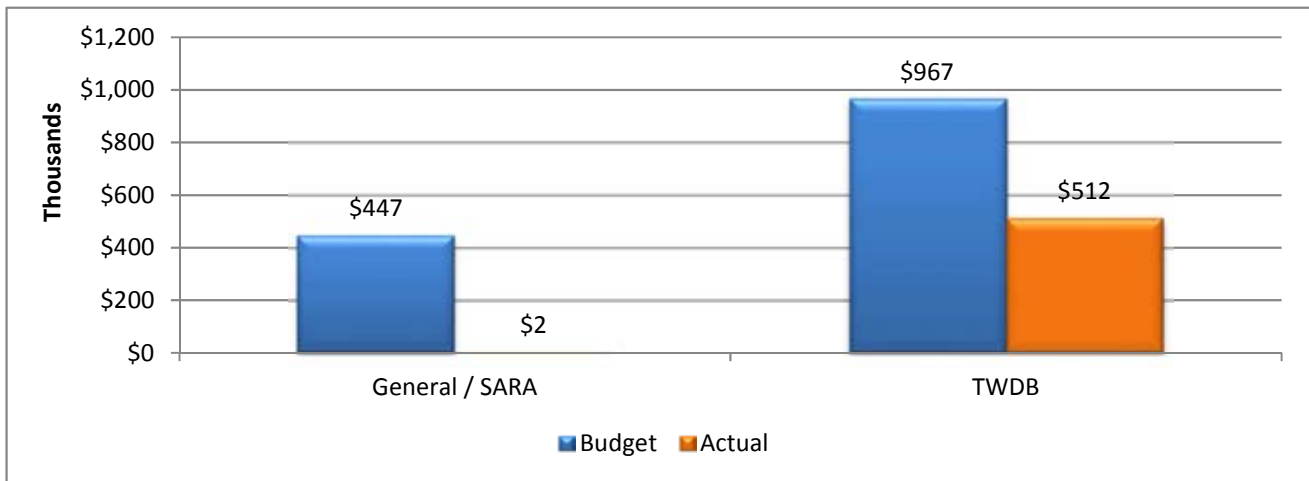
Project Start Date: 07/01/13 Total Project Budget: \$ 1,413,634  
 Project Finish Date: 03/31/17 Managing Department: Watershed Engineering

This project develops a holistic Watershed Master Plan (WSMP) 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, 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.

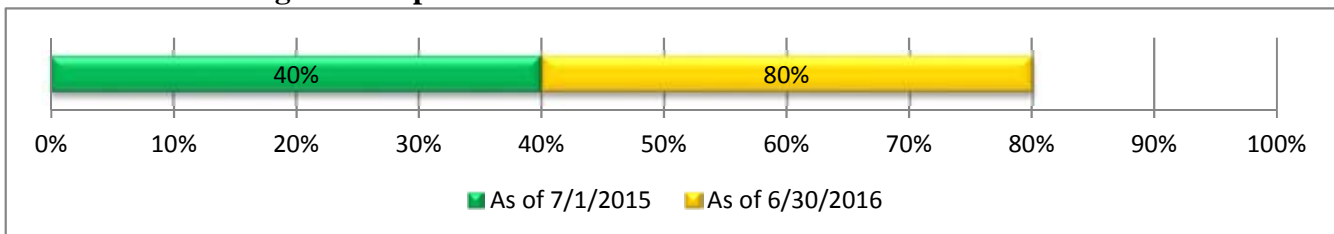
The project funding for FY 2015/16 will support flood modeling, assessment of stream restoration potential, water quality modeling, identification of risk centers, and development of alternative solutions.

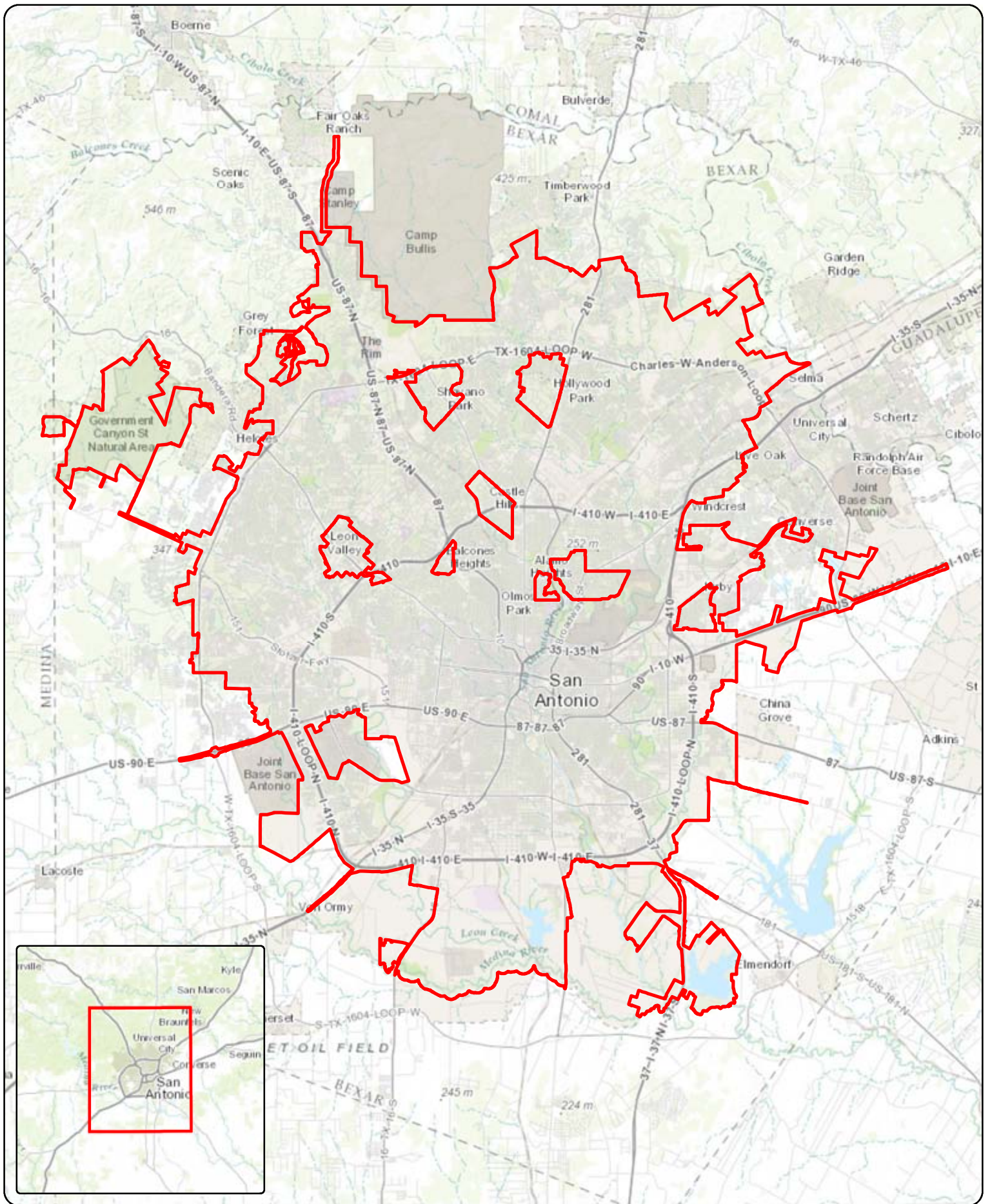
<b>Expenditures</b>	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 32,802	\$ 23,224	\$ 6,695	\$ -	\$ 62,721
Commodities	327	-	-	-	327
Contracts	<del>480,486</del>	415,529		1,350,586	
<b>Total</b>	<b>\$ <del>473,795</del></b>	<b>\$ 422,224</b>	<b>\$</b>	<b>\$ 1,413,634</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**




**Estimated Percentage of Completion:**





**Project Name:**  
City of San Antonio Drainage Master Plan

 Project Service Area and/or Boundaries



0 3.5 7 Miles

**Project Name:** City of San Antonio Drainage Master Plan **Project #** 00000478

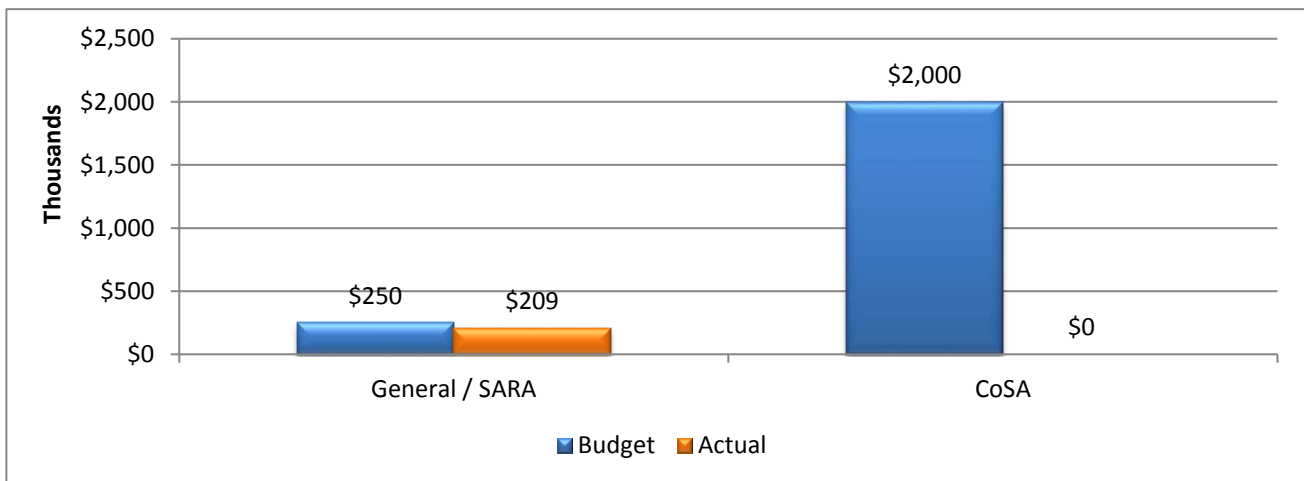
Project Start Date: 03/05/15 Total Project Budget: \$ 2,250,000  
 Project Finish Date: 07/01/16 Managing Department: Watershed Engineering

The San Antonio River Authority (SARA) is developing a Drainage Master Plan for the major watersheds within the San Antonio city limits, to include Leon Creek, Salado Creek, and Upper San Antonio River. The developed Drainage Master Plan utilizes the most updated hydraulic and hydrologic models, floodplain maps and water quality data and modeling to identify and prioritize site specific local capital projects, applications for sustainable stormwater practices and other activities, to reduce the risk to life and property from flooding and mitigate the impact of stormwater on water quality and stream degradation.

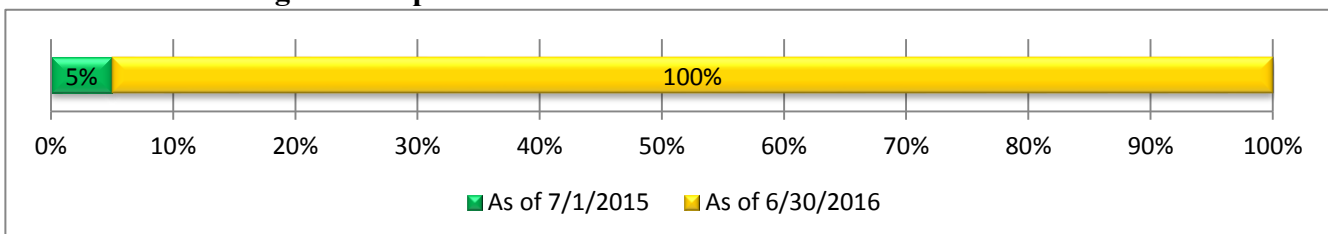
In FY 2015/16, this project will continue to utilize a combination of SARA labor resources and contracted consultants to execute the projects completion.

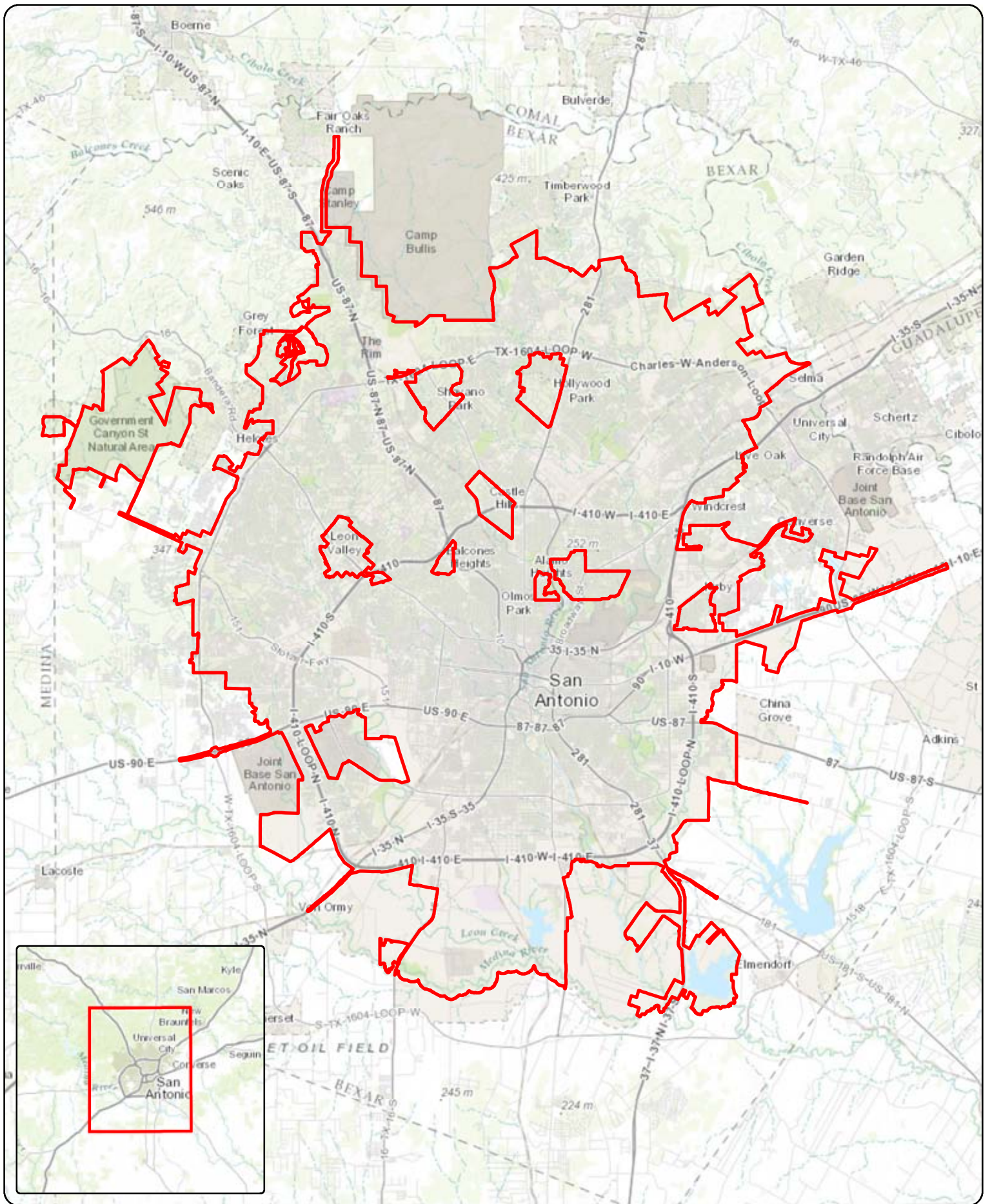
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 209,221	\$ 40,779	\$ -	\$ -	\$ 250,000
Commodities	-	-	-	-	-
Contracts	-	2,000,000	-	-	2,000,000
<b>Total</b>	<b>\$ 209,221</b>	<b>\$ 2,040,779</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,250,000</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** City of San Antonio Outfalls Project **Project #** 00000475

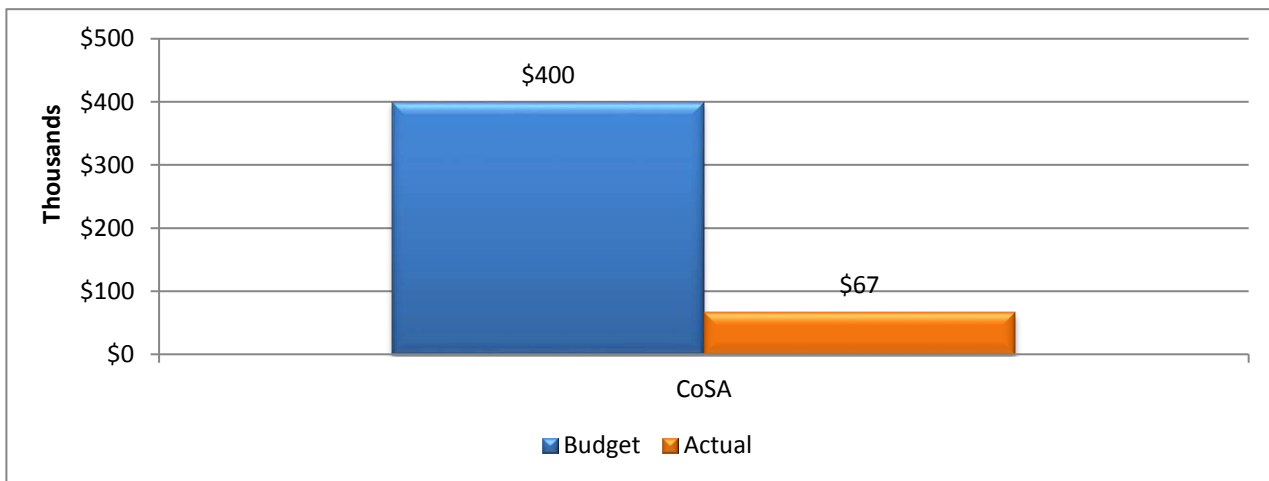
Project Start Date: 11/01/14 Total Project Budget: \$ 400,000  
 Project Finish Date: 06/30/16 Managing Department: Watershed Engineering

The City of San Antonio and the River Authority have partnered to focus on documenting up to 1,300 miles of outfalls along the rivers, creeks, and drainage channel within the city limits of San Antonio. The collection includes photos, GPS, and a variety of useful data fields.

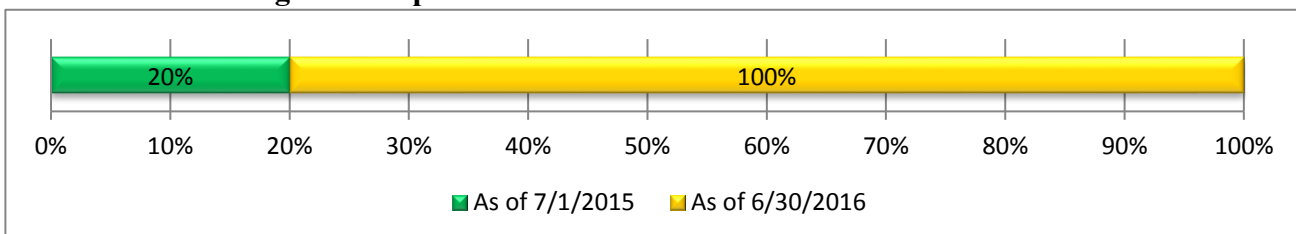
In FY 2015/16, the River Authority will complete the photography and documenting of 1,300 miles of outfalls along the rivers, creeks, and drainage channel within the city limits of San Antonio. Once the outfall data is collected in the field, all data goes through an internal quality analysis/quality control (QA/QC) process to ensure accuracy and completeness of information.

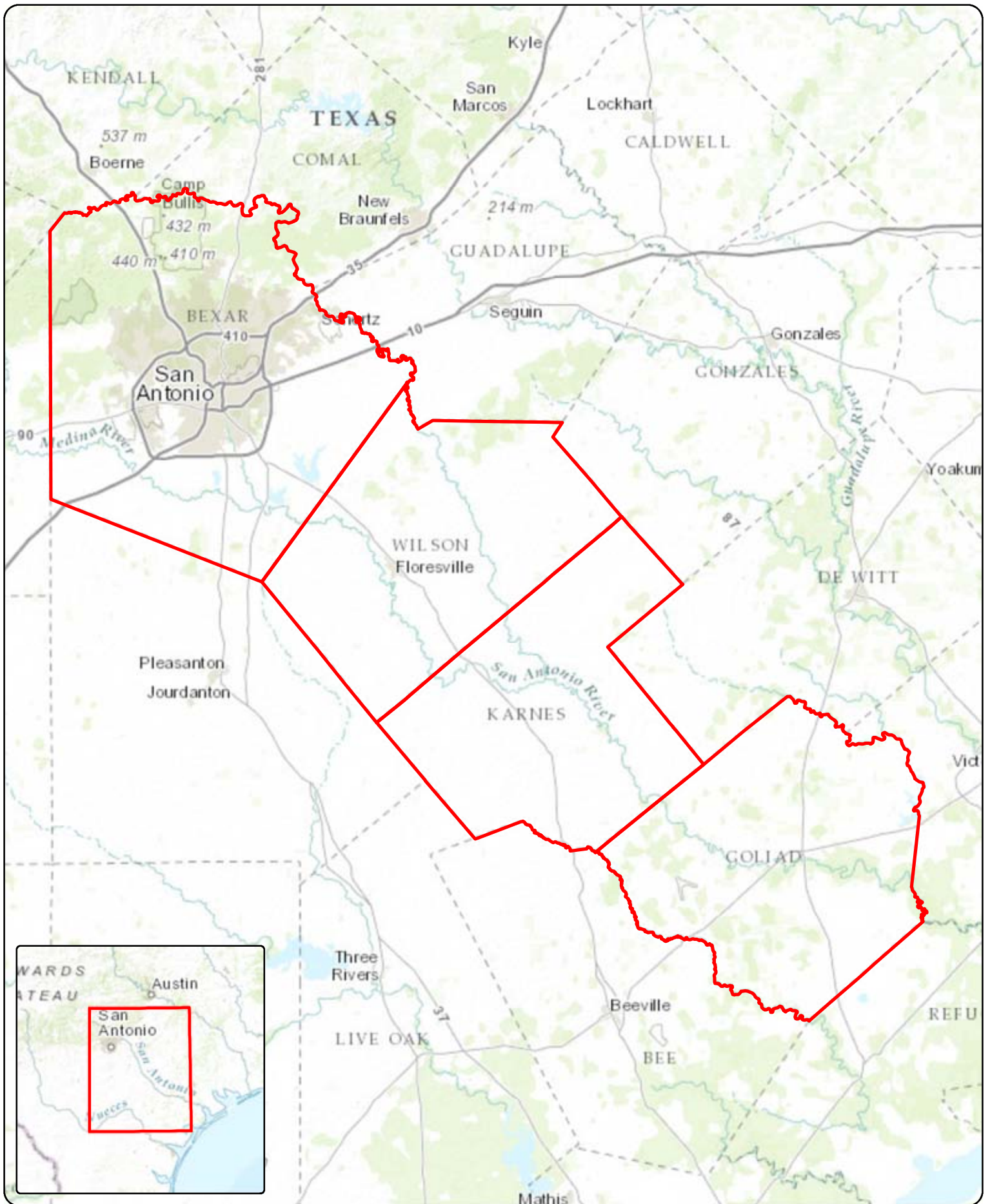
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 61,489	\$ 138,493	\$ -	\$ -	\$ 199,982	
Commodities	5,053	194,965	-	-	200,018	
Contracts	-	-	-	-	-	
<b>Total</b>	<b>\$ 66,542</b>	<b>\$ 333,458</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 400,000</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Conservation Innovation Grant **Project #** 00000484

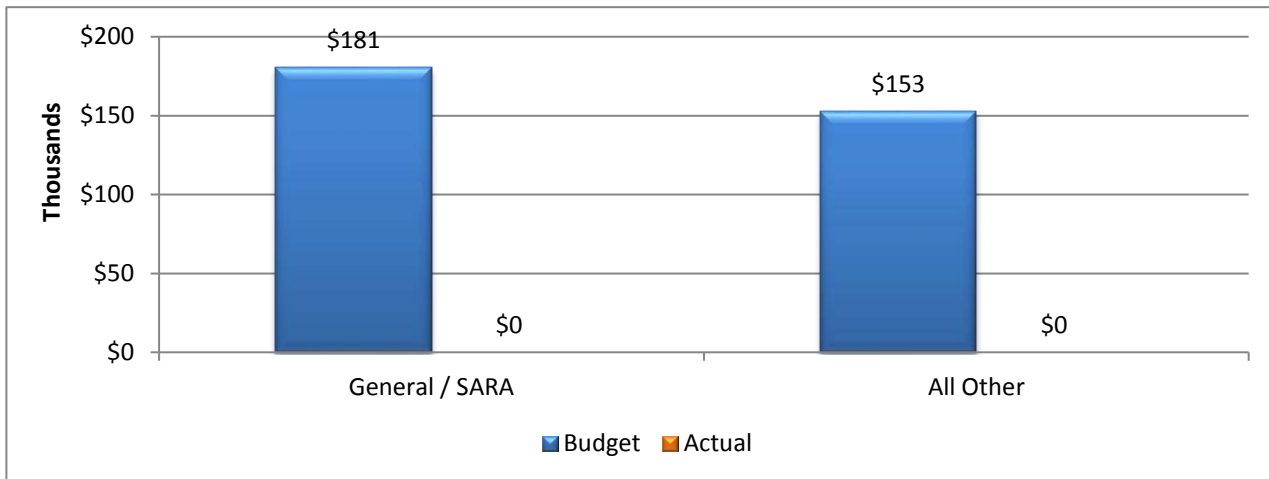
Project Start Date: 09/30/15 Total Project Budget: \$ 334,257  
 Project Finish Date: 09/28/18 Managing Department: Watershed Engineering

Contingent on support from the Conservation Innovation Grant Project by the Natural Resources Conservation Service (NRCS), SARA will conduct research that fills the information gap in current understanding of the function and design of riparian buffers. Stormwater samples will be collected throughout riparian buffer areas with a spectrum of characteristics and analyzed for transport of sediment and nutrients. The information gained will be used to enhance the Natural Design Protocol and improve implementation of the Watershed Master Plans with the end goal of efficient use of resources towards improvement of water quality.

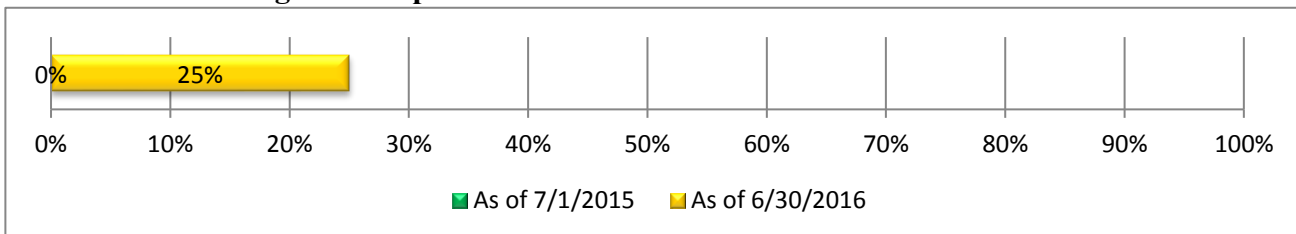
In FY 2015/16, the first year of this three year project, the experimental design process will identify cooperators with stream area with the desired characteristics to study the effects of buffer widths on the nutrient management. An experimental design including sample site reconnaissance will be developed along with a quality assurance plan. Passive sampling devices will be designed and installed on the study sites.

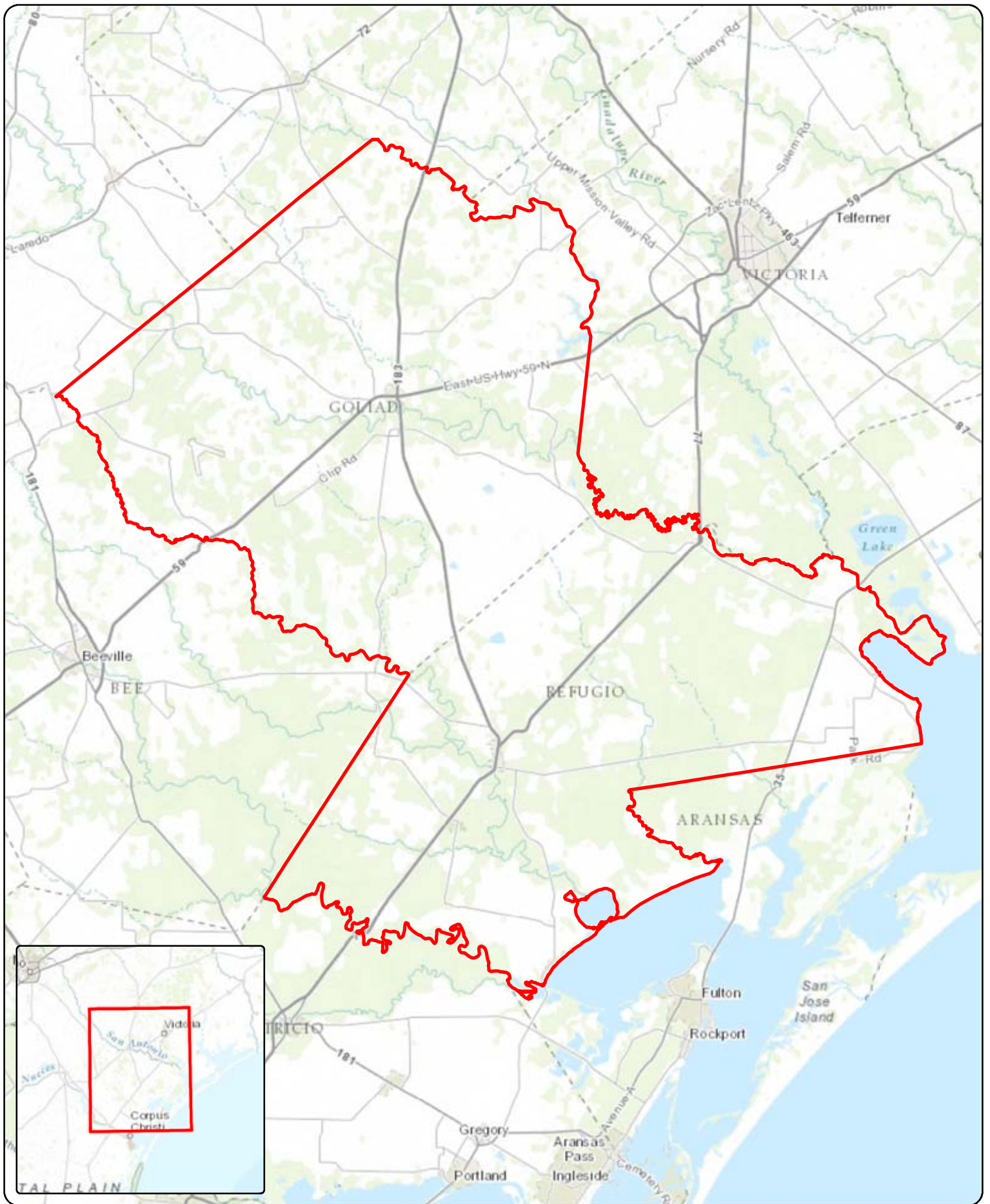
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 44,996	\$ 82,174	\$ 50,387	\$ 177,557
Commodities	-	13,000	-	-	13,000
Contracts	-	28,740	57,480	57,480	143,700
<b>Total</b>	<b>\$ -</b>	<b>\$ 86,736</b>	<b>\$ 139,654</b>	<b>\$ 107,867</b>	<b>\$ 334,257</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Ecosystem Dynamic Simulation  
Goliad and Refugio Counties  
Model Development**

**Project # 00000412**

Project Start Date: 09/10/13  
Project Finish Date: 06/30/16

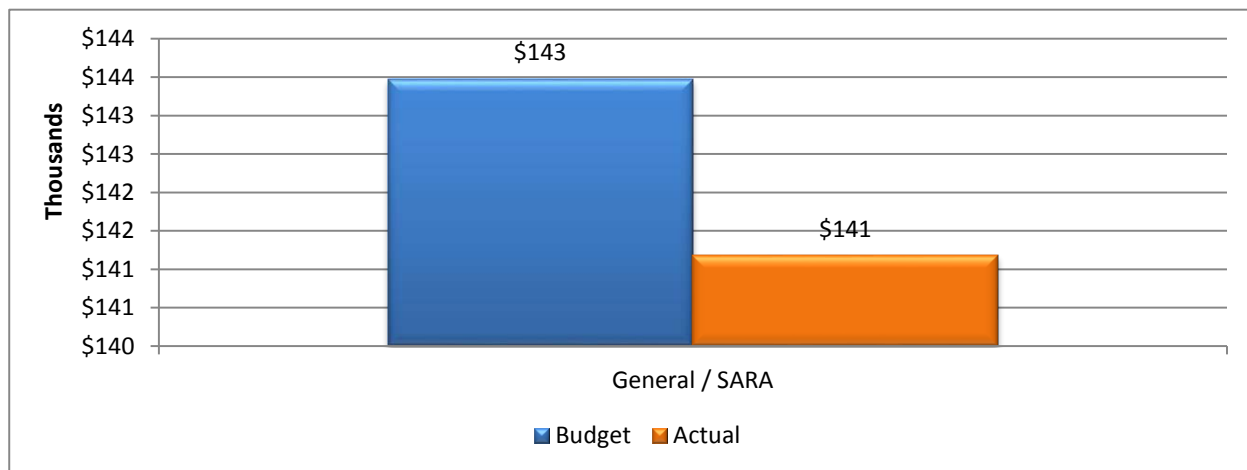
Total Project Budget: \$ 143,474  
Managing Department: Watershed Engineering

Ecosystem Dynamic Simulation (EDYS) is a tool that has been used to evaluate complex direct and indirect interactions of both natural and anthropogenic factors on water quality and quantity at numerous sites and under a very wide range of environmental conditions. This project funds useful tools to simulate rural impacts on water quality and management options such as livestock, grazing, brush management, urbanization, road construction, cultivation, confined animal operations and mineral development. Currently, this project is partially funded by the Texas State Soil and Water Conservation Board (TSSWCB).

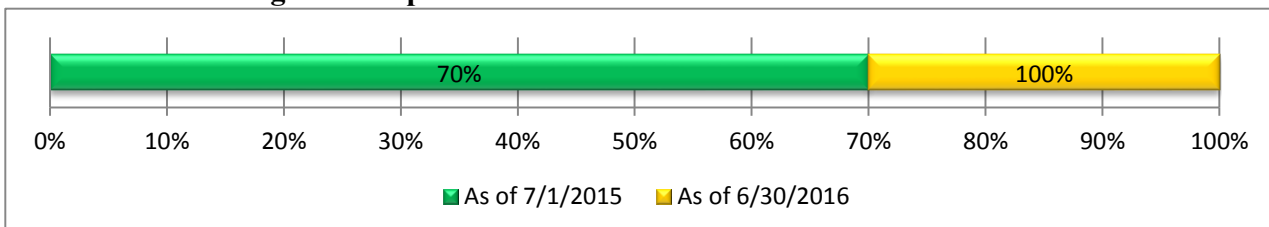
In FY 2015/16, EDYS models will continue to be developed for Goliad, Refugio and Victoria counties and additional resampling of validation plots will be done.

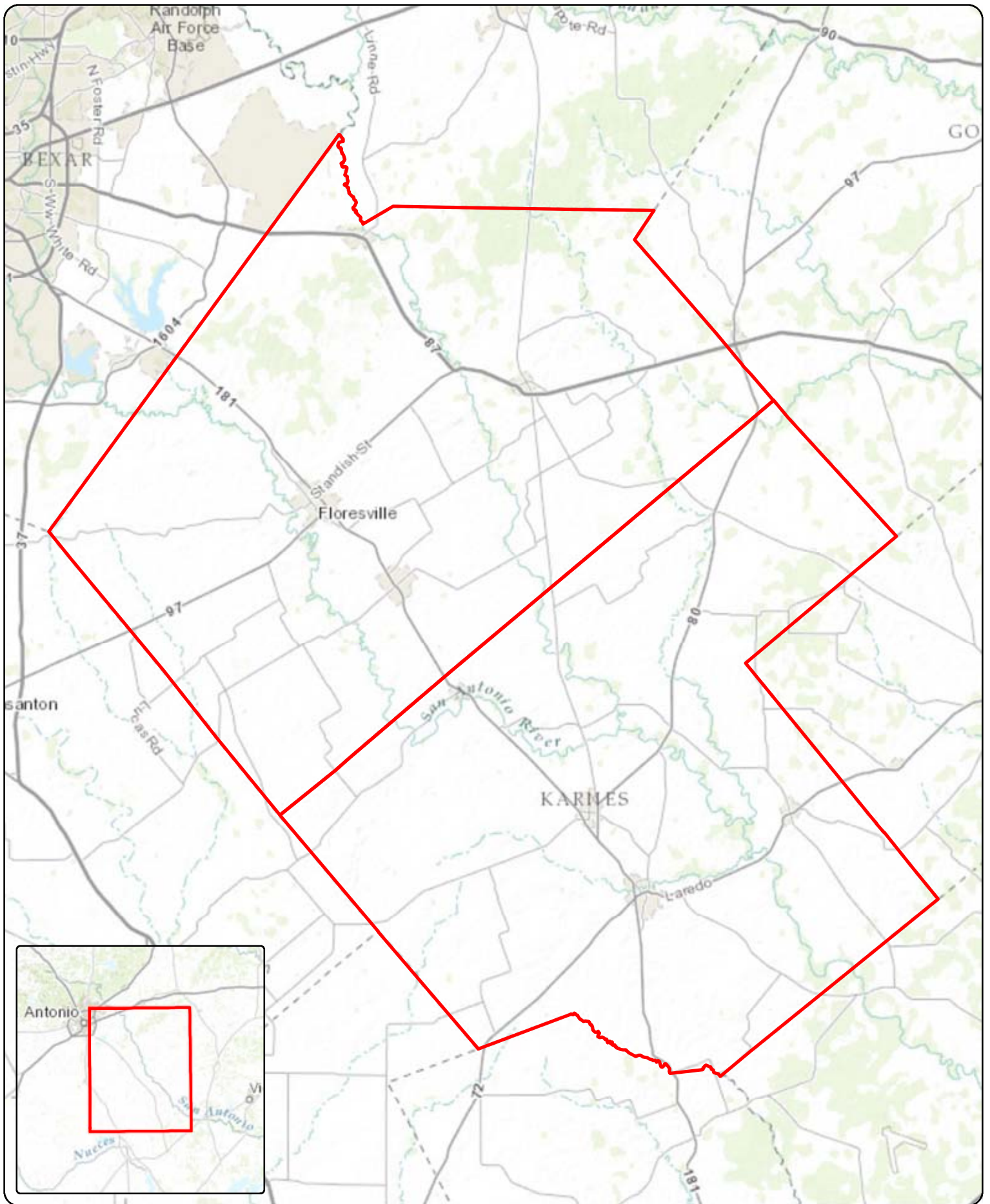
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 1,182	\$ 2,292	\$ -	\$ -	\$ 3,474	
Commodities	-	-	-	-	-	
Contracts	140,000	-	-	-	140,000	
<b>Total</b>	<b>\$ 141,182</b>	<b>\$ 2,292</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 143,474</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Ecosystem Dynamic Simulation  
Karnes and Wilson Counties  
Model Development**

**Project # 00000370**

Project Start Date: 07/01/12  
Project Finish Date: 06/30/16

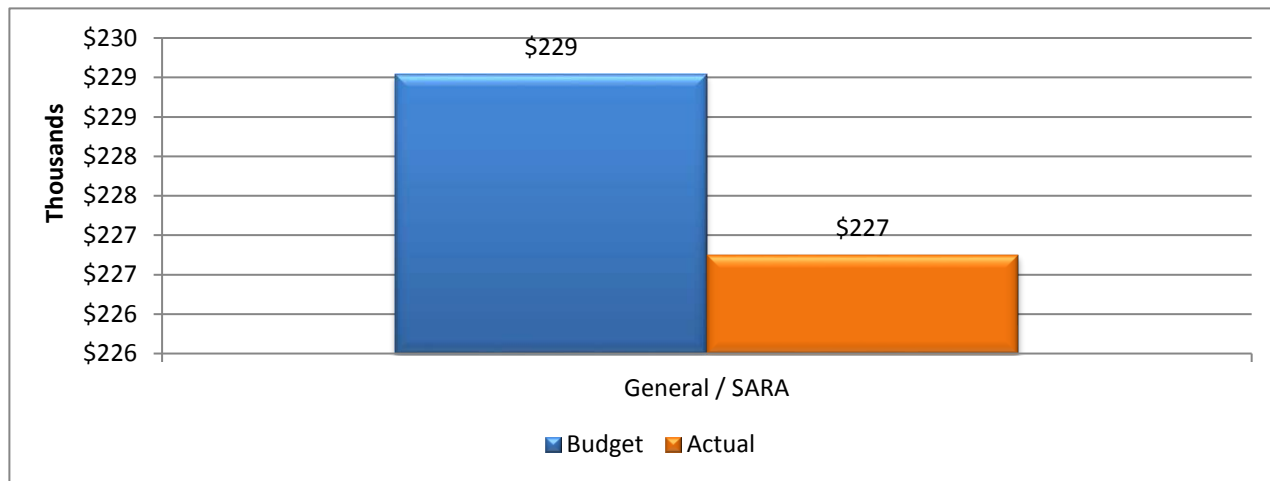
Total Project Budget: \$ 229,043  
Managing Department: Watershed Engineering

Ecosystem Dynamic Simulation (EDYS) models will be developed for the San Antonio River Basin. These models serve as useful tools to simulate rural impacts on water quality and management options such as livestock, grazing, brush management, urbanization, road construction, cultivation, confined animal operations and mineral development.

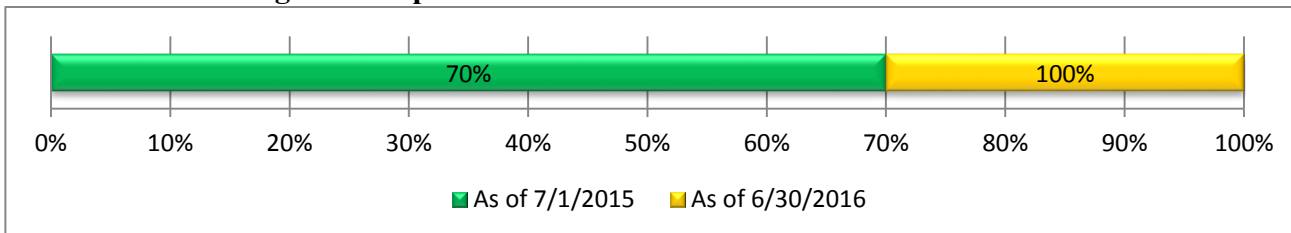
In FY 2015/16, EDYS models continue to be developed for Karnes and Wilson counties in addition to linkage between EDYS and Hydrologic Simulation Program Fortran (HSPF) models.

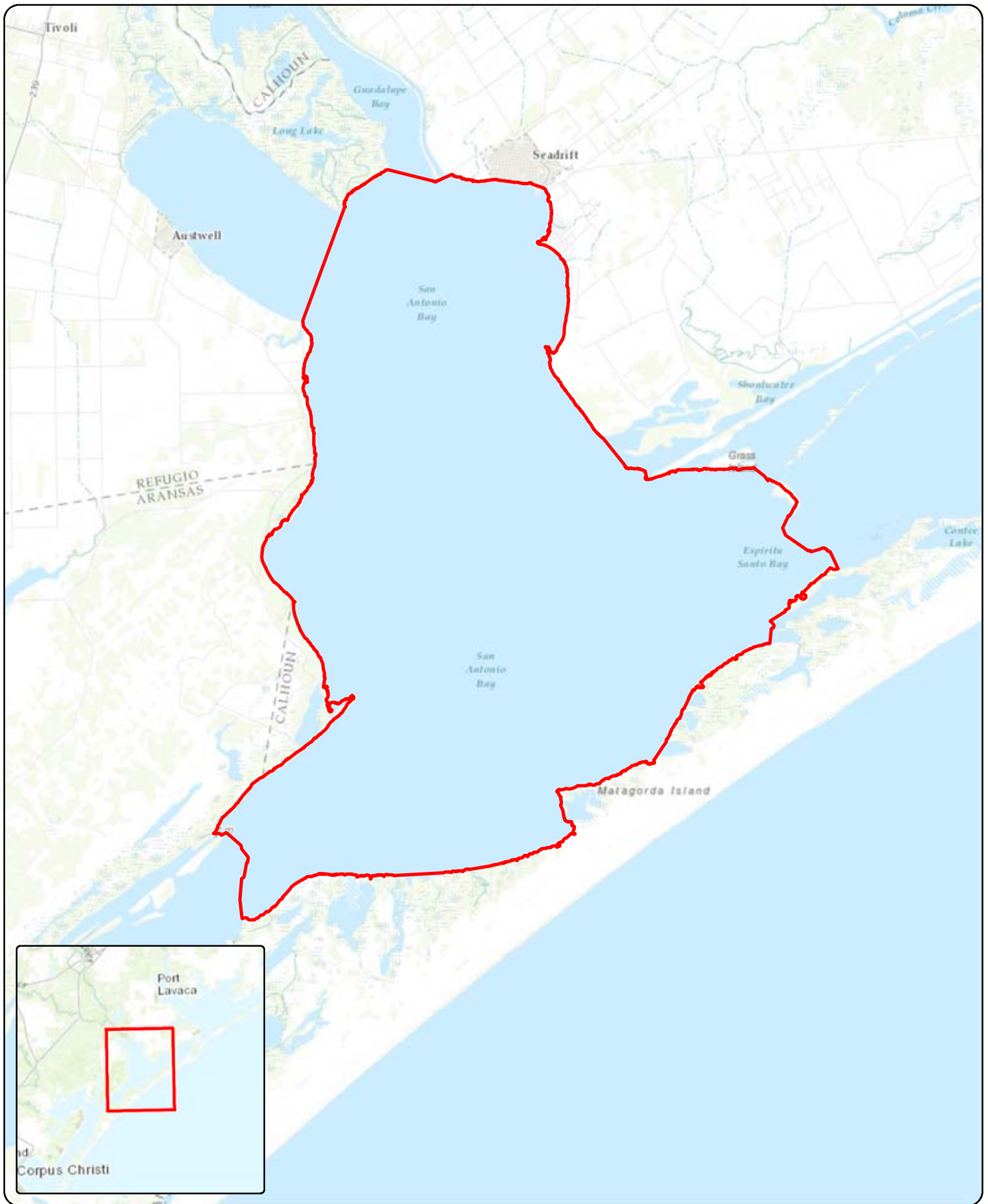
Expenditures	Estimate as of			Succeeding	Total
	2014/15	2015/16	2016/17	from 2017/18	
Personnel	\$ 2,479	\$ 2,292	\$ -	\$ -	\$ 4,771
Commodities	-	-	-	-	-
Contracts	224,272	-	-	-	224,272
<b>Total</b>	<b>\$ 226,751</b>	<b>\$ 2,292</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 229,043</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Ecosystem Dynamic Simulation Project # 00000296**  
**San Antonio Bay**  
**Model Development**

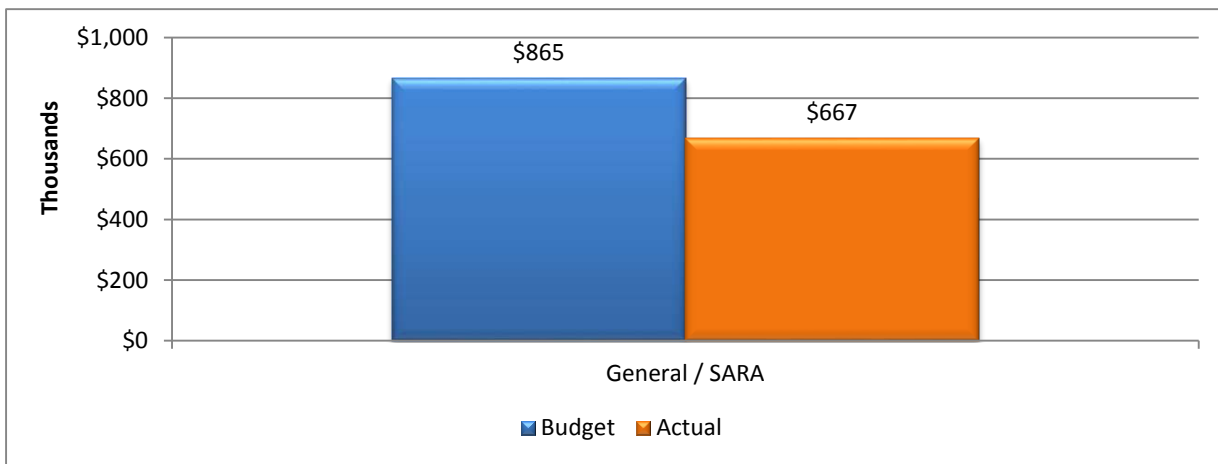
Project Start Date: 03/31/11 Total Project Budget: \$ 864,676  
 Project Finish Date: 06/28/17 Managing Department: Watershed Engineering

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 will serve as a tool that will 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.

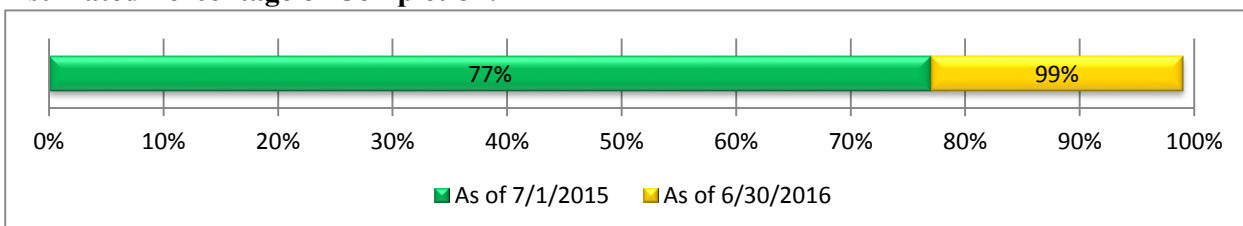
In FY 2015/16, EDYS models developed for the San Antonio Bay will be further refined to include additional components such as vegetation and animal monitoring data.

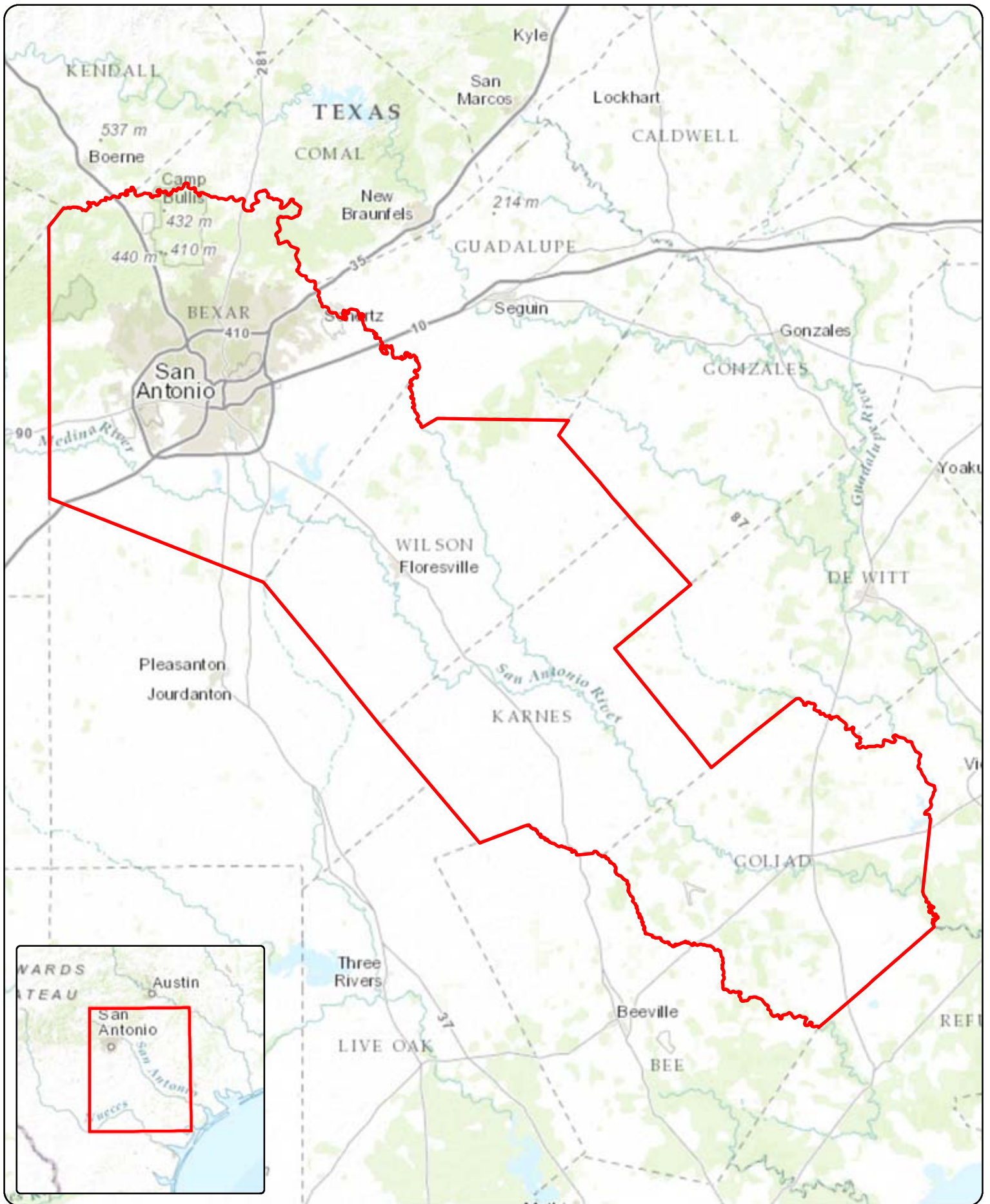
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 8,480	\$ 3,438	\$ 4,744	\$ -	\$ -	\$ 16,662
Commodities	-	-	-	-	-	-
Contracts	659,014	189,000	-	-	-	848,014
<b>Total</b>	<b>\$ 667,494</b>	<b>\$ 192,438</b>	<b>\$ 4,744</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 864,676</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Environmental Monitoring System **Project #** 00000073

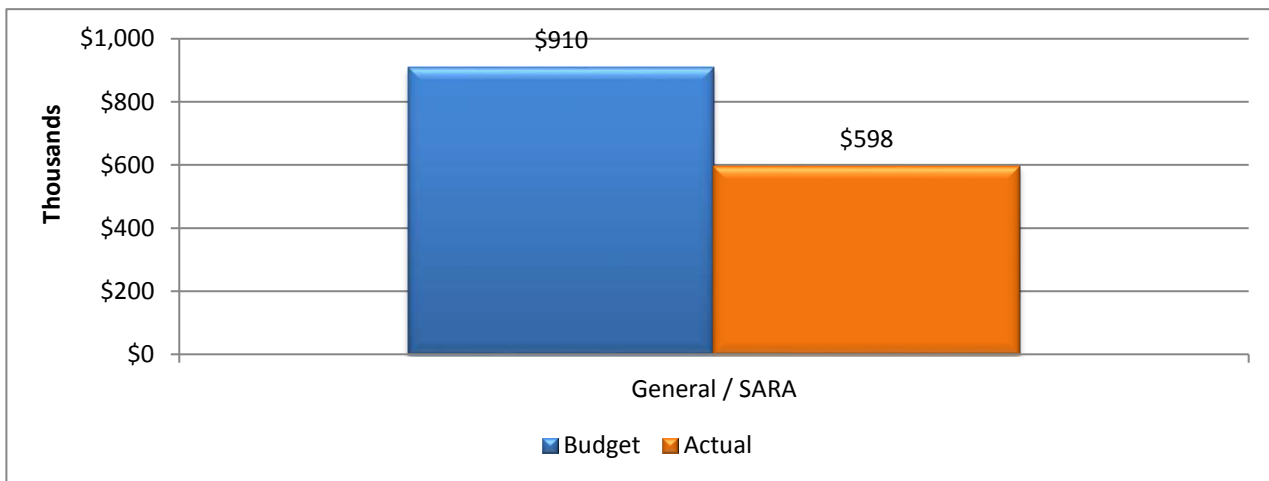
Project Start Date: 03/18/08 Total Project Budget: \$ 909,937  
 Project Finish Date: 11/02/18 Managing Department: Watershed Engineering

This project builds a rain gauge network that monitors rainfall and stream depth to support the Bexar County Flood Warning Project and provides water level data at all 41 San Antonio River Authority (SARA) managed dams. Coordination between existing rainfall monitoring systems of the City of San Antonio and the Edwards Aquifer Authority (EAA) is conducted to maximize data collection in Bexar County.

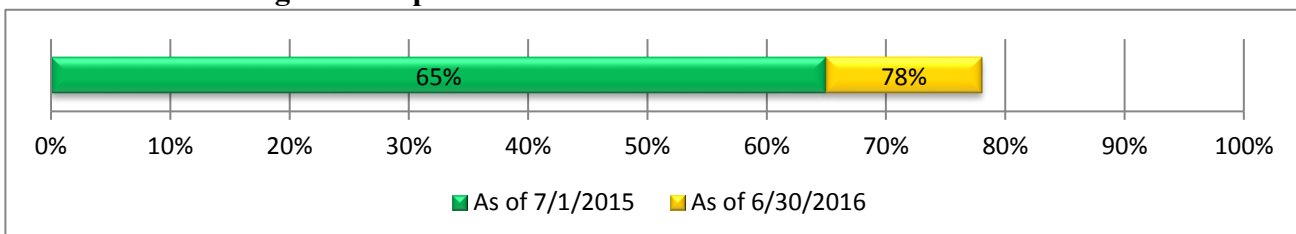
In FY 2015/16, the project will focus on expanding the rainfall network to Wilson and Goliad Counties, extending the Bexar County network to fill gaps in rainfall data at desirable locations, and will explore extending the Karnes County network outside the Escondido Creek watershed. SARA will work with the National Weather Service and local emergency management officials to determine site locations.

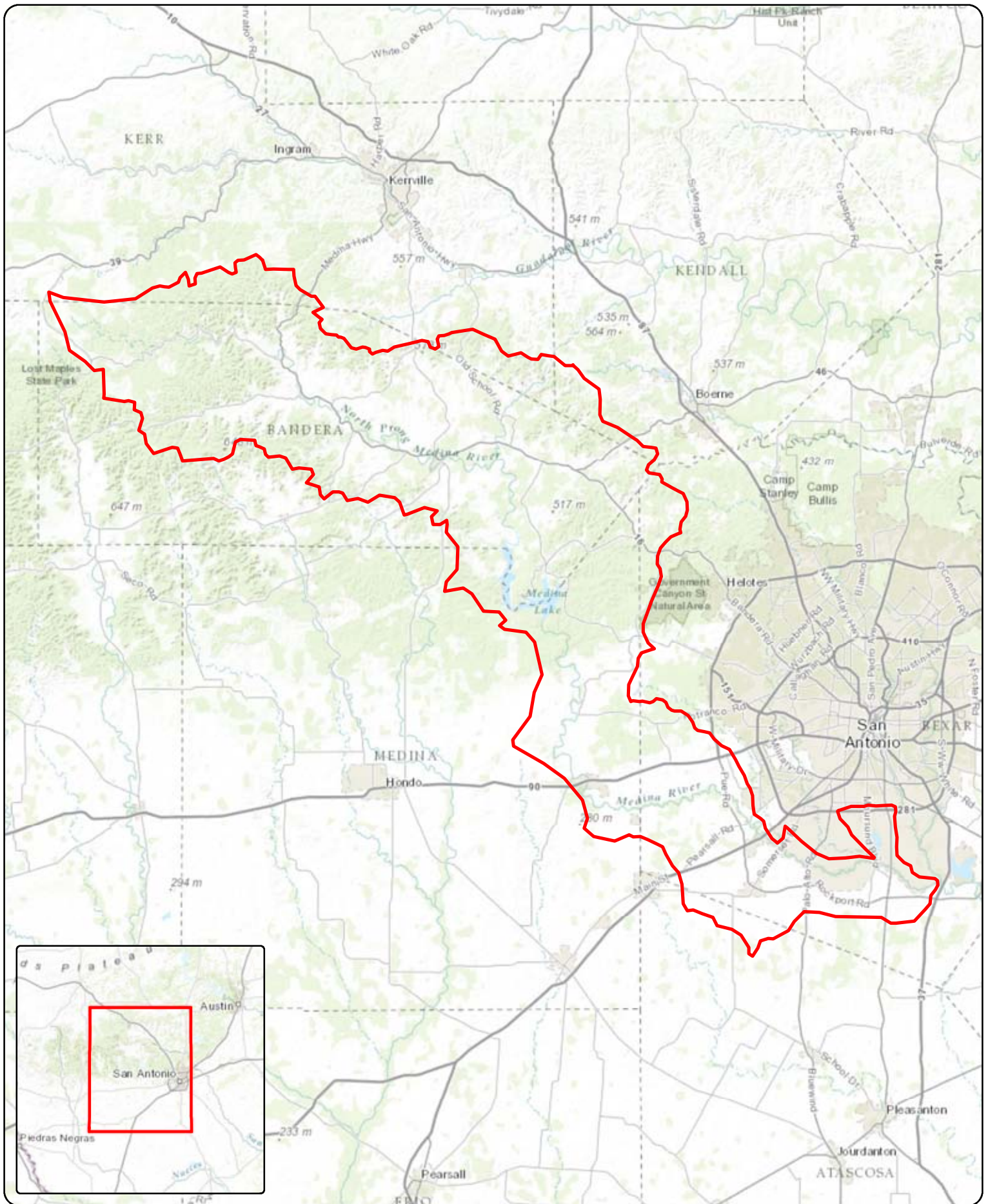
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 123,588	\$ 18,431	\$ 19,077	\$ 19,744	\$ 180,840
Commodities	458,271	70,000	70,000	70,000	668,271
Contracts	15,826	15,000	15,000	15,000	60,826
<b>Total</b>	<b>\$ 597,685</b>	<b>\$ 103,431</b>	<b>\$ 104,077</b>	<b>\$ 104,744</b>	<b>\$ 909,937</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Medina River Holistic Watershed Master Plan **Project #** 00000286

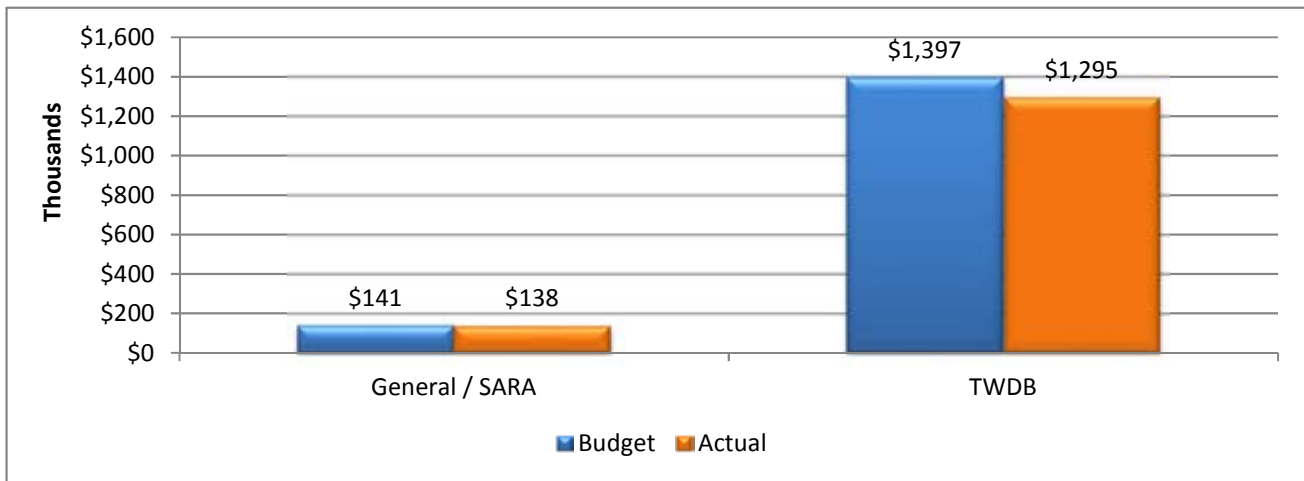
Project Start Date: 05/01/11 Total Project Budget: \$ 1,537,925  
 Project Finish Date: 06/30/16 Managing Department: Watershed Engineering

This project develops a comprehensive watershed master plan for the Medina River Watershed, one of the major watersheds in Bexar County. The project identifies major flooding reaches and damage centers (areas of numerous structures in the floodplain). Potential mitigation solutions such as detention, channelization, low impact development and/or buyouts for select sites are being investigated. The project seeks to maximize the San Antonio River Authority’s sustainability program efforts, identify preliminary locations for regional stormwater facilities, and outline a plan of implementation. The project will increase the library of watershed master plans in Bexar County.

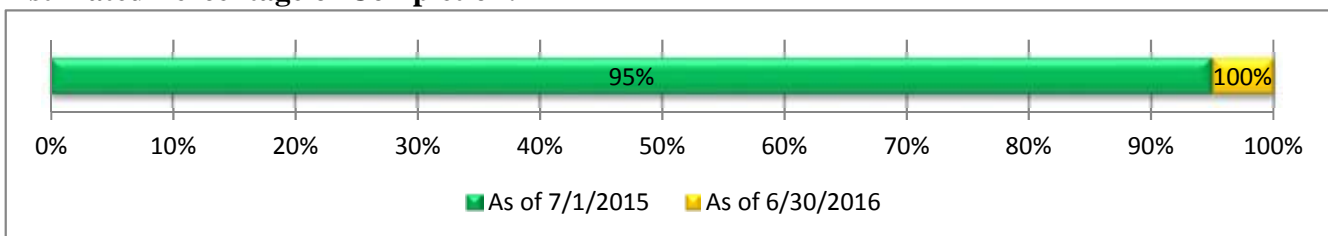
This project is entering into its final phase. FY 2015/16 scope includes services for project management, data collection/analysis, review of water quality/pollutant sources, water quality model development and calibration, hydrologic and hydraulic analysis, water quality modeling, stormwater/MS4 permitting, review of best management practices opportunities, implementation planning, and a final report.

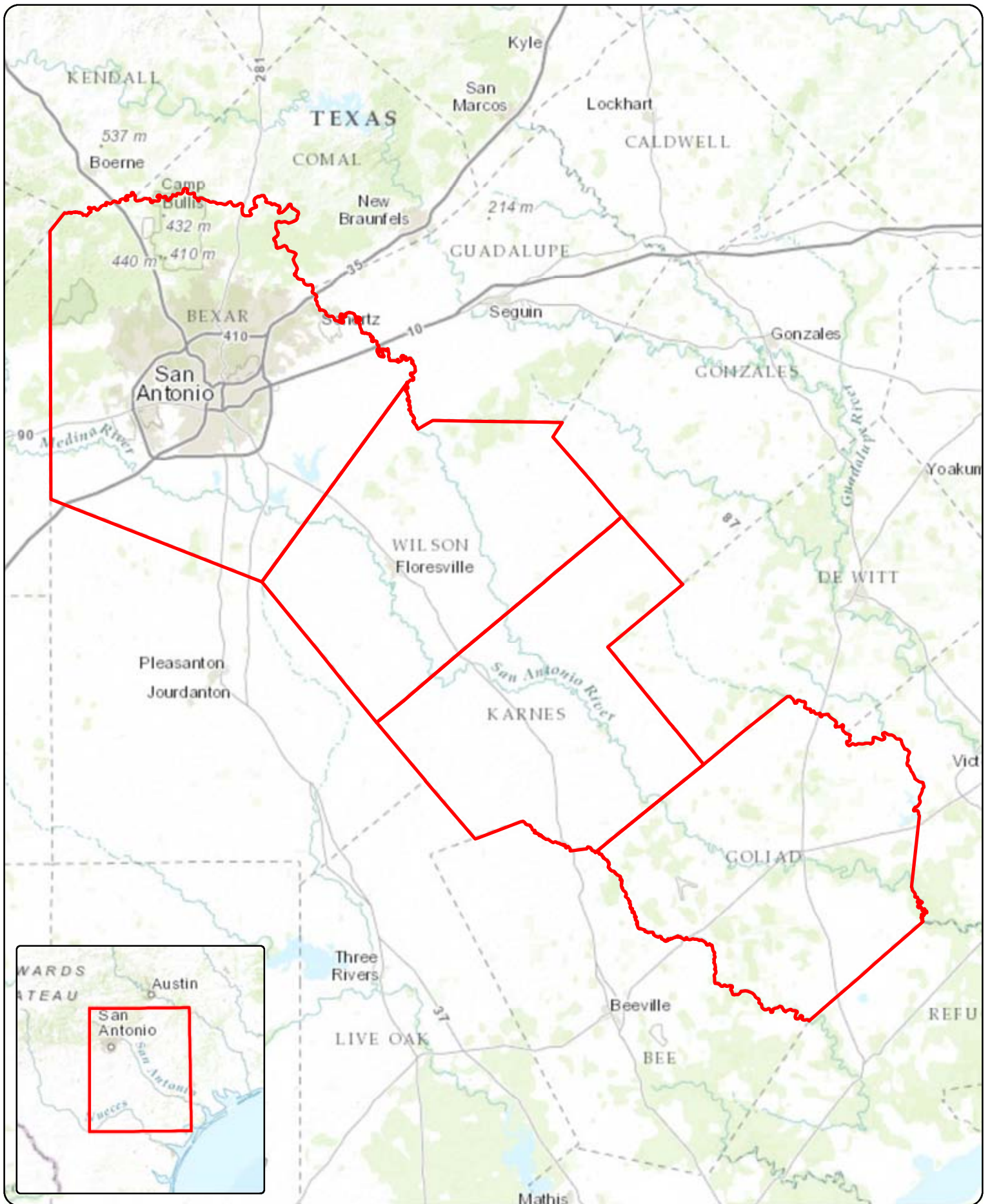
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 155,545	\$ 2,553	\$ -	\$ -	\$ 158,098
Commodities	15	-	-	-	15
Contracts	<del>1,027,383</del>		-	-1,379,811	
<b>Total</b>	<b>\$ 1,452,864</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -1,537,925</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Resource Conservation Partnership Program **Project #** 00000503

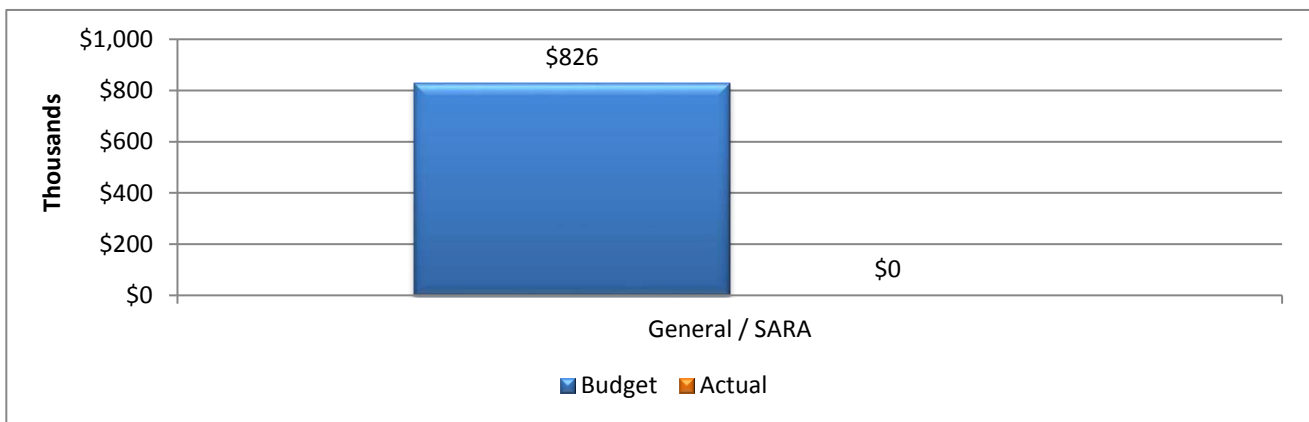
Project Start Date: 07/01/15 Total Project Budget: \$ 826,217  
 Project Finish Date: 03/30/21 Managing Department: Watershed Engineering

SARA 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 an innovative large-scale effort to improve water quality, water quantity, and soil health throughout the 43 counties of the Texas Gulf Coast. The TCGI region is one of the fastest growing areas in the United States and nearly half of all United States coastal wetlands are located along the Gulf. The TGCI 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 SARA's four county jurisdiction for stream/wetland restoration, best management practices, and riparian/habitat enhancement, improvements to agricultural practices and other land conservation efforts. SARA provides matching local funds and in-kind services by coordinating efforts with the local, state, and national activities of the partnership program.

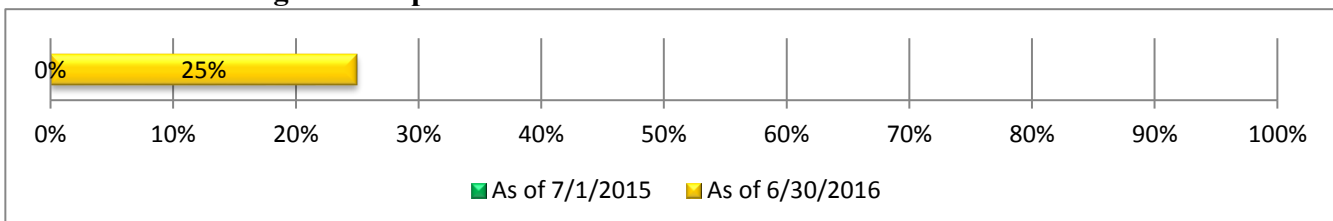
In FY 2015/16, the River Authority will identify and collaborate with potential landowners/producer participants, assist with providing public outreach services as needed, help identify potential projects, provide technical assistance and support, and collaborate with the partners to develop project activities.

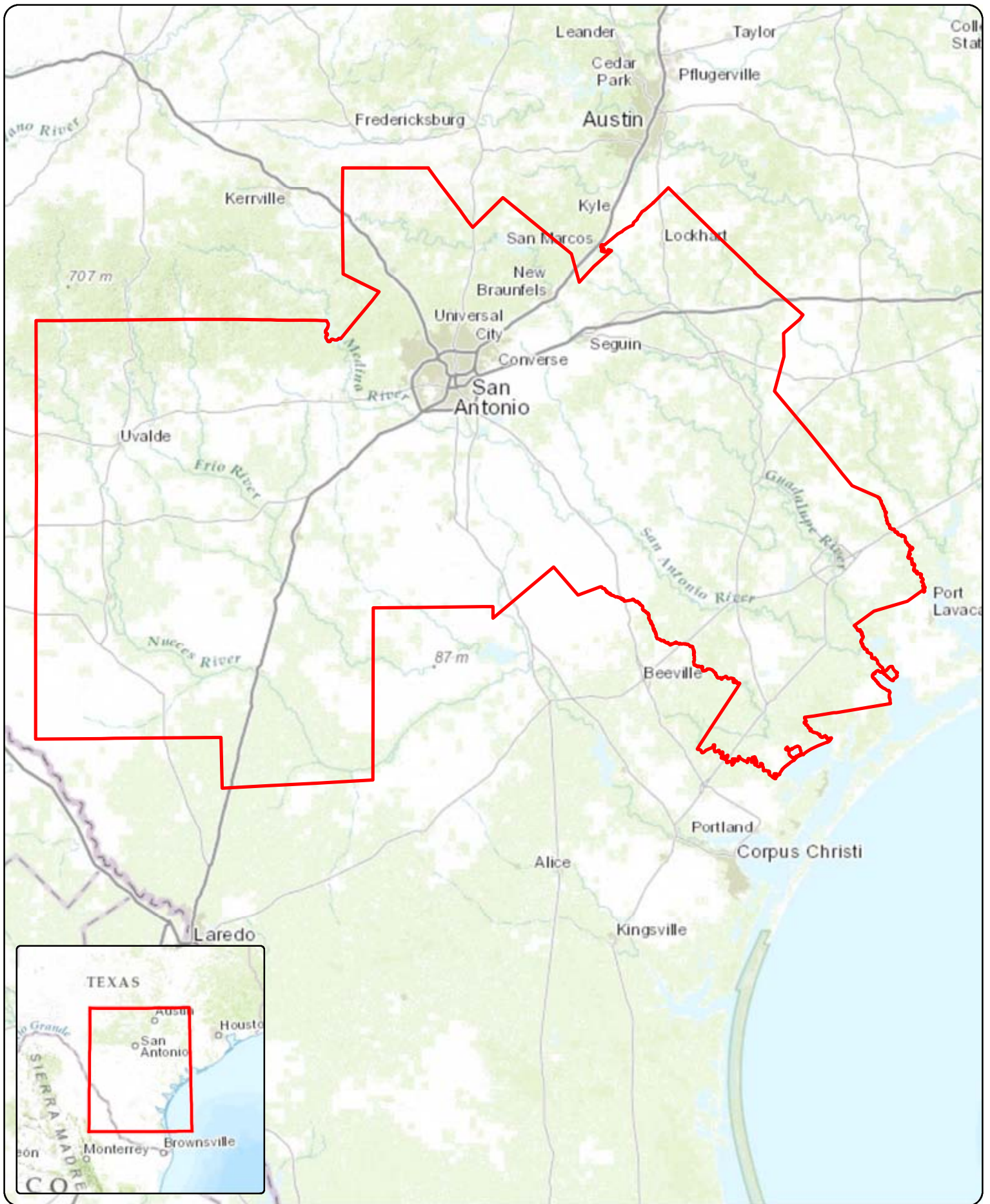
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 7,813	\$ 5,925	\$ 12,479	\$ 26,217
Commodities	-	-	-	-	-
Contracts	-	200,000	200,000	400,000	800,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 207,813</b>	<b>\$ 205,925</b>	<b>\$ 412,479</b>	<b>\$ 826,217</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: South Central Texas Regional Water Planning Group      Project # 00000291**  
**2016 Regional Water Plan Fourth Cycle**

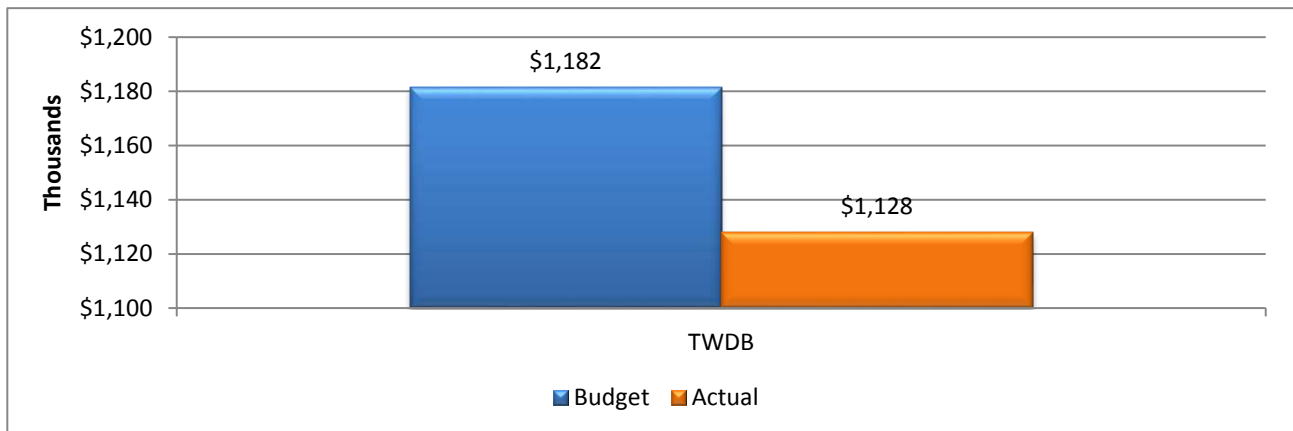
Project Start Date: 08/01/11      Total Project Budget: \$ 1,181,509  
 Project Finish Date: 05/31/16      Managing Department: Intergovernmental and Community Relations

The South Central Texas Regional Water Planning Group (SCTRWPG) is in its fourth cycle of regional water planning. Funding from the Texas Water Development Board is being used for development of the 2016 Regional Water Plan (RWP), which includes evaluation of population and population-related water demand projections through 2070; evaluation of non-population related water demand projections including irrigation, livestock, mining, steam electric, and manufacturing through 2070; 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.

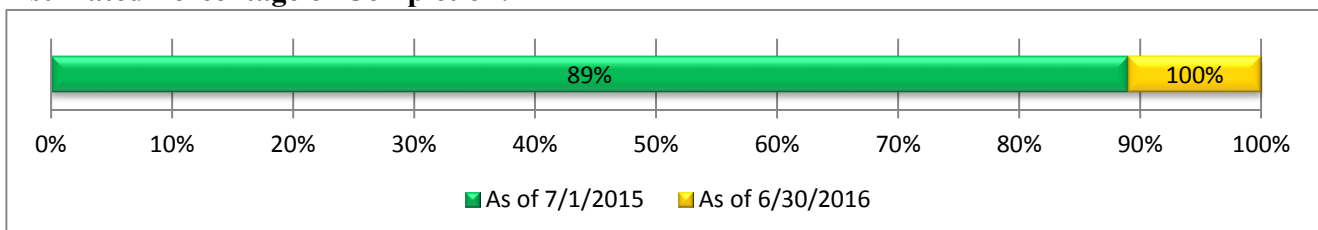
In FY 2015/16, the 2016 Regional Water Plan for the South Central Texas Regional Water Planning Group, Region L, will be incorporated into the 2017 State Water Plan.

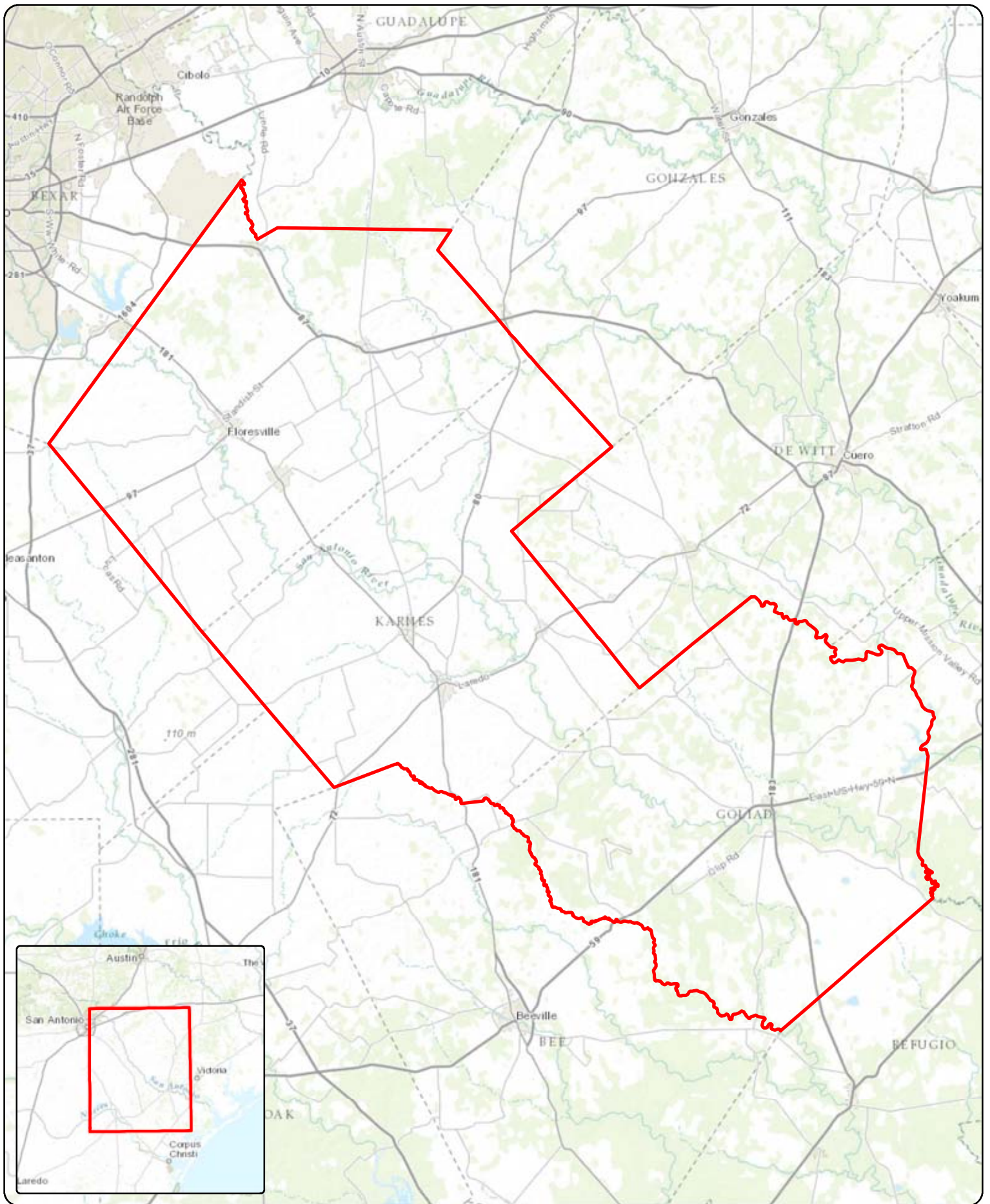
Expenditures	Estimate			Succeeding	
	as of 2014/15	2015/16	2016/17	from 2017/18	Total
Personnel	\$ -	\$ -	\$ -	\$ -	\$ -
Commodities	-	-	-	-	-
Contracts	1,127,975	53,534	-	-	1,181,509
<b>Total</b>	<b>\$ 1,127,975</b>	<b>\$ 53,534</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,181,509</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** USGS Lower San Antonio River Groundwater Surface Water Interaction Modeling **Project #** 00000411

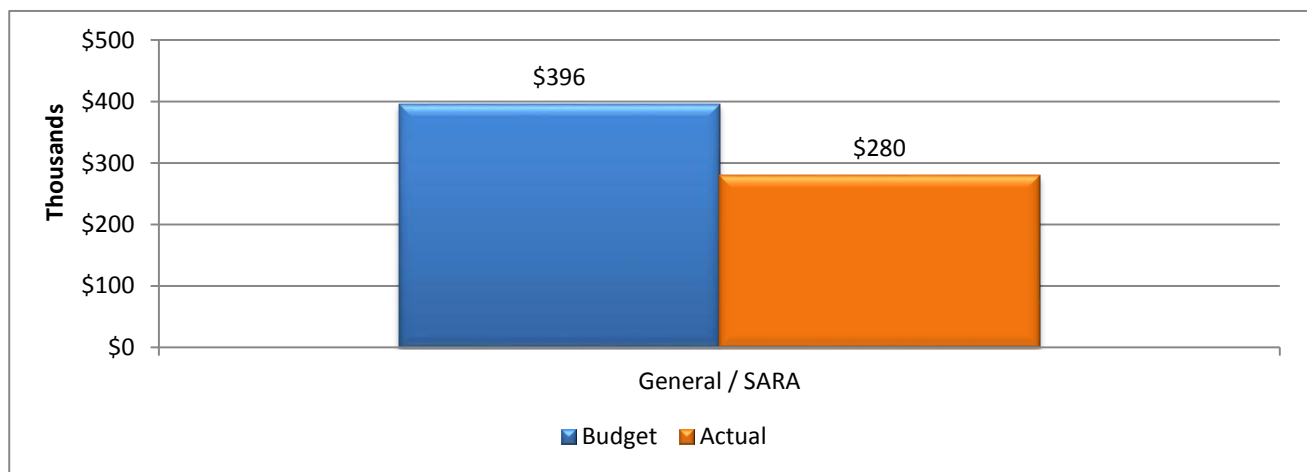
Project Start Date: 10/31/13 Total Project Budget: \$ 396,195  
 Project Finish Date: 10/12/16 Managing Department: Watershed Engineering

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

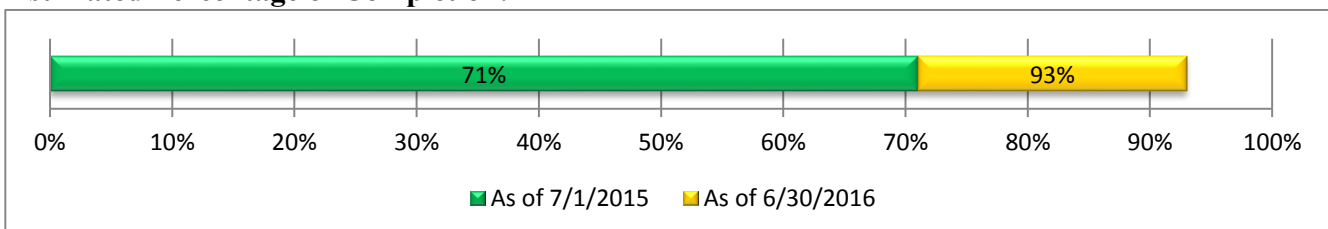
In FY 2015/16, the project will develop a groundwater model using MODFLOW software to simulate groundwater interaction with surface water. Using previously collected datasets, the model will be calibrated and multiple scenarios representing both changes in recharge and increases groundwater exploitation will be simulated. The simulations will be analyzed to identify the potential impacts on the lower basin streams and rivers.

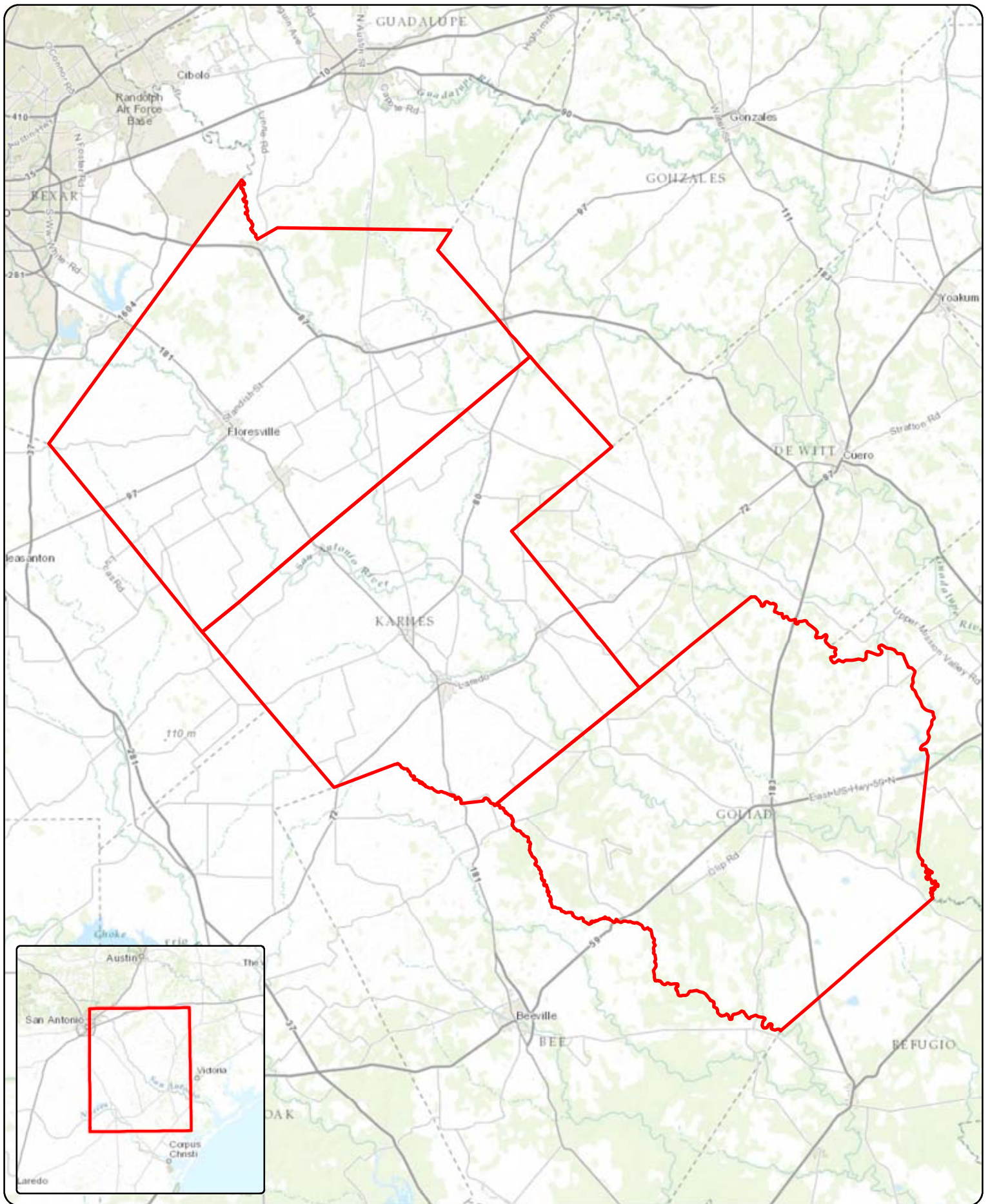
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 1,621	\$ 1,677	\$ 3,397	\$ -	\$ 6,695
Commodities	-	-	-	-	-
Contracts	278,500	87,000	24,000	-	389,500
<b>Total</b>	<b>\$ 280,121</b>	<b>\$ 88,677</b>	<b>\$ 27,397</b>	<b>\$ -</b>	<b>\$ 396,195</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** UTSA Sediment Source Mobillity **Project #** 00000499

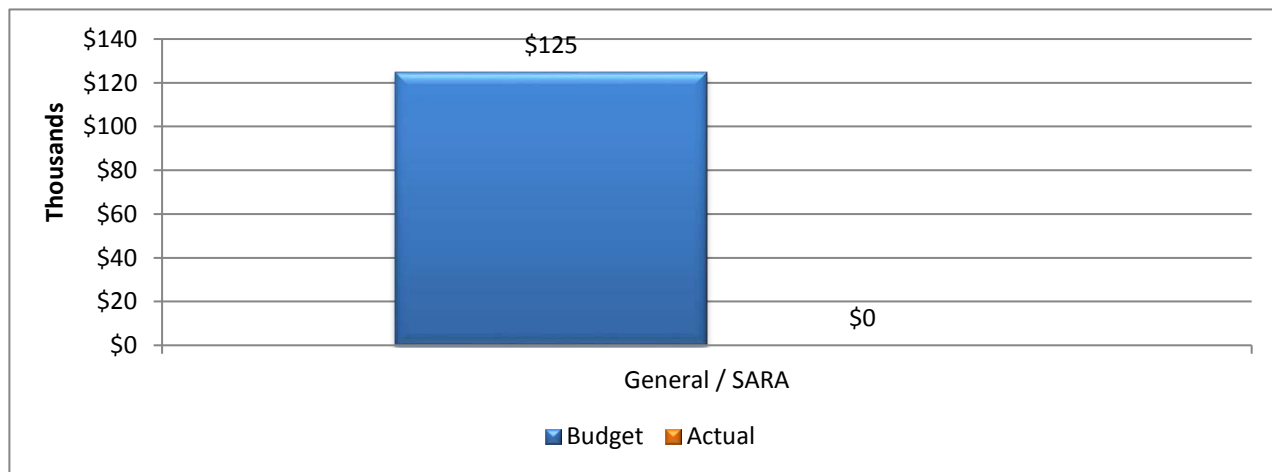
Project Start Date: 07/31/15 Total Project Budget: \$ 124,829  
 Project Finish Date: 12/31/18 Managing Department: Watershed Engineering

This project quantifies the sources and mobility of streambed sediments in the lower San Antonio River with special attention to gravel-sized sediment. The project identifies the sources of coarse-grained material and the impact on the size distributions of streambed sediment. In addition, the study assesses the mobility and transport rates of sediment with an emphasis on the larger sediment sizes present in the streambed. The study identifies tributaries that are significant sources of bed sediments, quantifies the bed form regime occurring in the San Antonio River and its influence on sediment transport and channel stability, and evaluates the performance of predictive sediment transport functions given these new reach-specific insights.

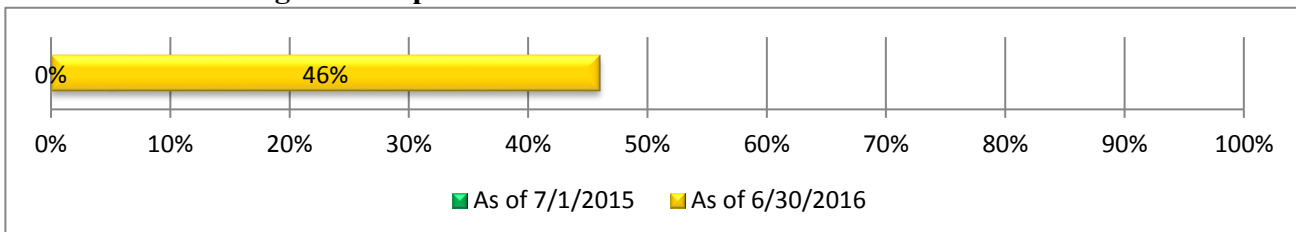
In FY 2015/16, field work consisting of identifying gravel sources and collecting samples at sedimentary structures on channel bars will commence. Additional channel geometric parameters at the sediment sample sites will also be collected.

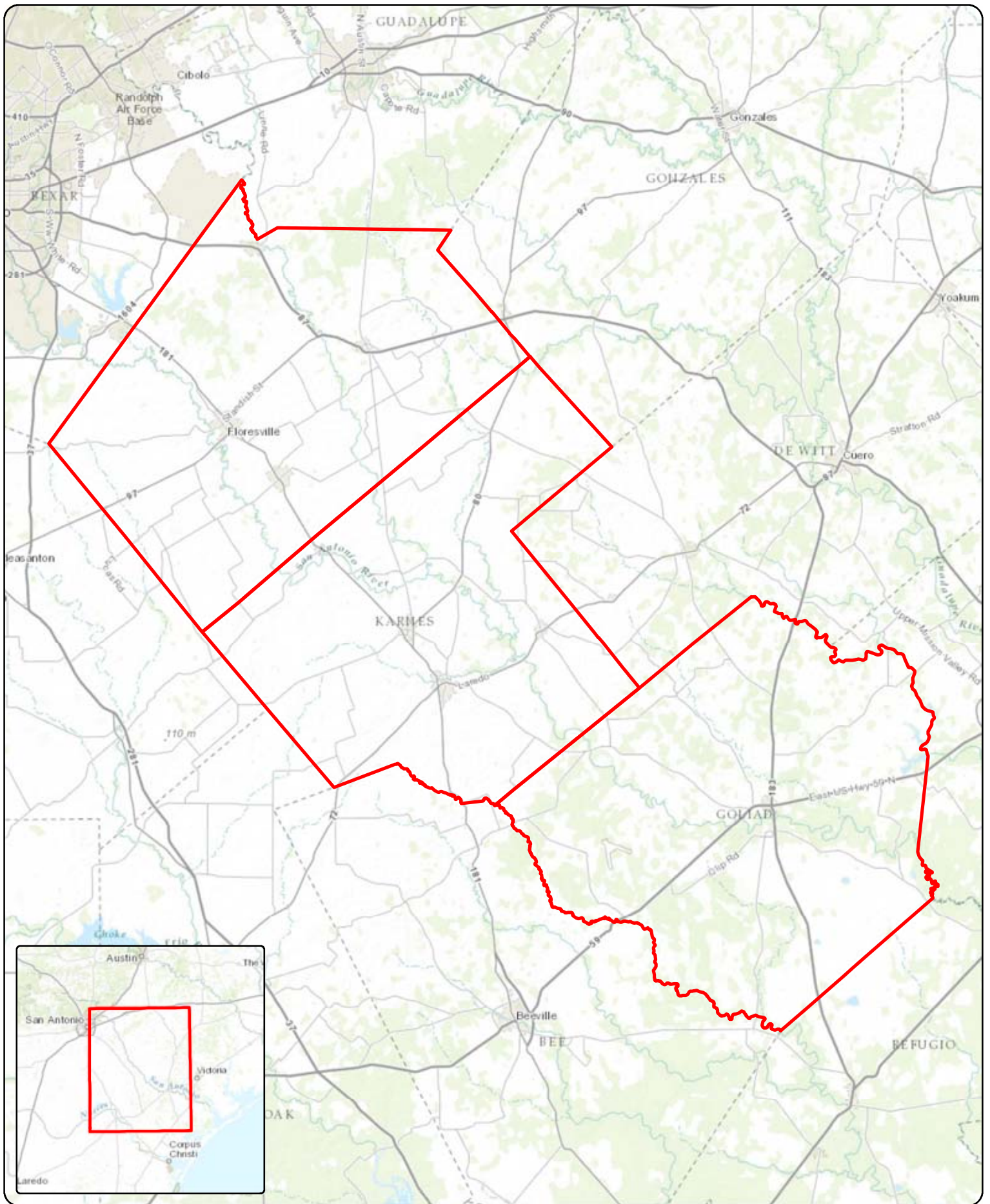
Expenditures	Estimate as of			Succeeding	Total
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>	
Personnel	\$ -	\$ 1,879	\$ 1,944	\$ 1,006	\$ 4,829
Commodities	-	-	-	-	-
Contracts	-	55,000	55,000	10,000	120,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 56,879</b>	<b>\$ 56,944</b>	<b>\$ 11,006</b>	<b>\$ 124,829</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Wilson, Karnes and Goliad Counties Watershed Master Plan** **Project # 00000076**

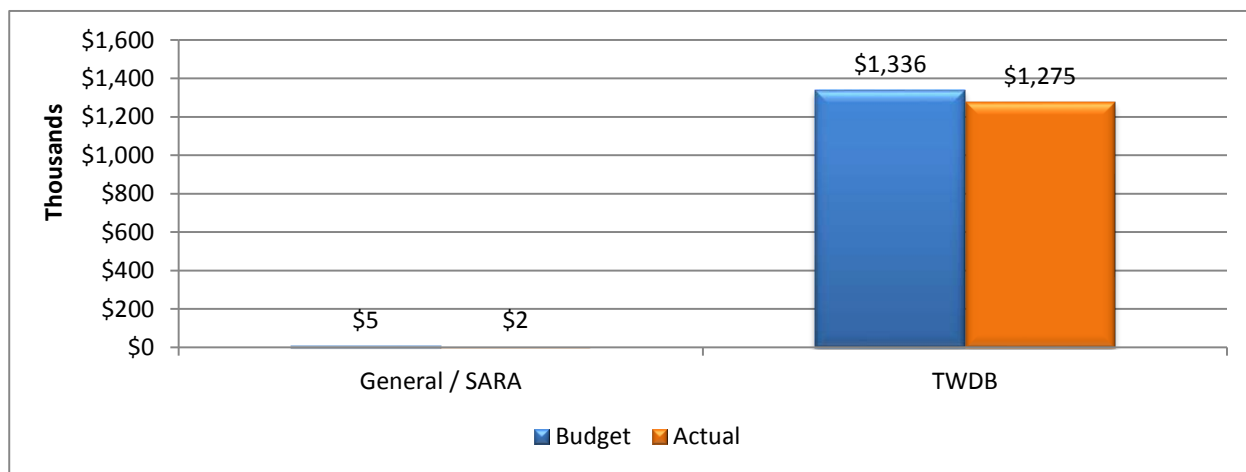
Project Start Date: 07/01/08 Total Project Budget: \$ 1,341,248  
 Project Finish Date: 06/30/16 Managing Department: Watershed Engineering

This project develops a Holistic Watershed Master Plan (WSMP) for Wilson, Karnes, and Goliad counties. The plan focuses on flood issues (hydraulic and hydrologic analysis), stream restoration, water quality modeling, water quality best management practices, GIS/mapping/remote sensing, low impact development, MS4 permitting, conservation easements, mitigation banking, and nature-based park planning. The activities of this project include identification of major flooding reaches and potential flood control capital improvement projects (e.g. natural water way conveyance, regional stormwater detention facilities, storm sewer improvements). The project also identifies opportunities for non-structural flood control strategies such as property buyouts, riparian buffers, land use and development recommendations, and low impact development.

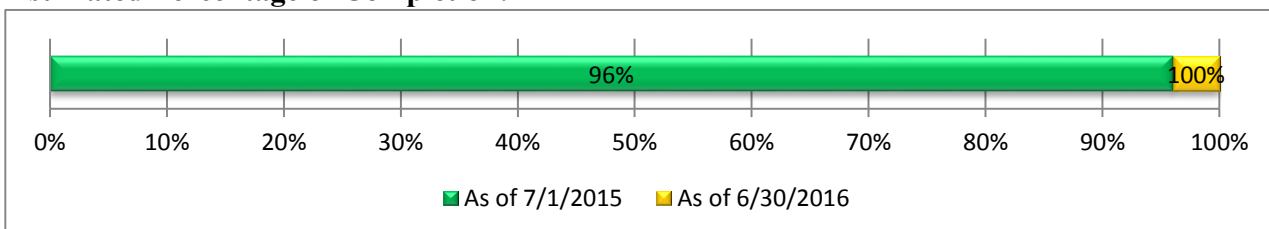
In FY 2015/16, the project will link the Medina Watershed Models with the Lower San Antonio Models. This work will include linking the water quality models and the hydraulic and hydrologic models developed for the lower San Antonio River to the models developed for the Medina River WSMP.

Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 82,101	\$ 2,907	\$ -	\$ -	\$ 85,008	
Commodities	2,034	-	-	-	2,034	
Contracts	1,193,078	61,128	-	-	1,254,206	
<b>Total</b>	<b>\$ 1,277,213</b>	<b>\$ 64,035</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,341,248</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

# **Watershed Safety and Response Program**



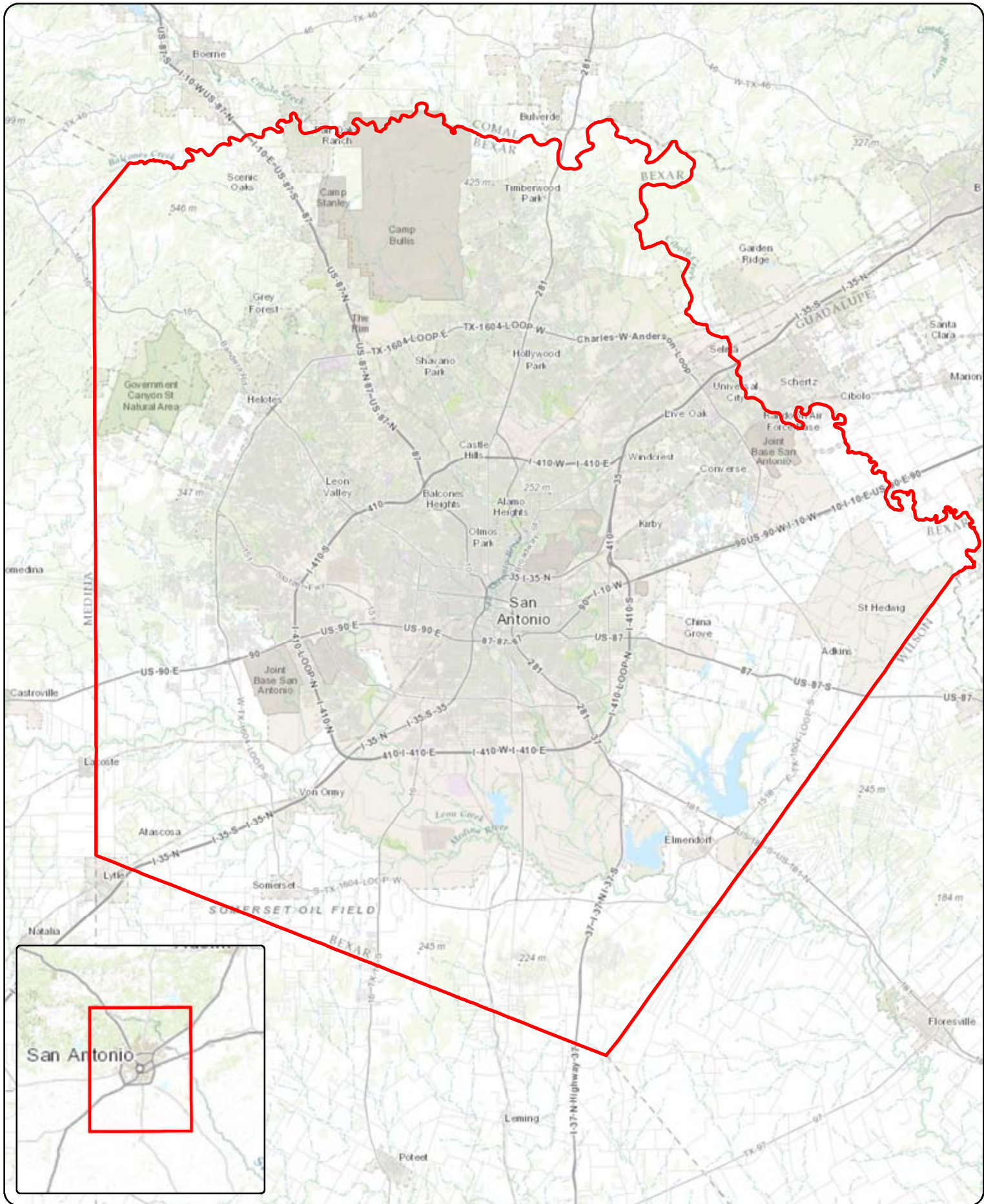
SAN ANTONIO  

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RIVER AUTHORITY

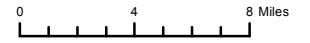
Leaders in Watershed Solutions





**Project Name:**  
 Bexar County Capital Improvement Program (BCCIP)  
 Real Estate Acquisitions

 Project Service Area  
 and/or Boundaries



**Project Name: Bexar County Capital Improvement Program Real Estate Acquisitions** **Project # 00000394**

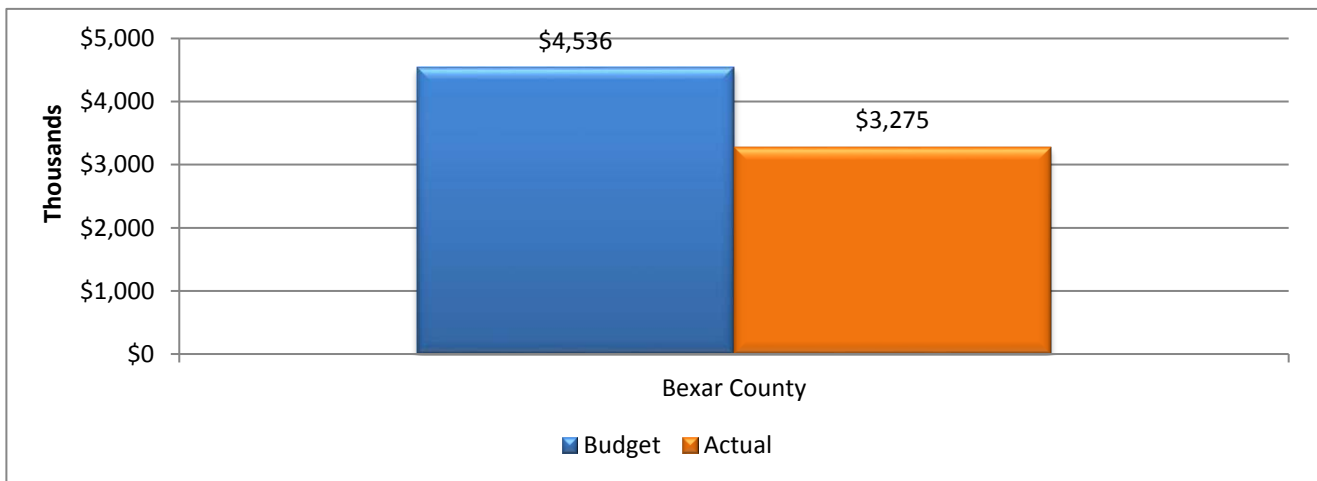
Project Start Date: 01/01/08 Total Project Budget: \$ 4,535,798  
 Project Finish Date: 06/30/17 Managing Department: Real Estate

Bexar County 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. San Antonio River Authority Real Estate staff provides real estate acquisition services for the program including due diligence and negotiations with property owners under the threat of eminent domain. The sixth Amendment to the interlocal agreement with the County identifies a total of 42 projects. This includes one new project that was added and two projects from the fifth Amendment that were removed.

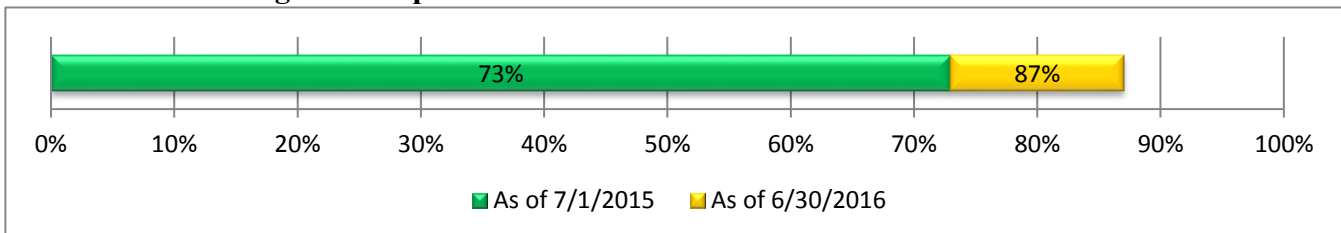
During FY 2015/16, work will continue on these various projects to complete property acquisitions.

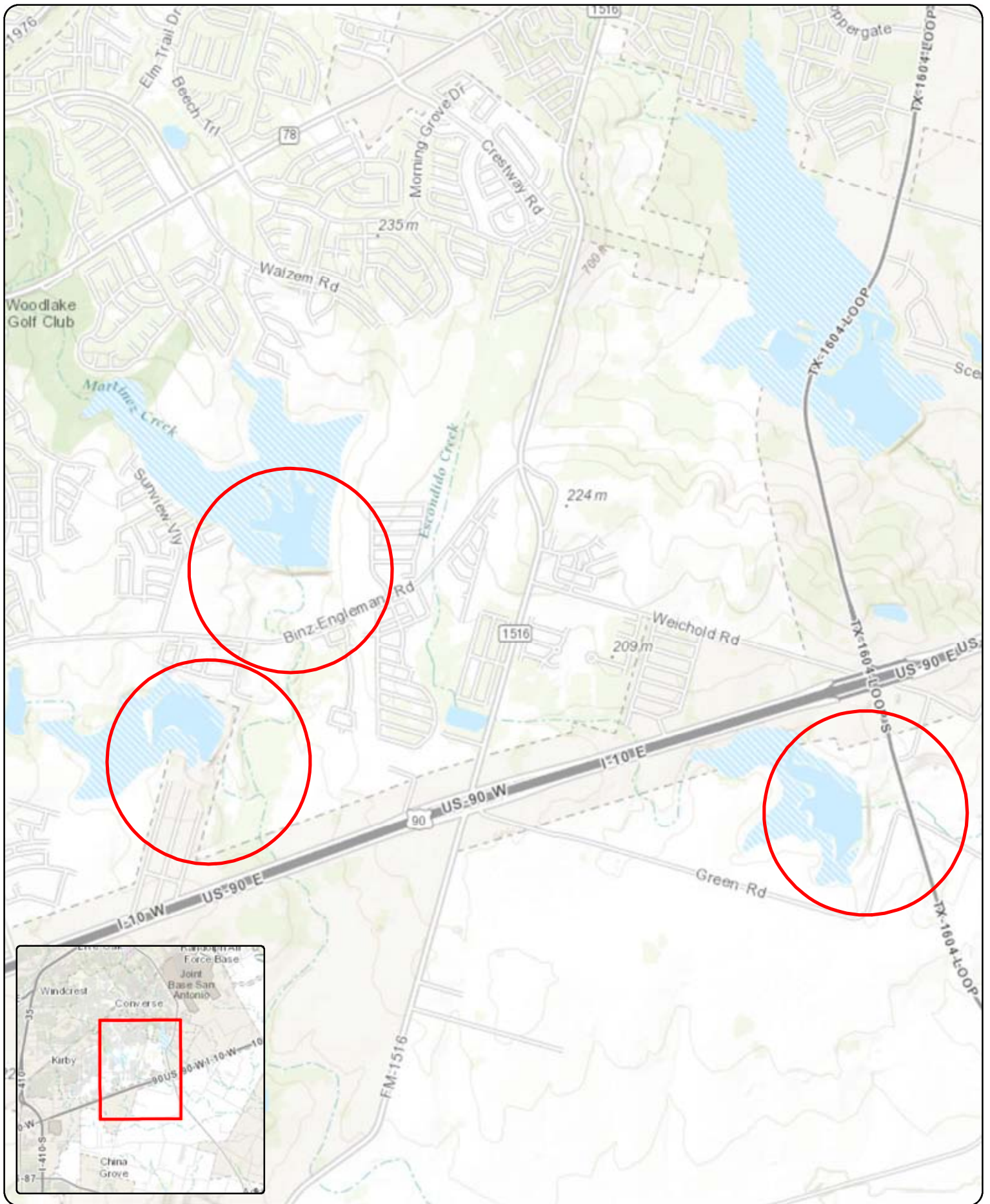
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 619,351	\$ 6,600	\$ 6,600	\$ -	\$ 632,551	
Commodities	1,624,402	-	-	-	1,624,402	
Contracts	1,030,774	660,737	587,334	-	2,278,846	
<b>Total</b>	<b>\$ 3,274,527</b>	<b>\$ 667,337</b>	<b>\$ 593,934</b>	<b>\$ -</b>	<b>\$ 4,535,798</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**




**Estimated Percentage of Completion:**





**Project Name:**  
Binz Engleman, Martinez Creek  
and Escondido Creek Dams Rehabilitation

 Project Service Area  
and/or Boundaries



0 0.3 0.6 Miles

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

**Project # 00000374**

Project Start Date: 07/27/12  
Project Finish Date: 12/05/16

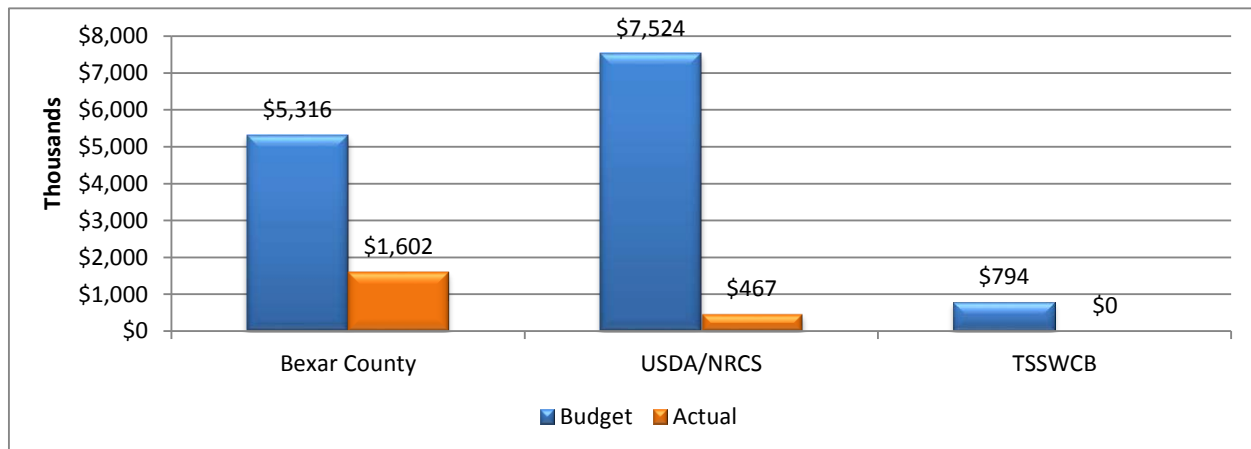
Total Project Budget: \$ 13,634,559  
Managing Department: Watershed Parks Ops

This project improves Binz Engleman Dam (Martinez 1), Martinez Creek Dam (Martinez 2) and Escondido Creek Dam (Martinez 3) to current Texas Commission on Environmental Quality (TCEQ) standards. Improvements primarily include earthwork to increase the height of the dams and to improve the auxiliary spillways. According to the project plan and the operation and maintenance agreement for the rehabilitation project, the San Antonio River Authority (SARA) 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 SARA. SARA will also provide construction administration and project management services through construction.

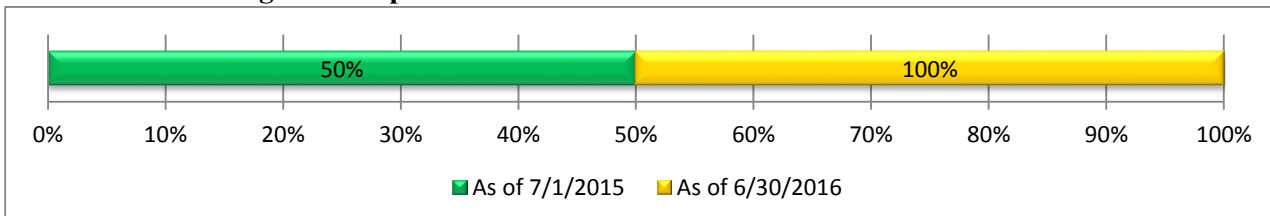
During FY 2015/16, the project tasks will include procurement of inundation easements and the construction of improvements to these dams.

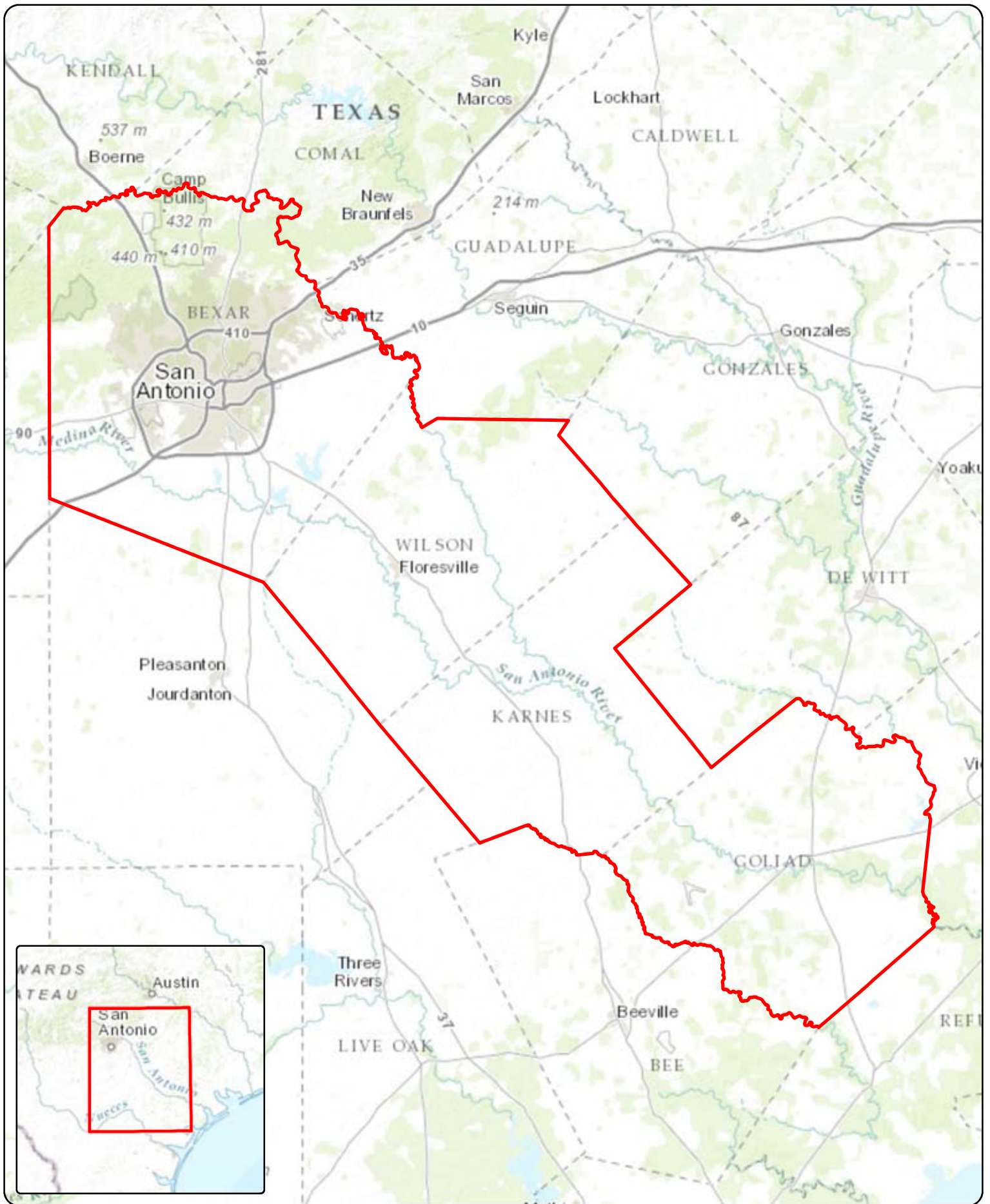
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 191,275	\$ 111,157	\$ -	\$ -	\$ 302,432	
Commodities	4,140	177,856	-	-	181,996	
Contracts	1,873,561	11,276,570	-	-	13,150,132	
<b>Total</b>	<b>\$ 2,068,976</b>	<b>\$ 11,565,583</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,634,559</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Cooperating Technical Partners Development **Project #** 00000092

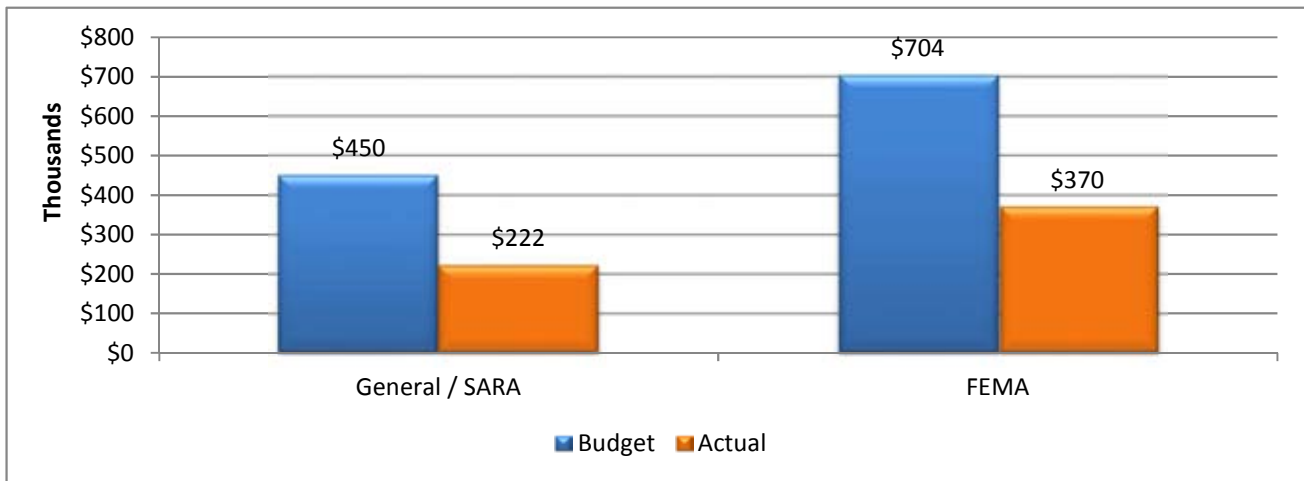
Project Start Date: 07/01/09 Total Project Budget: \$ 1,154,331  
 Project Finish Date: 07/03/18 Managing Department: Watershed Engineering

This project supports the San Antonio River Authority (SARA) Letter of Map Revision (LOMR) and Conditional Letter of Map Revision (CLOMR) Delegation. The grants delegate to the River Authority the responsibility of reviewing all the LOMR and CLOMR submittals to the Federal Emergency Management Agency (FEMA). The technical review of these studies is done by the River Authority Watershed Engineering staff. This project secures the Digital Flood Insurance Rate Maps (DFIRM) investment by keeping the new flood map information up to date and interactive.

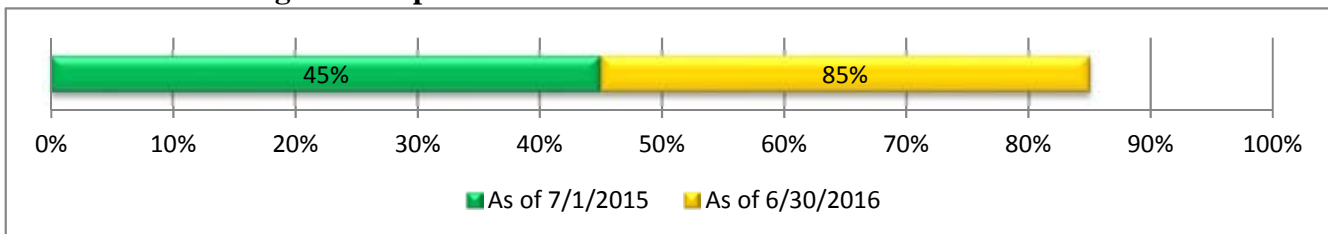
In FY 2015/16, SARA will continue the role of FEMA LOMR Delegation partner. SARA will continue reviewing on behalf of FEMA all Letter of Map Change (LOMC) submittals within Bexar, Wilson, Karnes and Goliad counties.

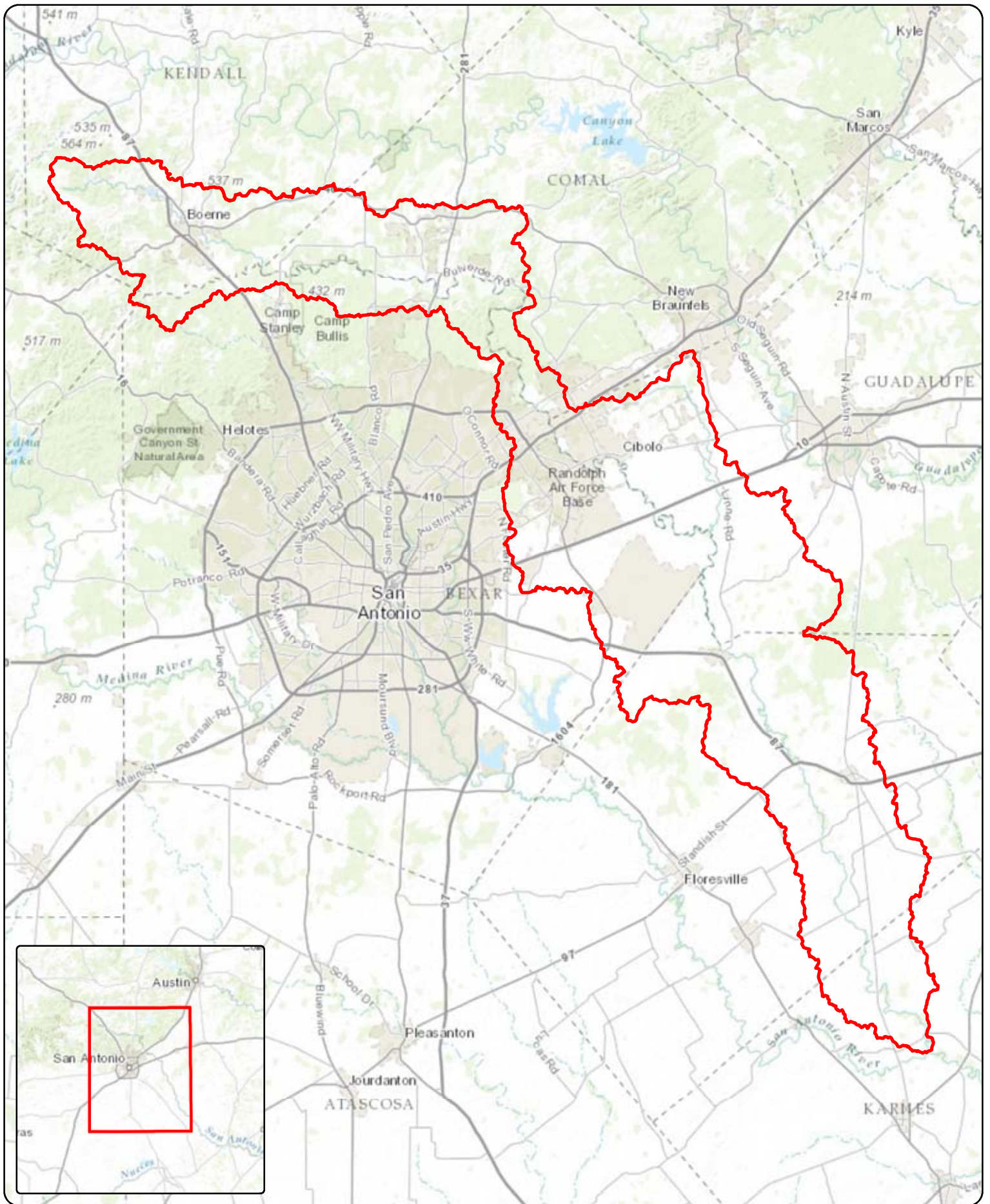
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ 71,276	\$ 145,821	\$ 38,873	\$ 40,234	\$ 296,204	
Commodities	4,967	-	-	-	4,967	
Contracts	<del>237,584</del>	50,000	50,000	853,160		
<b>Total</b>	<b>\$ <del>583,809</del></b>	<b>\$ 88,873</b>	<b>\$ 90,234</b>	<b>\$ 1,154,333</b>		

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Cooperating Technical Partners (CTP) **Project #** 00000472  
**RiskMAP Cibolo**

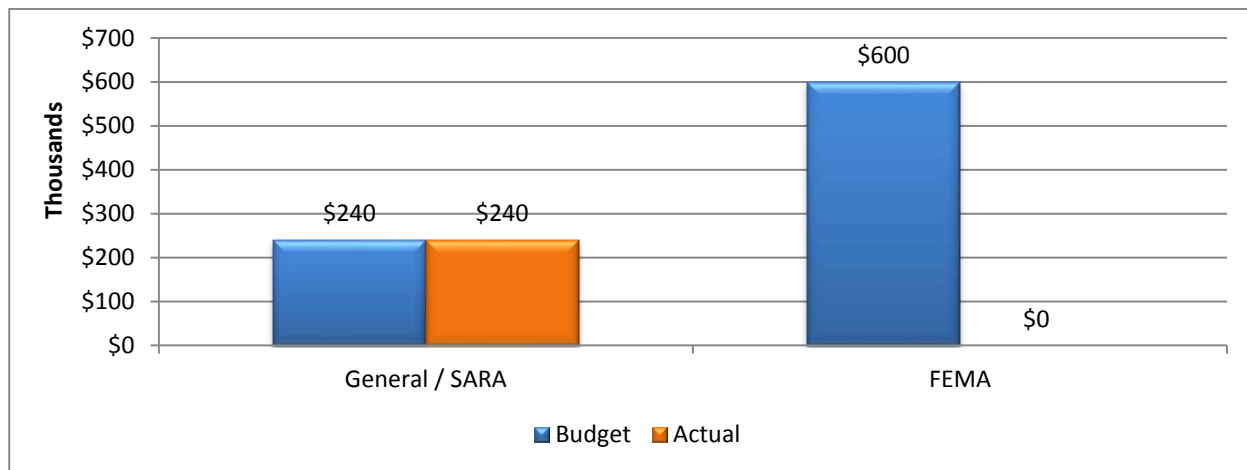
Project Start Date: 01/01/15 Total Project Budget: \$ 840,465  
 Project Finish Date: 12/31/16 Managing Department: Watershed Engineering

The FEMA Risk Mapping, Assessment and Planning (Risk MAP) program assists communities nationwide, assesses flood risks, and encourages mitigation planning to avoid or minimize damage in the face of future disasters. This project utilizes the previously developed data to develop new non-regulatory flood risk products, catalog areas of mitigation interest and success, and produce additional Risk MAP products to increase community awareness about flooding risks and support local actions to mitigate those risks.

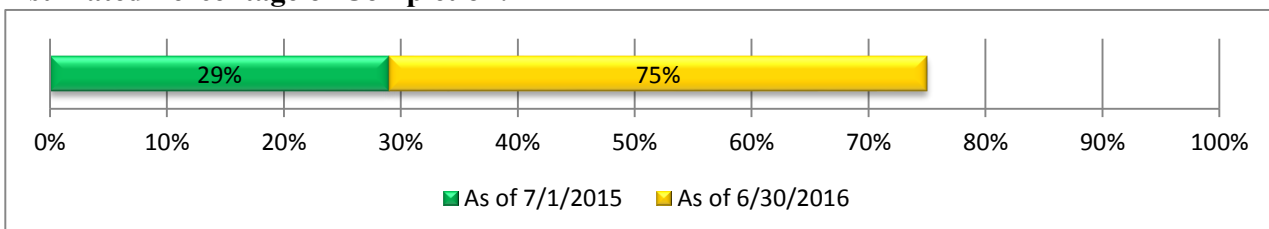
In FY 2015/16, this project will focus on completing Phase I: Discovery and begin Phase II activities. Phase I includes community engagement, data collection, needs-identification, community data gaps, and assists in guide specific activities for Phase II. The deliverables for Phase I include a Discovery Report, Map, and Database as well as an initial Flood Risk Report, Map, and database. Phase II includes development of engineering models and creating flood risk products.

Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ 54,818	\$ 140,178	\$ -		\$ 194,996
Commodities	-	5,000	-	-		5,000
Contracts	240,465	346,977	53,027	-		640,469
<b>Total</b>	<b>\$ 240,465</b>	<b>\$ 406,795</b>	<b>\$ 193,205</b>	<b>\$ -</b>		<b>\$ 840,465</b>

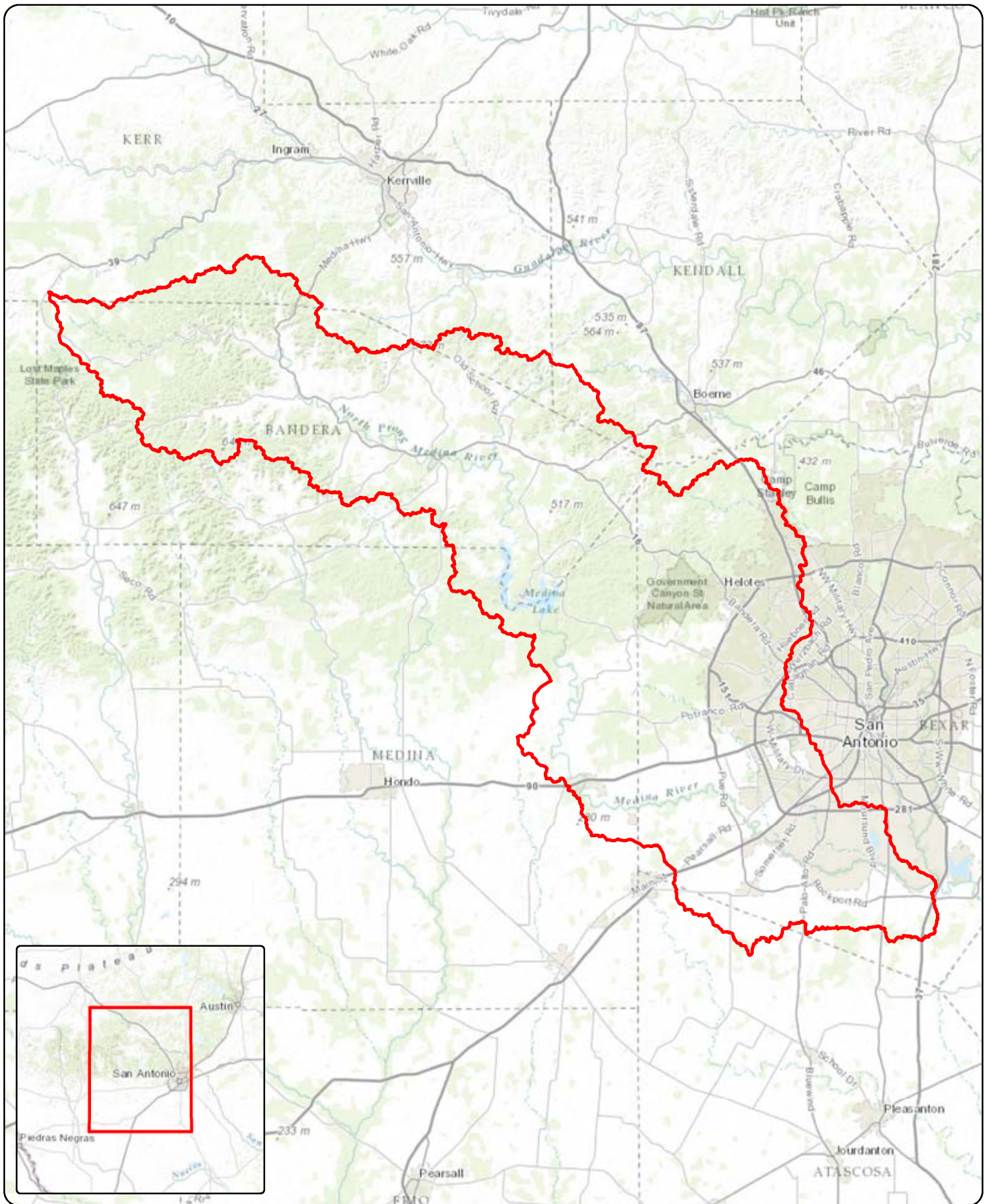
**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**







**Project Name:** Cooperating Technical Partners (CTP) **Project #** 00000439  
**RiskMAP Medina**

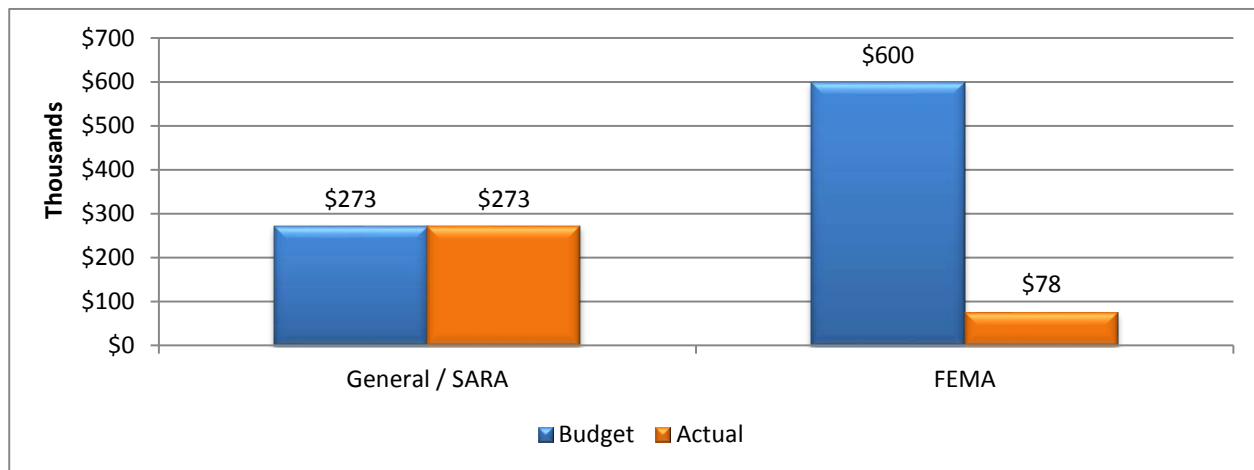
Project Start Date: 01/01/14 Total Project Budget: \$ 872,600  
 Project Finish Date: 10/31/15 Managing Department: Watershed Engineering

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

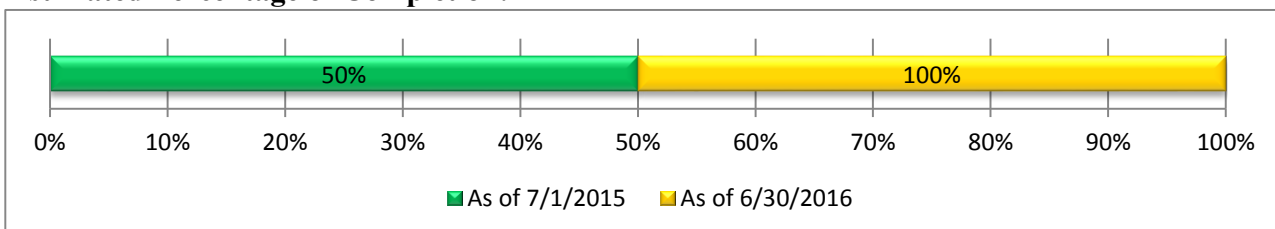
In FY 2015/16, this project will focus on Phase II: Risk Identification and Assessment in the Medina River Watershed. Phase II will focus on developing hydrologic and hydraulic models and flood risk GIS data products. A map, report, and database will be produced at the at the completion of Phase II.

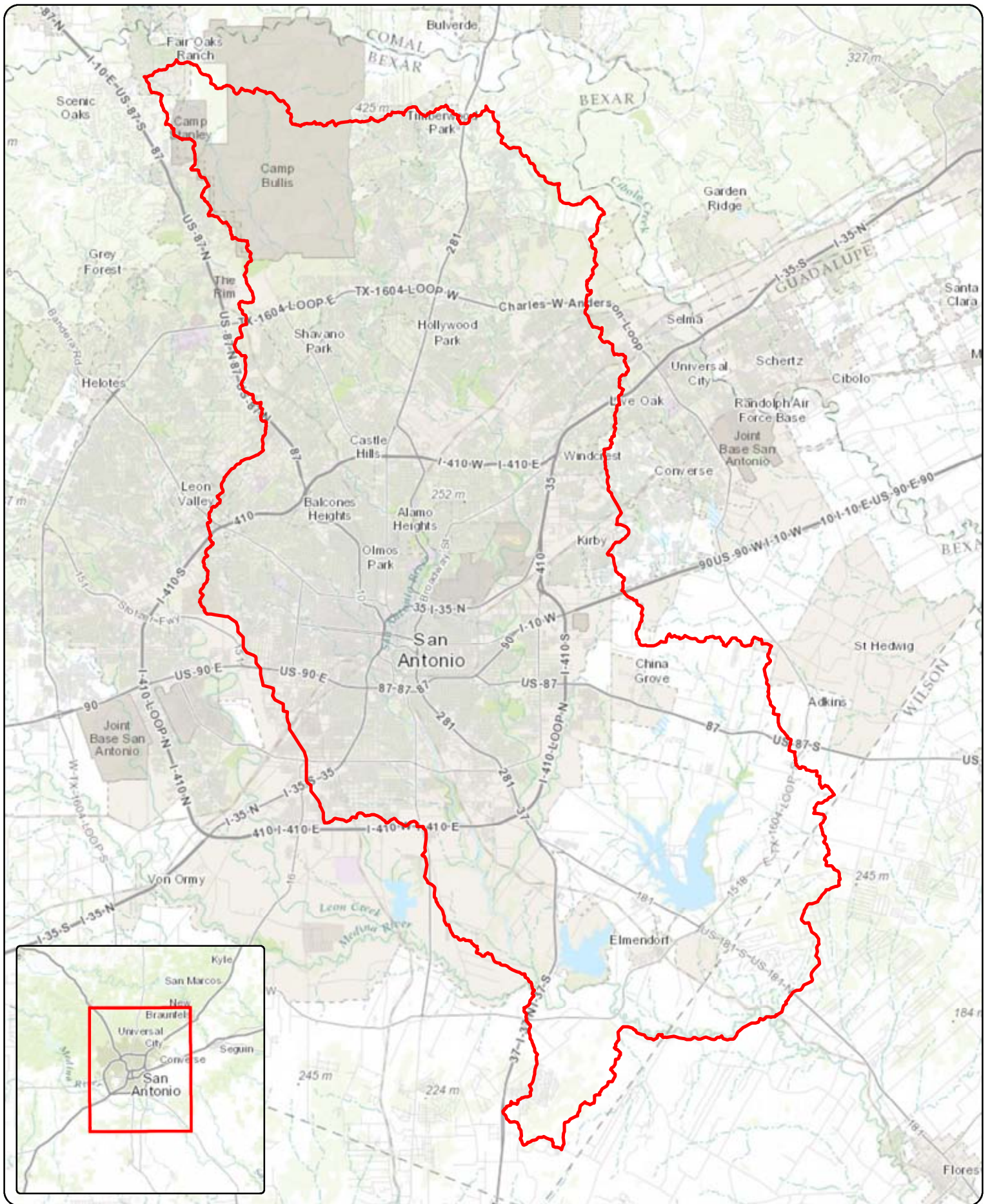
<b>Expenditures</b>	Estimate as of			Succeeding from		<b>Total</b>
	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>		
Personnel	\$ 32,682	\$ 198,945	\$ -	\$ -	\$ 231,627	
Commodities	-	5,000	-	-	5,000	
Contracts	318,418	317,555	-	-	635,973	
<b>Total</b>	<b>\$ 351,100</b>	<b>\$ 521,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 872,600</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Cooperating Technical Partners (CTP)  
RiskMAP Upper San Antonio River**

**Project # 00000438**

Project Start Date: 11/01/12  
Project Finish Date: 06/30/16

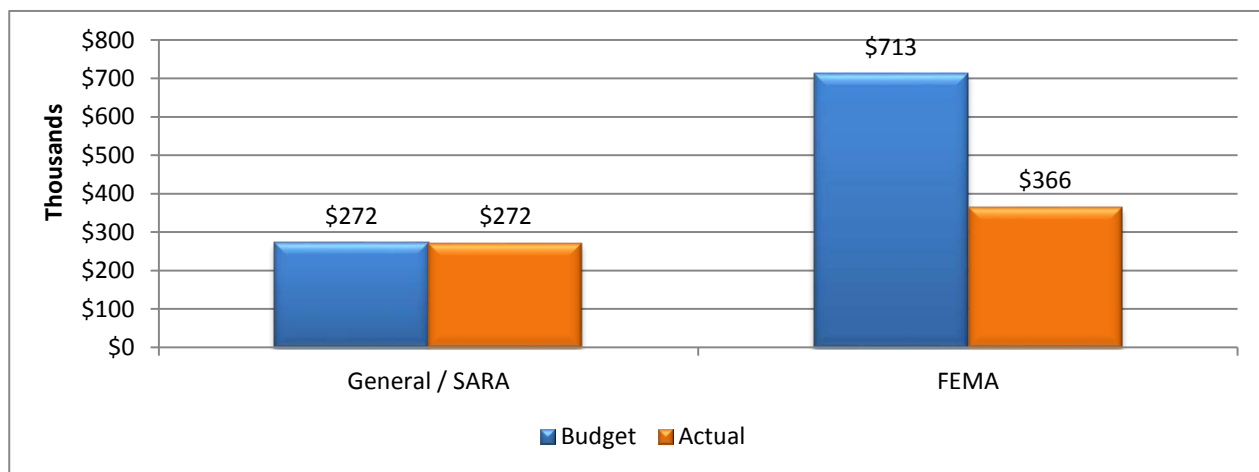
Total Project Budget: \$ 984,984  
Managing Department: Watershed Engineering

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

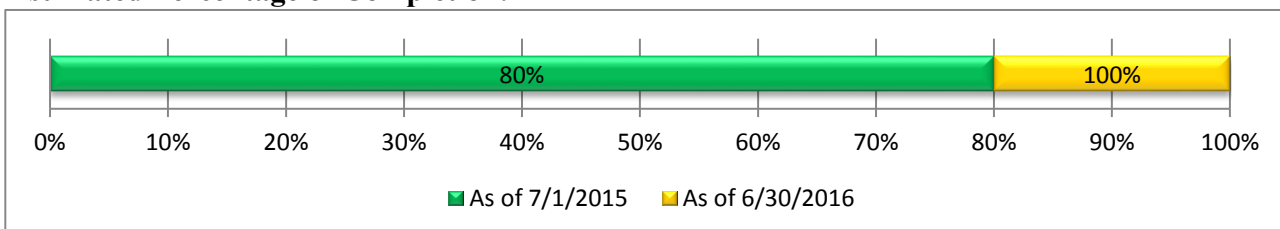
In FY 2015/16, this project will focus on completing Phase II: Risk Identification and Assessment in the Upper San Antonio River Watershed. Phase II focuses on developing FEMA flood risk GIS data products. A Flood Risk map, report, and database will be produced for this final phase of the project.

Expenditures	Estimate as of		Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18	
Personnel	\$ 175,677	\$ 115,621	\$ -	\$ -	\$ 291,298
Commodities	16,368	6,100	-	-	22,468
Contracts	445,759	225,459	-	-	671,218
<b>Total</b>	<b>\$ 637,804</b>	<b>\$ 347,180</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 984,984</b>

**Budget to Actual by Funding Source as of 7/1/2015:**




**Estimated Percentage of Completion:**





**Project Name:**  
Dam Operations Center

 Project Service Area  
and/or Boundaries



0 0.055 0.11 Miles

**Project Name:** Dam Operations Center

**Project #** 00000509

Project Start Date: 07/01/15

Total Project Budget: \$ 564,640

Project Finish Date: 06/30/16

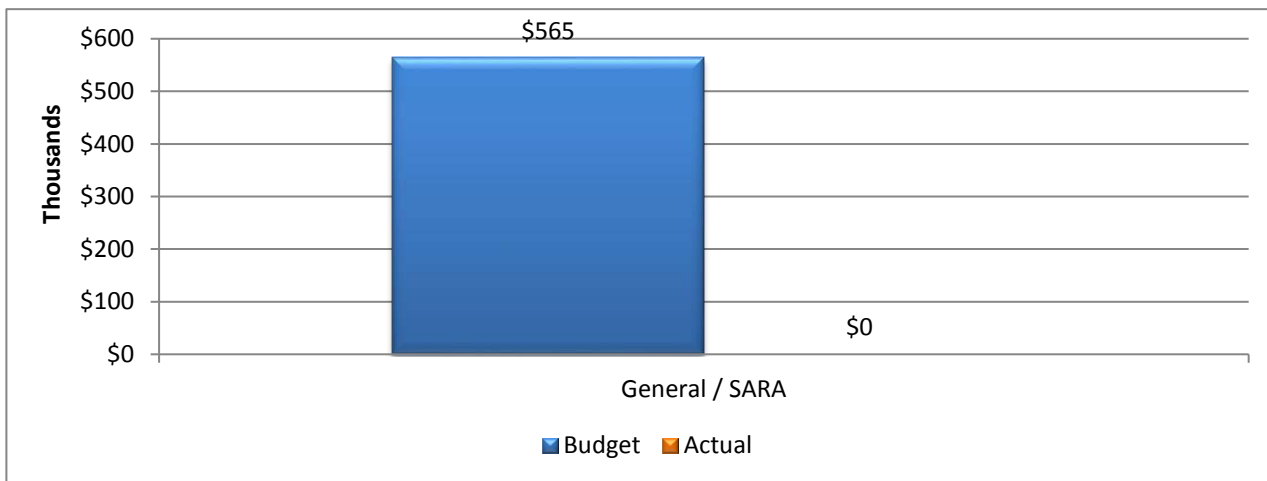
Managing Department: Watershed and Park Ops

The construction of the Dam Operations Center off of Binz Engleman will assist SARA’s dam maintenance employees by strategically placing them in the middle of Bexar County where they will have more efficient access to the 28 dams they maintain. Maintaining the dams to the state and federal standards, ensures public health and safety, which directly supports SARA's mission to protect and enhance the creeks and rivers through service, leadership and expertise.

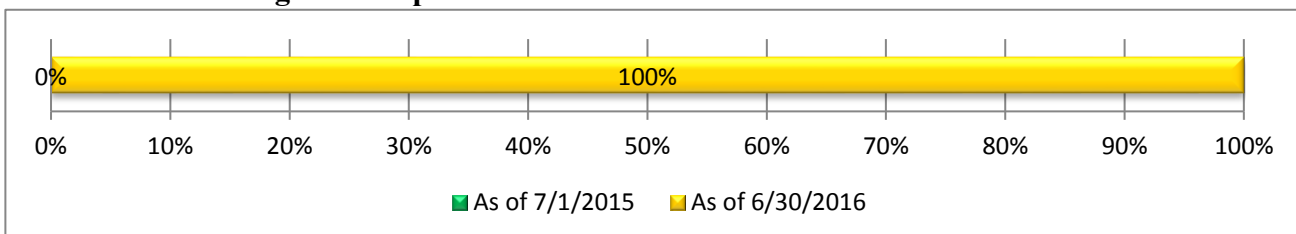
During FY 2015/16, the administration building and site infrastructure will be designed and constructed.

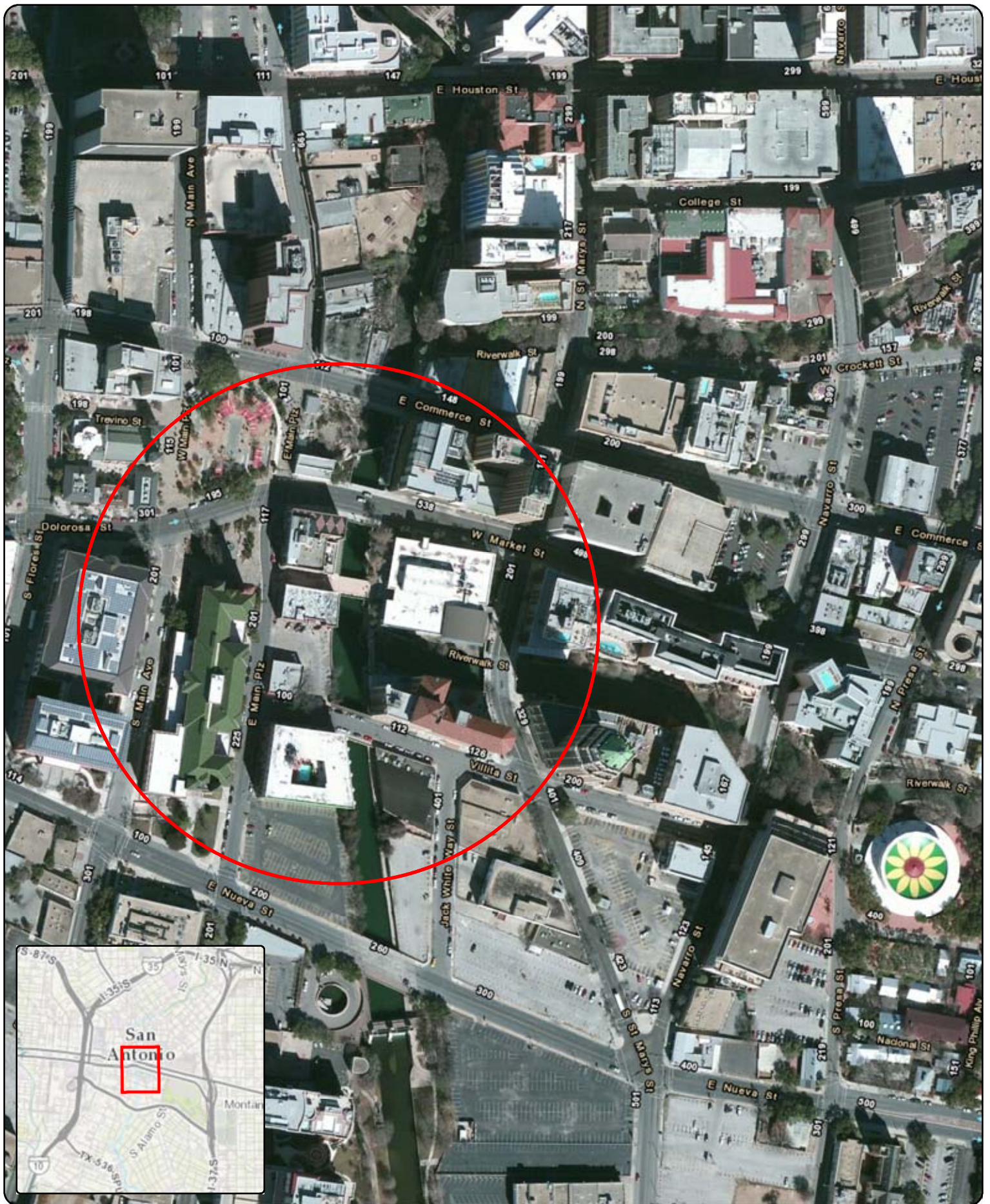
Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ 64,640	\$ -	\$ -	\$ 64,640	
Commodities	-	-	-	-	-	
Contracts	-	500,000	-	-	500,000	
<b>Total</b>	<b>\$ -</b>	<b>\$ 564,640</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 564,640</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name:** Flood Gate 4 Replacement

**Project #** 00000516

Project Start Date: 06/17/15

Total Project Budget: \$ 53,438

Project Finish Date: 07/01/16

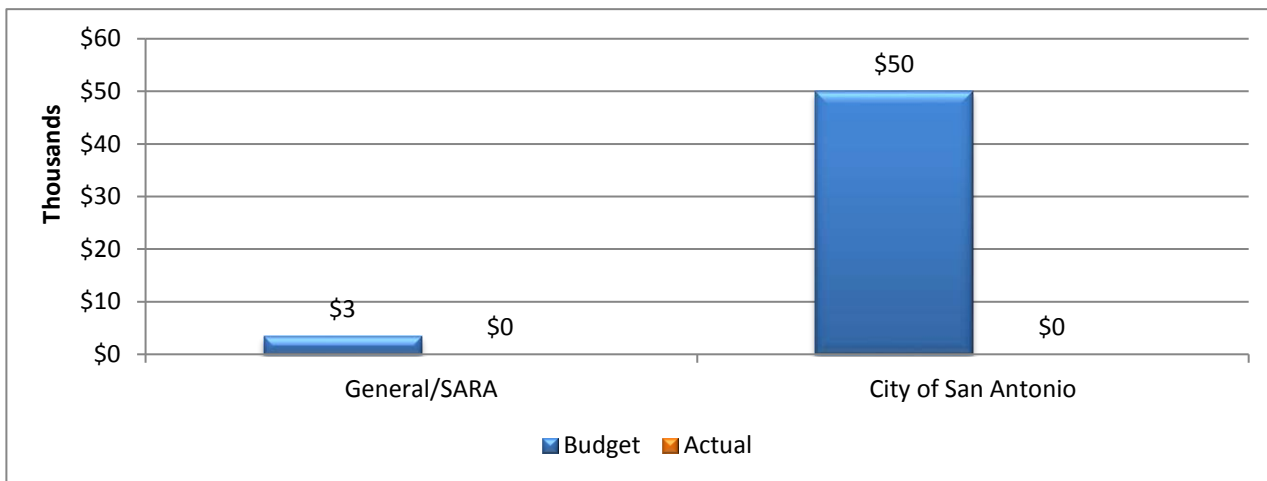
Managing Department: Watershed Engineering

On September 10, 2014, the City of San Antonio's Center City Development Office (CCDO) electrical staff was performing routine maintenance on Flood Gate 4 located at the International Center. Electrical staff inspected the mechanical vaults where the hydraulic pistons are housed and discovered the north flood gate hydraulic cylinder had pulled away from the concrete vault wall and was discharging hydraulic fluid. The recommendation is a full replacement instead of rehabilitating any potentially useable parts.

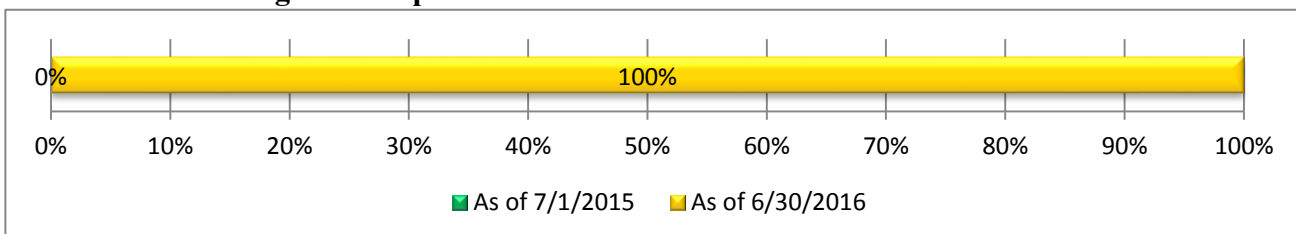
In FY 2015/16, the existing flood gate will be removed and disposed of during the proposed January 2016 River Cleaning Program. The replacement gate and all ancillary equipment will be designed and fabricated by a gate equipment vendor. SARA will develop the bridging documents needed to prepare for the solicitation of a design-build contractor for the San Antonio River Gate 4 Replacement Project. It is anticipated that the design-build contractor will be selected by November 2015 with construction completed by July 2016.

Expenditures	Estimate as of			Succeeding from		Total
	2014/15	2015/16	2016/17	2017/18		
Personnel	\$ -	\$ 3,438	\$ -	\$ -	\$ 3,438	
Commodities	-	-	-	-	-	
Contracts	-	50,000	-	-	50,000	
<b>Total</b>	<b>\$ -</b>	<b>\$ 53,438</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,438</b>	

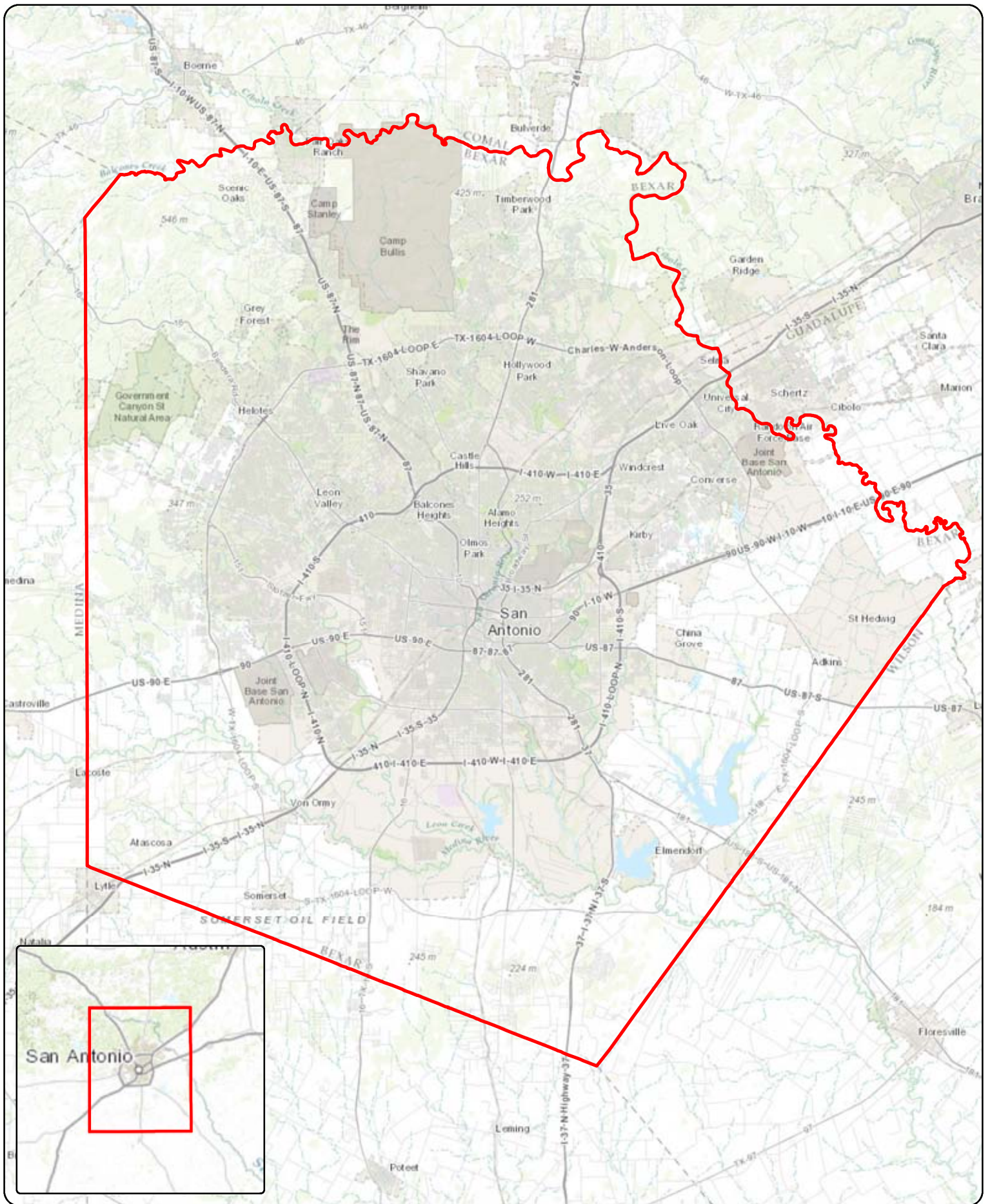
**Budget to Actual by Funding Source as of 7/1/2015:**




**Estimated Percentage of Completion:**

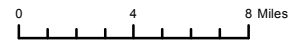






**Project Name:**  
FloodWorks Website Enhancement

 Project Service Area and/or Boundaries



**Project Name:** FloodWorks Website Enhancement **Project #** 00000498

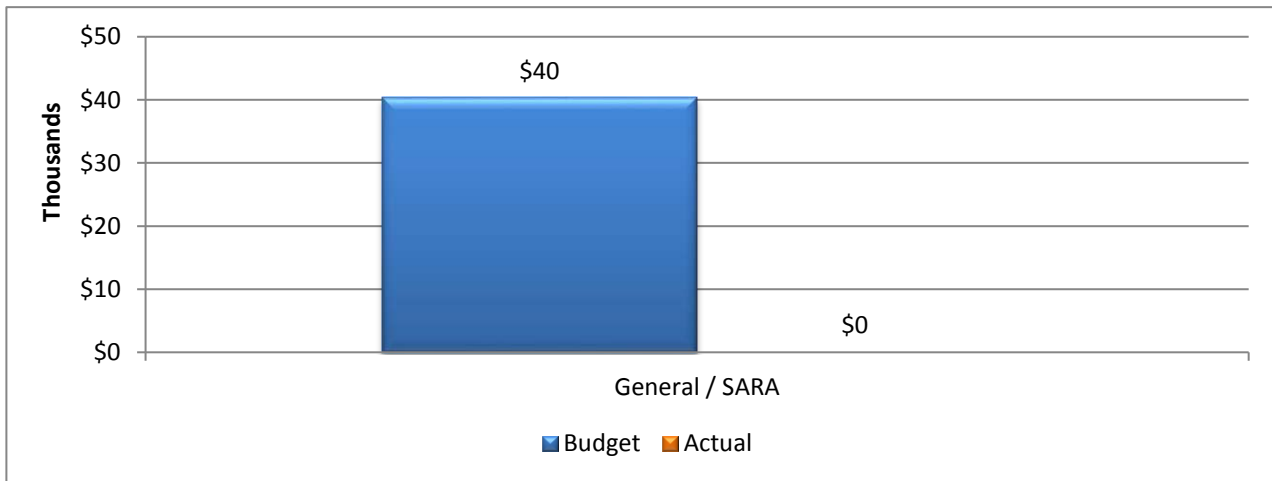
Project Start Date: 07/01/15 Total Project Budget: \$ 40,329  
 Project Finish Date: 07/30/16 Managing Department: Watershed Engineering

The FloodWorks website is a companion application that reads and displays simulation results from the primary FloodWorks system. The current website only displays near-real time data and doesn't allow display of future forecast simulation results. The objective of this project will be to enhance the current web application to display one or many forecast results in addition to the current condition results.

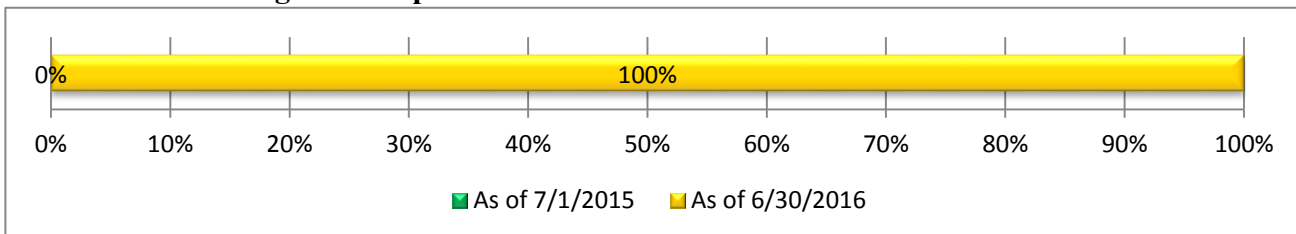
In FY 2015/16, this project will enhance the current FloodWorks web application by allowing forecast simulation results to be displayed along with the current condition simulation results. This will allow users to view and compare near-real time flood conditions with one or many predicted storm scenarios developed prior to an event.

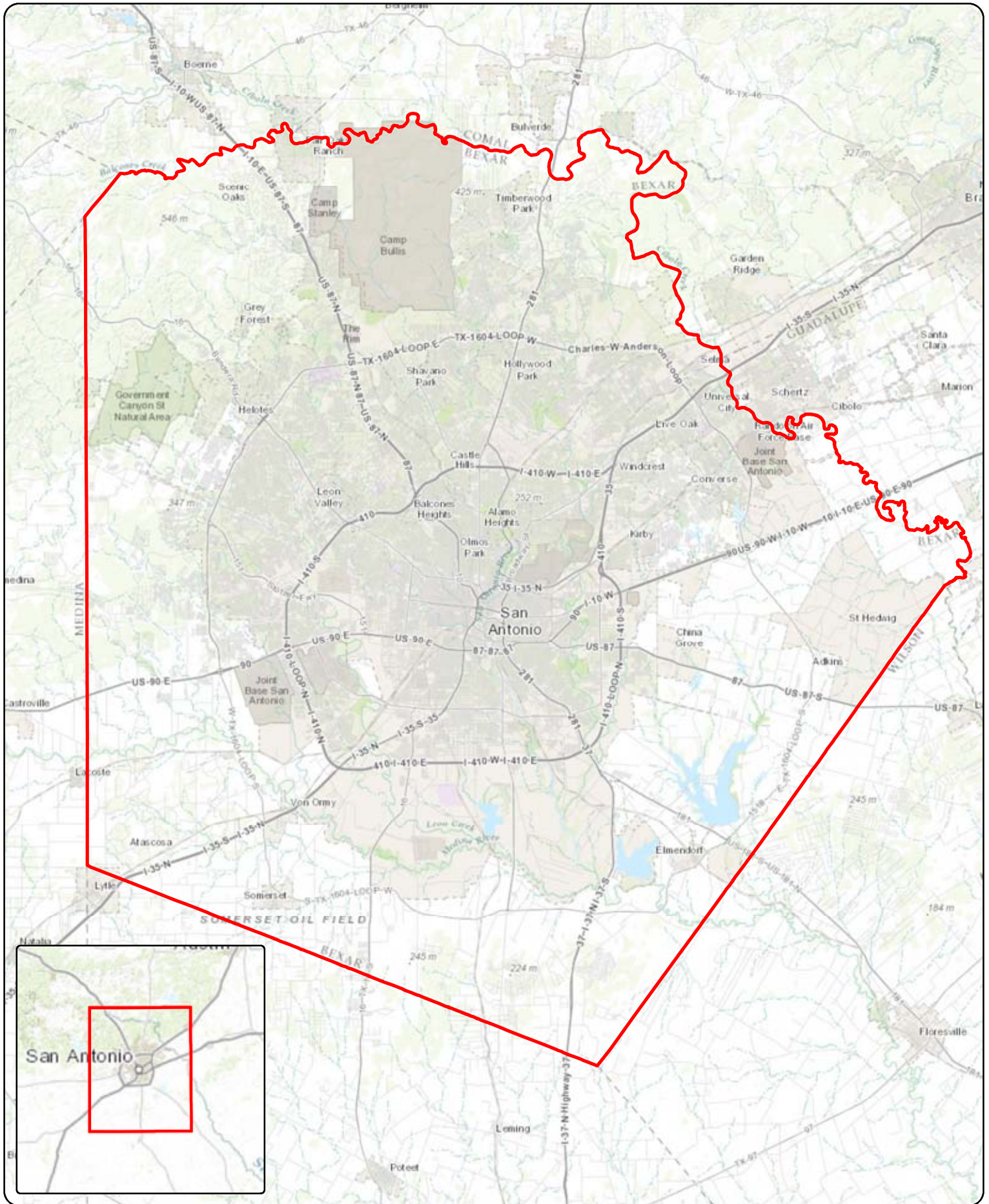
Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 15,329	\$ -	\$ -	\$ 15,329
Commodities	-	-	-	-	-
Contracts	-	25,000	-	-	25,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 40,329</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 40,329</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





**Project Name: Integrated Catchment Modeling (ICM) System Pilot**

**Project # 00000497**

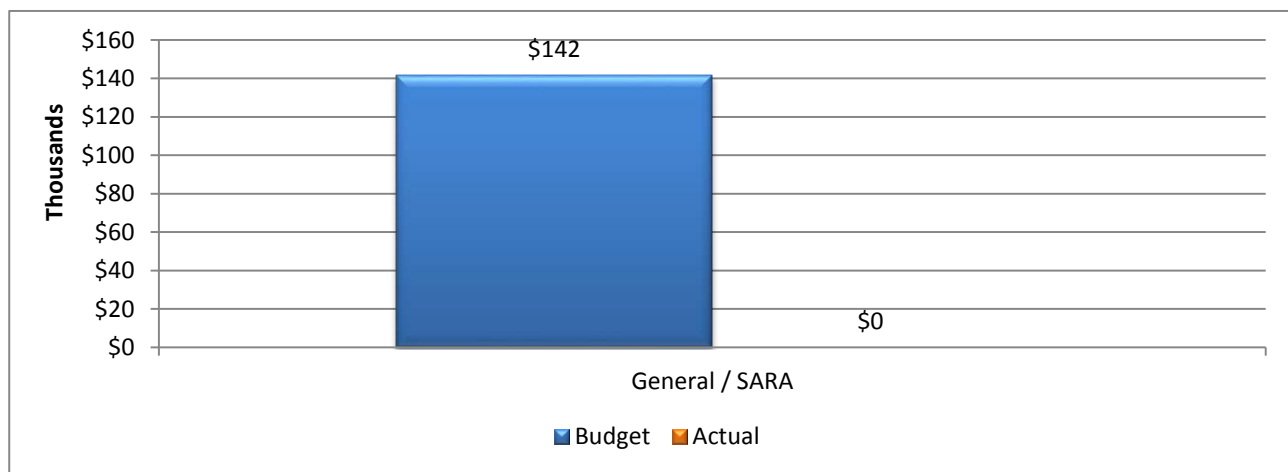
Project Start Date: 07/01/15 Total Project Budget: \$ 141,629  
 Project Finish Date: 06/30/16 Managing Department: Watershed Engineering

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

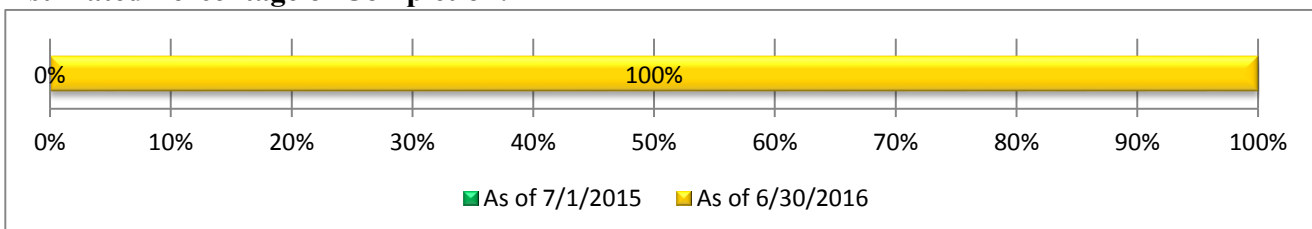
In FY 2015/16, this pilot project will select several flooding sources in the Upper San Antonio Watershed to convert from FloodWorks into InfoWorks ICM Live. The project will aim to evaluate the level of effort and challenges associated with a small scale migration to assist in understanding the resource requirements for migration of larger catchment systems. Additionally, this project will explore the added value that InfoWorks ICM brings regarding data integration, scalability, system management, complex flood modeling, and reduced simulation times.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ -	\$ 16,629	\$ -	\$ -	\$ 16,629
Commodities	-	-	-	-	-
Contracts	-	125,000	-	-	125,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 141,629</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 141,629</b>

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





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

**Project # 00000373**

Project Start Date: 05/01/12  
Project Finish Date: 12/03/15

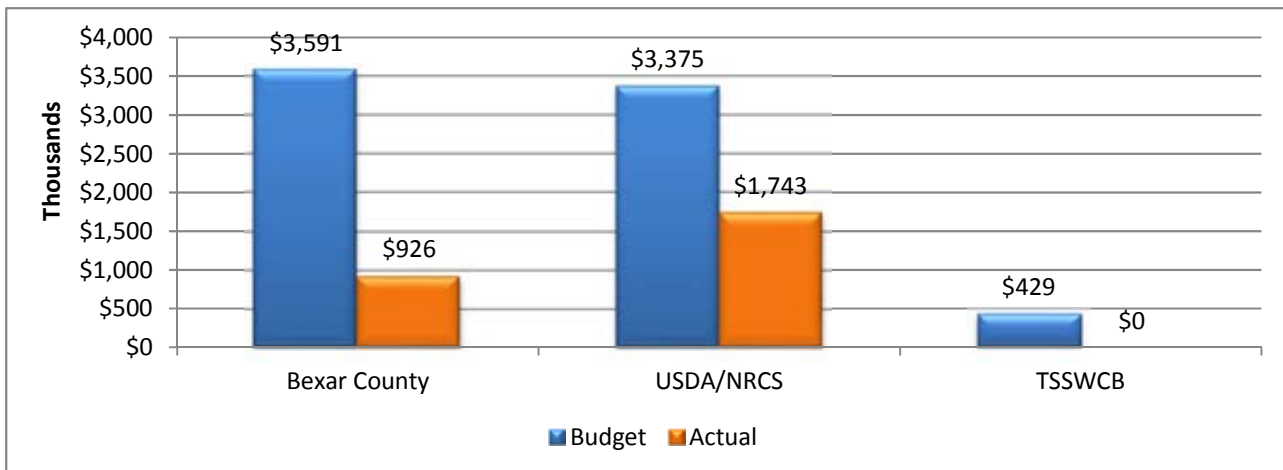
Total Project Budget: \$ 7,395,104  
Managing Department: Watershed Parks Ops

This project improves the Parita Creek (Calaveras 10) Dam to current Texas Commission on Environmental Quality (TCEQ) standards. Improvements primarily include earthwork to increase the height of the dam and to improve the auxiliary spillways. According to the project plan and the operation and maintenance agreement for the rehabilitation project, the San Antonio River Authority (SARA) is responsible for the operation and maintenance of this dam site to assure it will function as designed and constructed. This project is 14 percent funded by the Texas State Soil and Water Conservation Board (TSSWCB), 65 percent funded by the Natural Resources Conservation Service (NRCS), and the remainder from Bexar County. The design and construction is being administered by SARA Watershed Engineering staff.

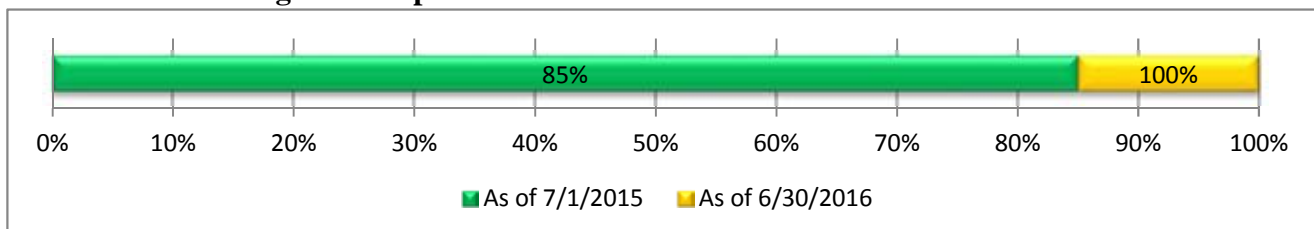
During FY 2015/16, the project tasks will include engineering design, regulatory approval, procurement of rights-of-way, preparation of construction bid documents, and the construction of the dam's improvements.

Expenditures	Estimate as of			Succeeding from	
	2014/15	2015/16	2016/17	2017/18	Total
Personnel	\$ 212,906	\$ 19,406	\$ -	\$ -	\$ 232,312
Commodities	12,045	36,064	-	-	48,108
Contracts	<del>2,470,150</del>		-	7,114,684	
<b>Total</b>	<b>\$ <del>2,669,500</del></b>	<b>\$</b>	<b>\$ -</b>	<b>\$ 7,395,104</b>	

**Budget to Actual by Funding Source as of 7/1/2015:**



**Estimated Percentage of Completion:**





SAN ANTONIO  

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RIVER AUTHORITY

Leaders in Watershed Solutions

# Appendix



**SAN ANTONIO RIVER AUTHORITY  
PROJECT PAGE INDEX  
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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
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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