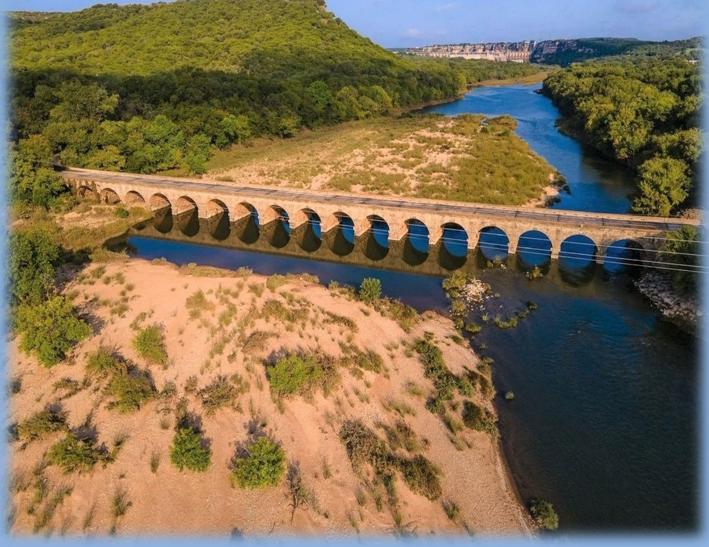


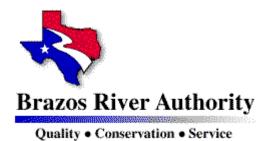


# 2022 Annual Operating Plan



### September 1, 2021-August 31, 2022 Waco, TX

## 2022 BRAZOS RIVER AUTHORITY ANNUAL OPERATING PLAN



This page left blank intentionally

## Brazos River Authority FY 2022 Annual Operating Plan

### **Table of Contents**

Tab 1	OVERVIEW & STRATEGIC INITIATIVES Board of Directors. Management Team. Distinguished Budget Presentation Award. Organizational Chart. Mission Statement. Strategic Plan. Executive Summary.	1-4 1-5 1-6 1-7 1-8
Tab 2	USER INFORMATION 2020 Water Use and Reservoir Accounting Summary Brazos River Basin Map Demographic & Economic Information Budget Calendar Brazos River Authority Chronology	2-4 2-5 2-12
Tab 3	FINANCIAL SUMMARY Financial Structure Financial Overview and Budget Process Fund Schedules for FY 2022 FY 2022 – Operating Revenues & Operating Expenses FY 2022 – All Lines of Business Working Capital Summary FY 2020 – FY 2022 Water Supply System Summary FY 2020 – FY 2022 Cost Reimbursable Summary FY 2020 – FY 2022 Operating Expenses by Category Revenue Detail Water Sales Detail by Type of Contract System Water Rate Calculation Raw Water Billing Units by Contract Type & Water Sales Revenue Assumptions Management Fees Grants & Local Funding Summary Five Year Financial Forecast Assumptions & Overview.	3-3 3-8 3-9 3-10 3-11 3-13 3-16 3-17 3-18 3-20 3-21
Tab 4	UPPER BASIN Upper Basin Management	4-2

Upper Basin Management	4-2
Possum Kingdom Lake	4-4
Lake Granbury	
,	

#### Tab 5 CENTRAL BASIN

	Central/Lower Basin Management	
	Williamson County Regional Raw Water Line (WCRRWL)	
	Temple-Belton Wastewater Treatment Plant (T-B WWTP)	5-8
	Doshier Farm Wastewater Treatment Plant	5-10
	Hutto Wastewater System	5-12
	Sandy Creek Regional Water Treatment Plant (SCRWTP)	5-14
	East Williamson County Regional Water System (EWCRWS)	5-16
Tab 6	LOWER BASIN	
	Lake Limestone	6-2
	Allens Creek Reservoir	
	Sugar Land Wastewater	
	Clute-Richwood Regional Wastewater System	
T.L. 7		
Tab 7		7.0
	Technical Services Management	
	Engineering	7-4
Tab 8	SECURITY AND SAFETY	
	Office of Security and Safety	8-2
Tab 9	SPECIAL PROJECTS AND STRATEGIC INITIATIVES	
	Special Projects and Strategic Initiatives	9-2
Tab 10	WATER SERVICES	
	Water Services	10-2
	Federal Reservoirs and Purchased Water	
Tab 11	ENVIRONMENTAL SERVICES	
	Environmental Services	11 0
	Environmental Services	11-2
	CENTRAL SERVICES	
	Board of Directors	12-2
	General Administration	
	Legal Services	
	Government & Customer Relations	
	Human Resources	
	Finance & Administration	
	Information Technology Services	
	Central Office Common	12-16
Tab 13	CAPITAL IMPROVEMENT PROJECTS	
	Capital Projects and Long Range Planning	
	Capital Improvement Plan Process	
	Project Classifications and Types	
	Capital Improvement Plan Funding	
	Project Index – Alphabetical by Project Name	
	Project Index – by Basin Location	13-10

Project Index – by Project Type	13-11
Project Summaries & Graphs	13-13
FY 2021 Budget vs. Actual	13-14
50-Year Forecast – All Capital Improvement Projects	13-15
FY 2022 CIP Budget	13-16
Operating Impacts	13-19
Capital Improvement Projects – Detail Sheets	

#### Tab 14 OPERATING PROJECTS

Introduction	14-3
Project Classifications	14-5
Operating Project Funding	14-7
Project Index – Alphabetical by Project Name	14-8
Project Index – by Basin Location	14-9
Project Index – by Project Type	14-10
Project Summaries and Graphs	14-11
FY 2021 Budget vs. Actual	14-12
50-Year Forecast – All Operating Projects	14-13
FY 2022 Operating Project Budget	14-14
Operating Impacts	14-17
Operating Projects – Detail Sheets	14-19

#### Tab 15 DEBT

Introduction15-	-3
Outstanding Debt Summary - By Type as of August 31, 2021 15-	-4
Outstanding Debt Detail	-6
Coverage and Proposed Debt 15-	

#### Tab 16 PERSONNEL & STAFFING

Changes in Budgeted Positions – FY 2022	16-3
Authorized Positions for FY 2022	16-4
Pay Group Schedules FY 2022	16-12

#### Tab 17EXPENDITURE DETAIL

Outside Services	17-2
Capital Outlay	17-6
Technology Items	17-8

#### Tab 18 FINANCIAL POLICIES

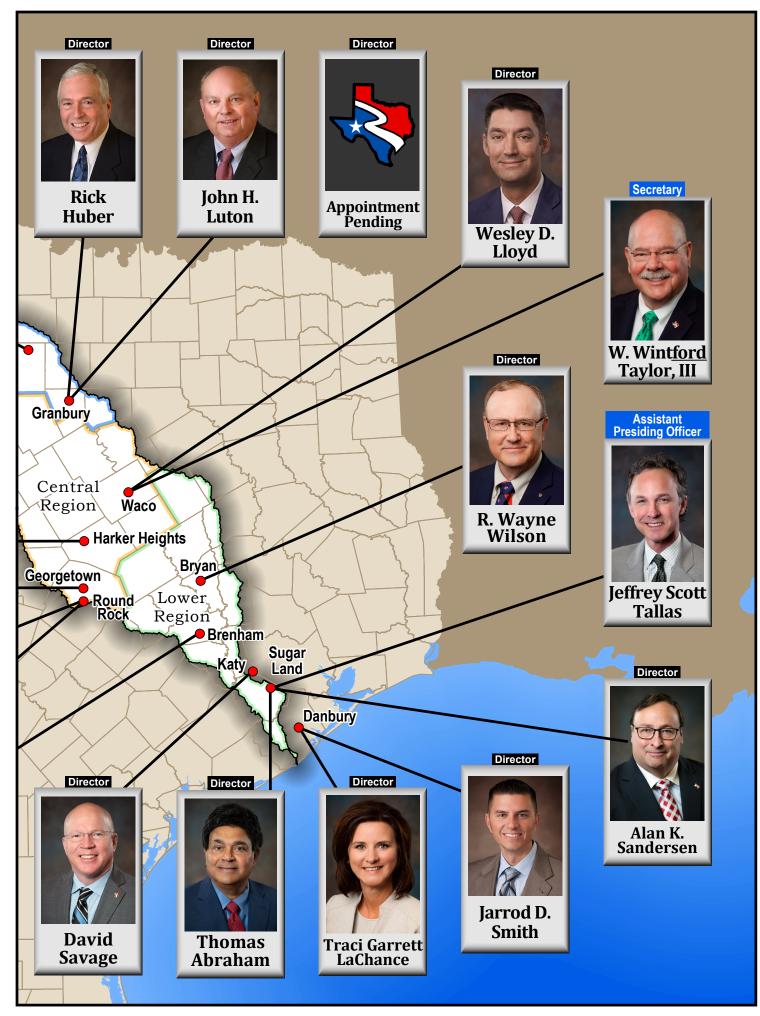
Financial Policies	18-3
Fiscal Year 2022 Budget Resolution	18-4

#### Tab 19 GLOSSARY

Glossary of Commonly Used Water Terms	19-2
Acronyms, Agencies, & Organizations	
Flooding Definitions	19-11

OVERVIEW AND STRATEGIC INITIATIVES





## BRAZOS RIVER AUTHORITY Management Team



David Thompson Chief Financial Officer



David Collinsworth General Manager/CEO



Lauralee Vallon General Counsel



Jon King Special Projects & Strategic Initiatives Manager



Matt Phillips Legislative & Governmental Affairs Manager



Courtney Dobogai Information Technology Manager



Monica Wheelis Human Resources Manager



Blake Kettler Technical Services Manager



Brad Brunett Central & Lower Basin Manager



Michael McClendon Upper Basin Manager



**Robert Starnes** Security & Safety Programs Manager



Tiffany Malzahn Environmental & Compliance Manager



Aaron Abel Water Services Manager



#### GOVERNMENT FINANCE OFFICERS ASSOCIATION

## Distinguished Budget Presentation Award

PRESENTED TO

### Brazos River Authority Texas

For the Fiscal Year Beginning

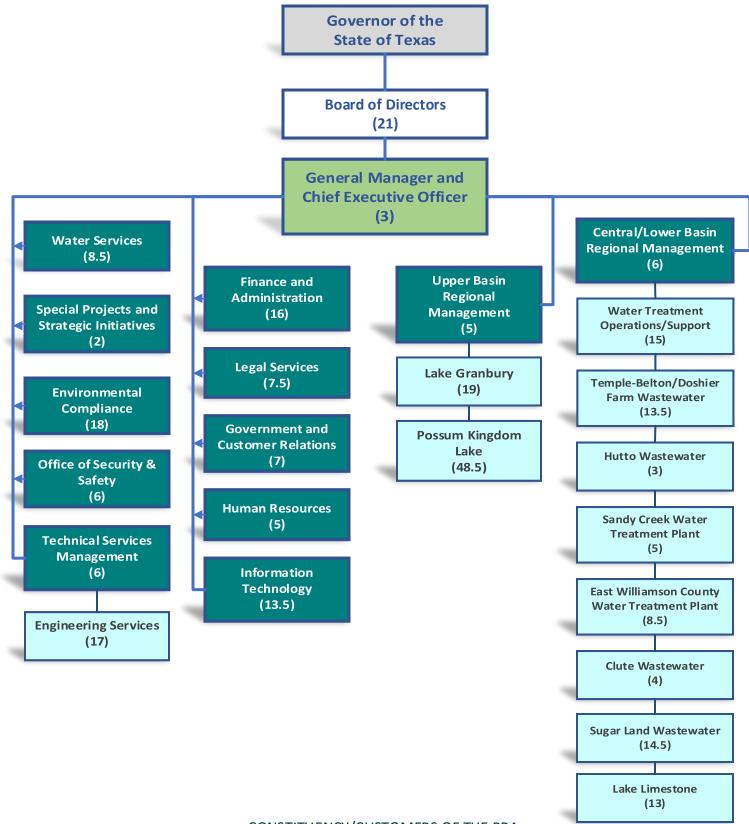
September 01, 2020

Christophen P. Morrill

**Executive Director** 

## Brazos River Authority Organizational Chart

(Including Position Counts)



#### CONSTITUENCY/CUSTOMERS OF THE BRA:

Advisory Boards, Water Customers, Elected Officials, Bond Rating Companies, and the Citizens of the Brazos River Basin.



## MISSION STATEMENT

The Brazos River Authority (BRA) exists to develop, manage, and protect the water resources of the Brazos River basin.

## **Guiding Principles**

- Quality People The right people for the right job
- Integrity and Respect
- Commitment to Service and Stewardship
- Innovation and Continuous Improvement

## Meeting the Needs of the Brazos Basin The Strategic Plan of the Brazos River Authority

## Goals, Objectives and Strategies:

I. The BRA will develop water resources, including both surface and groundwater, to meet future water supply needs within the Brazos River basin.

- a. Support the development of surface water projects based on economic feasibility, environmental sensitivity and customer needs
  - 1. Allens Creek Reservoir
  - United States Army Corps of Engineers (USACE) Reservoir Re-allocation Assessment Projects – Initiate and complete USACE reallocation study (2022-2025) with development of new supply (2025-2030)
  - 3. Explore surface water opportunities, such as the purchase of existing reservoirs and/or water rights, as they become available
- b. Develop and conjunctively use groundwater responsibly and efficiently with surface water supplies
  - 1. Trinity Wells for additional supply from the East Williamson County Regional Water System
  - 2. Carrizo-Wilcox aquifer supplies for future water needs in Williamson County
  - 3. Brazos alluvium research (3 to 4-year study of central and lower portions of the Brazos River basin)

- 4. Monitor groundwater regulation, development, and opportunities
- 5. Participate in groundwater/surface water interface studies that advance the understanding of the water transfer between groundwater and surface water systems
- c. Support the development of economically feasible, nontraditional water supplies, such as Aquifer Storage and Recovery (ASR), reuse, and seawater and/or brackish groundwater desalination treatment technology
  - 1. Williamson County Aquifer Storage and Recovery, including the possibility to implement at the BRA East Williamson County Regional Water System
  - 2. Bell County Aquifer Storage and Recovery
- d. Research and develop infrastructure for the conveyance/transportation of water from areas of surplus to areas of need
  - 1. Lake Belton-Stillhouse Hollow Pipeline
  - 2. Williamson County Regional Raw Water Line3.
- II. The BRA will manage water resources as a service to BRA customers and to support beneficial use by citizens of the Brazos River basin.
  - a. Manage water resources as a system
    - 1. System Operation Permit and Water Management Plan (Submittal of 10-year Water Management Plan update required by November 2026)
    - 2. Possum Kingdom Granbury Water Management

- 3. East Williamson County Regional Water System
- b. Operate and maintain BRA water supplies and associated infrastructure in a safe, responsible manner in compliance with water right permits, water supply contracts, and other applicable regulatory requirements
  - 1. Long-term preventive maintenance of BRA Dams and Reservoir facilities
    - i. Possum Kingdom Lake
    - ii. Lake Limestone
    - iii. Lake Granbury
  - 2. Develop Risk-Based Asset Capital Management Program
  - 3. Manage floodwater releases from BRA reservoirs
  - 4. Williamson County Regional Raw Water Line
  - 5. East Williamson County Regional Water System
  - 6. Brazos Watermaster Program
  - 7. Emergency Action Plans
- c. Protect water supply and treatment facilities and proactively plan for continuous improvement of security measures
  - 1. American Water Infrastructure Act of 2018 All-Hazards and Emergency Response Plan Development for use by customers in the water supply component of local plans

- 2. Update site security analyses for all facilities and incorporate information into future capital improvements
- 3. Advance physical and cyber security measures
- d. Encourage water conservation strategies to address projected water shortages in the basin
  - 1. Support efforts to accomplish water conservation goals within the Regional and State Water Plans
  - 2. Assist in achievement of water conservation
- e. Manage water treatment plant (WTP) and wastewater treatment plant (WWTP) operations in a compliant, cost effective manner
  - 1. East Williamson County Regional Water Supply System
  - 2. Sandy Creek WTP Operations
  - 3. Hutto WWTP Operations
  - 4. Clute/Richwood WWTP Operations
  - 5. Sugar Land WWTP Operations
  - 6. Temple/Belton WWTP Operations
  - 7. Doshier Farm WWTP Operations
- f. Explore new water and wastewater treatment plant opportunities when requested
- III. The BRA will protect water resources, and where possible improve water quality and habitat, to support responsible and efficient use of the Brazos River basin's natural resources.

- a. Monitor and assess water quality throughout the basin for compliance with applicable regulatory requirements
  - 1. Clean Rivers Program and Water Quality Initiatives
  - 2. Environmental Flow Standard Assessments
  - 3. Support water supply development
  - 4. Participate in State sponsored advisory groups related to water quality standards development and revision, water quality monitoring protocol development, and development of the Texas Integrated Report of Surface Water Quality
- b. Monitor and assess stream and reservoir biology and morphology to determine the effectiveness of instream flows and other programs in maintaining healthy riparian areas and aquatic life conditions
  - 1. Baseline instream flow monitoring and biological assessment to inform on SB3 environmental flow standards
  - 2. Population and recruitment assessments for species of concern
  - 3. Reservoir Habitat Improvement Program
  - Participate with State and federal agencies on issues related to Threatened and Endangered Species and/or Invasive Species
    - i. Freshwater Mussel Candidate Conservation Agreements with Assurances (CCAA) Implementation
    - ii. Brazos Water Snake Study

iii. Texas Parks and Wildlife Invasive Species Interlocal Agreement

- c. Provide for environmental flows through reservoir operations and participate in statewide instream flow initiatives
  - 1. Participate in state sponsored advisory groups related to environmental flow standard development and revision

2. Donation of long-term firm water to Texas Water Trust.

- d. Participate in local watershed protection management efforts
  - 1. Intensive Monitoring of BRA-owned Lakes
  - 2. John Graves Scenic Waterway water quality monitoring and visual inspection
  - 3. Lake Limestone Downstream Riparian Restoration
  - 4. Develop Texas Pollutant Discharge Elimination System (TPDES) permit application review protocols to identify applications that potentially pose a potential threat to the water quality of drinking water sources
- e. Support development of new water supplies through environmental impact studies
  - 1. Allens Creek 404 Permit
  - 2. Lake Belton-Stillhouse Hollow Pipeline
- f. Manage BRA-owned properties and administer rules and regulations relative to State and federal programs for the protection of water resources, aquatic life, and overall water quality

- 1. United States Fish and Wildlife Service (USFWS) Section 10 permitting
- 2. USACE Rivers and Harbors Act Section 10 permitting
- 3. USACE Clean Water Act Section 404 permitting
- 4. Texas Parks and Wildlife Department (TPWD) Aquatic Resource Relocation Plans
- 5. TPWD Aquatic Vegetation Treatment Proposals
- 6. Texas Commission on Environmental Quality (TCEQ) Pesticide General Permit
- 7. TCEQ Stormwater Construction Permits
- g. Identify conservation/restoration opportunities on BRA property and at key locations across the basin where such activities would contribute to the protection of drinking water supplies, improve water quality conditions, contribute to the preservation of aquatic habitat of sensitive species, and/or provide mitigation opportunities for BRA projects
  - 1. Integrated Water Resources Plan
  - 2. BRA Properties Master Plan

## IV. The BRA will proactively engage in strategic planning and effective resource management.

- a. Support the development of strategies to meet the needs of the Water Supply System with a sensitivity to the System Water Rate
  - 1. Involvement in State Water Planning and Flood Planning Processes

- 2. Prepare an Integrated Water Resources Plan to guide future water supply development activities and decisions
- 3. Development of a detailed and accurate Capital Improvement Plan and corresponding Long Range Financial Plan to forecast projects into the future and provide stabilization to the System Rate.
- 4. Strategic Plan
- 5. Preparation of a comprehensive Properties Master Plan through a phased approach that will evaluate, provide insight and direction for BRA properties and easements utilized to accomplish our stated mission: 'Develop, manage and protect the water resources of the Brazos River basin.' Components developed through phases include a comprehensive Management Database and Property assessment tool, evaluation of properties for consistency with BRA's Mission Statement, development of an evaluation tool and matrix to assist in making property management decisions.
- b. Support the development of strategies that improve assessment of operational efficiency and physical condition of assets and that improve planning for capital renewal of assets
  - 1. Improve electronic data management platform options for collection and evaluation of physical condition, operating performance and environmental data

- 2. Develop a risk-based asset management framework for planning of capital renewal and rehabilitation efforts.
- c. Ensure operational efficiency throughout programs and processes
  - 1. Improve project management and project delivery through increased training and enhancement of processes and procedures
  - 2. Implementation of Microsoft 365 to ensure high availability of data and facilitate efficient archiving and searching of data
  - 3. Continue development of internal and external applications to support business needs
- d. Promote internal communication and coordination between functional groups
  - 1. Utilize Staff Summary Sheets
  - 2. Development of project management processes and guidelines
  - 3. Training of audio and video conferencing software and tools
- V. The BRA will maintain communications and public relations efforts to support the BRA's mission and service to the Brazos River basin communities.
  - a. Ensure transparency through proactive public information efforts to support the BRA's mission and goals including:
    - 1. Speaker's Bureau
    - 2. Ongoing refinement of BRA website including addition of Major Project tracking site

- 3. Social Media Programs
- 4. BRA email newsletter
- 5. "Brown Bag on the Brazos" Public Meetings
- 6. Water school section of website
- 7. Major Rivers Educational Program
- 8. Brazos Basin Now
- 9. Educational events
- 10. Annual Clean Rivers Program (CRP) Basin Highlights Reports
- 11. Quinquennial CRP Basin Summary Report
- Allow public access to BRA records and information in compliance with Freedom of Information Act and Texas Open Government provisions
  - 1. Open records requests via the BRA website
  - 2. Water quality data query tool via the BRA website
- c. Develop positive working relationships with legislators, local elected officials, customers, and other stakeholders to strategically position BRA to accomplish its goals
  - 1. Meetings and briefings held to provide information and updates
  - 2. Act as a source of information for policy discussions
  - 3. Manage local issues as needed for elected officials
  - 4. Annual regional customer meetings

- 5. Create local stakeholder groups to facilitate dialogue where possible and appropriate
- d. Maintain transparency in BRA's finances and operations by providing timely posting of reports on BRA website including:
  - 1. Comprehensive Annual Financial Report
  - 2. Annual Operating Plan (Budget)
  - 3. Annual Retirement Financial Report
  - 4. Quarterly Financial Reports
  - 5. Quarterly Investment Reports
  - 6. Annual Debt Information
  - 7. Long Range Financial Plan
  - 8. Utility Consumption Reporting
- e. Ensure accountability to our customers, the legislature, and the public by cooperatively participating in statutorily required external audits and review processes
  - 1. 5-Year Management audits as needed
  - 2. Sunset Review process
  - 3. Annual network penetration testing to identify and correct potential vulnerabilities
- f. Conduct business with a customer service focus
  - 1. Educate customers and the public on BRA reservoir operations, drought and flooding conditions, and system operations issues.
  - 2. Enhance secure electronic collaboration and sharing of information with external entities

- VI. The BRA will develop and retain employees to support the BRA's strategic vision, enhance diversity and inclusion in the workforce, and prepare the BRA to accomplish its mission.
  - a. Recruit, develop and retain the right people for the right job
    - 1. Attend job fairs and recruiting events to promote BRA employment opportunities
    - 2. Enhance recruiting efforts by building relationships with community organizations, colleges and multicultural groups, and by utilizing diverse social media outlets
    - 3. Invest in employee training and development programs, compensate for critical skills, and provide growth and advancement opportunities
    - 4. Promote diversity of thoughts, ideas, and approaches to increase employee engagement, encourage inclusion, and inspire innovation
    - 5. Maintain equitable compensation system
    - 6. Provide a secure retirement benefit
  - b. Promote an organizational culture that values employee contributions, encourages collaboration, supports diversity and recognizes achievements
    - 1. Foster positive employee relations
    - 2. Service and Safety Award Program
  - c. Encourage a healthy workforce through programs and initiatives
    - 1. Holistic wellness initiative that includes health and wellness training, annual health fairs, access to fitness and health-related materials, and alternative

work schedules to allow time for exercise and annual wellness visits

- d. Ensure a safe working environment, promote a safety conscious attitude in all employees and facilitate the implementation of proactive steps to reduce accidents and incidents.
  - 1. Deploy a comprehensive program to continuously improve culture of health and safety at home, in public, and in personal lives
  - 2. Conduct monthly employee safety training
  - 3. Effectively implement and utilize Engineering and Administrative Controls and Personal Protective Equipment (PPE)
  - 4. Conduct a Needs Assessment to identify potential solutions to space and functional limitations of the current space dedicated to the Environmental Services Department

## Brazos River Authority FY 2022 Annual Operating Plan

## **Executive Summary**

To the Board of Directors of the Brazos River Authority:

#### **Executive Summary**

I am honored to present to the Board of Directors the proposed 2022 budget for the Brazos River Authority. This document represents the culmination of hundreds of hours of dedication from our excellent staff throughout the basin. While Covid 19 and unprecedented growth in Texas have altered some of our focus, those things have not changed our course. This budget reflects the organization's priorities to develop, manage, and protect the water resources of the Brazos River basin.

For the past year we have been challenged with an ever-changing, "new norm" of operations, begun new initiatives that will change the way we plan for the organization's future, and worked more aggressively to understand, and ultimately acquire, new sources of water to meet growing demands in the Brazos River basin.

In June of 2021, Governor Abbot signed House Bill 1570, the BRA's Sunset Bill. This action finalized an extensive review process that lasted an entire year. The review demanded a tremendous amount of effort from our staff, and, in the end, the report it produced provided recommendations that will improve our organization going forward. The BRA will spend the next several months implementing those recommendations.

As we move toward the establishment of a risk based approach to prioritizing and understanding our future efforts, we are also putting into place the processes that, along with new staff, will allow the BRA to improve efficiencies in project delivery. Additionally, we are close to providing project updates in a formate that will allow our customers and public to follow along with the progression of BRA's major projects. As an organization that prides itself on transparency, this is a positive development.

This budget also reflects the BRA's commitment to protecting the water quality of the Brazos River and its reservoirs. We have included increased monitoring efforts that will allow our staff of environmental experts to understand impacts to water quality from growth around our reservoirs, and throughout the basin.

#### **Summary of Financials/Assumptions**

- The FY 2022 Budget totals \$74.5 million for operating expenditures and \$65.4 million for capital improvement projects.
- Total operating revenue for FY 2022 is projected to be \$78.5 million, resulting in a FY 2022 Water Supply operating surplus of \$0.8 million, which is level with the FY 2021 budgeted surplus.
- The FY 2022 proposed Budget assumes that the recommended System Water Rate will increase by 5.1% to \$83.00 per acre-foot. See Tab 3, for additional water sales revenue assumptions.
- The proposed FY 2022 Budget also assumes that the BRA will invest \$62.2 million of Water Supply System reserves in capital improvement projects. The projected FY 2022 ending working capital balance for Water Supply System reserves is \$55.0 million.
- The proposed Budget includes a net increase of nine full-time positions and a net decrease of three part-time positions. See Tab 16, for details of these changes.

#### **Summary of Strategic Priorities**

In keeping with the Board's direction to becustomer-focused in developing water for the Brazos Basin (Basin), the following projects and programs will be the focus of the BRA for FY 2022, consistent with the BRA's strategic plan:

#### **Developing Water Resources**

#### SYSTEM OPERATION PERMIT AND WATER MANAGEMENT PLAN (WMP)

After over 15 years of diligent effort, the System Operation Permit (Permit) was approved and became unappealable at the beginning of the 2019 Fiscal Year. The Permit and WMP maximize the availability of water currently accessible throughout the Brazos Basin, combined with the water BRA already has stored in eleven reservoirs, to create an additional firm supply to meet a portion of the current and future needs of our customers.

Over the last several years we have continued to operate under the Permit and WMP to deliver water to our customers. One condition within the Permit was the requirement to revisit the Permit and WMP every ten years, and to submit a formal update to the TCEQ. The first update will be due in November 2026, however planning for this process is already underway. The update will be subject to the same Contested Case process used to acquire the initial Permit and WMP. The water sale agreements for Permit water include protective provisions contemplating these processes.

#### **NEW WATER SUPPLY FOR CENTRAL TEXAS**

The BRA strives to manage and use its existing water resources as efficiently as possible, while also working to identify and implement future supply strategies. The FY 2022 Budget includes funds for a number of projects focused on use of existing supplies. One of these is the proposed pipeline project from Lake Belton to Lake Stillhouse Hollow, which will help meet the growing demand for water at Lake Stillhouse Hollow with existing water supply from Lake Belton. Preliminary engineering work on this project is underway and is expected to be completed in FY 2021, with engineering design and permitting work beginning in FY 2022.

Another related project is expansion of the pumping capacity for the Williamson County Regional Raw Water Line (WCRRWL), which is needed to meet growing demands of BRA customers at Lake Georgetown. Engineering work for this effort will begin in FY 2022. Engineering design is also underway for addition of a Copper Ion Generator at the WCRRWL Lake Stillhouse Hollow intake structure. This project will help control zebra mussels within the pump station and pipeline.

Engineering work for the next expansion of the BRA East Williamson County Regional Water System (EWCRWS) will also be underway in FY 2022. This project is required in order for the BRA to meet the growing treated water needs of its east Williamson County customers. With regard to new supply development, the BRA is engaged and exploring Carrizo-Wilcox aquifer groundwater options with some of its customers to help meet future needs along the IH 35 corridor in Bell and Williamson Counties. And finally, as part of the EWCRWS expansion project, engineering work will be conducted to recommend a path forward for incorporating Trinity aquifer groundwater as a supply element to the EWCRWS either through blending with Lake Granger surface water or through Aquifer Storage and Recovery (ASR).

#### REALLOCATION OF FLOOD STORAGE - CORPS OF ENGINEER LAKES

Over the last 10 years BRA has discussed the possibility of obtaining additional water in Lake Whitney with the U.S. Army Corps of Engineers (USACE) through a pool reallocation. Lake Whitney is the largest reservoir in the Brazos River basin by volume and is unique among others due to its use for hydropower generation, and the fact that no State water right permit exists for most of its storage. Due to its large size and location on the main stem of the Brazos River, it has the potential to provide greater water supply benefits than currently authorized. BRA is interested in exploring new water supply and hydropower generation options for its use in the future through a reallocation study. The 2020 Water Resources Development Act passed by the United States Congress includes a provision for the USACE to expedite a reallocation study at Lake Whitney. BRA staff is actively working with its congressional delegation to seek funding and help the USACE initiate this effort.

#### ALLENS CREEK RESERVOIR

Allens Creek Reservoir is a proposed new reservoir in the lower Brazos basin that is structured as a joint project between the BRA and the City of Houston. It is anticipated to provide a substantial new water supply for the lower Brazos basin.

In 2019, the 86<sup>th</sup> Texas Legislature passed House Bill (HB) 2846, which was signed by the Governor and required the City of Houston to transfer its interest in the reservoir to the BRA by January 1, 2020, for \$23 million. The City filed a lawsuit against the State of Texas and the BRA challenging, among other aspects, the constitutionality of this bill. A Travis County District Court ruled in favor of the City's challenge in late 2019. The BRA and the State of Texas have appealed the District Court decision, and the matter is currently under appeal. The BRA will continue to pursue development of this reservoir, as this water source is a high priority for the Brazos basin.

#### **STATE AND REGIONAL WATER PLANNING**

In support of the State Water Plan (SWP), the BRA actively participates in three regional water planning groups – Region G (Brazos G), Region O, and Region H. The BRA continues to assist Brazos G as its administrative agent and designated political subdivision for managing professional services contracts. The BRA has a staff representative that serves as a voting member on each of three planning groups. The final regional water plans for the fifth cycle of regional water planning were completed in October 2020. The compilation of the approved regional water plans will culminate with the 2022 SWP.

#### **Managing Water Resources**

#### **WATER SUPPLY**

Managing the BRA water supply system is the core element of the BRA's existence. Over the last several years we have seen several transitions from drought conditions to above average rainfall across the Brazos River basin. We have contracts, plans, policies and procedures in place to manage the water supply system through all conditions, while meeting our customers' water needs and maintaining compliance with applicable regulatory requirements. These plans include the Drought Contingency and Water Conservation Plans, the System Operation Permit WMP, water sales policies and procedures, and procedures for passing floodwater through our reservoirs. The BRA will continue to implement plans, policies, and procedures while seeking opportunities for improvement in the management of the water supply system in 2022.

#### **DAM MAINTENANCE**

Maintenance of existing dam infrastructure is essential for safety and continuing to meet the water supply demands of the Brazos Basin and our customers. This includes BRA dams and USACE dams that are in part funded by the BRA. As the dam infrastructure ages, additional maintenance and the need for replacement and rehabilitation of various components is increasing to extend the service life of these facilities. The Brazos River Authority approach to maintenance is multi-faceted relying on the expertise of multi-disciplined engineers, consultants, and contractors as well as the equally skilled and knowledgeable on-site BRA maintenance staff.

The most significant project at Morris Sheppard Dam (Possum Kingdom Lake) currently is our Comprehensive Assessment and Service Life Evaluation (CAASLE) which will focus and guide maintenance activities associated with the concrete elements of the structure for several years. At De Cordova Bend Dam (Lake Granbury), our Low Flow Outlet Works project is our principal area of emphasis which will provide the ability to more accurately moderate or regulate downstream flows. At the Sterling C. Robertson Dam (Lake Limestone), a major project is underway to replace the five Tainter gates, which are utilized to pass flood flows through the reservoir. Additional components of this project include replacement of the power transmission systems, providing cathodic protection and new coatings. Construction is expected to begin in FY 2022. Additional work will begin in the coming years on the dam's low flow gates and its hydrostatic relief system.

Significant enhancements or maintenance to our infrastructure projects are required to continue the level of service these critical assets provide; the various BRA departments along with our consultants and engineers are determined to improve and extend the service life of these facilities.

#### **WATER CONSERVATION**

The 2022 SWPIs expected to place strong emphasis on water conservation measures to meet future water supply needs. As a wholesale provider, BRA promotes water conservation and education on its website and in direct communications with its customers.

BRA's website includes a dedicated section to water conservation, including articles on conservation inside the home with a focus on saving consumers' money and utilizing native Texas plants to reduce the amount of required watering of outside lawn and gardens. Permanent web articles also focus on the process of rainwater harvesting and the overall need for conservation as a means of prolonging this limited natural resource.

The BRA also utilizes its website to highlight articles on water conservation on the home page, focusing on how water conservation applies to current weather and seasonal conditions. These articles were cross marketed on the BRA's social media accounts to draw attention to this pertinent information. An additional benefit of increased water conservation is that it can delay expensive capital investments to upgrade or expand water and wastewater infrastructure, conserve energy, and protect water quality. The BRA maintains a water conservation plan and assists its customers where appropriate, such as publishing water conservation news and success stories on the BRA website.

We will continue to investigate and evaluate the BRA's role in water conservation strategies and the means by which we can be of better service to our entire customer base in promoting wise use of water.

#### REGIONAL FLOOD PLANNING

The 2019 Texas Legislature expanded the Texas Water Development Board's role in flood planning through its administration of a regional and state flood planning process similar to the Regional Water Planning Process. The initial flood planning groups were formed in October 2020.

The Brazos Basin was divided into two regional flood planning groups. The Upper Region is known as Region 7 while the Lower Brazos Regional Flood Planning Group is designated as Region 8. The Brazos River Authority has planning group members serving as voting-members of both regional flood planning groups. The Lower Brazos Regional Flood Planning Group designated the Brazos River Authority to be the sponsor and assume administrative responsibilities for the Region 8.

Ultimately, the regional flood planning groups will develop regional flood plans that will culminate in the identification and evaluation of potential flood management strategies and projects to mitigate flooding throughout the region. The regional flood plans are the basis of what will be the first ever State Flood Plan.

Both Region 7 and 8 have selected Technical Consultants to provide technical expertise to guide the regional flood planning groups through the regional flood planning process.

The initial regional flood plans will be due January 2023 and the first State flood plan will be due September 1, 2024.

#### **Supporting Core Activities**

#### **VIEW OF ANSE AND A STATE AND**

The BRA coordinated development of a Long Range Financial Planning (LRFP) tool almost twenty years ago. The tool illustrates how current decisions and project planning impact the future financial position of the BRA and provides our customers with forecasted System Water Rates for their budget planning and ratemaking purposes. The model has the capability of modeling alternative projects and serves as a financial risk management tool relating to cash flow,

bond covenants and Board policies. It is the basis for credit agency reviews in order to achieve a favorable rating, resulting in economical financing terms and cost savings for our customers. With the new emphasis on pursuing projects to both shore up our existing infrastructure and to also bring new water supplies to our customers, the LRFP process will take on a greater role in guiding our financial decision-making process.

#### Risk- Based Asset Management and Capital Planning Program

The Risk-Based Asset Management and Capital Planning Program formalizes the process to define the relative risk posed to operations from any single asset, as well as assess the BRA's risk profile presented by all assets. The program will leverage data collected from operation and maintenance activities at our facilities, financial software system and other various sources to integrate into an enterprise resource planning system. This program is not intended to increase operating revenue or expense but improve planning of operating and capital expenses by developing an accurate long range capital improvement plan to support the Long Range Financial Plan (LRFP).

This initiative will help improve decision making on asset renewal through improved prioritization of assets across BRA and improve long-term capital forecasting efforts through better assessment of renewal needs. An additional benefit of this initiative is providing enhanced business continuity and operational resiliency efforts.

Efforts towards this multi-year implementation of the program began in Fiscal Year 2021. BRA should start to see benefits from this initiative in the next couple years.

#### STRATEGIC PLAN

The Strategic Plan is reviewed annually, in conjunction with development of the Annual Budget process. A revised Strategic Plan, incorporating those initiatives funded in the proposed Budget is presented annually to gather comments within a Strategic Plan workshop and ultimately the final plan is presented to the Board concurrent with the annual Budget, for review and re-adoption.

#### INTEGRATED WATER RESOURCES PLAN (IWRP)

The initiation of the development of phase one of BRA's first integrated water resources plan (IWRP) is proposed to start in Fiscal Year 2022 and proceed over the next several years. Integrated water resources planning defines a comprehensive and holistic approach that leverages advanced planning, modeling, and decision-making techniques to build a plan that addresses the potential future demands and operational scenarios of a water supply system. The plan will improve water supply resiliency through integration into BRA's risk management framework for assets and long-range financial planning. It will

convey actions in a manner that simplifies critical decision making related to new water supply opportunities and management of water supply within the BRA water supply system. Furthermore, the information from the IWRP can be integrated into the regional and State water planning process. Throughout the development of the IWRP, engagement of BRA's customers and other stakeholders will be sought in a transparent and proactive process.

#### WATER AND WASTEWATER OPERATIONS

The BRA operates two water treatment facilities, which are its East Williamson County Regional Water System (EWCRWS) and the Sandy Creek Water Treatment Plant. The EWCRWS, a BRA-owned facility, supplies treated water from Lake Granger to wholesale BRA customers in east Williamson County. Expansion planning for the next phase of treatment capacity at the EWCRWS will be underway in FY 2022. The BRA will continue to operate the Sandy Creek Water Treatment Plant under contract with the City of Leander.

The BRA also operates a water transmission pipeline that transfers water from Lake Stillhouse Hollow to Lake Georgetown for the City of Georgetown, the City of Round Rock, and the Brushy Creek Municipal Utility District. This pipeline, the Williamson County Regional Raw Water Line (WCRRWL), is vital for maintaining adequate water supply in Lake Georgetown for these customers. The BRA will continue to manage the day-to-day operation and maintenance of the WCRRWL in FY 2022 as well as capital improvement projects that are planned.

For almost fifty years, the BRA has successfully operated wastewater treatment facilities throughout the Basin. Since 1971, the BRA has partnered with local governmental entities to effectively and efficiently operate, maintain, and manage wastewater treatment facilities that treat sewage wastes. The BRA currently operates nine wastewater treatment plants that range in size from 1.35 million gallons per day (MGD) to 10 MGD. BRA operation of these facilities is expected to continue in FY 2022. Customer cities include Temple, Belton, Hutto, Sugar Land, Clute, and Richwood.

#### **Property Master Plan**

At the direction of the Property Management Committee, BRA is pursuing the development of a Property Master Plan. The purpose of this plan is to create strategies for managing and using BRA properties and easements to accomplish our stated mission: "Develop, manage and protect the water resources of the Brazos River basin." This plan will identify the current status of all BRA property holdings, interests and provide further direction of what the future should hold for these properties. The BRA started Phase I of the project with the development of a comprehensive Property Master Plan in Fiscal Year 2021.

#### **Financial Review**

The overall financial goal of the BRA is to provide adequate resources to meet both current and future needs of the BRA, while adhering to high standards of stewardship and accountability.

Revenues (000's)	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Raw Water Sales	\$ 49,547	\$ 44,298	\$ 49,900	\$ 47,192
Cost Reimbursable Operations	11,428	17,349	15,625	18,313
Lake Operations	487	462	454	453
E. Williamson County RWS	4,168	4,082	5,213	5,098
Sugar Land	4,026	3,787	3,805	3,821
Grant/Stakeholder Funding	1,251	1,379	1,458	1,391
Management Fees	370	468	519	510
Interest Income	2,495	896	895	198
Miscellaneous	263	93	122	60
Rate Stabilization Reserves	-	-	-	1,500
Totals	\$ 74,035	\$ 72,814	\$ 77,991	\$ 78,537

#### Raw Water Sales Revenue

• Raw water sales revenues are expected to increase by \$2.9 due to the increase in the System Water Rate.

#### Cost Reimbursable Operations Revenue

 Cost Reimbursable Operations revenues are projected to increase \$1.0 million from \$17.3 million to \$18.3 million. This increase is primarily attributable to capital projects planned at several of the wastewater treatment plants and the WCRRWL.

#### System Water Rate

- The System Water Rate will increase by 5.1% to \$83.00 per acre-foot.
- Future target rates will be discussed as part of the FY 2022 FY 2026 Five-Year Financial Forecast review during the Budget Workshop. Summary information from the Five Year Forecast is located on page 3-25.

O&M Expenses (000's)	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed	
Water Supply System	\$	43,066	\$	54,382	\$	49,095	\$	59,448
Cost Reimbursable		11,428		17,349		15,625		18,313
Totals	\$	54,494	\$	71,731	\$	64,720	\$	77,761

#### Water Supply

Expenses are projected to increase by \$5.0 million (9.4%), from \$54.4 million in FY 2021 to \$59.4 million in FY 2022. This increase is the result of the following significant changes:

- \$1.8 million increase in compensation and benefits, including new positions
- \$1.1 million increase in Operating Project expenses, see detail in Tab 14
- \$1.4 million increase due to the anticipated assumption of 100% of the existing Allens Creek debt from the City of Houston and the beginning of principal payments on all of the Allens Creek debt.
- \$0.8 million increase in the O&M payments for the U.S. Army Corps of Engineers lakes

#### Cost Reimbursable

Many of the water and wastewater treatment operations are currently under cost reimbursable contracts. This means that all project operating, capital and debt costs are recovered from participants on an annual basis. Any excess funds at the end of the fiscal year are returned to the participants. In addition to the high-quality, low-cost service provided to regional participants, the BRA benefits from these contracts through the collection of management fees and overhead allocations.

#### Employee Compensation and Benefits

- BRA wide ECI salary increases 2.5%
- Pool for merit pay increases 2.5%
- Benefits funding –10.9% (related to the actuarial required contribution to defined benefit retirement plan and benefits for new positions)

#### General & Administrative Overhead Allocation

For FY 2022, the BRA continues to utilize a best practices methodology for allocation of general and administrative overhead. This approach utilizes more applicable and accurate factors in the allocation of overhead expenses, resulting in a more equitable and complete allocation of costs to the operating units.

#### Water Supply System Working Capital

Working Capital Reserves at August 31, 2021, for the Water Supply System, are projected to increase \$66.7 million, from a projected \$51.2 million per the FY 2021 Budget, to \$117.9 million. The changes during FY 2021 are summarized below:

-	FY 2021 inter	ruptible	water s	ales	\$	4,736,000
					 -	

- FY 2021 Excess Flow water sales at EWCRWS \$ 1,131,000
- FY 2021 operating expense reductions \$ 5,287,000
- FY 2021 capital improvement project reductions \$54,572,000

The FY 2022 Budget assumes that \$62.2 million in working capital is expended on capital projects (see Tab 13), resulting in projected \$55.0 million estimated working capital reserves on hand at August 31, 2022.

The total Working Capital Reserve supports several financial goals of the BRA. Prudent financial planning requires adequate reserve funds for contingencies. Below are highlights of the intended uses for BRA's Working Capital Reserves.

Name	Description	<u>FY 2022</u>
90 Day Working Capital	90 days of budgeted O&M	\$11.7 million
	expenditures	
Contingency Fund	For unexpected expenditures. Due	\$5.5 million
	to the expansive nature of some of	
	BRA's assets, an unexpected	
	failure could be very expensive.	
Self-Insurance Fund	BRA is self-insured, so this	\$0.5 million
	contingency is set up in case of bad	
	claims experience	
Rate Stabilization Fund	This fund will be used in order to	\$37.3 million
	minimize large fluctuations to the	
	System Water Rate due to capital	
	projects.	

## Other

#### Capital Outlay

A total of \$3,736,000 is proposed in the FY 2022 Budget, to add or replace capital assets. A detail of these items is included in Tab 17, Expenditure Detail. As a general rule, existing vehicles with 125,000 miles or more are evaluated each year for replacement. Any replacement of such vehicles will be with the most economical and efficient type possible that meets operational requirements.

#### Personnel & Staffing

The FY 2022 Budget proposes a net increase in staffing of nine full-time positions and a net decrease of three part-time positions, along with the related salary and benefit costs. See Tab 16 for details regarding proposed changes in personnel and staffing.

#### <u>Technology</u>

Technology solutions are a major component of the proposed objectives for the BRA. Significant costs and initiatives for Technology Services in FY 2022 O&M Budget includes:

New equipment and software	\$ 26,900
Recurring software/hardware maintenance and support	693,399
Scheduled replacement of existing desktop, laptops & printers	201,600
Grand Total	\$ 921,899

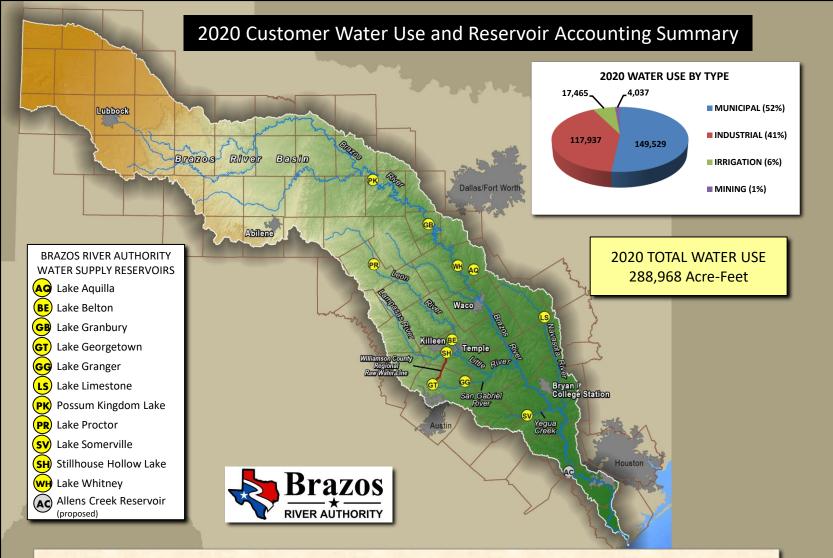
Additional details are presented in Tab 17, *Expenditure Detail*.

## Conclusion

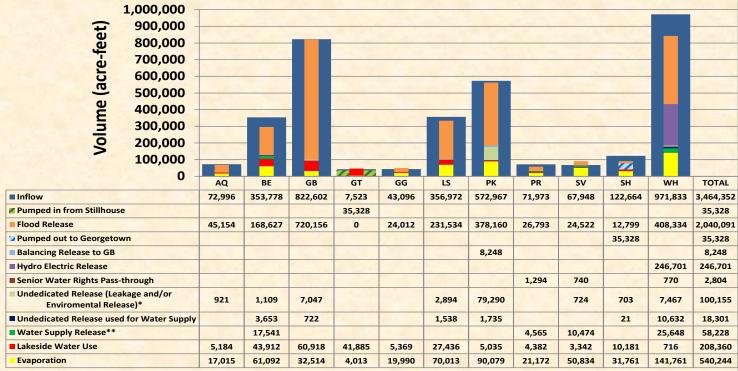
One constant in our business is that it will never be easy. The Brazos River Authority, like all water suppliers, has tremendous challenges ahead. We are dedicated to maintaining the infrastructure that is vital to meet demands throughout the Brazos River basin, while developing new supplies to satisfy growing demands. We are also committed to the changing needs of our customers and employees, as the world we live in and our day-to-day lives evolve. Along with the dedication and commitment of our Board of Directors, the Brazos River Authority will continue to accomplish our mission.

David Collinsworth General Manager/CEO

# User Information



#### Brazos River Authority 2020 Reservoir Accounting (acre-feet)

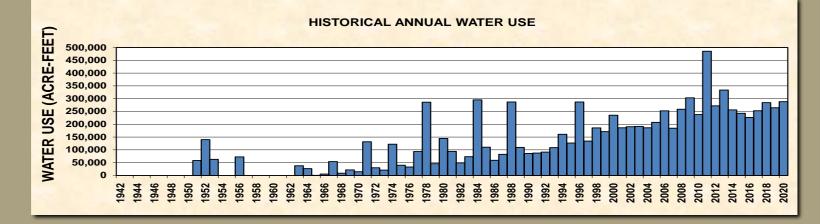


\* Leakage has not been quantified by the US Army Corp of Engineers for Lakes Georgetown, Granger and Proctor.

\*\*12,500 acre-feet of the 17,541 acre-feet of water released for water supply from Lake Belton was for the City of Temple under its own water right. Therefore, this 12,500 acre-feet is not reflected in BRA's water use total for 2020.

\*\*15,642 acre-feet of water used under NRG's BRA contract was pumped at their downsteam pumping point near the City of Richmond under the BRA's Excess Flows permit. Since water pumped under the Excess Flows permit is run-of-river water and not released from any of the BRA system reservoirs, it is not reflected in this reservior accounting.

NOTE: [Lakeside Water Use [208,561 arce-feet] + Water sub-office (18,228 arce-feet) + Undedicated Release used for Water Supply (18,301 arce-feet) - Temple water right (12,500 arce-feet) + Excess Flows (15,642 arce-feet) + Water use from the Colorado Basin (813 arce-feet) + Water Used under System Operations Permit (123 arce-feet) = Total 2020 BRA Water Use (288,968 arce-feet)



2020 WATER USE BY FIRM CUSTOMERS FROM	VOLUME
RESERVOIR WATER RIGHTS	(ACRE-FEET)
POSSUM KINGDOM LAKE	
DOUBLE DIAMOND PROPERTIES, INC	620
HILL COUNTRY HARBOR, L.P.	249
POSSUM KINGDOM WSC	1,084
RANCH OWNER'S ASSOCIATION	43
SPORTSMAN'S WORLD MUD	171
TEXAS PARKS & WILDLIFE DEPT.	549
WEST CENTRAL BRAZOS PIPELINE	1,560
SUBTOTAL:	4,276
BRAZOS RIVER BELOW POSSUM KINGDOM	
PARKER COUNTY SUD	492
SUGAR TREE, INC.	222
VULCAN CONST. MATERIALS, L.P.	970
SUBTOTAL:	1,684
LAKE GRANBURY	
ACTON MUNICIPAL UTILITY DIST.	14
BRAZOS REGIONAL PUBLIC UTILITY AGENCY	3,547
COUNTY OF SOMERVELL	240
DECORDOVA BEND ESTATES OWNERS	235
GRANBURY RECREATIONAL ASSOC	37
GRANBURY, CITY OF	2,122
KING RANCH TURFGRASS, L.P.	252
LENMO INC.	2,322
LSF DEVELOPMENT CORP.	32
MONARCH UTILITIES I, L.P.	517
PECAN PLANTATION OWNER'S ASSOC	278
TXU - LUMINANT ELECTRIC COMPANY	49,133
WOLF HOLLOW SERVICES, LLC	1,656
SUBTOTAL:	60,385
BRAZOS RIVER BELOW LAKE GRANBUR	
DOUBLE DIAMOND PROPERTIES, INC	99
LAKE WHITNEY	
WHITE BLUFF PROPERTY OWNERS ASSOC	414
BRAZOS RIVER BELOW LAKE WHITNEY	
CALPINE BOSQUE ENERGY CENTER, LLC	3,341
DOW CHEMICAL COMPANY	15,352
GULF COAST WATER AUTHORITY	16,398
KING RANCH TURFGRASS, L.P.	411
LORENA, CITY OF	349
NRG TEXAS, LLC	3,509
RICHMOND, CITY OF	2,292
SUBTOTAL:	41,652

2020 WATER USE FROM THE SYSTEM OPERATION PERMIT	VOLUME (ACRE-FEET)			
BRAZOS RIVER BELOW LAKE WHITNEY				
RICHMOND, CITY OF	123			
TOTAL	123			

2020 WATER USE FROM THE COLORADO BASIN	VOLUME (ACRE-FEET)
BRAZOS - COLORADO INTERBASIN TRANS	FER
LIBERTY HILL, CITY OF	338
ROUND ROCK, CITY OF	475
TOTAL	813



LAKE AQUILLA	
AQUILLA WATER SUPPLY DISTRICT	2,714
CLEBURNE, CITY OF	2,470
SUBTOTAL:	5,184
LAKE PROCTOR	
LAKE PROCTOR IRRIGATION AUTH.	1,618
UPPER LEON RIVER MUNICIPAL	2,647
SUBTOTAL:	4,265
LEON RIVER BELOW LAKE PROCTOR	
LAKE PROCTOR IRRIGATION AUTH.	758
NORTH LEON RIVER IRRIGATION	3,807
SUBTOTAL:	4,565
LAKE BELTON	
439 WATER SUPPLY CORP.	538
BELL CO. WATER CONTROL & IMP.	34,912
BLUEBONNET WATER SUPPLY CORP.	2,805
CORYELL CITY WATER SUPPLY DIST	300
FORT GATES WSC	200
GATESVILLE, CITY OF	4,746
HARKER HEIGHTS, CITY OF	253
THE GROVE WATER SUPPLY CORP.	154
SUBTOTAL:	43,908
LEON RIVER BELOW LAKE BELTON	
TEMPLE, CITY OF	6,674
WILDFLOWER COUNTRY CLUB, INC.	193
SUBTOTAL:	6,867
CENTRAL TEXAS WATER SUPPLY CORP.	4,887
JARRELL-SCHWERTNER WATER SUPPLY CORP.	4,007
KEMPNER WATER SUPPLY CORP.	2.924
LAMPASAS, CITY OF	1,665
SALADO WATER SUPPLY CORP.	650
SUBTOTAL:	10,181
LAKE GEORGETOWN	10,101
BRUSHY CREEK MUD	3,361
GEORGETOWN, CITY OF	17,532
ROUND ROCK, CITY OF	20,992
SUBTOTAL:	41,885
LAKE GRANGER	,
EAST WILLIAMSON CO. REGIONAL WATER SYSTEM	5,369
LAKE LIMESTONE	
NRG TEXAS, LLC	9,835
SLC WATER SUPPLY	97
TXU - LUMINANT ELECTRIC COMPANY	17,366
SUBTOTAL:	27,298
NAVASOTA RIVER BELOW LAKE LIMESTONE	
WELLBORN SPECIAL UTILITY DIST.	1,418
LAKE SOMERVILLE	
BRENHAM, CITY OF	2,813
TOTAL	262,263

2020 WATER USE BY INTERRUPTIBLE AND LAKESIDE	
LOCAL CUSTOMERS FROM RESERVOIR WATER RIGHTS POSSUM KINGDOM LAKE	(ACRE-FEET)
BR AT POSSUM KINGDOM, LTD	2
HILL COUNTRY HARBOR OWNER'S ASSOCIATION, INC	500
LAKESHORE HOME OWNERS WACO BEND RANCH, LTD	1.4 11
LAKESIDE LOCAL USE	245
SUBTOTAL:	759
BRAZOS RIVER BELOW POSSUM KINGDOM L	AKE
HORSESHOE BEND GOLF & CLUB LAKE GRANBURY	51
LENMO INC.	176
LAKESIDE LOCAL USE	355
THOMAS BROS GRASS, LLC	2.4
SUBTOTAL: BRAZOS RIVER BELOW LAKE GRANBURY	533
BRAZOS VALLEY GRASS, INC.	202
EOG RESOURCES INC. WESTERN DIV	2
INGRAM CONCRETE, LLC	146
LOWELL UNDERWOOD RRH FARM AND RANCH, LLC	16 256
SUBTOTAL:	622
LAKE WHITNEY	
WHITE BLUFF PROPERTY OWNERS ASSOC	296
LAKESIDE LOCAL USE SUBTOTAL:	6 302
BRAZOS RIVER BELOW LAKE WHITNEY	302
3-D FARMS	310
JAMES K. BOYD	12
BRAZOS FARMS LTD., INC. CODY MILLER	5 91
CREEKSIDE NURSERY, LLC	49
GULF COAST WATER AUTHORITY	863
HAWKWOOD ENERGY OPERATING, LLC	541
HORIZON TURF GRASS, INC. KNIFE RIVER CORP.	418 191
NEUHAUS TRUSTS PARTNERSHIP	133
MARECEK LAND & CATTLE, LLC	791
MONARCH MOUNTAIN MINERALS AND AGGREGATES	401
TREADSTONE ENERGY PARTNERS OPERATING, LLC SUBTOTAL:	435 4,240
LAKE PROCTOR	.,
ROD LITKE	1
SEARS BROTHERS SUBTOTAL:	116 117
LEON RIVER BELOW LAKE PROCTOR	117
NORTH LEON RIVER IRRIGATION	914
LAKE BELTON	
LAKESIDE LOCAL USE	4
ALCOA USA CORP.	1,563
CURRY FARMS	86
DEAN P. MIKESKA	73
JIMMY CALLAHAN KACIR WHEELER, LLC	50 5
SUBTOTAL:	1,777
LAKE STILLHOUSE HOLLOW	
CSA CONSTRUCTION, INC.	0.04
LAMPASAS RIVER BELOW LAKE STILLHOUSE HO THOMAS LOVELACE	21
LAKE LIMESTONE	
LAKESIDE LOCAL USE	98
XTO ENERGY, INC SUBTOTAL:	40 138
NAVASOTA RIVER BELOW LAKE LIMESTON	
HAWKWOOD ENERGY OPERATING, LLC	120
TEXAS AMERICAN RESOURCES COMPANY	529
TOTAL	10,127



#### Brazos River Authority Demographic and Economic Information

The Brazos River Authority was created by the Texas Legislature in 1929 as the first agency in the United States specifically created for the purpose of developing and managing the water resources of an entire river basin.

Domicile:	Waco, Texas
Last revision of Enabling Act:	2001
Last revision of Bylaws:	2015
Population of District:	2,371,064 (Texas Water Development Board 2017)
Area:	42,865 square miles
Brazos River	
Total River Miles Average Annual Discharge	840 miles 6,074,000 acre-feet
Average annual rainfall in the	Basin ranges from:
West Southeast	26 inches 32 inches
Number of employees:	257Full-time, 15 Part-time

Offices:	Central Office Regional Office Operations Office Operations Office Operations Office Operations Office Operations Office Operations Office	- - -	Possum Kingdom Lake, Texas
	Operations Office	-	Possum Kingdom Lake, Texas
		-	<b>.</b>
	Operations Office		-
	Operations Office	-	Hutto, Texas
	Operations Office Operations Office Operations Office Operations Office Operations Office Operations Office	- - - -	Waco, Texas Leander, Texas Possum Kingdom Lake, Texas Sugar Land, Texas Taylor, Texas Temple, Texas

## Brazos River Authority Operating Statistics

Operating Statistics	Years Ended August 31	
	2021	2020
(water/wastewater treated in thousands of gallons)	Estimated	Actual
Temple-Belton Wastewater Treatment Plant Sugar Land Wastewater Hutto Wastewater System Clute/Richwood Regional Sewerage System Sandy Creek Regional Water Treatment Plant East Williamson County Regional Water System Doshier Farm Wastewater Treatment Plant	2,600,000 4,050,000 520,000 1,000,000 2,945,000 2,100,000 1,010,000	2,449,330 3,820,340 539,100 928,500 2,340,100 2,070,440 729,960

## Brazos River Authority Dams and Reservoirs:

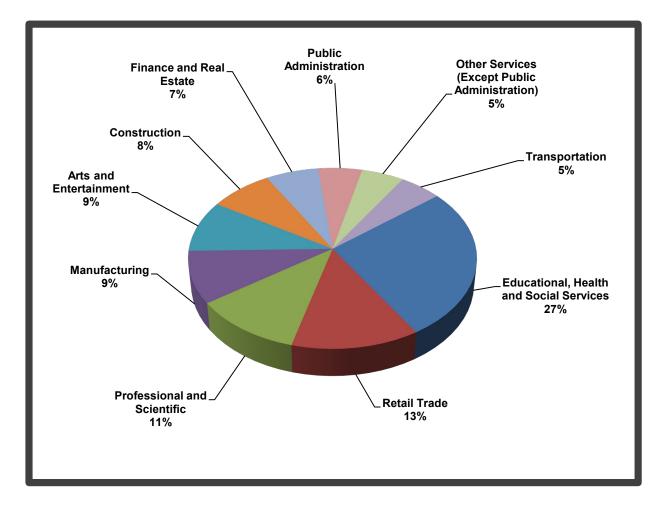
Possum Kingdom	Conservation Pool	
Capacity	556,340 acre-feet	
Surface Area	18,568 acres	
Elevation	1,000.0 ft-msl	
Permitted Yield	230,750 acre-feet	
	TWDB Survey December 2016	
Limestone	Conservation Pool	
Capacity	203,780 acre-feet	
Surface Area	12,486 acres	
Elevation	363.0 ft-msl	
Permitted Yield	65,074 acre-feet	
	TWDB Survey June 2014	
Granbury	Conservation Pool	
Capacity	136,326 acre-feet	
Surface Area	8,282 acres	
Elevation	693.0 ft-msl	
Permitted Yield	Permitted Yield 64,712 acre-feet	
	TWDB Survey July 2016	

## U. S. Army Corps of Engineers Dams and Reservoirs With Storage Space Allocated to Brazos River Authority

Aquilla		Conservation Pool	Flood Control Pool
	Capacity	43,293 acre-feet	135,636 acre-feet
	Surface Area	3,085 acres	6,999 acres
	Elevation	537.5 ft-msl	556.0 ft-msl
	Permitted Yield	13,896 acre-feet	TWDB Survey July 2014
Belton		Conservation Pool	Flood Control Pool
	Capacity	432,631 acre-feet	1,072,631 acre-feet
	Surface Area	12,445 acres	23,605 acres
	Elevation	594.0 ft-msl	631.0 ft-msl
	Permitted Yield	100,257 acre-feet	TWDB Survey October 2015
Granger		Conservation Pool	Flood Control Pool
	Capacity	51,822 acre-feet	230,481 acre-feet
	Surface Area	4,159 acres	11,040 acres
	Elevation	504.0 ft-msl	528.0 ft-msl
	Permitted Yield	19,840 acre-feet	TWDB Survey March 2013
Georget		Conservation Pool	Flood Control Pool
	Capacity	38,068 acre-feet	131,793 acre-feet
	Surface Area	1,307 acres	3,220 acres
	Elevation	791.0 ft-msl	834.0 ft-msl
	Permitted Yield	13,610 acre-feet	TWDB Survey January 2016
Proctor		Conservation Pool	Flood Control Pool
	Capacity	54,762 acre-feet	369,500 acre-feet
	Surface Area	4,615 acres	14,010 acres
	Elevation	1,162.0 ft-msl	1,197.0 ft-msl
	Permitted Yield	19,658 acre-feet	TWDB Survey February 2012
Somervi		Conservation Pool	Flood Control Pool
	Capacity	150,293 acre-feet	494,500 acre-feet
	Surface Area	11,395 acres	24,400 acres
	Elevation	238.0 ft-msl	258.0 ft-msl
	Permitted Yield	48,000 acre-feet	TWDB Survey April 2012
Stillhous	e Hollow	Conservation Pool	Flood Control Pool
	Capacity	229,881 acre-feet	624,581 acre-feet
	Surface Area	6,429 acres	11,830 acres
	Elevation	622.0 ft-msl	666.0 ft-msl
	Permitted Yield	67,768 acre-feet	TWDB Survey December 2015
Vaco		Conservation Pool	Flood Control Pool
	Capacity	189,773 acre-feet	518,895 acre-feet
	Surface Area	8,190 acres	19,440 acres
	Elevation	462.0 ft-msl	500.0 ft-msl
	Permitted Yield	104,100 acre-feet	TWDB Survey May 2011
Vhitney		Conservation Pool	Flood Control Pool
	Capacity	617,194 acre-feet	1,989,664 acre-feet
	Surface Area	23,215 acres	49,820 acres
	Elevation	533.0 ft-msl	571.0 ft-msl
	Permitted Yield	18,336 acre-feet	Volumetric Survey March 2019
<b>-</b>		an is a Dan arter ant	
source:	Brazos River Authority Water S	ervices Department	

#### Brazos Basin Geographic Area Ten Largest Industries

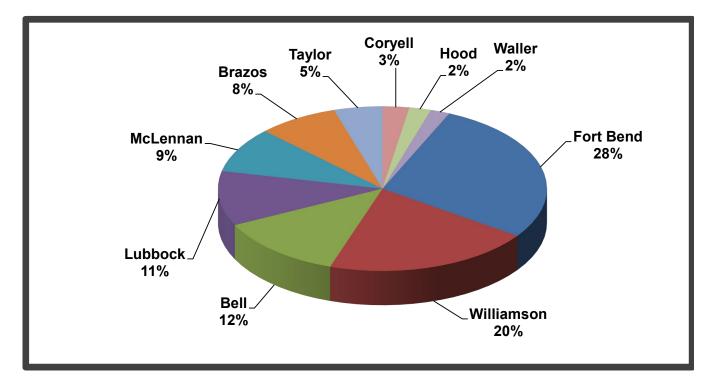
Industry	Number of Entities in Category
Educational, Health and Social Services Retail Trade Professional and Scientific Manufacturing Arts and Entertainment Construction Finance and Real Estate Public Administration Other Services (Except Public Administration)	412,010 199,243 170,549 142,839 140,314 120,030 99,666 83,634 80,686
Transportation	80,024



Source: U.S. Census Bureau, 2018 American Community Survey

#### Brazos River Basin Top Ten Counties by Population

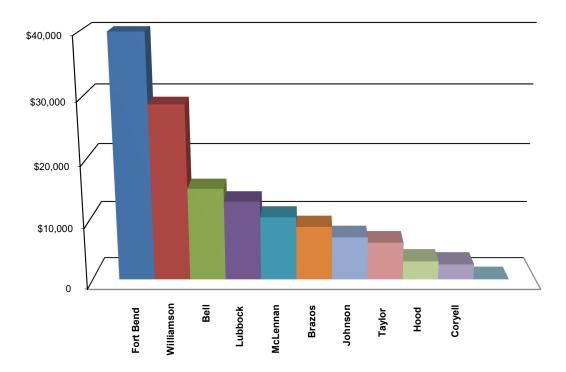
County	Population
Fort Bend	811,688
Williamson	590,551
Bell	362,924
Lubbock	310,569
McLennan	256,623
Brazos	229,211
Taylor	138,034
Coryell	75,951
Hood	61,643
Waller	55,246



Source: U.S. Census Bureau, 2019, 5 year American Community Survey

## Brazos River Basin Total Personal Income Top Ten Counties

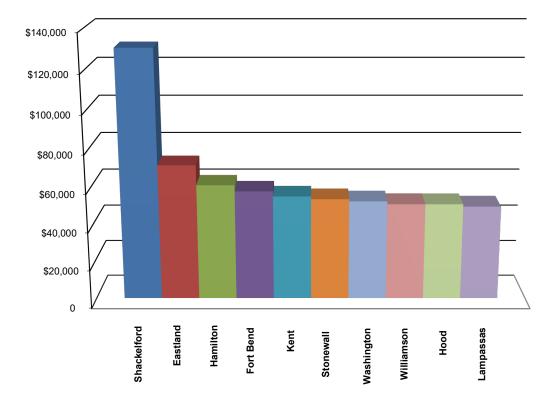
County	Total Personal Income (in millions)
Fort Bend	\$ 45,333
Williamson	28,776
Bell	15,212
Lubbock	13,086
McLennan	10,504
Brazos	8,893
Johnson	7,145
Taylor	6,240
Hood	3,072
Coryell	2,543



**Source:** Bureau of Economic Analysis, Annual Personal Income, Population, Per Capita Personal Income (counties and states) 2018

## Brazos River Basin Total Per Capita Income Top Ten Counties

County	er Capita ncome
Shackelford Eastland Hamilton Fort Bend Kent Stonewall Washington Williamson Hood Lampasas	\$ 130,461 71,142 60,744 57,540 54,858 53,416 52,265 50,776 50,741 49,457



**Source:** Bureau of Economic Analysis, Annual Personal Income, Population, Per Capita Personal Income (counties and states) 2019

## Budget Timeline

December 2020							
Sun	Mon	Tues	Wed	Thur	Fri	Sat	
		1	2	3	4	5	
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28	29	30	31			

#### December 2020

•

	20
December 2	Set up SharePoint Site for FY 2022 budget
December 2-31	F&A to begin migrating and updating budget worksheets for each department
December 4	Send out Budget Administrator List to Mgmt. Team for verification
December 7-11	F&A to create Direct Labor Matrix for FY 2022 based on FY 2020 actuals
December 14	Budget Administrator list due back to F&A
December 14	Request Salary & Benefit Info from HR
December 15	Update Budget Team e-mail group
December 16	Send budget calendar SharePoint link to Budget Team/Mgmt. Team.

J	anu	ary	2021				
Sun	In Mon Tues Wed Thur				Fri	Sat	
					1	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	
31							

January 2021	
January 4 - February 12	O&M Budget Worksheets available on SharePoint
January 4 - February 19	Direct Labor Matrix on SharePoint
January 4	Request IT, SCADA, Safety, CO Common, ArcView Maintenance Costs, Stream Gauging and other supporting information
<ul> <li>January 8</li> </ul>	Request Debt Schedule from Cash & Debt Mgr.
<ul> <li>January 22</li> </ul>	Updated Debt Schedule due
<ul> <li>January 22</li> </ul>	Update Long Range Financial Plan with debt schedules
January 25- February 5	F&A to update Utilities section of budget worksheets
• January 22	IT, SCADA, Safety, CO Common, ArcView Maintenance Costs, Stream Gauging and other supporting information due to F&A
• January 31	Water Supply revenue projections due

February 2021				Echruczy 201	31				
Sun	Mon	Tues	Wed	Thur	Fri	Sat	February 202	21	
	1	2	3	4	5	6	<ul> <li>February 1</li> </ul>	Begin scheduling review meetings with each department	
							<ul> <li>February 5</li> </ul>	Salary & Benefits worksheet due back to F&A	
7	8	9	10	11	12	13	• February 8-12	F&A to review Salary & Benefits worksheet	
11	15	16	17	18	10	10	20	<ul> <li>February 12</li> </ul>	O&M Budget Worksheets Complete
14	15	10	• •	10	13	20	<ul> <li>February 15</li> </ul>	Distribute Personnel Request Forms to Mgmt. Team and locations	
21	22	23	24	25	26	27	• February 15-19	F&A to review budget worksheets	
							<ul> <li>February 19</li> </ul>	Direct Labor revisions due	
28							February 22-26	F&A to cost out Direct Labor Matrix	

	March 2021				March 2021			
Sun	Mon	Tues	Wed	Thur	Fri	Sat		
	1	2	3	4	5	6	March 1	Schedule Temple-Belton customer meeting
							<ul> <li>March 8-April 9</li> </ul>	Begin preparation of Allocation of Charges & Contract Customer budget presentations
7	8	9	10	11	12	13	Week of March 8th	Meet with Upper/Central/Lower Basins, TS, OSS, IT, HR, Legal, Water Srvcs, Env. Srvcs to review O&M Budget
14	15	16	17	18	19	20		5
			· · ·				<ul> <li>March 12</li> </ul>	Personnel Request forms due to HR
21	22	23	24	25	26	27	<ul> <li>March 15-26</li> </ul>	HR to complete review of Personnel Request Forms
				20			March 22	Review O&M Budgets with GM
28	29	30	31				Week of March 29th	Management Team Review of Personnel Requests
28	29	30	31				Week of March	<b>U</b>

## Budget Timeline

	Ар	ril		2	021		
Sun	Mon	Tues	Wed	Thur	Fri	Sat	
				1	2	3	
4	5	6	7	8	9	10	•
11	12	13	14	15	16	17	•
18	19	20	21	22	23	24	•
25	26	27	28	29	30		

April 2021	
April 1	FY 2022 Budget due to City of Sugar Land for wastewater operations
April 1	Regional Staff to begin scheduling contract customer meetings
April 1-9	F&A to update Budget Narratives format
April 5	HR Manager to provide final personnel recommendation
April 5-9	F&A Staff to prepare budgetary financials
April 12	Budget narratives on SharePoint to be updated
April 15	Temple-Belton budget due to customers
• April 26	First FY 2022 Budget presentation to Mgmt. Team

	Ма	y	2021			
Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

May 2021	
• May 3	Finalize flow data
• May 3 - 31	Prepare other supporting schedules for budget document
• May 7	Budget Narratives Completed
<ul> <li>Week of May 3</li> </ul>	Second FY 2022 Budget presentation to Mgmt. Team
<ul> <li>May 17 - June 18</li> </ul>	Contract Customer budget meetings

	Jur	ne	2021				
Sun	Mon	Tues	Wed	Thur	Fri	Sat	
		1	2	3	4	5	
6	7	8	9	10	11		
13	14	15	16	17	18		
20	21	22	23	24	25	26	
27	28	29	30				

25 26 27 28 29 30 31

June 2021	
• June 1	Hutto budget due to customers
• June 7-11	Mgmt. Team Final Budget review

	July 2021		Luby 2024					
Sun	Mon	Tues	Wed	Thur 1	Fri 2	Sat 3	• July 2021	Print and assemble FY 2022 AOP
	_	•	-	•	4		• July 9	AOP due to Board members
4	5	6	7	8	9	10	• July 26	Regular Board Meeting
11	12	13	14	15	16	17		
18	19	20	21	22	23	24		

Se	September 2021				021		September	2021	
Sun	Mon	Tues	s M	Ved	Thur	Fri	Sat	ocptember 2	
				1	2	3	4	September 1	Implement FY 2022 AOP-Budget
5	6	7		8	9	10	11		

#### 2 - 13

## **BRAZOS RIVER AUTHORITY CHRONOLOGY**

The Texas Legislature created the organization now known as the Brazos River Authority (BRA) in 1929 as a result of devastating flooding during the early part of the century. The Conservation Amendment to the State Constitution charged the Brazos

River Conservation and Reclamation District (District) with the statutory responsibility for conservation, development and management of the surface water resources for the Brazos River basin.

L. Milda. Presserve	JORN A, NORRIS, Chief Emmilion-Central Manager	HENRY DUNLAYY,
GEC, G, CHANCE, Vice-Primeros		R, EJ, COLLMS, Telasung-Compressier
	BRAZOS RIVER CONSERVATION AND RECLAMATION RVLE HOTEL AULIDING. TEMPLE, TEXAS	DISTRICT

Brazos River Conservation and Reclamation District Letterhead (circa 1929).

With part or all of seventy counties in the

basin, the 42,800 square mile area stretches from the headwaters of the Brazos near the Texas-New Mexico border in a southeasterly line to the Gulf Coast. The organization was established without taxing authority or the ability to receive appropriations from the state.

During the 1930s, the Board of Directors established headquarters for the organization in Temple, Texas. Their first order of business was to prepare an initial master plan for reservoir development within the basin.

At this time, the District obtained its first source of revenue – remissions of ad valorem taxes from the lower-basin counties for a period lasting twenty years. The master plan included thirteen dams with construction for each contingent upon federal funding.

#### 1930s – 1950s

By the late 1930s, funding was secured from the Works Progress Administration allowing construction to be completed on the Possum Kingdom Lake (PK) dam by 1941. Hydropower from this project was contracted to the Brazos Electric Power Cooperative (BEPC) and provided a source of revenues to the District while aiding in rural electrification and providing power for the war effort.

Picto by A. F. Weaver

Late in the 1940s, the District's headquarters were moved to Mineral Wells and the 1935 master plan for

Possum Kinodom Lake – Dam Construction

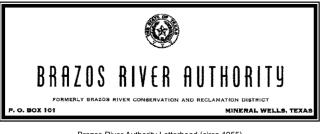
reservoir development was revised. At about the same time, the U. S. Army Corps of Engineers (USACE) expanded its role in water resources to include construction of flood-control dams at Lakes Belton and Whitney.

The 1950s marked the drought of record for most of the Brazos basin. At this time, population projections by the District estimated that by the year 2000, the state would be home to eighteen million people with eighty percent living in urban areas. This forecast estimated water demands to double.

As a result, the Board of Directors prepared a six-dam program of reservoir development. The plan included a series of reservoirs between Lakes Possum Kingdom and Whitney (for water supply and hydropower), raising Possum Kingdom Lake an additional fifteen feet, building the South Bend reservoir above PK, building the Allens Creek reservoir in the lower basin and a desalination program. This plan would increase irrigation in the Brazos River Valley, provide water for industry and municipalities, and provide hydropower to support the increased population, economic activity, and recreation.

In 1951, the State Board of Water Engineers designated the District as the representative of non-federal interests to contract with the USACE for conservation storage space in multi-purpose federal flood-control-water supply reservoirs within the Brazos basin.

The District officially changed its name to the **Brazos River Authority** in 1955. The BRA began negotiating agreements with the USACE for water supply storage space in federal reservoirs and supporting congressional appropriations for construction. Before the end of the decade, construction of Lake Belton was complete.



Brazos River Authority Letterhead (circa 1955).

During the 1950s, the BRA also contracted with the USACE for water storage space in the proposed new Lake Waco, which inundated the existing water supply lake owned by the City of Waco.

#### 1960s

On May 1, 1960, the BRA dedicated its new headquarters in Waco. In 1969, the BRA completed construction on Lake Granbury to supply water for Texas Power & Light Company steam-electric plants and the Comanche Peak nuclear power plant near Glen Rose.

During this decade, the USACE completed Lakes Proctor, Somerville, and Stillhouse Hollow for flood-control and water supply purposes. The BRA contracted for water supply storage in each of these projects without

agreements to sell the water in order to meet expected water needs.



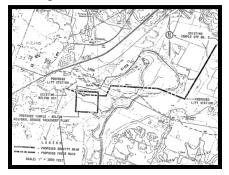
Lake Granbury - Dam Construction

The BRA acquired pump stations and canal systems from American Canal Company and Briscoe Irrigation Company in Fort Bend and Brazoria Counties to supply water primarily for rice irrigation. The ultimate goal of these acquisitions was to provide access to municipal and industrial water markets in the lower basin.

The USACE completed the new Lake Waco in 1965 to provide flood-control on the Bosque River while assuring water supply for the city. The entire water supply was committed to the City of Waco, as required by federal legislation.

#### 1970s

During the 1970s, the BRA began design, construction, ownership and operation of



Temple-Belton Proposed Site Drawing

three regional wastewater treatment systems: Waco Metropolitan Area Regional Sewerage System (1971), Temple-Belton Regional Sewerage System (1975, now referred to as the Temple-Belton Wastewater Treatment Plant), and Sugar Land Regional Sewerage System (1975). As a result of the Clean Water Act, the BRA (Section 208 program) began a basin-wide water quality management study, and the organization received partial grants for wastewater treatment plant construction.

In 1972, the BRA signed a contract to supply up to 176,000 acre-feet of water per year to Houston Lighting & Power Company for cooling purposes at steam-electric generating plants to be built in the lower basin (including Allens Creek nuclear plant).

In 1978, the BRA completed construction on Lake Limestone, providing cooling water for Texas Utilities (TXU) power plants to be built close to nearby lignite reserves.

#### 1980s

The 1980s were a time of great change for the BRA. With the realization that industrial and municipal demands forecast for the lower basin had not developed as expected, the BRA found that long-term contracts inherited with the canal systems would not permit adjustment at rates which would allow the enterprise to remain whole. As a result, the BRA sold the canal systems to Galveston County Water Authority.

Planning and design began on Lake Bosque in McLennan County. The reservoir would provide water supply for a group of municipalities, including Clifton and Meridian in Bosque County and Waco and its suburbs. To add water supply for customers throughout the basin, primarily Williamson County entities, planning began on South Bend reservoir.

Both projects were cancelled before construction began. The Lake Bosque project was cancelled due to increases in cost and a change in the City of Waco's attitude toward selling water from Lake Waco to its neighbors. The South Bend project was cancelled when the BRA reacquired water contracted to, but no longer needed by, Houston Lighting & Power Company (HL&P). The reacquisition agreement included an option on the Allens Creek reservoir site that HL&P had acquired as a cooling reservoir for the now-cancelled Allens Creek nuclear power plant.

During the 1980s, the BRA contracted with the City of Lubbock to build, own and operate Lake Alan Henry to provide future water supplies for the city. The decade also saw the BRA build its first water treatment system - Lake Granbury Surface Water and Treatment System (SWATS) to meet water needs in Johnson and Hood Counties.

The BRA entered into contracts with water users in Williamson County to construct a pipeline to transport water from Lake Stillhouse Hollow to Lake Georgetown as demand developed. Lakes Aquilla, Georgetown and Granger were completed by the USACE in the early eighties. Lake Aquilla provides water to the Aquilla Water Supply District (City of Hillsboro) while Lake Georgetown provides water to the cities of Georgetown and Round Rock. Lake Granger provides water for the City of Taylor and eastern Williamson County. The BRA contracted with the USACE for a portion of the water supply storage space in Lake Whitney and to raise the level of Lake Waco, which would increase the supply of water for the City of Waco.

In 1986, the BRA formally established a Water Quality Policy, stating its intent to continuously monitor quality, identify problem areas throughout the basin, and participate in the development, ownership, and operation of regional wastewater treatment systems.

#### 1990s

During the 1990s, the Texas State Legislature passed the "Clean Rivers Act." As a result, the BRA became a partner with Texas Commission on Environmental Quality for comprehensive water quality monitoring and assessment throughout the Brazos River basin.

The BRA completed construction of Lake Alan Henry in 1994. The entire water supply was committed to City of Lubbock, which paid all debt service as well as operations and maintenance costs of the project.

In 1995, the BRA and the Lower Colorado River

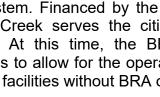


Brushy Creek Regional Wastewater System

Authority (LCRA) signed the Brazos-Colorado Water

Alliance to serve the water resource needs of Williamson The BRA began operation of the Brushy Creek County. Regional Wastewater System. Financed by the LCRA as an Alliance project, Brushy Creek serves the cities of Round Rock and Cedar Park. At this time, the BRA Board of Directors amended policies to allow for the operation of water and wastewater treatment facilities without BRA ownership.

In 1997, the Texas Legislature passed Senate Bill 1, which establishes a regional water supply planning process for the state.



Lake Alan Henry

#### 2000 - 2010

The BRA began replacement of the floodgates of the Morris Sheppard Dam at Possum Kingdom Lake. The project took nine years. At the same time, the BRA began rehabilitation of the sixteen gates at the DeCordova Bend Dam at Lake Granbury. The rehab included the installation of new electric gate hoists.

In 2001, the BRA experienced one of the most significant shifts in focus and structure in its history. The BRA was reorganized from function-based divisions to customer-focused geographic regions.

In 2001, as part of Texas Senate Bill 1, the BRA joined local and regional organizations in the water planning process as member of Regions O, H and Brazos G. The BRA further agreed to serve as administrative agent for the Brazos G Regional Water Planning Group.

The BRA began operations for the Clute/Richwood Regional Wastewater System. The BRA also contracted with the Lee County Fresh Water Supply District No. 1 (Dime Box) for its first retail water and wastewater utility service. Some 150 homes and businesses in the City of Dime Box receive both potable water and wastewater treatment services.

In the spring of 2002, Texas Governor Rick Perry announced his initiative to develop a large-scale, demonstration seawater desalination facility in Texas. He charged the Texas Water Development Board (TWDB) with developing recommendations.

As a result, the BRA and Poseidon Resources Corporation (Poseidon) jointly developed and submitted a Statement of Interest (SOI) to the TWDB for the proposed project to be located in Freeport. The project was later halted as the TWDB designated the proposed Brownsville location as the first state-sponsored project.



In late 2002, the BRA and the City of Houston received final permits from the Texas Commission on Environmental Quality (TCEQ) to move forward with construction on the Allens Creek Reservoir. The reservoir will be located just above the confluence of Allens Creek with the Brazos River in Austin County. It will impound over 200,000 acre-feet of water, creating a 7,000-acre lake and provide 99,650 acrefeet of water per year for municipal use. Construction is expected to begin in 2025.

In 2003, the BRA signed a major contract with the City of Georgetown to become the wastewater treatment services provider for the city's six treatment plants.

The construction and purchase of water pipeline systems in the Brazos basin in 2002 and 2003 allowed the BRA to move water from areas that have an abundance of supply to the areas that are greatly lacking in the resource. The Williamson County Regional Raw Water Line, a joint effort by the BRA and five customers, supplies water to the ever-growing areas in Williamson County. The Kerr-McGee Pipeline (later renamed West Central Brazos Water Distribution System or WCBWDS), a former oil industry water transportation line was purchased in February of 2002 to provide water to parched areas of the Upper basin.

In 2004, the BRA filed an application with the TCEQ requesting a permit for up to 421,000 acre-feet of water per year from existing sources within the Brazos River basin. The water for this System Operation Permit requested will originate from:

- The coordinated operation of the dozen reservoir projects in our system;
- Currently unpermitted water behind the dams in the reservoirs;
- Currently unappropriated flows in the river; and
- Unused effluent, to the extent that it is not being used by other senior water users and is available.

While this approach results in making significantly more water available for the communities, it still allows for the development of other proposed water supply projects found in the approved Regional Water Plan.

June 2004, the BRA assumed In ownership of the City of Taylor's Potable Water Treatment Facility and renamed it the East Williamson County Regional Water System (EWCRWS). As part of the purchase contract, the BRA agreed to expand the facility to meet the immediate needs of the city and their customers. Besides the residential and also commercial customers. Taylor provides water services to the City of Hutto. The expansion was completed in March, 2008 producing sufficient capacity to provide water to other customers



East Williamson County Plant Expansion

including Jonah Special Utility District, an area in great need of additional water.

In 2005, nearing the end of the 40-year contract, the BRA sold the Waco Metropolitan Area Regional Sewerage System (WMARSS) to the customer cities.

In 2005, the BRA also transferred ownership and operational responsibilities for Lake Alan Henry to the City of Lubbock. The refunding of the bonds successfully completed the contract between the city and the BRA for completion of a water supply lake for the city.

In 2006, during the 80th Texas Legislature, a proposed bill to force the BRA into mandated divestiture of leased properties at Possum Kingdom Lake was introduced in both the State House of Representatives and the Senate. Though the bill did not receive approval by the Senate Natural Resources Committee, the BRA Board of Directors voted to move forward with a proposed voluntary divestiture process.

In 2006, the BRA completed the final phase of the Possum Kingdom Lake Hike and Bike Trails System. The third addition completed the 16-mile system linking area camp grounds and parks. Funding for trail development was provided on a cost-share basis through grants with the Texas Parks and Wildlife Department.

In 2007, the hydroelectric plant at the Morris Sheppard Dam at Possum Kingdom Lake was shut down for mechanical evaluation.

In 2008, the Board of Directors passed a resolution to move forward with the divestiture of residential and certain commercial leased lots at Possum Kingdom Lake via a third-party sale that would include protections to allow lessees the option to purchase their individual leased property or continue leasing long-term. A request for bids was made public in January 2009 and a bid was accepted in April 2009. At the same time, the 81st Texas Legislature passed a bill that validated the parameters of the third-party sale and provided a back-up sale option that would allow lessees direct purchase of their leased lot from the BRA in the event the third-party sale was not successful. The sale was completed on October 22, 2010, to Patterson PK Land Partnership, LTD.

In 2010, after several years of study, the BRA, working with various stakeholders, completed the Lake Granbury Watershed Protection Plan (WPP). This locally developed plan was designed to reduce bacterial impairments in all parts of Lake Granbury that do not meet state water quality standards (primarily older man-made canals serving residential developments) or the local stakeholder goal. Grants to help fund the plan's goals were obtained in 2011.

In November 2010, the Board of Directors decommission the Possum voted to Kingdom Lake hydroelectric plant and staff notified the Federal Energy Regulatory Commission (FERC) of the intent to surrender the license. The facility had not generated power since 2007 due to issues related to the integrity of the penstocks that carry reservoir water to the hydroelectric In 2011, the BRA filed its turbines. Surrender of License Application with FERC.



Possum Kingdom Hydroelectric Facility

#### 2011 – 2019



The Brazos basin suffered through a record-breaking drought with October 2010 through September 2011 marking the hottest and driest twelve months in more than 100 years. Seven of the BRA's eleven reservoirs reached all-time low levels.

The zonal drawdown methodology for operating the Possum Kingdom-Granbury-Whitney Water Management Plan, was approved by the Board of Directors in April 2011.

Lake Granbury Pier

In 2011, large wildfires devastated much of the land around Possum Kingdom Lake. Together, the fires burned more than 133,000 acres and destroyed more than 330 structures, including numerous homes around the lake.

In October 2011, the BRA Board of Directors approved the execution of an agreement to transfer the Surface Water and Treatment System (SWATS) facility at Lake Granbury to the participating customers. The transfer of ownership, operations and personnel was completed on May 31, 2012, ending the BRA's involvement in this regional water treatment system. The participants continue to purchase water supply from the BRA.

In January 2012, the State Office of Administrative Hearings mandated that a Water Management Plan (WMP) to accompany the System Operations Permit be delivered to the TCEQ by November 29, 2012. As a result of questions posed by the TCEQ, the WMP and Technical Report, along with the associated appendices, were revised and submitted to the TCEQ on June 12, 2013. Additionally, a revised version of draft Water Use Permit No. 5851, consistent with the revised WMP and Technical Report, was included in the June 12, 2013 submittal for the TCEQ's consideration. The updated plan incorporated the Senate Bill 3 Environmental Flow Standards for the Brazos River basin and was adopted in February 2014.

In July 2012, the Temple-Belton Wastewater Treatment Plant properties, permits and equipment were transferred to the owner cities, with BRA continuing operations and management of the regional plant.

In 2013, to better provide for adequate water supply needs for the Williamson County area, the BRA began a demonstration project to provide for conjunctive use of groundwater from the Trinity Aquifer with treated surface water from Lake Granger. In 2014, a test well was drilled on the property of the East Williamson County Regional Water System.



Trinity Test Well

Also, in 2013, Senate Bill 918 was passed by the Texas Legislature and provided for the BRA sale of the remaining residential and commercial lease property at Possum Kingdom Lake. Bids were received and evaluated for the sale of the property. In addition, Senate Bill 918 included the sale of Costello Island, which was completed in May 2015.

In March 2014, the formal decommissioning of the hydroelectric plant at Possum Kingdom Lake's Morris Sheppard Dam was completed by the Federal Energy Regulatory Commission.



In 2014, the BRA took over operation of additional wastewater infrastructure for the Cities of Temple and Belton with a contract to operate the Doshier Farms Wastewater plant. Adding the Doshier Farms location simplified services for the two cities.

Dock located at Possum Kingdom Lake

Water conservation and planning became major initiatives for the BRA in the first half of the decade, as drought conditions rivaled the historic drought of the 1950s. In addition to continued efforts to obtain a major water right from the state with the System Operations Permit, the BRA continued to pursue groundwater development as an option for water supply and began moving forward on the proposed Allens Creek Reservoir permit process. The five-year drought finally came to an end during the spring of 2015 with major rain events completely refilling water supply throughout the entire BRA system of reservoirs.

The year 2015 also marked the end of the residential and commercial lease program at Possum Kingdom Lake. Per a legislatively directed process, the BRA accepted a \$10.15 million bid from Patterson PK2 Land Partnership that allowed current lessees to purchase their leasehold property from a third party, effectively ending the BRA's nearly 70-year leasing program at the reservoir.

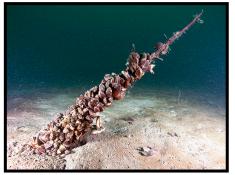
The sale and transfer of the West Central Brazos Water Distribution Pipeline was completed in early 2016. The West Central Texas Municipal Water District, made up of the cities of Abilene, Albany, Anson and Breckenridge, purchased the water distribution pipeline along with a long-term water contract to provide long-term, firm water supplies for Jones, Taylor, Shackelford, and Stephens counties.

On September 16, 2016, the BRA received the final order from the TCEQ awarding the System Operation Permit. The permit and its comprehensive Water Management Plan allowed access to water supply such as previously unappropriated flows downstream of BRA reservoirs and discharges from wastewater treatment plants. A condition of the permit's approval by the TCEQ was to study and assess the impact of the 2011-2015 drought on water supply. The study was completed in 2017, concluding that the drought of 2011 - 2015 was indeed worse than the drought of the 1950s for the upper portions of the basin; however, due to the climatological variety of the watershed, the most recent drought did not represent a worse drought for the basin as a whole.

In 2014, the BRA and several partner organizations were awarded funding by the Texas Water Development Board to study the lower Brazos River floodplain. The study would focus on flooding issues from the Grimes/Waller county line to the Gulf of Mexico. Headed by the engineering firm of Halff and Associates, the study was nearly complete when Hurricane Harvey hit the Gulf Coast, dropping more than 60 inches of rainfall. The BRA Board of Directors approved additional funding for the study to continue, allowing for information from the hurricane to be included. The final report was published in October 2018.

Since the early part of the century, the fight to slow the spread of zebra mussels, an

invasive non-native mollusk, throughout the southern states had escalated. The BRA joined with other river authorities and water providers in a campaign to educate the public in efforts to slow the spread into the Brazos River basin. In 2016, the mollusk was found in the BRA System's Lake Belton. In 2017, zebra mussels were found in Lake Stillhouse Hollow, temporarily halting use of the Williamson County Regional Raw Water Line to transport water to Lake



Georgetown. Following meetings with the US Army Corps of Engineers and the pipeline owners, use of the line resumed when needed in 2018. To date, the mollusks have also been found in Lakes Georgetown and Granger within the BRA System of water supply reservoirs.

The water right permit for the proposed Allens Creek Reservoir was amended by the Texas Legislature in 2011 to require that construction commence in 2025 with completion by 2028. In 2017, the BRA informed the City of Houston of its intent to begin environmental permitting and preliminary design. As the BRA moved forward with the permitting portion of the project, the City of Houston became reticent and then resistant to the project, noting they had no immediate need for the water. Following more than a year of failed negotiations to buy out the city's right in the permit, the BRA backed legislation proposed by several lower Brazos basin customers to force the City of Houston to sell their interest in Allens Creek Reservoir. The legislature passed the bill for a required sale of \$23 million which was later signed into law by Governor Abbott.

Within months of HB 2846's signing, the City of Houston filed suit against both the State of Texas and the Brazos River Authority, challenging the constitutionality of the legislation. A Travis County judge granted Houston's motion for summary judgment, ruling HB 2846 to be unconstitutional under provisions of the Texas constitution. The BRA, along with the state, appealed the ruling through the appellate court system, which is currently pending. The BRA continues to work through the legal process with the City and the State of Texas, with the goal of moving this project forward to construction as quickly as possible.

In September 2018, the BRA received final permitting approval for the System Operation Permit. To prepare for the eventual contracting of Sys Ops water, the BRA queried current customers through questionnaires, email and phone conversations to determine their water supply needs and validate their continued interest in additional contracting under the new permit. Within months of the Board's April 2019 vote authorizing contracting for 106,031 acre-feet of water under the System Operations permit, the full amount was secured, under negotiation or being reserved for future projects or emergencies.

#### 2020 – Today

Since 2008, the BRA has worked with the Fort Worth District of the U.S. Army Corps of Engineers to investigate the potential reallocation of storage capacity in Corps-owned reservoirs as a source of additional water supply to benefit the Brazos River basin. As part of the project, the Corps identified two reservoirs, Lakes Aquilla and Whitney as potentially feasible options.

The Office of the Assistant Secretary of the Army for Civil Works (ASA) did not approve the request for Aquilla Lake, citing a permanent loss of a portion of the flood pool and making the future of that project uncertain at best. The second reservoir, Lake Whitney, a massive flood-control reservoir located on the main stem of the Brazos River, houses about 320,500 acre-feet of unallocated water that could be redefined to make more water supply available to meet future demands in the basin. The 2020 Water Resources Development Act passed by the U.S. Congress included a provision directing the Corps to perform an expedited reallocation study of Lake Whitney. The BRA continues to work with the U.S. congressional delegation to secure funding for this effort to ensure that the study occurs.

As part of legislation passed in 2019, the Texas Water Development Board finalized rules and planning regions for a new flood planning process that divided the state into 15 flood planning regions similar to the Water Planning process. In 2020, the BRA joined the process as members of two planning areas defining the Brazos River basin. BRA staff serving on these boards represent the category of river authorities in both regions. The BRA will also serve as administrative agent for the Region 8 Lower Brazos planning group.

The BRA contributed to the 5th cycle of regional water planning for the state with the submittal of final 2021 regional water plans. As an active participant in three planning regions across the basin (Regions O, G, and H), BRA's goal continues to be ensuring consistency between BRA planning efforts and the Regional Water Plans that will be submitted to the Governor, Lieutenant Governor, and the Texas Legislature in the 2022 State Water Plan.

In June of 2021, after years of negotiation with the United States Fish and Wildlife Service (USFWS) on the Candidate Conservation Agreement with Assurances for the False Spike and Texas Fawnsfoot in the Brazos River Basin, the USFWS published the Freshwater Mussel CCAA and the BRA executed the CCAA and permit. The execution of the CCAA and permit will provide for freshwater mussel conservation in the basin and will reduce the exposure of BRA's water supply system to liabilities associated with the Endangered Species Act.

A 2018 engineering investigation and cost analysis into the five existing Tainter gates at the Sterling C. Robertson Dam established the Lake Limestone Gate Replacement Project. The project, which will extend the life of the existing dam, is nearing the completion of the design and review phase in 2021.

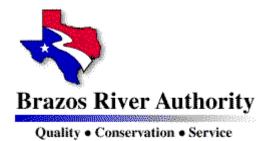
In 2020, the BRA Board formed a Property Management Committee to develop a Property Master Plan for all BRA retained properties. The committee interviewed two firms, hiring Halff Associates to move forward with development of the plan.

The BRA has been actively engaged in groundwater development efforts in Williamson County. In 2020, the BRA completed its first Trinity aquifer groundwater well at the East Williamson County Regional Water System treatment plant adjacent to Lake Granger. The groundwater developed at this site will be conjunctively used with Lake Granger surface water to help supply the rapidly growing communities along the Interstate 35 and State Highway 130 corridors in Williamson County. Additional well sites are planned to be added in the future as water supply needs increase.

The Williamson County Regional Raw Water Line (WCRRWL), the water transportation pipeline operated by the BRA for three municipal customers in Williamson County, delivers water from Lake Stillhouse Hollow in Bell County to Lake Georgetown in Williamson County and is vital to meeting these customers' water needs during dry times.

The WCRRWL was in service for most of 2020, transferring approximately 30,000 acrefeet of water from Lake Stillhouse Hollow to Lake Georgetown. The WCRRWL pump station was originally constructed with a pumping capacity of about 27 million gallons per day (mgd) that was expanded to about 43 mgd approximately 10 years ago. In 2021, BRA began planning for the final phase of pumps that will take the system to its ultimate design capacity of roughly 55 mgd.

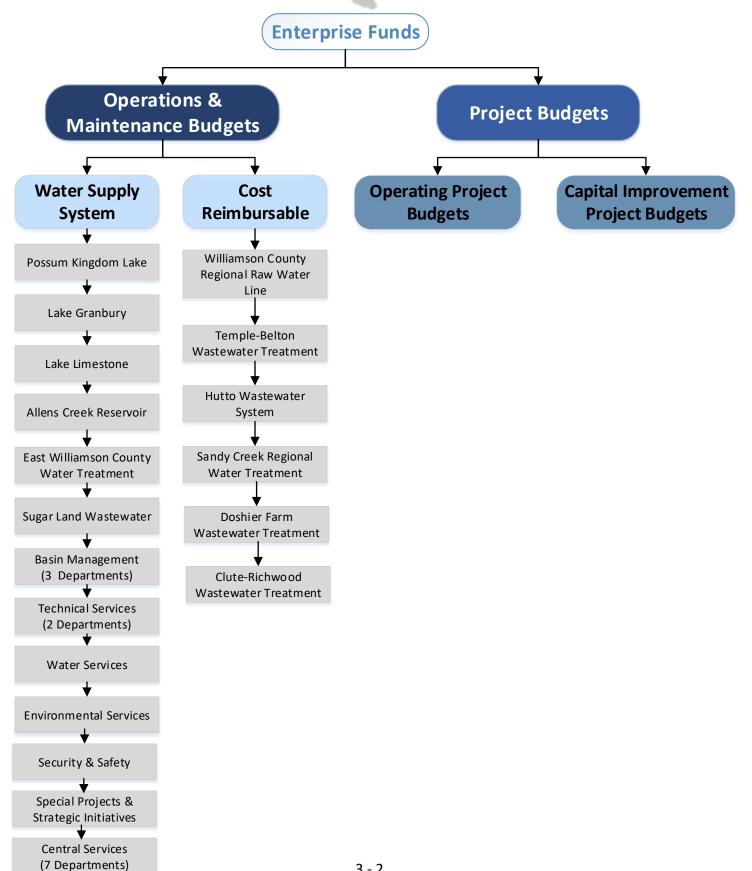
As part of the same system, an additional pipeline is planned to connect Lake Belton to Lake Stillhouse Hollow to help meet the growing water needs of customers that divert water from Lake Stillhouse Hollow. In 2021, the preliminary engineering design for the plan dubbed the Belhouse Drought Preparedness Project moved forward. The pipeline is expected to be operational in the next five to seven years.



This page left blank intentionally

FINANCIAL INFORMATION

# **Brazos River Authority Financial Structure**



3 - 2

## FINANCIAL OVERVIEW

#### Fund Type, Basis of Budgeting and Basis of Accounting

The Annual Operating Plan (AOP) serves as the foundation for the Brazos River Authority's (BRA's) financial planning and control. All of the financial activities included in the AOP are accounted for using Enterprise Funds, which are appropriate for business type undertakings where costs are recovered primarily through user charges. The BRA utilizes the full-accrual method for accounting. Under this method, revenues are recognized when they are earned and measurable, while expenses are recognized when they are incurred. The basis for preparing the budget is the same as the basis of accounting except for debt principal payments and capital outlay items, which are expensed in the budget and capitalized for accounting purposes. The BRA does not budget for depreciation.

#### Budget Structure

The BRA prepares, adopts and maintains two types of budgets within the AOP; Operations & Maintenance (O&M) Budgets and Project Budgets.

Individual O&M Budgets are adopted annually for each department/location. The O&M Budgets cover the recurring normal revenues and expenditures for the upcoming fiscal year based on the objectives set forth by each department. They also include small capital items such as vehicles, equipment and small improvement projects that can be completed during the fiscal year. The O&M Budgets are further classified as Cost Reimbursable or Water Supply System. Cost Reimbursable budgets include the BRA's operation and maintenance of customer owned treatment and water conveyance facilities under cost reimbursable contracts. The Water Supply System O&M budgets include all other operations.

The BRA plans for long-term goals and objectives using a 50-year planning horizon to coincide with the State Water Plans adopted by the Texas Water Development Board. The Project Budgets are the financial component of the 50-year planning process. As opposed to the O&M Budgets, which are for one year, the Operating and Capital Improvement Project Budgets are for tasks that are expected to cover a number of years or are non-recurring in nature.

There are two categories of Project Budgets; Operating Projects and Capital Improvement Projects. They are similar in that they can be multi-year and are generally non-recurring, but Capital Improvement Projects are used to budget for the purchase/creation of major capital assets while Operating Projects are used to budget for studies/surveys/assessments, technology items and smaller capital purchases funded with current revenues.

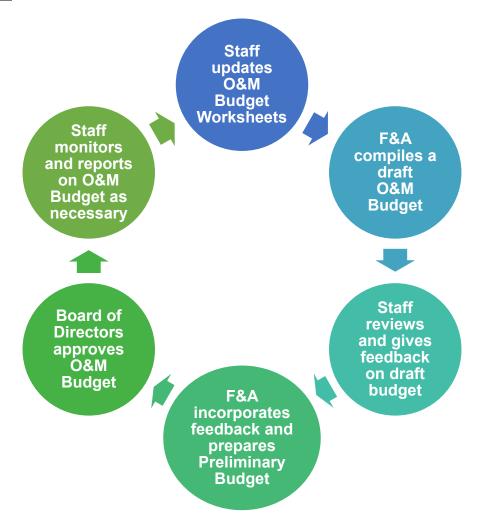
For presentation purposes, the O&M budgets are arranged by either regional location or function. The Brazos River basin is divided into three different geographical regions; Upper, Central and Lower, to allow water supply and treatment operations to work together to address the distinct needs of the residents in different parts of the basin. Each region is supported by the six functional divisions; Technical Services, Special Projects & Strategic Initiatives, Water Services, Environmental Services, Security and Safety, and Central Services.

# **BUDGET PROCESS**

The BRA's budget is prepared in accordance with applicable state laws, contractual obligations, and BRA policies. The BRA uses the state fiscal year, which begins September 1 and ends August 31. The budget document shows the anticipated revenues and expenses for the fiscal year and serves as a financial management tool for the Board of Directors and BRA personnel.

In order to have an adopted budget in place by September 1 each year, the budget process must begin many months earlier.

#### O&M Budgets



In January, O&M Budget worksheets are made available to BRA departments. These worksheets contain prior year actual expenditures, prior year budget detail, and current year expenditure and budget amounts. The departments usually have about six weeks to update the worksheets.

While the Departments are preparing their budgets, the Finance & Administration Department (F&A) compiles personnel costs, insurance costs, debt service requirements, revenue projections, and other pertinent data for the upcoming year. When the departments return their requests, all of this data is combined to form a "first draft" O&M Budget.

F&A holds meetings, and with help from all the departments, the budgets are analyzed and revised to assure that they adequately provide for the needs of the BRA while keeping the budget balanced and any increase in the System Rate to a minimum. All new requests are discussed with the Management Team and the General Manager/CEO. The results of these discussions are compiled to produce a Preliminary O&M Budget. BRA staff makes a Preliminary O&M Budget presentation to the Board of Directors at their April Board meeting.

#### **Operating Project and Capital Improvement Project Budgets (Projects)**

The information needed to compile the Projects Budget is captured using Project Budget Worksheets (PBW's). These worksheets contain all of the relevant information about the project, including a description, project manager, location, supporting documentation, proposed funding sources, estimated budget and estimated impacts to future O&M budgets.

The PBW's are the basis for the BRA's Long Range Financial Plan. The BRA tracks and updates an inventory of PBW's. As soon as staff identifies the need for a project, they complete a PBW and submit it to be considered for inclusion in the inventory. The PBW is then vetted by the Management Team and the General Manager/CEO. If approved, the PBW is added to the inventory. The PBW's are updated as needed and/or at least once a year during the budget process. A summary of proposed PBW expenditures for the upcoming fiscal year and the subsequent four years is included in the preliminary budget review that is presented to the Management Team and the General Manager/CEO. This PBW summary is reviewed and discussed by the Management Team and the General Manager/CEO and any changes are communicated back to the Finance & Administration Department.

#### Annual Operating Plan Approval

After all changes resulting from the staff reviews have been made, the proposed Annual Operating Plan is sent to the Board of Directors in advance of their July Board meeting. BRA staff answers all questions and requests for clarification in advance of the meeting at which the Board of Directors adopts the budget.

#### **Budget Tracking and Performance**

Once the AOP has been adopted by the Board of Directors, it is published on the BRA website for reference by BRA staff and the general public. The O&M Budget worksheets and Program/Project Budget worksheets are placed on an internal website so they can be viewed and referred to by all BRA staff. The budgets are also entered into the Enterprise Financial Software. Each month the Finance & Administration Department produces a budget versus actual report for all of the O&M Budgets. These reports are also placed on the internal website for review and reference. The Project Budget reports are updated at the end of each quarter with actual expenditures. Budget reports for O&M and Projects are presented to the Board of Directors at each of their quarterly meetings.

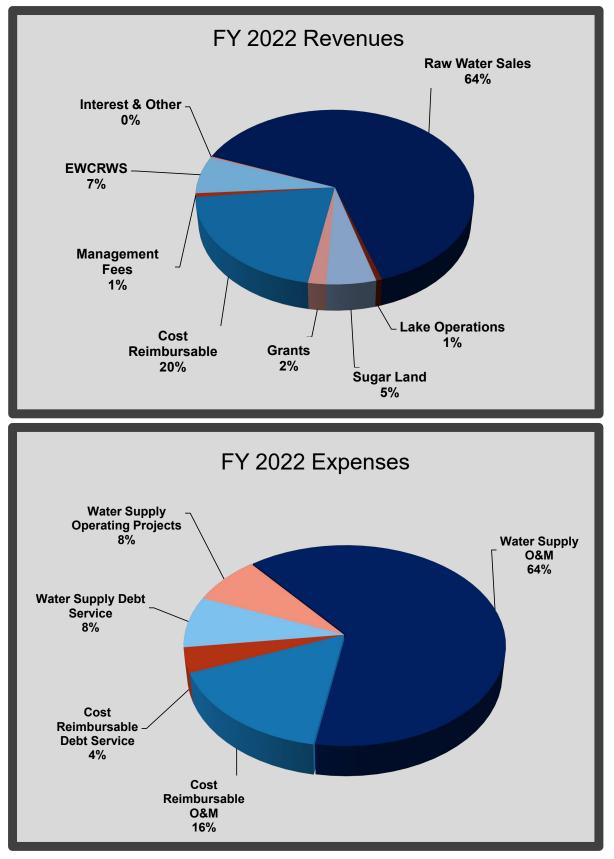


Quality 
 Conservation 
 Service

This page left blank intentionally

FUND SCHEDULES FY 2022

## FY 2022 Operating Revenues & Expenses



#### All Lines of Business Working Capital Summary Fiscal Year 2022 Proposed Budget

	Water Supply	Re	Cost eimbursable	Total
Beginning Working Capital	\$ 117,958,574	\$	-	\$ 117,958,574
Revenues				
Raw Water Sales	47,191,573		-	47,191,573
Lake Operations	453,307		-	453,307
East Williamson County RWS	5,098,492		-	5,098,492
Sugar Land WW	3,820,718		-	3,820,718
Cost Reimbursable - Water Operations	-		2,814,041	2,814,041
Cost Reimbursable - Wastewater	-		7,647,915	7,647,915
Cost Reimbursable - Pipeline Operations	-		4,609,502	4,609,502
Grants/Stakeholder Funding	1,391,469		3,242,000	4,633,469
Management Fees	509,798		-	509,798
Interest Income	198,211		-	198,211
Miscellaneous	60,000		-	60,000
Rate Stabilization Reserves	 1,500,000		-	1,500,000
Total Revenues	60,223,568		18,313,458	78,537,026
Expenses				
Operations & Maintenance	47,451,214		12,048,808	59,500,022
Operating Projects	5,835,000		-	5,835,000
Debt Service	 6,161,747		3,022,650	9,184,397
Total Expenses	59,447,961		15,071,458	74,519,419
Surplus/(Deficit) before CIP	775,607		3,242,000	4,017,607
Capital Improvement Projects (CIP)	(62,191,000)		(3,242,000)	(65,433,000)
Rate Stabilization Reserves Utilized	(1,500,000)		-	(1,500,000)
Ending Working Capital	\$ 55,043,181	\$	-	\$ 55,043,181

#### Water Supply System Working Capital Summary Fiscal Year 2020-2022 Comparison

	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Beginning Uncommitted Reserves	\$ 93,678,746	\$ 108,499,248	\$ 108,499,248	\$ 117,958,574
Revenues				
Raw Water Sales - System Rate	41,294,413	37,074,700	41,932,680	40,112,655
Raw Water Sales - Non-System Rate East Williamson County RWS	8,252,925 4,168,124	7,223,083 4,082,529	7,967,274 5,213,335	7,078,918 5,098,492
Sugar Land Wastewater	4,025,674	3,787,253	3,804,870	3,820,718
Lake Operations	486,983	462,415	453,879	453,307
Grants & Local Funding	1,250,609	1,378,594	1,458,209	1,391,469
Management Fees	370,049	467,976	519,365	509,798
Interest Income Miscellaneous	2,494,796	896,066	894,700	198,211
Rate Stabilization Reserves	263,135	92,800	122,243	60,000 1,500,000
Total Revenues	62,606,708	55,465,416	62,366,555	60,223,568
Operating Expenses				
Upper Basin				
Upper Basin Management	646,436	769,479	657,437	912,718
Possum Kingdom Lake Lake Granbury	7,370,326 3,052,765	10,452,191 3,538,666	10,087,915 3,329,583	8,302,699 3,885,765
Central Basin	5,052,705	0,000,000	3,323,303	3,003,703
Central Basin Central/Lower Basin Management	1,483,400	1,816,970	1,779,013	1,763,676
East Williamson County RWS	1,686,967	1,988,972	1,814,809	2,351,051
Lower Basin	, ,	,,-	,- ,	,,,
Lake Limestone	2,016,576	2,543,230	2,451,922	2,726,207
Allens Creek Reservoir	38,785	58,743	49,272	64,022
Sugar Land WW	4,066,295	3,973,829	3,948,666	4,214,482
Technical Services				
Management	825,782	853,660	840,328	1,084,054
Engineering Services	1,287,818	1,449,260	1,567,411	2,350,791
Security & Safety	855,569	882,202	933,705	993,749
Special Projects & Strategic Initiatives	255,345	297,552	203,264	324,925
Water Services				
Water Resources	1,076,064	1,259,832	1,174,958	1,478,950
Federal Reservoirs & Purchased Water	9,473,080	12,738,283	10,893,868	14,083,318
Environmental Services	2,362,367	2,324,057	2,277,158	2,914,807
General & Administrative				
Board of Directors	72,855	125,776	85,413	131,570
General Administration Legal Services	484,611 785,384	561,325 912,703	484,120 893,870	572,826 1,082,659
Government & Customer Relations	1,033,307	1,082,971	1,078,069	1,228,564
Human Resources	776,187	929,000	761,972	945,309
Finance & Administration	1,771,701	2,058,637	1,730,833	2,114,303
Information Technology Services	2,316,551	2,731,349	2,742,349	3,091,676
Less: General & Administrative allocated Subtotal	(7,240,596) 36,497,575	(8,401,761) <b>44,946,926</b>	(7,776,626) <b>42,009,309</b>	(9,166,907) <b>47,451,214</b>
	50,457,575	44,540,520	42,003,303	77,751,217
Debt Service East Williamson County RWS	2,534,618	2,536,214	2,536,214	2,538,405
Federal Reservoirs	1,632,361	1,587,340	1,587,340	1,587,342
Allens Creek Reservoir	641,463	641,366	641,366	2,036,000
Subtotal	4,808,442	4,764,920	4,764,920	6,161,747
Operating Projects	1,759,576	4,670,000	2,321,000	5,835,000
Total Expenses	43,065,593	54,381,846	49,095,229	59,447,961
Surplus/(Deficit) before CIP	19,541,115	1,083,570	13,271,326	775,607
Less: Capital Improvement Projects	3,798,291	58,384,000	3,812,000	62,191,000
Less: Audit Adjustments	922,322	-	-	-
Less: Rate Stabilization Reserves Utilized	-	-	-	1,500,000
Ending Uncommitted Reserves	\$ 108,499,248	\$ 51,198,818	\$ 117,958,574	\$ 55,043,181

#### Cost Reimbursable Operations Working Capital Summary Fiscal Year 2020-2022 Comparison

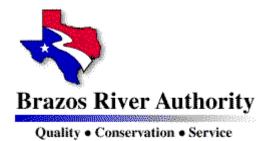
	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Operating Revenues				
WCRRWL T-B WWTP Doshier Farm Hutto Hutto R&R Sandy Creek	\$ 1,258,200 1,875,434 1,068,683 1,557,745 - 2,177,113	\$ 1,482,911 2,782,003 1,791,183 1,904,242 80,000 2,508,968	\$ 2,076,618 3,282,808 1,730,456 1,733,370 - 2,448,612	\$ 1,586,852 2,924,683 1,790,565 1,994,504 80,000 2,814,041
Clute	638,342	1,040,186	1,010,362	858,163
Debt Service Revenues				
WCRRWL	2,852,859	3,096,281	2,981,783	3,022,650
Capital Project Funding Local Stakeholder Funding	-	2,664,000	361,000	3,242,000
Total Revenues	11,428,376	17,349,774	15,625,009	18,313,458
Operating Expenses				
<u>Central Basin</u>				
WCRRWL (1) T-B WWTP (2) Doshier Farm Hutto Hutto R&R	1,258,200 1,875,434 1,068,683 1,557,745 - 2,177,113	1,482,911 2,782,003 1,791,183 1,904,242 80,000	2,076,618 3,282,808 1,730,456 1,733,370 - 2,448,612	1,586,852 2,924,683 1,790,565 1,994,504 80,000 2,814,041
Sandy Creek	2,177,113	2,508,968	2,440,012	2,814,041
Lower Basin Clute (3) Subtotal	638,342 <b>8,575,517</b>	1,040,186 <b>11,589,493</b>	1,010,362 <b>12,282,226</b>	858,163 <b>12,048,808</b>
Debt Service Expenses				
WCRRWL	2,852,859	3,096,281	2,981,783	3,022,650
Capital Improvement Projects WCRRWL Copper Ion Generator WCRRWL Phase 3 Pumps Total Expenses		2,114,000 550,000 <b>17,349,774</b>	261,000 100,000 <b>15,625,009</b>	1,592,000 1,650,000 <b>18,313,458</b>
Surplus/(Deficit)	\$ -	\$-	\$-	\$-
- • •				

#### Explanations of Variances

(1) WCRRWL FY 21 Actual is expected to be over budget mainly due to moving more water than anticipated

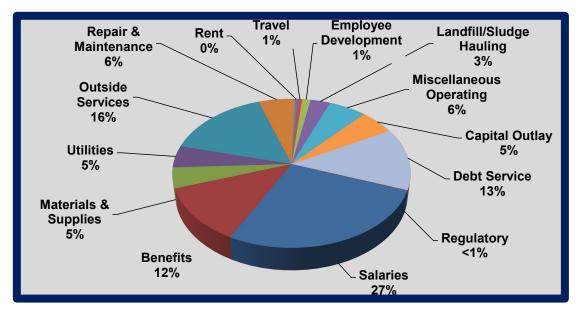
(2) T-B WWTP FY 21 Actual is expected to be over budget due to capital project items that carried over from FY 20

(3) Clute FY 22 is lower than FY 21 because of the non-recurring purchase of a new generator in FY 21



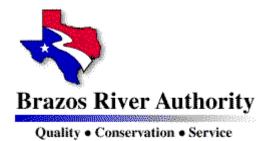
This page left blank intentionally

#### Total Operating Expenditures Detail by Expense Category FY 2022



	F	iscal Year 2020 Actual	F	iscal Year 2021 Budget	Fiscal Year 2021 Projected	l	Fiscal Year 2022 Proposed	% Change FY 2021 to FY 2022 Budget
Salaries	\$	16,180,642	\$	17,618,916	\$ 16,551,810	\$	18,757,886	6.46%
Benefits		6,644,627		7,584,605	6,827,329		8,415,446	10.95%
Materials & Supplies		2,370,776		3,144,041	2,913,585		3,100,573	-1.38%
Utilities		2,667,461		3,165,955	3,502,260		3,288,973	3.89%
Outside Services		7,597,508		10,391,746	9,109,415		11,030,299	6.14%
Repair & Maintenance		2,199,822		3,461,213	3,352,496		3,848,277	11.18%
Rent		227,246		287,645	293,455		306,043	6.40%
Travel		195,847		425,993	235,597		464,330	9.00%
Employee Development		263,617		918,569	521,139		891,120	-2.99%
Regulatory		138,961		149,148	139,001		149,048	-0.07%
Landfill/Sludge Hauling		1,950,050		1,839,029	1,819,900		2,103,946	14.41%
Miscellaneous Operating		2,575,139		3,826,032	2,733,875		3,976,003	3.92%
Capital Outlay		2,415,249		5,075,989	6,247,249		3,736,000	-26.40%
Debt Service		7,852,923		7,863,201	7,972,273		9,184,397	16.80%
Total Operating Expenses		53,279,868		65,752,082	62,219,384		69,252,341	5.32%
Operating Projects		1,759,576		4,670,000	2,321,000		5,835,000	24.95%
Expenses out to Capital Projects		(545,474)		(1,354,462)	(181,146)		(567,922)	-58.07%
Net Operating Expenses	\$	54,493,970	\$	69,067,620	\$ 64,359,238	\$	74,519,419	7.89%

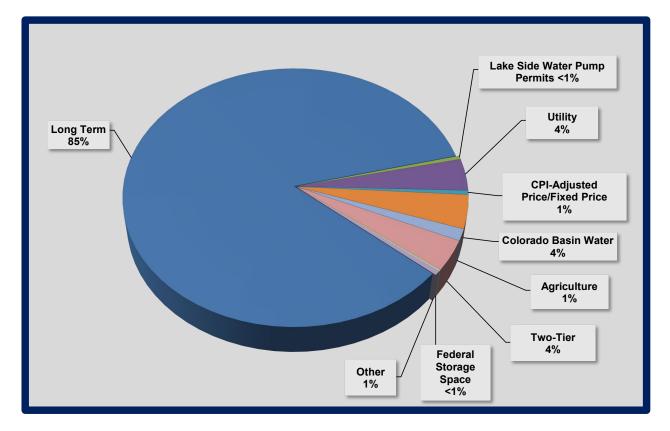
	Explanations for Increases/Decreases
Salaries	The FY 22 increase is due to the addition of new positions and ECI and merit raises for existing employees
Benefits	The FY 22 increase is due to the addition of new employees and increases in retirement fund contribution rates and health insurance rates.
Outside Services	The FY 22 increase is due to the increase in O&M charges for the U.S. Army Corps of Engineers lakes
Repair & Maintenance	The FY 22 increase is mainly due to increased maintenance costs on existing software and the addition of new software packages
Rent	The FY 22 increase is mainly due to the planned rental of equipment to clean out the terminal storage and lagoons at EWC
Travel	The FY 22 increase is mainly due to increased travel costs associated with new lake sampling initiative and new employees
Landfill/Sludge Hauling	The FY 22 increase is due to lagoon cleaning at the Sandy Creek plant
Capital Outlay	The FY 22 decrease is due to the non-recurring purchase of a crane in FY 21
Debt Service	The FY 22 increase is due to the planned assumption of the City of Houston's portion of the existing Allens Creek debt
Operating Projects	The FY 22 increase is due to anticipated project expenditures, see details in Tab 14



This page left blank intentionally

# Revenue Detail

### Water Sales Revenue Detail by Type of Contract FY 2022



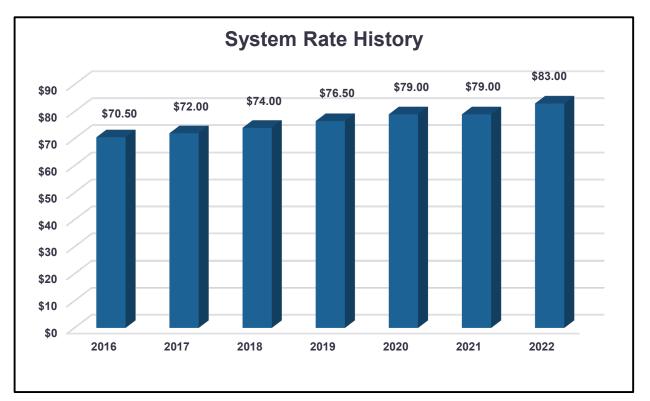
	F	Fiscal Year 2020 Actual	020 2021		Fiscal Year 2021 Projected		Fiscal Year 2022 Proposed
Raw Water Sales - System							
Long Term	\$	36,203,719	\$	37,074,700	\$	37,196,809	\$ 40,112,655
Short Term		5,090,694		-		4,735,871	-
Total Raw Water Sales - System		41,294,413		37,074,700		41,932,680	40,112,655
Raw Water Sales - Non-System							
Utility		2,164,961		1,870,548		1,870,548	1,870,548
Two-Tier		1,764,015		1,780,393		1,779,105	1,797,069
CPI-Adjusted Price/Fixed Price		585,154		457,015		442,547	236,544
Colorado Basin Water		1,768,796		1,893,924		1,841,300	1,968,311
Agriculture		1,435,526		669,461		1,502,335	674,893
Federal Storage Space		70,837		101,582		72,241	72,400
Lake Side Water Pump Permits		202,327		196,146		197,643	198,356
Other		261,309		254,014		261,555	260,797
Total Raw Water Sales - Non-System		8,252,925		7,223,083		7,967,274	7,078,918
TOTAL WATER SALES REVENUE	\$	49,547,338	\$	44,297,783	\$	49,899,954	\$ 47,191,573

## System Water Rate Calculation FY 2021 and 2022

		FY 2021 Budget	FY 2022 Proposed
Water Supply Expenses			
Water Supply O&M Expen	nditures	\$ 44,239,743	\$ 47,451,214
Water Supply Debt Servic		2,536,214	2,538,405
	e (not subject to coverage)	2,228,706	3,623,342
Operating Project Expende	· · · · · · · · · · · · · · · · · · ·	4,968,000	5,835,000
	Total Expenditures	53,972,663	59,447,961
Less:			
Non-System Water Reven	lues	7,223,083	7,078,918
Other Water Supply Reve		10,437,635	11,531,995
	Total Non-System Revenues	17,660,718	18,610,913
Plus:			
Debt Coverage Requireme	ent (1.3 ratio)	760,864	761,522
Rate Stabilization Fund		-	(1,500,000)
	Total Coverage and Reserve	760,864	(738,479)
System Water Revenue I	Requirement	\$ 37,072,809	\$ 40,098,570
Total System Water Billin	ng Units (acre feet)	469,300	483,285
System Rate (System Ra	te Revenue Requirement		

System Rate (System Rate Revenue Requirement

divided by the number of System Rate Units)



\$79.00

\$83.00

#### Long Term Raw Water Billing Units Contract Type and Water Sales Revenue Assumptions FY 2021 and 2022

		FY	2021			FY 2022					
	Units	Av	g Price	%	Units	A۱	vg Price	%			
System Rate	469,300	\$	79.00	65%	483,285	\$	83.00	67%			
Agriculture	12,106	\$	55.30	2%	12,031	\$	58.10	2%			
Two-Tier	98,999	\$	17.98	14%	98,999	\$	18.15	14%			
Other Fixed Price	23,530	\$	19.42	3%	9,505	\$	24.89	1%			
Utilities	97,000	\$	19.28	13%	97,000	\$	19.28	13%			
Sub-Total	700,935	•	-	97%	700,820	•	_	96%			
Colorado Basin	23,328	\$	81.19	3%	23,328	\$	84.38	3%			
Total	724,263			100%	724,148			100%			

The Brazos River Authority's main source of revenue is the sale of raw water to municipal, industrial and agricultural customers throughout the Basin. The raw water is sold in units called acre-feet; one acre-foot is equal to 325,851 gallons of water, which is enough water to cover one acre of ground to a depth of one foot. Currently, the Brazos River Authority has 760,034 acre feet of water available for sale, of which 724,148 acre feet is projected to be sold for FY 2022. Raw Water contracts are divided into two categories, System Rate and Non-System Rate. There are five sub-categories of Non-System Rate water contracts, which are detailed below.

System Rate – the System Rate contracts are "take or pay" contracts, which mean the customer pays the same rate for all units under contract, whether they are used or not. The System Rate is re-set each year based on a net revenue requirement, which is the difference between the budgeted expenditures of the Water Supply System and the revenues provided by other sources, divided by the number of units under contract at the System Rate.

Agriculture – water purchased for agricultural purposes. The rate for this type of contract is set at 70% of the approved System Rate.

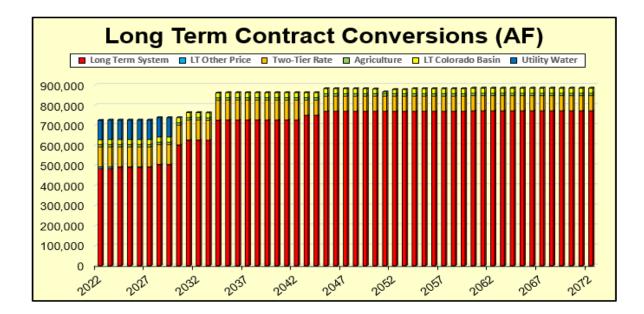
Two-Tier – these contracts charge the customer one rate for water that is used (election price) and another rate for water that is reserved (option price). The election price is twice the option price. The rates are adjusted each year based on the Consumer Price Index (CPI).

Utility – these are set rate contracts with utility companies, mainly to provide cooling water for electric generation. As these contracts expire, they are being replaced with System Rate contracts.

Other Fixed Rate – these are older contracts prior to the establishment of the System Rate. The majority are adjusted on a five year cycle by a calculation based on the CPI, while others are locked at fixed rates until expiration. As these contracts expire, they are being replaced with System Rate contracts.

Colorado Basin – BRA is contracted with the Lower Colorado River Authority (LCRA) for 25,000 acre feet of Colorado basin water for two customers in Williamson County. These customers pay a rate that is approximately one half of LCRA's System Rate, which is slightly higher than BRA's System Rate.

The graph below represents the expected mix of long term raw water contracts over the next 50 years. The 25,000 AF increase in 2031 is from the reallocation of storage at Lake Whitney. The increase in 2033 is due to the completion of the Allens Creek Reservoir, which will make 99,650 AF of new water available.



#### Water Sales Revenue Assumptions

- · All contracts are adjusted in accordance with applicable contract provisions
- System Rate Contracts
  - FY 2022 System Rate is \$83.00 per acre-foot, a 5% increase over FY 2021
- Two-Tier contracts
  - The increase in FY 2022 is primarily due to a small change in the CPI over last year
  - Election Price for FY 2022 is projected to have a slight increase over the FY 2021 rate.
  - Option Price for FY 2022 is projected to have a slight increase over the FY 2021 rate.
- Utilities
  - No increase required in the current year in accordance with contract provisions which have a five year adjustment period
- Other Fixed Price Contracts
  - Increase is primarily due to CPI adjustments in accordance with contract provisions.
- Colorado Basin Water
  - Water purchased from LCRA at an average of \$84.38 per acre-foot
- Short-Term Interruptible Water
  - No Interruptible Water Sales are included in the FY 2022 Budget

#### Brazos River Authority FY 2022 Budget Management Fees

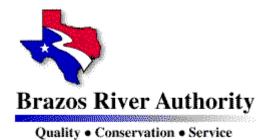
The Brazos River Authority (BRA) operates various water treatment, wastewater treatment and raw water pipeline facilities through contracts with local governmental entities. These contracts are set up on a cost-reimbursable basis, meaning that the customers pay the actual operation, capital, and debt costs for the facilities. These contracts provide for the payment of a Management Fee to the BRA. The Management Fee is recognized as a revenue for the Water Supply System and helps to offset the System Rate.

Variances between actual and budgeted Management Fees directly correlates with variances in actual and budgeted expenditures, due to the fact that most of the Management Fees are based on percentages of O&M and debt expenses.

	F	iscal Year 2020 Actual	Fiscal Year 2021 Budget	Fiscal Year 2021 Projected	Fiscal Year 2022 Proposed
Temple-Belton Operations Doshier Farm Operations Hutto Operations Sandy Creek Operations WCRRWL Operations Clute Operations	\$	51,679 32,061 77,888 108,767 53,473 31,917	\$ 79,260 49,220 95,212 102,648 74,146 52,009	\$ 93,684 47,324 86,669 122,430 103,831 50,518	\$ 83,090 48,917 99,725 140,702 79,343 42,908
O&M Management Fees		355,785	452,495	504,456	494,685
WCRRWL Debt Debt Management Fees		14,264 <b>14,264</b>	 15,481 <b>15,481</b>	14,909 <b>14,909</b>	<u>15,113</u> <b>15,113</b>
Total Management Fees	\$	370,049	\$ 467,976	\$ 519,365	\$ 509,798

#### Brazos River Authority Water Supply System Summary of Grants & Local Funding FY 2022

Project Name	Funding Source	FY 2020 Actual		Y 2021 dgeted		FY 2021 rojected		2022 Proposed	
	O&M Budg	get							
Clean Rivers Program	State	\$ 440,189	\$	583,159	\$	583,159	\$	398,159	
Region 8 Lower Brazos	State	-		730,000		730,000		677,210	
Brazos G	State	810,420		65,435		145,050		316,100	
Total O&M Budget Grant Fu	Inding	1,250,609	1	1,378,594	1,	458,209		1,391,469	
	Capital Improvement	nt Projects							
WCRRWL Phase 3 Pumps	Local	-		550,000		100,000		1,650,000	
WCRRWL Copper Ion Generator	Local	-	2	2,114,000		261,000		1,592,000	
Total Operating Projects Grant Fu	Inding	-	2	2,664,000		361,000		3,242,000	
Total Grants & Local Fu	Inding	\$ 1,250,609	\$ 4	4,042,594	\$1,	819,209	\$	4,633,469	



This page left blank intentionally

# FIVE-YEAR FINANCIAL FORECAST ASSUMPTIONS AND OVERVIEW

#### Water Supply System Five-Year Financial Forecast FY 2022 - FY 2026

The Brazos River Authority has developed and utilizes a long-range financial plan (LRFP) model to predict the effects of future events on the financial health of the organization.

#### Revenue

#### **Raw Water Sales**

The chart below illustrates the assumptions regarding the number and composition of total water supply billing units for the next five years. Billing Units are expressed in acre-feet (AF). The model does not include any billing units for Interruptible Water contracts, due to the uncertain nature of the amount of Interruptible Water that may be available for sale at any given time.

	Billing Units in Acre Feet						
Contract Type	2022	2023	2024	2025	2026		
System Rate	483,285	483,285	488,910	488,910	488,910		
Agriculture	12,031	12,031	12,031	12,031	12,031		
Two-Tier	98,999	98,999	98,999	98,999	98,999		
Other Fixed Rate	9,505	9,505	3,880	3,880	3,880		
Utilities	97,000	97,000	97,000	97,000	97,000		
Colorado Basin	23,328	25,000	25,000	25,000	25,000		
Total Billing Units (AF)	724,148	725,820	725,820	725,820	725,820		

<u>System</u> <u>Rate</u> - the model assumes that all expiring non-agriculture water contracts will convert to System Rate contracts. The increase from FY 23 to FY 24 is the conversion of 5,625 acre feet of expiring Other Fixed Rate contracts to System Rate contracts.

Agriculture - the model assumes that all long term Agriculture contracts will renew when they expire.

Two-Tier - the model assumes that all Two-Tier contracts will convert to System Rate contracts if and when they expire.

Other Fixed Rate - the model assumes that all Fixed Rate contracts will convert to System Rate contracts when they expire. This is the reason for the decrease in Fixed Rate billing units from 2023 to 2024.

<u>Utilities</u> - the model assumes that all Utility contracts will convert to System Rate contracts when they expire. The 97,000 AF currently in Utility contracts is scheduled to expire in 2030.

<u>Colorado Basin</u> - For FY 22 the model includes water currently under contract and the entire 25,000 AF of Colorado Basin for future years. The model also assumes all of the water will renew when it expires.

#### **Other Revenues**

East Williamson County RWS - the model assumes conservative increases in the base flows for each of the three existing customers.

All other revenues are adjusted based on historical performance.

#### **O&M Expenses**

Operational & Maintenance expenses are itemized by cost category and escalated using the historical 10 year rolling average of the following Employment Cost/Consumer Price/Producer Price Indices :

Salaries, Direct Labor, Benefits, Outside Services, Overhead, and Employee Development (Employment Cost Index (ECI) plus 2.50%, State and Local Government, Total Compensation, All Workers)	5.00%
Materials and Supplies, General Repairs and Maintenance, Regulatory, Rentals, Travel, Capital Outlay (Producer Price Index (PPI-0&M) "Industrial Commodities" WPU03THRU15)	1.05%
Utilities - Note - the current PPI for this category is negative. The BRA has elected to use a 0% inflator because we do not expect our utility expenses to decrease. (Producer Price Index (PPI-Elec) "Electricity" CUURA318SEHF01,CUUSA318SEHF01)	0.00%

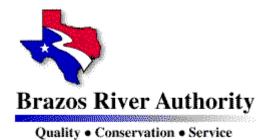
Additional O&M Expenses related to the construction or acquisition of new operations is included in the model based on the anticipated year of completion for the Project and the O&M cost estimates included in the Project Budget.

#### Projects

Capital Improvement Project costs are layered into the model based on the anticipated project schedule and funding source. Refer to "Tab 13 - Capital Improvement Projects" for details

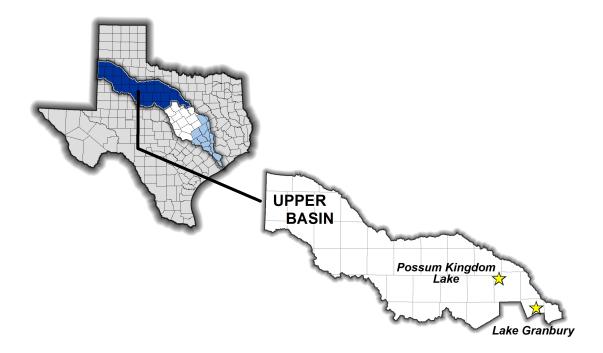
#### Brazos River Authority Water Supply System Five Year Financial Forecast

Revnues         40,112.855         42,529.000         45,224,175         47,424,275         49,824,385           Raw Water Sales - Non-System         7,078,918         7,265,671         7,210,888         7,365,385         7,363,718           Sugar Land         3,322,718         3,262,718         3,262,718         40,2118         40,2141         84,674,85         6,622,413           Grants         1,213,460         1,462,448         1,415,484         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,988         1,433,032         1,417,938         1,417,938         1,417,948         1,433,032         1,417,938         1,417,938         1,417,938         1,417,938         1,417,938         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,433         1,418,			Proposed 2022		Forecast 2023		Forecast 2024		Forecast 2025		Forecast 2026
Raw Water Sales - Seytem         40, 112,655         42,220,000         45,224,175         47,74,270         40,623,052           Raw Water Sales - Non-System         7,075,918         7,205,386         7,205,386         7,205,386         7,205,386         7,205,386         7,205,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,405,386         7,447,988         7,448,44         1,443,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,448         1,423,449,433	Beginning Working Capital	\$	117,958,574	\$	55,043,181	\$	24,701,149	\$	26,321,046	\$	26,628,710
Raw Water Sales - Non-System         7.078 918         7.268 671         7.210.898         7.388 711           Enst Williamson County RWS         5.096.846         5.001.838         5.667.46         6.632.413           Sugar Land         3.380.718         3.388.554         3.507.708         4.026.2475         4.100.624           Lake Operations         1.391.469         1.405.384         1.419.438         1.433.822         1.447.948           Managament Frees         5.007.98         5.14.745         5.19.710         3.50.1065         3.227.530           Rate Stabilization Fund         2.028.215         6.53.971.002         6.640.1559         7.1282.303         7.247.327.537           Pressems         Fepress         5.002.000         2.100.000         -         -         -           Pressems         5.002.000         2.007.718         8.202.503         3.207.518 <td>Revenues</td> <td></td>	Revenues										
East Williamson County RWS         5,008,492         5,149,884         5,201,383         6,867,46         6,862,413           Sugar Land         455,307         4,55,840         467,766         4,028,477         4,106,424           Interest County RWS         5,006,788         5,847,766         4,028,477         5,528,844           Interest County RWS         5,006,788         5,147,45         5,167,710         3,501,959         71,222,303         72,473,327           Expanses         60,223,568         63,971,002         66,401,599         71,222,303         73,473,272           Expanses         60,223,568         63,971,002         66,401,599         71,222,303         73,473,272           Expanses         2,725,006         8,648,764         9,037,455         9,037,454         3,207,555           Lake Contracts         2,402,266         53,971,602         66,401,599         71,222,303         74,553,600           Lake Contracts         2,725,005         2,238,183         2,955,533         3,075,544         4,207,553,741         2,205,642         2,265,642         2,565,642         3,075,544         4,050,745         4,050,741         4,050,744         5,050,765         4,042,749         4,050,741         4,050,741         4,050,741         4,050,741         4,06	Raw Water Sales - System		40,112,655		42,529,080		45,224,175		47,424,270		49,624,365
Sugar Land         3,820,718         3,888,554         3,957,766         4,028,475         4,100,824           Lake Operations         453,307         475,840         4462,418         447,028         471,713           Grants         1,391,469         1,406,334         1,419,438         1,419,438         1,419,438         1,417,968           Management Fees         500,000         2,100,000         2,100,000         2,100,000         2,100,000         2,100,000         2,100,000         2,100,000         4,147,968         3,207,593         73,473,272           Expense         60,223,668         63,971,062         66,401,569         71,252,303         73,473,272           Expense         2,276,000         2,100,000         2,100,000         2,100,000         2,100,000         2,100,000         2,100,000         2,110,000         4,303,304         4,206,454         4,373,399         4,538,006         3,207,556         3,007,654         3,207,556         3,007,654         3,207,556         3,007,644         3,007,554         3,207,553         3,007,844         3,489,473         2,574,182         2,658,443         3,207,553         3,007,844         3,089,765         4,402,473         2,574,182         2,658,444         4,204,443         4,204,443         4,204,443         4,204,443<	Raw Water Sales - Non-System		7,078,918		7,265,671		7,210,898		7,305,385		7,368,711
Lake Carbon Lake C	East Williamson County RWS		5,098,492		5,149,884		5,201,383		6,566,746		6,632,413
Grants         1,391,469         1,405,384         1,419,438         1,433,582         1,447,868           Maragement Fees         505,786         514,745         551,974         528,747         552,848           Interest & Other Income         256,211         656,844         2,405,710         3,501,965         3,237,593           Expenses         60,223,568         63,971,002         66,401,559         71,252,303         73,473,272           Expenses         8,302,699         8,646,764         9,007,436         9,335,539         9,761,940           Lake Limestone         2,726,20         2,384,813         2,565,533         3,076,554         3,207,555           Allenc Creck         64,022         66,571         69,241         72,038         74,957           Federal Reservoirs & Water Contracts         14,048,318         4,465,584         4,458,510         4,719,524           Federal Reservoirs & Water Contracts         1,428,485         3,434,473         1,523,497         1,533,404         4,469,544         4,469,544         4,469,544         4,469,544         4,368,300         3,471,497         1,533,498         4,519,058           Friedrait Reservoirs & Water Contracts         1,478,869         1,478,869         1,478,869         3,424,442         4,388,407	Sugar Land		3,820,718		3,888,554		3,957,796		4,028,475		4,100,624
Management Fees         100,788         154,745         519,741         523,759           Rate Stabilization Fund         2,682,11         663,844         2,405,710         3,501,965         3,227,593           Expenses         60,223,568         63,971,002         66,401,559         71,252,303         73,473,272           Expenses         9,385,755         4,042,349         4,206,434         4,373,399         4,5568,606           Lake Granbury         3,867,765         4,042,349         4,206,434         4,373,399         4,5568,606           Lake Granbury         3,867,765         4,042,349         4,466,664         4,3553,10         7,4967           Sugar Land         4,214,822         4,333,034         4,456,664         4,4565,310         4,719,524           Federal Reservoirs & Water Contracts         1,4083,318         14,646,730         15,236,497         15,554,972         15,554,972         15,554,972         15,554,972         15,502,491         1,719,728           Sugar Land         1,476,950         1,576,984         2,775,832         2,295,227         3,0564,843         3,199,065           Tortal Brevices         1,476,950         1,576,984         2,777,832         2,925,227         3,056,8174         3,199,065           Services	Lake Operations		453,307		457,840		462,418		467,043		471,713
Interest & Other Income         258.211         650.844         2.405,710.02         66,401,559         71,252,363         73,473,272           Exponses         60,223,568         63,971,002         66,401,559         71,252,363         73,473,272           Exponses         90sum Kingdom Lake         8,302,699         8,646,764         9,007,436         9,385,559         9,719,340           Lake Limestone         2,726,206         2,383,183         2,955,553         3,075,554         3,207,555           Allens Creek         64,022         66,571         69,241         72,388         74,457           Pederal Reservoirs & Water Contracts         14,063,318         14,467,36         15,236,447         15,563,497         16,502,444           Regional Basin Management         2,676,334         2,797,832         2,925,227         3,056,874         3,190,005           Environment Services         2,414,806         3,045,522         3,178,407         3,320,004         3,468,405           Environment Services         2,414,808         3,045,522         3,178,407         3,320,004         3,468,405           Environment Services         2,414,808         3,045,522         3,178,407         3,320,004         3,468,406           Dentaryment (Pa)         1,025,916,913	Grants		1,391,469		1,405,384		1,419,438		1,433,632		1,447,968
Rate Stabilization Fund Total Revenues         1.500.000         2.100.000           Exponses         60,223,568         63,971,002         66,401,559         71,252,303         73,473,272           Exponses         9.385,755         4,042,349         42,064,344         4,378,99         4,558,606           Lake Granbury         3.885,755         4,042,349         4,206,434         4,378,99         4,558,606           Lake Granbury         3.885,755         4,042,349         4,466,564         4,465,564         4,365,313         2,275,4182         2,265,434         3,207,555         3,207,554         3,207,554         3,207,554         3,207,554         3,207,554         3,207,554         3,207,555         3,207,4182         2,265,424         4,465,564         4,4565,564         4,456,456         4,456,456         4,456,456         4,456,456         4,456,456	Management Fees		509,798		514,745		519,741		524,787		529,884
Total Revenues         60.223,568         63.971,002         66.401,559         71,252,303         73,473,272           Exponses         Possum Kingdom Lake         8,302,699         8,646,764         9,007,436         9,385,553         9,761,940           Lake Limestone         2,722,065         2,383,183         2,955,553         3,075,554         3,207,555           Allens Creak         64,022         66,571         69,241         72,038         74,453,247           East Willinsson County RWS         2,357,051         2,422,148         2,406,473         15,584,972         16,502,494           Rederal Reservoirs & Water Contracts         14,408,318         14,466,736         15,238,447         15,584,972         16,502,494           Reprind Basin Management         2,676,334         2,797,832         2,925,227         3,068,874         3,190,005           Environmental Services         2,941,4803         3,045,522         3,718,497         3,320,443         4,684,490           Safety & Security         930,749         1,332,100         1,182,743         2,2574,043         2,2574,043         2,2574,043         2,2574,043         2,2574,043         2,2574,043         3,013,000         5,046,000         6,02,474,44         2,2518,063         3,017,474         3,013,000         3,036	Interest & Other Income		258,211		659,844		2,405,710		3,501,965		3,297,593
Expenses         Possum Kingdom Lake         8,302,609         8,646,764         9,007,436         9,385,539         9,781,940           Lake Grabubry         3,885,765         4,422,449         9,007,436         9,385,533         9,781,940           Lake Grabubry         3,885,765         6,422,46         9,007,436         9,285,533         3,078,554         3,207,555           Lake Grabubry         2,726,206         2,838,183         2,955,533         3,078,554         3,207,555           Sugar Land         4,214,422         4,433,034         4,466,564         4,555,310         4,456,554         4,553,310         4,719,524           Regional Biasin Management         2,676,304         2,707,832         2,958,227         3,058,874         3,190,085           Tachnical Services         2,914,808         3,143,835         1,692,083         1,706,291         1,788,735           Environmental Services         2,914,808         3,143,032         1,706,291         1,788,735           Debt Payments (P&I) (Nt Subject to Coverage)         3,632,641         3,639,697         357,113         3,714,536         3,927,43           Debt Payments (P&I) (Subject to Coverage)         2,538,005         5,777,774         60,247,434         62,247,344         62,247,344         62,247,344	Rate Stabilization Fund		1,500,000		2,100,000		-		-		-
Possum Kingdom Lake         8.302.699         8.646,764         9.007,434         9.385,539         9.781,940           Lake Granbury         3.865,765         4.042,349         4.206,434         4.378,339         4.558,606           Lake Limestone         2.726,206         2.838,183         2.955,553         3.078,584         3.207,555           Allens Creek         64,022         66,571         69,241         72,038         7.4867           Pederal Reservoirs & Water Contracts         14.046,736         15,238,847         11,558,492         16,502,494           Regional Basin Management         2.676,344         2.797,832         2.925,227         3.058,874         3.190,065           Technical Services         3.434,845         3.043,522         3.751,155         3.302,044         3.468,490           Safety A Security         993,749         1.037,662         1.083,773         1.132,100         1.182,744           Special Projects & Strategio Initiatives         3.249,925         3.404,67         3.711,143         3.484,845           Special Projects & Strategio Initiatives         3.249,925         3.406,67         3.715,473         3.373,673           Volta Payments (P&I) (Not Subject to Coverage)         1.623,840,67         3.715,473         3.473,64         3.639,867	Total Revenues		60,223,568		63,971,002		66,401,559		71,252,303		73,473,272
Possum Kingdom Lake         8.302.699         8.646,764         9.007,434         9.385,539         9.781,940           Lake Granbury         3.865,765         4.042,349         4.206,434         4.378,339         4.558,606           Lake Limestone         2.726,206         2.838,183         2.955,553         3.078,584         3.207,555           Allens Creek         64,022         66,571         69,241         72,038         7.4867           Pederal Reservoirs & Water Contracts         14.046,736         15,238,847         11,558,492         16,502,494           Regional Basin Management         2.676,344         2.797,832         2.925,227         3.058,874         3.190,065           Technical Services         3.434,845         3.043,522         3.751,155         3.302,044         3.468,490           Safety A Security         993,749         1.037,662         1.083,773         1.132,100         1.182,744           Special Projects & Strategio Initiatives         3.249,925         3.404,67         3.711,143         3.484,845           Special Projects & Strategio Initiatives         3.249,925         3.406,67         3.715,473         3.373,673           Volta Payments (P&I) (Not Subject to Coverage)         1.623,840,67         3.715,473         3.473,64         3.639,867	Expenses										
Lake Cranbury         3.885,765         4.042,349         4.206,439         4.206,439         4.206,439         4.206,439         4.206,439         4.206,439         4.558,000           Lake Limestone         2.726,206         2.838,183         2.965,553         3.077,555         Allens Creek         7.496,71         7.92,83         7.496,71         7.92,83         7.496,71         7.92,85         7.418,22         7.496,71         7.92,85         7.418,22         7.496,71         7.92,85         7.418,22         7.65,344         7.456,74         7.92,832         7.97,732         2.925,227         3.058,874         3.199,085         7.155,1083         1.026,803         1.706,291         1.718,743         3.162,803         1.706,291         1.718,743         3.162,803         1.706,291         1.718,743         3.124,100         1.82,740         3.20,044         3.468,493         3.999,749         3.320,044         3.468,493         3.921,011         4.999,187         1.92,100         1.987,743         3.124,101         1.987,743         3.468,493         3.921,011         1.499,913         3.468,493         3.921,011         1.499,913         3.468,493         3.921,011         1.499,913         3.468,493         3.921,011         1.987,983         3.921,011         1.499,923         3.150,000         5.105,000	•		8.302.699		8.646.764		9.007.436		9.385.539		9.781.940
Lake Limestone         2,726,206         2,838,183         2,955,553         3,078,564         3,207,555           Allens Creek         64,022         66,571         69,241         72,038         74,9677           East Williamson County RWS         2,351,051         2,422,148         2,496,473         2,574,182         2,655,442           Sugar Land         4,214,482         4,333,034         4,466,664         4,565,101         4,719,524           Redenal Reservoirs & Water Contracts         1,4083,318         1,4284,733         2,252,277         3,058,874         3,199,065           Technical Services         2,914,808         3,043,522         3,257,151         3,292,101         1,499,175           Environmental Services         2,914,808         3,043,522         3,751,155         3,292,101         1,182,784           Special Projects         Stategic Initiatives         3,244,445         4,309,967         3,686,409         3,292,101         3,476,452           Operating Projects         0,253,410         3,693,490         5,245,006         5,767,767         9,004,960         10,955,189           Operating Projects         0,614,013         4,494,228         6,3176,774         60,078,000         62,247,343         3,975,32           Operating Projects	-										
Allens Creek         64.022         66.571         69.241         72.038         74.967           East Williamso County RWS         2.351.051         2.422.148         2.496.473         2.574.182         2.655.442           Sugar Land         4.214.482         4.456.564         4.565.51         4.565.544         2.666.344         4.565.51         4.565.544           Redoral Basin Management         2.676.334         2.767.332         2.925.227         3.058.874         3.199.065           Technical Services         3.434.845         3.589.025         3.771.155         3.920.114         4.909.167           Water Services         2.914.808         3.043.522         3.178.497         3.300.044         3.468.400           Special Projects         5.835.000         6.781.000         5.045.000         5.090.000         3.013.000           Debt Payments (P&I) (Not Subject to Coverage)         3.623.341         3.639.097         3.895.613         3.871.54.73         3.871.54.73         3.871.54.73         3.871.54.73         3.871.54.73         3.871.55         3.871.56.73         3.871.55         3.871.56         3.871.56.73         3.872.55         (6.712.295)         (8.019.000         3.013.000         3.013.000         3.013.000         3.013.000         3.013.000         3.013.000	-										
East Williamson County RWS         2.351 (051         2.422 (148         2.466,473         2.574 (82         2.656,442           Sugar Land         4.214,482         4.333,034         4.456,564         4.585,310         4.719,524           Federal Reservoirs & Water Contracts         1.4083,318         14.646,733         2.525,227         3.058,874         3.199,065           Technical Services         3.434,845         3.589,222         3.571,155         3.521,011         4.099,117           Water Services         1.478,950         1.551,083         1.626,243         3.781,465         3.921,011         4.999,174           Safety & Security         993,749         1.037,692         1.083,773         1.132,100         1.182,784           Special Projects         Stategic Initiatives         3.24,925         3.40,667         3.871,91         3.745,532           Revenue Available to Meet Coverage Test         3.314,013         4.194,228         6.319,751         9.004,960         10.954,189           Debt Payments (P&I) (Subject to Coverage)         (25.38,405)         (2.705,259)         (4.367,855)         (6.472,295)         (8.101,328,416           Debt Services         5.520,000         (63,205,000)         (55.320,000)         (53,256,000)         5.9400,000           Capital Infr									, ,		
Sugar Land         4 214.482         4.333.034         4.456.564         4.585.310         4.719.524           Federal Reservoirs & Water Contracts         14.083.318         14.647.566         15.236.847         15.584.972         16.502.494           Regional Basin Management         2.676.394         2.797.832         2.925.227         3.056.874         3.199.085           Technical Services         3.434.845         3.599.225         3.716.155         3.321.011         4.099.187           Water Services         2.914.808         3.043.522         3.178.497         3.320.044         3.468.490           Special Projects         Strategis centry         993.749         1.037.692         1.083.773         1.132.100         1,182.704           Special Projects         Strategis Initiatives         324.925         3.40.667         3.571.91         3.745.35         3.927.352           Revenue Available to Meet Coverage         5.835.000         6.781.000         5.045.000         5.090.000         3.013.000           Debt Payments (P&I) (Not Subject to Coverage)         (2.538.405)         (2.795.259)         (4.367.855)         (6.472.295)         (6.191.328)           Debt Payments (P&I) (Subject to Coverage Test         5.1056         6.727.2559         (4.367.855)         (6.272.95)         (6.310.0											
Federal Reservoirs & Water Contracts         14.083.318         14.046.736         15.252.8.47         15.854.972         16.002.492           Regional Basin Management         2.676.394         2.797.832         2.925.227         3.058.874         3.199.085           Technical Services         14.78.950         1.551.083         1.628.033         1.706.291         1.788.753           Environmental Services         2.914.808         3.043.222         3.178.497         3.320.044         3.468.490           Special Projects & Strategic Initiatives         2.941.808         3.043.222         3.178.497         3.320.000         3.013.000           Det Payments (PAI) (Not Subject to Coverage)         3.623.341         3.639.067         3.671.91         3.74.536         3.875.43         8.2759.66           Det Payments (PAI) (Not Subject to Coverage Test         3.314.013         4.194.228         6.319.751         9.004.960         10.954.189           Det Payments (PAI) (Subject to Coverage Test         3.314.013         4.194.228         6.319.751         9.004.960         10.954.189           Det Payments (PAI) (Subject to Coverage Test         3.316.41         2.407.1149         2.632.664         2.934.861           Capital Infrastructure Programs         (62.191.000)         (45.731.000)         (55.532.000)         (63.262.00	-										
Regional Basin Management         2676 394         2.797,832         2.282,227         3.068,874         3.199,085           Technical Services         3.434,845         3.589,225         3.751,155         3.921,011         4,099,187           Water Services         2.914,808         3.043,522         3.7178,497         3.320,044         3.468,490           Special Projects         Strategic Initiatives         324,925         3.40,667         3.571,091         3.718,387         3.320,044         3.468,490           Operating Projects         Strategic Initiatives         324,925         3.40,667         3.571,917         3.716,337         3.717,33         3.773,538         3.927,453           Operating Projects         5.855,000         6.781,000         5.045,000         5.090,000         3.013,000         0.528,513         3.716,473         3.873,552         6.2,473,343         6.2,519,030         6.03,025,000         6.03,025,0											
Technical Services         3,434,845         3,659,225         3,751,155         3,921,011         4,099,187           Water Services         1,478,950         1,551,083         1,626,803         1,706,291         1,789,735           Environmental Services         2,914,808         3,045,222         3,778,477         3,320,044         3,468,490           Special Projects         Strategic Initiatives         993,749         1,037,692         1,182,747         3,320,044         3,468,490           Operating Projects         Strategic Initiatives         324,245         340,667         357,711         374,4536         392,743           Operating Projects         Strategic Initiatives         5,835,000         6,781,000         5,045,000         5,090,000         3,013,000           Debt Payments (P&I) (Not Subject to Coverage)         3,625,313         3,617,51         9,004,960         10,954,189           Debt Payments (P&I) (Subject to Coverage)         (2,538,405)         (2,705,259)         4,367,855         (6,472,295)         (8,019,328           Net Surpluschas         (62,191,000)         (45,731,000)         (55,532,000)         (63,265,000)         59,400,000         59,400,000         59,400,000         59,400,000         59,400,000         59,400,000         59,400,000         50,400,000											
Water Services         1,478,950         1,551,083         1,626,803         1,706,291         1,789,735           Environmental Services         2,914,808         3,043,522         3,178,497         3,320,044         3,468,490           Special Projects         3,24,925         340,667         3,685,613         3,715,473         1,182,764           Operating Projects         3,630,967         3,685,613         3,715,473         3,873,532           Operating Projects         3,314,013         4,194,228         6,081,060         62,247,343         62,519,083           Revenue Available to Meet Coverage Test         3,314,013         4,194,228         6,319,751         9,004,960         10,954,189           Debt Payments (P&I) (Subject to Coverage)         (2,538,405)         (2,705,259)         (4,367,855)         (6,472,295)         (8,019,328)           Net Surplus/(Deficit)         775,609         1,488,966         1,551,836         2,532,664         2,532,664         2,534,605           Capital Infrastructure Programs         (62,191,000)         (45,731,000)         (55,520,000)         60,800,000         59,400,000           System Rate         \$         83,00         \$         26,521,10         \$         26,569,571           System Rate         \$         5,10%	0		, ,				, ,				
Environmental Services         2.914.808         3.043.522         3.178.497         3.320.044         3.468.490           Safety & Security         993.749         1.037.692         3.178.497         3.320.044         3.468.490           Special Projects & Strategic Initiatives         324.925         340.667         357.191         374.536         3027.43           Operating Projects & Strategic Initiatives         5.835.000         6.781.000         5.045.000         5.049.000         3.013.000           Debt Payments (P&I) (Not Subject to Coverage)         3.623.341         3.639.677.74         60.061.808         62.247.343         6.624.99.63           Revenue Available to Meet Coverage Test         3.314.013         4.194.228         6.319.751         9.004.960         10.954.189           Debt Payments (P&I) (Subject to Coverage)         (2.538.405)         (2.705.259)         (4.367.855)         (6.472.295)         (8.019.328           Net Surplus/(Deficit)         775.609         1.488.969         2.532.000)         60.800.000         59.400.000           Gapta Infrastructure Programs         (62.191.000)         (2.700.000)         -         -         -           System Rate         79.6054         483.285         483.285         483.285         488.910         488.910         488.910											
Safety & Security         993,749         1,037,692         1,083,773         1,132,100         1,182,784           Special Projects         324,925         340,667         357,191         374,536         332,733           Deatt projects         324,925         340,667         357,191         374,536         322,743           Deatt Payments (P&I) (Not Subject to Coverage)         3.633,341         3.639,967,74         60,081,808         62,247,343         62,799,803           Revenue Available to Meet Coverage Test         3.314,013         4,194,228         6,319,751         9,004,960         10,954,189           Debt Payments (P&I) (Subject to Coverage)         (2,538,405)         (2,705,259)         (4,367,855)         (6,472,295)         (8,019,328)           Net Surplus/(Deficit)         775,609         1,488,969         1,951,896         2,532,664         2,934,861           Capital Infrastructure Programs         (62,191,000)         (2,100,000)         52,200,000         60,800,000         53,400,000           Rate Stabilization Reserves Utilized         1,500,000         52,4701,149         \$26,528,710         \$25,698,571           System Rate         \$83,00         \$84,000         \$9,250         \$9,700         \$10,150           Percentage Information         \$33,314,013											
Special Projects & Strategic Initiatives         324,925         340,667         357,191         374,536         392,743           Operating Projects         5,835,000         6,781,000         5,045,000         5,090,000         3,013,000           Debt Payments (P&I) (Not Subject to Coverage)         569,909,555         59,776,774         60,081,808         62,247,343         62,519,083           Revenue Available to Meet Coverage Test         3,314,013         4,194,228         6,319,751         9,004,960         10,954,189           Debt Payments (P&I) (Subject to Coverage)         (2,538,405)         (2,705,259)         (4,367,855)         (6,472,295)         (6,019,328)           Net Surplus/(Deficit)         775,609         1,488,969         1,951,866         2,532,664         2,934,861           Capital Infrastructure Programs         (62,191,000)         (45,731,000)         (55,532,000)         (63,025,000)         (63,265,000)           Bodt Sabilization Reserves Utilized         1,500,000         5,240,000         5,240,000         5,240,000         5,240,000         5,240,000         5,240,000         5,269,000         5,040,000         5,240,000         5,26,92,710         \$ 25,698,571         5,990,94,960         \$ 10,954,189         5,92,000         5,000,000         5,11%         4,86%         4,64%											
Operating Projects         5.835,000         6,781,000         5,045,000         5,090,000         3,013,000           Debt Payments (P&I) (Not Subject to Coverage Test         3,639,967         3,685,613         3,715,473         3,873,532         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,247,343         62,2519,063         62,247,343         62,247,343         62,247,343         62,2519,063         62,247,343         62,2519,063         62,247,343         62,2519,063         62,247,343         62,2519,063         62,247,343         62,2519,063         63,025,000         (63,025,000)         (63,025,000)         63,265,000         53,260,000											
Debt Payments (P&I) (Not Subject to Coverage) Total Expenses         3.623.341         3.639.967         3.885.613         3.715.473         3.873.532           Revenue Available to Meet Coverage Test         3.631.4013         4.194.228         6.319.751         9.004.960         10.954.189           Debt Payments (P&I) (Subject to Coverage)         (2.538.405)         (2.705.259)         (4.367.855)         (6.472.295)         (8.019.328)           Net Surplus/(Deficit)         775.609         1.488.969         1.951.896         2.532.664         2.934.861           Capital Infrastructure Programs         (62.191.000)         (4.573.1000)         (55.532.000)         (6.3025.000)         (63.025.000)         (63.026.000)           Bond Proceeds         -         16.000.000         52.200.000         60.800.000         59.400.000           Rate Stabilization Reserves Utilized         *         55.043.181         *         24.701.149         *         26.628.710         *         25.698.571           System Rate Projection         *         *         51.0%         4.86%         4.64%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%         4.84%											
Total Expenses         56,909,555         59,776,774         60,081,808         62,247,343         62,347,045         64,472,295         (6,019,328)         62,321,046         62,726,00         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (63,256,000)         (73,569,471,638)         (73,45,858)         (73,45,858)         (73,45,858)         (73,45,858)         (73,45,858)							, ,				
Revenue Available to Meet Coverage Test         3,314,013         4,194,228         6,319,751         9,004,960         10,954,189           Debt Payments (P&I) (Subject to Coverage)         (2,538,405)         (2,705,259)         (4,367,855)         (6,472,295)         (8,019,328)           Net Surplus/(Deficit)         775,609         1,488,969         1,951,896         2,532,664         2,934,861           Capital Infrastructure Programs         (62,191,000)         (45,731,000)         (55,532,000)         (63,025,000)         59,400,000           Bond Proceeds         -         16,000,000         55,200,000         60,800,000         59,400,000           Revenue Kailable to Meet Coverage Test         \$         55,043,181         24,701,149         \$         26,628,710         \$         25,698,571           System Rate Projection         \$         83,00         \$         88,00         \$         92,50         \$         97,00         \$         101,50           Coverage Information         \$         3,314,013         4,194,228         6,319,751         \$         9,004,960         \$         10,954,189           Calculated Coverage Ratio         5,10%         6,02%         5,11%         4,86%         4,64%           Debt Service Subject To Coverage Ratio         1,3											
Net Surplus/(Deficit)         775,609         1,488,969         1,951,896         2,532,664         2,934,861           Capital Infrastructure Programs Bond Proceeds         (62,191,000)         (45,731,000)         (55,532,000)         60,800,000         59,400,000           Rate Stabilization Reserves Utilized         (1,500,000)         (2,100,000)         -         -         -         -           System Rate Projection System Billing Units in Acre Feet         \$ 83.00         \$ 88.00         \$ 92.50         \$ 97.00         \$ 101.50           Coverage Information Percentage Increase System Billing Units in Acre Feet         \$ 3,314,013         \$ 4,194,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           Coverage Information Revenue Available to Meet Coverage Test Debt Service Subject To Coverage Calculated Coverage Ratio Calculated Coverage Ratio         1,33         1,35         1,414,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           90 Day Working Capital         \$ 11,700,299         \$ 12,169,925         \$ 12,661,938         \$ 13,177,447         \$ 13,717,615           90 Day Working Capital         \$ 11,700,299         \$ 12,169,925         \$ 12,661,938         \$ 13,177,447         \$ 13,717,615           90 Day Working Capital         \$ 17,700,299         \$ 18,169,925         \$ 18,661,938         \$ 19,177,447         \$	•										10,954,189
Net Surplus/(Deficit)         775,609         1,488,969         1,951,896         2,532,664         2,934,861           Capital Infrastructure Programs Bond Proceeds         (62,191,000)         (45,731,000)         (55,532,000)         (60,800,000)         59,400,000           Rate Stabilization Reserves Utilized         (1,500,000)         (2,100,000)         -         -         -         -           System Rate Projection System Rate Percentage Increase System Billing Units in Acre Feet         \$80.00         \$82,500         \$97.00         \$10,950,1189         \$488,910         488,910 <td>Debt Payments (P&amp;I) (Subject to Coverage)</td> <td></td> <td>(2,538,405)</td> <td></td> <td>(2,705,259)</td> <td></td> <td>(4,367,855)</td> <td></td> <td>(6,472,295)</td> <td></td> <td>(8,019,328)</td>	Debt Payments (P&I) (Subject to Coverage)		(2,538,405)		(2,705,259)		(4,367,855)		(6,472,295)		(8,019,328)
Bond Proceeds Rate Stabilization Reserves Utilized         -         16,000,000         55,200,000         60,800,000         59,400,000           Ending Working Capital         \$ 55,043,181         \$ 24,701,149         \$ 26,321,046         \$ 26,628,710         \$ 25,698,571           System Rate Projection System Rate Percentage Increase System Billing Units in Acre Feet         \$ 83.00         \$ 88.00         \$ 92.50         \$ 97.00         \$ 101.50           Coverage Information Revenue Available to Meet Coverage Test Debt Service Subject To Coverage         \$ 3,314,013         \$ 4,194,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           Coverage Ratio Coverage Test Met?         Yes	Net Surplus/(Deficit)		775,609		1,488,969		1,951,896		2,532,664		
Rate Stabilization Reserves Utilized       (1,500,000)       (2,100,000)       - <td></td> <td></td> <td>(62,191,000)</td> <td></td> <td>. ,</td> <td></td> <td>. ,</td> <td></td> <td>• • •</td> <td></td> <td>(63,265,000)</td>			(62,191,000)		. ,		. ,		• • •		(63,265,000)
Ending Working Capital         \$ 55,043,181         \$ 24,701,149         \$ 26,321,046         \$ 26,628,710         \$ 25,698,571           System Rate Projection System Rate Percentage Informate System Billing Units in Acre Feet         \$ 83.00         \$ 88.00         \$ 92.50         \$ 97.00         \$ 101.50           Coverage Information Revenue Available to Meet Coverage Test Debt Service Subject To Coverage Calculated Coverage Ratio Coverage Ratio         \$ 3,314,013         \$ 4,194,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           Required Coverage Ratio Coverage Test Met?         \$ 3,314,013         \$ 4,194,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           90 Day Working Capital Contingency Reserve Reserve Requirements 90 Day Working Capital Contingency Reserve Reserve Requirements Reserve Requirements Reserve Requirements Reserve Requirement Test Met?         \$ 11,700,299         \$ 12,169,925         \$ 12,661,938         \$ 13,177,447         \$ 13,717,615           90 Day Working Capital Contingency Reserve Reserve Requirements Reserve Requirements Reserve Requirements Reserve Requirements Reserve Requirements Reserve Requirement Test Met?         \$ 11,700,299         \$ 12,169,925         \$ 12,661,938         \$ 13,177,447         \$ 13,717,615           90 Day Working Capital Contingency Reserve Requirement Test Met?         \$ 11,700,299         \$ 12,169,925         \$ 12,661,938         \$ 19,177,447         \$ 13,717,615         Yes <t< td=""><td></td><td></td><td>- (1,500,000)</td><td></td><td></td><td></td><td>55,200,000 -</td><td></td><td>60,800,000</td><td></td><td>59,400,000</td></t<>			- (1,500,000)				55,200,000 -		60,800,000		59,400,000
System Rate         \$ 83.00         \$ 88.00         \$ 92.50         \$ 97.00         \$ 101.50           Percentage Increase         \$ 5.10%         6.02%         5.11%         4.86%         4.64%           System Billing Units in Acre Feet         483,285         483,285         483,285         488,910         488,910         488,910           Coverage Information         Revenue Available to Meet Coverage Test         \$ 3,314,013         \$ 4,194,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           Debt Service Subject To Coverage         \$ 2,538,405         \$ 2,705,259         \$ 4,367,855         \$ 6,472,295         \$ 8,019,328           Calculated Coverage Ratio         1.31         1.55         1.45         1.39         1.37           Required Coverage Ratio         1.30         1.30         1.30         1.30         1.30           Coverage Test Met?         Yes	Ending Working Capital	\$	55,043,181	\$	24,701,149	\$	26,321,046	\$	26,628,710	\$	25,698,571
System Rate         \$ 83.00         \$ 88.00         \$ 92.50         \$ 97.00         \$ 101.50           Percentage Increase         5.10%         6.02%         5.11%         4.86%         4.64%           System Billing Units in Acre Feet         483,285         483,285         483,285         488,910         488,910         488,910           Coverage Information         Revenue Available to Meet Coverage Test         \$ 3,314,013         \$ 4,194,228         \$ 6,319,751         \$ 9,004,960         \$ 10,954,189           Debt Service Subject To Coverage Ratio         1.31         1.55         1.45         1.39         1.37           Required Coverage Ratio         1.30         1.30         1.30         1.30         1.30         1.30         1.30           Coverage Test Met?         Yes         Yes <td></td>											
Percentage Increase System Billing Units in Acre Feet         5.10% 483,285         6.02% 483,285         5.11% 488,910         4.86% 488,910         4.64% 488,910           Coverage Information Revenue Available to Meet Coverage Test Debt Service Subject To Coverage Calculated Coverage Ratio Required Coverage Ratio         \$3,314,013         \$4,194,228         6,319,751         9,004,960         \$10,954,189           Debt Service Subject To Coverage Calculated Coverage Ratio Coverage Ratio         \$1,31         1.55         1.45         6,472,295         \$8,019,328           Coverage Test Met?         Yes	, ,	¢	82.00	¢	88.00	¢	02 50	¢	07.00	¢	101 50
System Billing Units in Acre Feet         483,285         483,285         488,910         488,910         488,910           Coverage Information Revenue Available to Meet Coverage Test Debt Service Subject To Coverage Calculated Coverage Ratio Calculated Coverage Ratio         \$3,314,013         \$4,194,228         \$6,319,751         \$9,004,960         \$10,954,189           Calculated Coverage Ratio Coverage Test Met?         \$2,538,405         \$2,705,259         \$4,367,855         \$6,472,295         \$8,019,328           Coverage Test Met?         1.30		Φ		φ		φ		φ		φ	
Coverage Information Revenue Available to Meet Coverage Test Debt Service Subject To Coverage Calculated Coverage Ratio Calculated Coverage Ratio Coverage Test Met?         \$ 3,314,013 \$ 2,538,405 \$ 2,705,259 \$ 4,367,855 \$ 6,472,295 \$ 4,367,855 \$ 6,472,295 \$ 8,019,328 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30											
Revenue Available to Meet Coverage Test       \$ 3,314,013 \$ 4,194,228 \$ 6,319,751 \$ 9,004,960 \$ 10,954,189         Debt Service Subject To Coverage       \$ 2,538,405 \$ 2,705,259 \$ 4,367,855 \$ 6,472,295 \$ 8,019,328         Calculated Coverage Ratio       1.31       1.55       1.45       1.39       1.37         Required Coverage Ratio       1.30       1.37       1.37       1.37       1.37			,		,		,		,		,
Debt Service Subject To Coverage Calculated Coverage Ratio Required Coverage Ratio Coverage Test Met?       \$ 2,538,405 \$ 2,705,259 \$ 4,367,855 \$ 6,472,295 \$ 8,019,328 1.31 1.55 1.45 1.39 1.37 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30		¢	0.044.040	<b>~</b>	4 40 4 000	<b></b>	0 040 754	<b>~</b>	0.004.000	¢	40.054.400
Calculated Coverage Ratio       1.31       1.55       1.45       1.39       1.37         Required Coverage Ratio       1.30       1.30       1.30       1.30       1.30       1.30       1.30         Coverage Test Met?       Yes	5		, ,								
Required Coverage Ratio Coverage Test Met?         1.30<		φ		φ		φ	, ,	φ			, ,
Coverage Test Met?         Yes	0										
90 Day Working Capital Contingency Reserve Self Insurance Reserve Total Reserve Requirements Reserve Requirement Test Met?       \$ 11,700,299 5,500,000       \$ 12,169,925 5,500,000       \$ 12,661,938 5,500,000       \$ 13,177,447 5,500,000       \$ 13,717,615 5,500,000         8       19,000       500,000       500,000       500,000       500,000       500,000         8       17,700,299       \$ 18,169,925       \$ 18,661,938       \$ 19,177,447       \$ 19,717,615         Reserve Requirement Test Met?       Yes											
90 Day Working Capital Contingency Reserve Self Insurance Reserve Total Reserve Requirements Reserve Requirement Test Met?       \$ 11,700,299 5,500,000       \$ 12,169,925 5,500,000       \$ 12,661,938 5,500,000       \$ 13,177,447 5,500,000       \$ 13,717,615 5,500,000         8       19,000       500,000       500,000       500,000       500,000       500,000         8       17,700,299       \$ 18,169,925       \$ 18,661,938       \$ 19,177,447       \$ 19,717,615         Reserve Requirement Test Met?       Yes	Presente Presente										
Contingency Reserve Self Insurance Reserve         5,500,000 500,000         5,500,000 500,000         5,500,000 500,000         5,500,000 500,000         5,500,000 500,000         5,500,000 500,000         5,500,000 500,000           Total Reserve Requirements Reserve Requirement Test Met?         \$ 17,700,299 Yes         \$ 18,169,925 Yes         \$ 18,661,938 Yes         \$ 19,177,447 Yes         \$ 19,717,615 Yes           Rate Stabilization Reserves         \$ 37,342,881         6,531,224         7,659,107         7,451,263         5,980,956           Balanced Budget Revenues Expenses         \$ 60,223,568 59,447,960         \$ 63,971,002 62,482,033         \$ 66,401,559 64,449,663         \$ 73,473,272 68,719,638         \$ 73,473,272	•	¢	11 700 200	¢	12 160 025	¢	12 661 038	¢	13 177 447	¢	13 717 615
Self Insurance Reserve         500,000<		φ		φ	, ,	φ		φ		φ	
Total Reserve Requirements       \$ 17,700,299       \$ 18,169,925       \$ 18,661,938       \$ 19,177,447       \$ 19,717,615         Reserve Requirement Test Met?       Yes       Yes       Yes       Yes       Yes       Yes       Yes         Rate Stabilization Reserves       37,342,881       6,531,224       7,659,107       7,451,263       5,980,956         Balanced Budget       \$ 60,223,568       \$ 63,971,002       \$ 66,401,559       \$ 71,252,303       \$ 73,473,272         Expenses       \$ 59,447,960       \$ 62,482,033       \$ 64,449,663       \$ 68,719,638       \$ 70,538,411			, ,				, ,				
Reserve Requirement Test Met?         Yes         Ye		\$	,	\$		\$	,	\$		\$	19,717,615
Balanced Budget           Revenues         \$ 60,223,568 \$ 63,971,002 \$ 66,401,559 \$ 71,252,303 \$ 73,473,272           Expenses         \$ 59,447,960 \$ 62,482,033 \$ 64,449,663 \$ 68,719,638 \$ 70,538,411	Reserve Requirement Test Met?		Yes		Yes		Yes		Yes		Yes
Revenues\$ 60,223,568\$ 63,971,002\$ 66,401,559\$ 71,252,303\$ 73,473,272Expenses\$ 59,447,960\$ 62,482,033\$ 64,449,663\$ 68,719,638\$ 70,538,411	Rate Stabilization Reserves		37,342,881		6,531,224		7,659,107		7,451,263		5,980,956
Expenses \$ 59,447,960 \$ 62,482,033 \$ 64,449,663 \$ 68,719,638 \$ 70,538,411	-										
	Expenses Balanced Budget Test Met?	\$	59,447,960 Yes	\$	62,482,033 Yes	\$	64,449,663 Yes	\$	68,719,638 Yes	\$	70,538,411 Yes



This page left blank intentionally

# UPPER BASIN



#### Description

The Upper Basin Region focuses on customer needs and the operations and maintenance of existing projects. Existing Brazos River Authority projects in the Upper Basin include: Possum Kingdom Lake (PK) and Lake Granbury (LG). New initiatives are outlined below and are being pursued through our Regional Business Development/Customer Relations staff, with support from Technical Services, Finance & Administration, Legal, Government & Customer Relations, and Planning & Development.

#### **Major Initiatives**

- Carry out operational and maintenance betterments at both Morris Sheppard Dam and De Cordova Bend Dam.
- Coordinate, communicate, and identify water supply strategies that best serve the BRA and its customers.
- Promote and participate in community outreach initiatives.
- Assess, administer, and review BRA properties at our reservoirs as necessary.
- Streamline project management and administration of capital and operating projects.
- Understand, Optimize and Develop employee skills

# UPPER BASIN MANAGEMENT

### Description

The Upper Basin Management department is comprised of Central Office staff working in concert with all Brazos River Authority (BRA) departments to include Lake Staff, providing leadership and management for one of three major geographic regions of the Brazos River basin. The department's responsibilities include management of water systems, Lakes Possum Kingdom and Granbury, dams and special projects. Management attempts to identify and develop new water supplies and develop alternate sources of water, including groundwater. Staff monitors water quality, promotes and regulates safe on-water activities, encourages water conservation through community education programs, administration of contracts with regional system customers and daily contact with the general public. The Upper Basin also attempts to identify and meet its customers' needs business development through efforts. customer relations, environmental services and technical assistance.

#### Accomplishments for 2021

- Completed Engineering Design of De Cordova Low Flow Project and let for bids.
- Completed 90% of construction associated with RSMU self-performance of spillway gate pier plate walls project.
- Completed Phase II of the four-phase comprehensive assessment and service life evaluation of Morris Sheppard Dam.
- Executed System Operations Water Availability Agreements with basin customers.
- Effectively coordinated and communicated with Central Office and Reservoir staff, customers, Board of Directors, auditors, legislators, interest groups, the public at large and overcame all obstacles despite COVID-19.

Participate and serve as active participants in the State of Texas' regional water planning and regional flood planning processes for the Region O Water Planning Group and Upper Brazos Regional Flood Planning Group.

#### **Objectives for 2022**

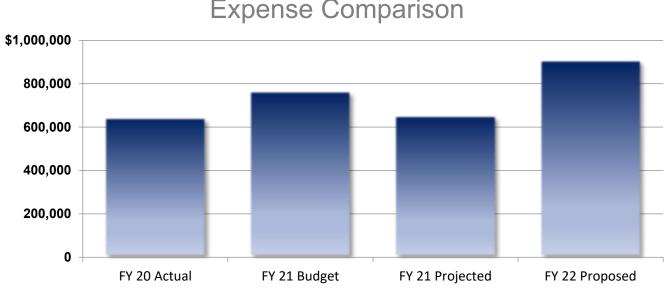
- Award De Cordova Low Flow Project construction contract.
- Complete gate 4 pier plate wall construction and move to the next gate and perform rehabilitation of pier plate walls.
- Execute agreement and complete Phase III comprehensive assessment and service life evaluation of Morris Sheppard Dam.
- Continue to progress in the various stages (Study, Assessment, Design, Construction) of various Upper Basin operating and capital projects.
- Develop, train and expansion of opportunities for existing and new staff.

### Significant Changes/Comments

The COVID-19 Pandemic was a challenge, from the unknown, the initial confinement and the disruptions to family, school, and work were felt by all. The Upper Basin Central Office and Reservoir staff have continued to operate seamlessly throughout the course of the pandemic.

Prior workstation trials at home before the pandemic and the ability to communicate and provide information played a major role in BRA's successful adaptation during this time period.

The Upper Basin department continues to grow, improve, and progress as a unit, thanks to our most valued asset, our people.



# Upper Basin Management Expense Comparison

# UPPER BASIN MANAGEMENT

Budget	FY2020 FY2021 Actual Budget		FY 2021 Projected		FY 2022 Proposed	
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Miscellaneous Operating Overhead Central Office Common	\$ 378,184 122,684 6,736 3,077 27,270 7,715 245 - 87,189 13,336	\$	429,545 145,974 5,075 3,450 51,178 - 10,835 - 5,633 2,300 97,191 18,298	\$ 400,079 129,264 3,756 2,970 13,834 - 1,555 - 184 - 90,659 15,135	\$	500,931 184,064 13,050 3,840 40,740 3,000 10,835 - 5,633 2,500 128,901 19,224
TOTAL	\$ 646,436	\$	769,479	\$ 657,437	\$	912,718

# POSSUM KINGDOM LAKE

### Description

Completed in 1941, Possum Kingdom (PK) Lake is the oldest reservoir in the Brazos River basin and is the largest of the three lakes operated by the Brazos River Authority (BRA). It provides approximately 33 percent of the BRA's system water supply. Operation of the lake includes maintenance of Morris Sheppard Dam, law enforcement,

airport operation, and maintaining lake amenities, which include



ten public use areas with approximately 400 campsites and a 16-mile trail system. The PK office inspects and administers approximately 3,900 permits of various types.

### Accomplishments for 2021

#### Lake Rangers:

- Increased proactive measures on the lake and enforcement of park rules and water safety rules.
- Replaced 60% of Lake Rangers with new hires, ensuring all were properly trained and united into a cohesive unit.

#### RSMU:

- Continued repairs on Gate 2 Pier Plate Replacement.
- Corrected erosion around IMT Building.
- Spillway Pump and Piping project has kicked off and is under progress.

#### Maintenance:

- Installed temporary retaining walls at North D&D and Sandy Beach, lake levels did not allow for installation of permanent walls.
- Installed 40 tons of 4X6 rock to slow erosion on north hillside at House #3 (Crenshaw Rd).

- Built 8X40 concrete block wall for 40-yard roll-off dumpster in North Pasture at Village.
- Built 24X60 equipment shed/carport adjacent to existing weld shop.

#### Inspections/Engineering:

- Continued OSSF education credits.
- Completed all required dam inspections & continued instrument readings program.
- Process septic, retaining wall, and dock applications, conduct inspections and install dock plates.

### Objectives for 2022

#### Lake Rangers:

Provide the highest quality services to the Possum Kingdom community and to all those who visit our parks and lake by investing our energies and resources to promote safety.

#### <u>RSMU:</u>

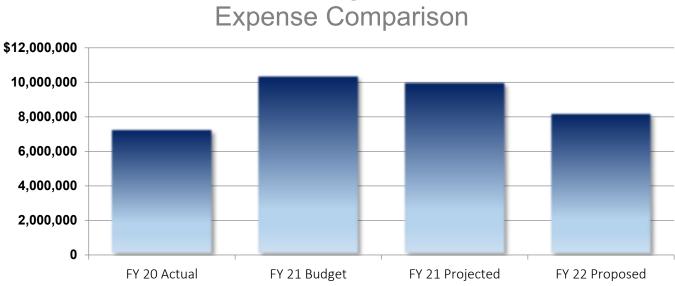
- Start work on gate 4 pier plate wall rehab in conjunction with routine maintenance.
- Finish pier 14 rehab and new trash rack installation.

#### Maintenance:

- Build new fishing dock at South D&D.
- Build fishing shelter at Scenic Park.
- If lake levels permit, install permanent retaining walls at North D&D and Sandy Beach.
- Continue erosion control corrective measures.

#### Inspections/Engineering:

- Continue OSSF education credits.
- Become proficient in the use of the ROV for underwater inspections.
- Continue installation of dock plates.
- Assist as needed in the Property Management Study.



### Possum Kingdom Lake Expense Comparison

# POSSUM KINGDOM LAKE

Budget	FY 2020	FY2021	FY 2021	FY 2022
	Actual	Budget	Projected	Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Landfill/Sludge Hauling Miscellaneous Operating Direct Labor	\$ 2,499,30 1,115,44 427,5 196,44 145,10 190,24 4,44 25,8 36,01 9,11 57,1 97,44 46,0	61       \$ 2,758,020         52       1,294,455         71       728,788         88       290,359         64       572,056         40       435,949         83       17,450         72       39,085         38       184,672         20       9,576         75       60,000         82       190,500	<pre>\$ 2,636,844 1,165,562 671,430 287,329 568,297 467,946 5,409 41,085 130,697 9,120 60,000 192,200</pre>	\$ 2,797,146 1,354,938 598,682 286,359 359,430 432,659 17,450 15,333 190,672 9,576 60,000 190,500 (415,239)
Overhead	1,886,4	, ,	2,000,793	2,292,693
Capital Outlay	633,3		1,752,407	112,500
TOTAL	\$ 7,370,32	26 \$ 10,452,191	\$ 10,087,915	\$ 8,302,699

# LAKE GRANBURY

#### Description

In 1969, the Brazos River Authority (BRA) completed construction of the DeCordova Bend Dam which impounds Lake Granbury. This lake supplies approximately ten percent of the BRA's system water for industrial, municipal, agricultural, and domestic uses in addition to providing recreational opportunities. The lake is a source of water for the Brazos Regional Public Utility Agency, the City of Granbury, Monarch Utilities, Lenmo Inc. and other users, as well as providing cooling water for steam-electric and nuclear generating plants.

#### Project personnel operate and maintain the dam and all BRA owned structures and facilities.



including four public parks, the A.L. Brooks Observation Point lookout, and a downstream parking area for river access. Also, three law enforcement personnel provide dam security in addition to conducting regulatory and law enforcement activities on the lake and in the parks.

#### Accomplishments for 2021

- Completed 5-year dam inspection for DeCodova Bend Dam.
- Began Concrete Components project with Walter P. Moore Engineers to evaluate buttresses and training walls on the dam.
- Issued and awarded Request For Bids (RFB) to replace two-slip floating boathouse for Lake Rangers. Construction to be compete in early FY22.

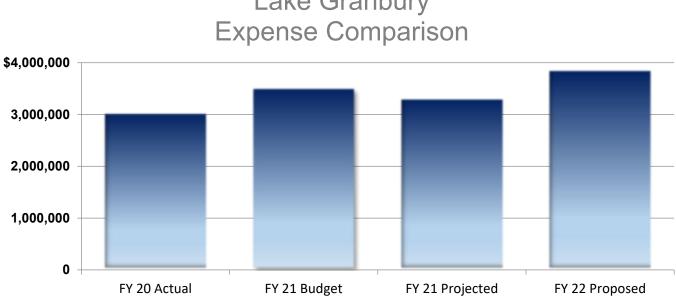
- Held a Mini Water Safety Awareness Day with a drive-through PFD giveaway for children, in conjunction with a blood drive.
- Issued RFB for Construction and Remediation of the DeCordova Bend Dam Low-Flow Outlet Works.
- Issued RFB for extension of Hunter Park bulkhead with construction scheduled for late FY21/early FY22.
- Continued other public education efforts to promote water safety with the Lake Granbury Area Water Safety and Drowning Prevention Committee, with members representing local governments, school districts, YMCA, Red Cross, TPWD, swim teams and instructors, Granbury Chamber of Commerce, first responders, local media, and Cook Children's Safe Kids North Texas.

### Objectives for 2022

- Begin construction of Low Flow Outlet Works.
- Begin design of the DeCordova Bend Dam Trolley Replacement Project.
- Begin Design of DeCordova Bend Dam Reinforced Concrete Components Project.
- Continue flood operations as needed.
- Continue maintenance and inspection requirements in the dam.
- Continue public education and outreach efforts.

### Significant Changes/Comments

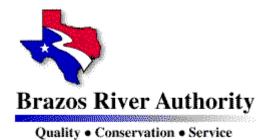
Emphasis continued toward moving capital projects along. Interaction with other local entities increased, especially with regards to water safety. Maintenance on the dam continued to be a top priority. An increase in Lake Ranger staffing provided more opportunities to educate the public, and environmental enforcement continued to identify and prosecute violators whose actions threatened water quality.



# Lake Granbury

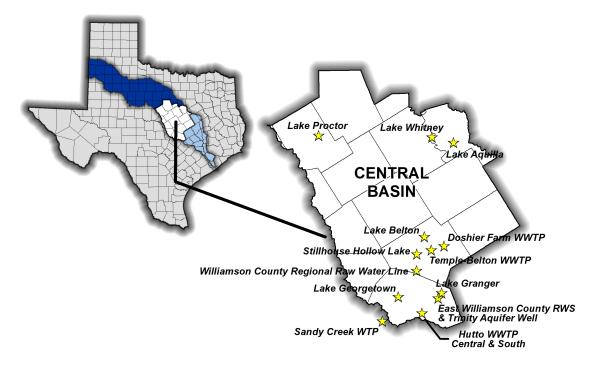
# LAKE GRANBURY

Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Salaries	\$974,151	\$1,022,106	\$1,023,663	\$1,104,616
Benefits	416,059	474,186	431,239	536,064
Materials & Supplies	112,734	135,568	139,594	163,845
Utilities	92,3 <mark>44</mark>	129,972	110,433	126,547
Outside Services	167,8 <mark>29</mark>	174,269	171,754	172,660
Repair & Maintenance	124,273	256,951	246,107	277,526
Travel	4,058	<b>12,85</b> 4	4,100	12,854
Rent	9,230	21,920	24,236	29,320
Employee Development	20,984	56,780	34,745	69,930
Regulatory	5,706	6,191	6,081	6,191
Miscellaneous Operating	51,561	79,568	64,368	79,568
Direct Labor	23,449	48,373	12,795	41,865
Overhead	924,027	967,428	876,252	1,039,779
Capital Outlay	126,361	152,500	184,216	225,000
TOTAL	\$3,052,765	\$3,538,666	\$3,329,583	\$3,885,765



This page left blank intentionally

# **CENTRAL BASIN**



#### Description

The Central Basin includes all or part of 15 counties within the middle portion of the Brazos River basin. The facilities either owned and/or operated by the Brazos River Authority in this area include: Temple-Belton Wastewater Treatment Plant, Doshier Farm Wastewater Treatment Plant, Hutto Central Wastewater Treatment Plant, Hutto South Wastewater Treatment Plant, Williamson County Regional Raw Water Line, East Williamson County Regional Water System, and the Sandy Creek Water Treatment Plant. Water is supplied from seven U.S. Army Corps of Engineers reservoirs: Lakes Proctor, Whitney, Aquilla, Belton, Stillhouse Hollow, Granger, and Georgetown. The Central Basin is located within the Brazos G Regional Water Planning area.

#### Major Initiatives

- Maintain, operate, and manage raw water delivery infrastructure, water treatment facilities, and wastewater treatment facilities.
- Continue planning, engineering, and construction of water and wastewater infrastructure to meet customers' needs.
- Develop surface water and groundwater (conjunctive use) for future water supply.
- Continue to participate with the Brazos G Regional Water Planning Group.
- Develop and maintain relationships with customers and local elected officials.
- Manage new water supply development, transmission, and treatment expansion planning projects.

# CENTRAL/LOWER BASIN MANAGEMENT

### Description

Central and Lower Basin Management provides leadership and management for two of the three major geographic regions of the Brazos The functional areas of this River basin. department include: centralized water treatment, pipeline operations and maintenance, regulatory and programs, wastewater treatment. Management responsibilities include: managing water and wastewater treatment systems, special projects, participating in state and regional water planning, developing and distributing existing water supplies, and planning for development of additional water supply sources and conveyance infrastructure.

#### Accomplishments for 2021

- Successfully navigated COVID-19 with minimal to no impact to operations, customers, or project management.
- Managed water contracting and customer relations activities while working with Brazos River Authority (BRA) Water Services to facilitate additional water sales, contract actions, and policy review.
- Provided cost-effective and safetyconscious oversight and planning for water and wastewater treatment facility operation and maintenance, while maintaining 99.81% compliance rate.
- Managed the study phase for major infrastructure improvements such as the Belhouse Drought Preparedness Pipeline and Lake Limestone Tainter Gate Replacement.

### Objectives for 2022

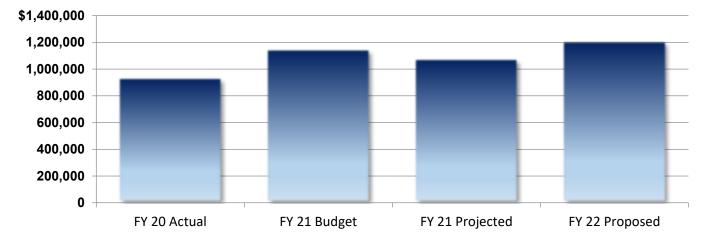
- Continue to coordinate and develop regional water solutions to address the long-term needs of the Central and Lower Basin.
- Continue to work with BRA Water Services and other departments to facilitate additional water sales, contract actions, and review of BRA policies related to water sales contracts.
- Oversee operation and maintenance of water and wastewater treatment facilities in a cost-effective manner.
- Complete design for the Granger Lake Slope Stabilization project and preliminary engineering for the Bel-house Drought Preparedness project.
- Execute professional services contracts with engineering consultants for the Lake Limestone Hydrostatic Relief/Stilling Basin project, the East Williamson County Phase II expansion, and the Williamson County Regional Raw Water Line Phase III pump improvements.
- Develop post COVID-19 outreach plans for customers, stakeholders, and elected officials.

### Significant Changes/Comments

The Central and Lower Basin staff will continue to work with customers to administer water contracts, prioritize projects to develop and deliver new water supplies, and effectively manage treatment, regulatory programs, and pipeline systems in the Central and Lower Basin.

COVID-19 and Winter Storm Uri provided significant challenges for the staff of the Central and Lower Basin. Their ability to adapt and overcome these challenges was evident in the continued successful operation of water and wastewater facilities and progress made in the management of several ongoing projects.

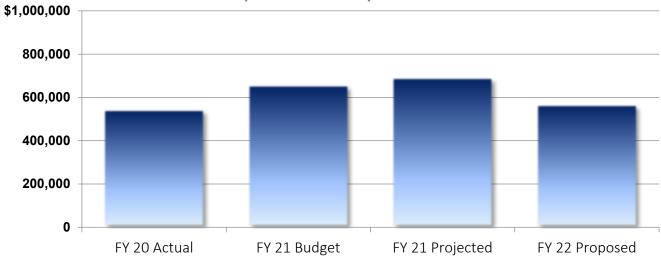
# Central/Lower Basin Management Expense Comparison



# **CENTRAL/LOWER BASIN MANAGEMENT**

Budget	FY 2020 FY 2021 Actual Budget		FY 2021 Projected		FY 2022 Proposed	
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Miscellaneous Operating Direct Labor Overhead Central Office Common Capital Outlay	\$ 530,148 187,841 15,423 9,459 15,761 8,447 44,280 10,335 433 (28,202) 130,160 19,097	\$	589,386 221,678 8,859 26,122 86,473 400 20,750 54,404 23,075 3,600 (53,337) 147,614 27,447	\$ 552,236 208,613 3,425 10,240 88,037 200 2,600 52,050 4,900 1,200 - 137,788 22,702	\$	577,428 238,714 17,759 10,350 86,311 400 20,750 56,904 23,075 3,600 - 157,202 23,069
TOTAL	\$ 943,182	\$	1,156,471	\$ 1,083,991	\$	1,215,562





# WATER TREATMENT OPERATIONS BUDGET

Budget			FY 2021 Budget				FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Direct Labor Overhead Central Office Common Capital Outlay	\$ 980,451 346,405 12,435 9,948 13,629 27,163 45,573 (90,025) 5,185 - (1,187,963) 204,921 7,122 171,415	\$	1,091,464 421,082 9,980 11,006 14,446 26,446 41,100 (128,114) 26,058 - (1,371,485) 288,367 9,149 221,000	\$	$\begin{array}{r} 1,029,576\\ 360,062\\ 6,924\\ 7,860\\ 12,680\\ 33,250\\ 41,474\\ (90,377)\\ 4,354\\ 100\\ (1,101,166)\\ 264,042\\ 7,567\\ 118,676\end{array}$	\$	1,108,220 451,063 16,180 12,706 13,060 31,446 41,100 (128,114) 28,258 - (1,427,685) 254,190 7,690 140,000
TOTAL	\$ 546,259	\$	660,499	\$	695,022	\$	548,114

# CENTRAL BASIN SLUDGE HAULING BUDGET

Budget	Y 2020 Actual	FY2021 Budget		FY 2021 Projected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Direct Labor Overhead Landfill/Sludge Hauling Capital Outlay	\$ 25,445 12,439 545 200 953 9,011 3,061 238 182 - 8,451 7,013 (73,579)	\$		\$ - - - - - - - - - - - - - - - - -	\$
TOTAL	\$ (6,041)	\$	-	\$-	\$ -

# WILLIAMSON COUNTY REGIONAL RAW WATER LINE

### Description

The 26-mile long, 48-inch diameter Williamson County Regional Raw Water Line (WCRRWL) is operated by the Brazos River Authority under agreements with the City of Georgetown, City of Round Rock, and Brushy Creek Municipal Utility District. The pipeline transports raw water from Lake Stillhouse Hollow to Lake Georgetown. In addition to the pipeline, the operation includes a pump station and intake structure, all of which are operated and maintained by the Central and Lower Basin operations and maintenance staff.

### Accomplishments for 2021

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Promoted daily safe work practices resulting in no lost time accidents in Fiscal Year 2021.
- Continued the evaluation of operational practices to improve overall efficiency.
- Completed all planned capital projects for the raw water delivery system.
- Began design phase of Copper Ion Generator project for zebra mussel control.
- Awarded engineering contract for Phase III pump improvements and five-year condition assessment.

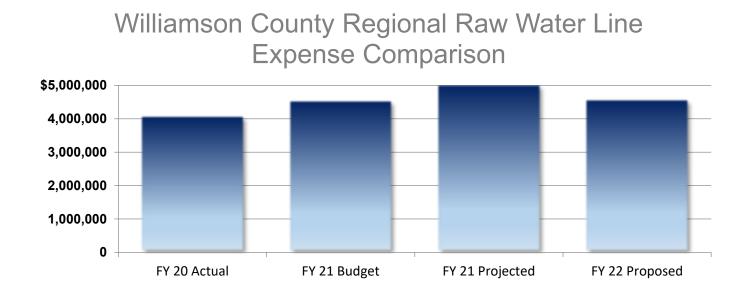
### Objectives for 2022

- Promote daily safe work practices.
- Continue evaluation and implementation of practices to improve overall efficiency.
- Complete all planned capital projects.
- Complete design phase and begin construction of the Copper Ion Generator project to combat zebra mussels.
- Complete engineering assessment for Phase III pump improvements and perform five-year condition assessment.

### Significant Changes/Comments

Staff has worked diligently to provide the WCRRWL customers with a cost effective and reliable raw water delivery system. Successful operation of this system is essential for supplying water to these customers.

	Actual FY 2019	Actual FY 2020	Budgeted FY 2021	Estimated FY 2021	Projected FY 2022
Acre-Feet (AF) Water Transported	2,197	30,940	25,000	40,000	25,000
Number of Days Pumping	22	249	225	300	225



# WILLIAMSON COUNTY REGIONAL RAW WATER LINE

Budget	FY 2020FY 2021ActualBudget			FY 2021 Projected			FY 2022 Proposed		
Salaries	\$ -	\$	-	\$	500	\$	-		
Materials & Supplies Utilities	1,957 849,650		43,414 950,000		25,600 1,389,354		39,664 950,248		
Outside Services	26,858		144,345		43,386		149,563		
Repair & Maintenance	18,276		110,638		145,599		115,138		
Rent	7,738		11,132		7,795		12,132		
Travel					-		-		
Direct Labor	117,174	-(	155,066		106,953		183,270		
Overhead	46,025		54,316		62,324		58,237		
Miscellaneus Operating	190,522		~~		224,070		-		
Capital Outlay	-		14,000		71,037		78,600		
Sub-total	\$ 1,258,200	\$	1,482,911	\$	2,076,618	\$	1,586,852		
Debt Service	2,852,859		3,096,281		2,981,783		3,022,650		
TOTAL	\$ 4,111,059	\$	4,579,192	\$	5,058,401	\$	4,609,502		
O & M Management Fee	\$ 53,473	\$	74,146	\$	103,831	\$	79,343		
Debt Management Fee	\$ 14,264	\$	15,481	\$	14,909	\$	15,113		

# TEMPLE-BELTON WASTEWATER TREATMENT PLANT

### Description

The Brazos River Authority (BRA) operates the jointly owned Temple-Belton Wastewater Treatment Plant (T-B WWTP), the City of Belton main lift station, and administers each City's Industrial Pretreatment Program under contracts with the Cities of Temple and Belton (Cities). The T-B WWTP, which began operations in 1974, consists of a 10.0 million gallons per day treatment plant, reuse system, and a compost/mulch operation. The Central and Lower Basin Water Treatment Operations, which includes operations and maintenance staff, superintendents, pipeline technicians, industrial pretreatment, and administrative staff, provide support to this project.

### Accomplishments for 2021

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Promoted daily safe work practices.
- Achieved 99.87 percent regulatory compliance with TPDES permit requirements.
- Achieved a successful Texas Commission on Environmental Quality inspection of the Industrial Pretreatment Program resulting in no violations.
- Effectively managed composting operation.
- Modified operations and maintenance staffing plans to work through Winter Storm URI and staffed the facility throughout the freeze event.

- Worked with the Cities and their engineering consultants to initiate the Phase II Plant Expansion Project.
- Effectively operated and maintained the reuse water facility supplying industrial customers.
- Advanced multi-year aeration project with completion of additional engineering work, installation of 2 fixed aerators, and acquisition of other components for future installation.

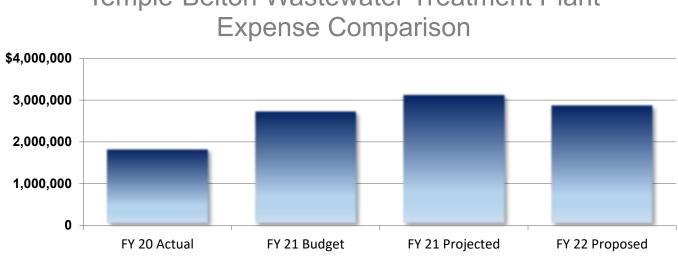
### Objectives for 2022

- Promote daily safe work practices.
- Maintain regulatory compliance with TPDES permit requirements.
- Continue the evaluation of operational practices in an effort to improve overall efficiency.
- Complete all planned capital projects.

### Significant Changes/Comments

BRA continues to coordinate efforts with the Cities to identify critical equipment and improvements necessary to ensure efficient operation of the wastewater systems.

	Actual	Actual	Budgeted	Estimated	Projected
	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022
Average Flow (mgd)	8.12	6.71	7.67	7.12	7.67
Peak Flow (mgd)	17.15	15.15	30.00	18.24	30.00
Total Flow (mg)	2,964.45	2,449.33	2,800.00	2,600.00	2,800.00



# **Temple-Belton Wastewater Treatment Plant**

# **TEMPLE-BELTON WASTEWATER TREATMENT PLANT**

Budget	FY 2020 FY 2021 Actual Budget		FY 2021 Projected		FY 2022 Proposed	
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Landfill/Sludge Hauling Direct Labor Overhead Capital Outlay Miscellaneous Operating	\$ 388,026 183,723 199,112 18,116 168,538 142,306 112 31,860 4,585 202,884 190,906 108,840 236,296 130	\$	443,298 203,890 253,857 18,901 187,147 205,726 320 28,642 9,625 168,000 150,136 113,911 998,550	\$ 397,258 183,845 237,812 18,092 156,266 251,171 150 49,572 5,792 220,500 154,723 105,815 1,501,712 100	\$	437,180 213,034 260,895 27,115 176,795 217,979 320 27,742 9,625 179,760 220,299 112,739 1,041,200
TOTAL	\$ 1,875,434	\$	2,782,003	\$ 3,282,808	\$	2,924,683
O & M Management Fee	\$ 51,679	\$	79,260	\$ 93,684	\$	83,090

# DOSHIER FARM WASTEWATER TREATMENT PLANT

### Description

The Brazos River Authority (BRA) took over the operation and maintenance (O&M) of the City of Temple's (City) Doshier Farm Wastewater Treatment Plant (WWTP) and 31 associated lift stations in October of 2014. The Doshier Farm WWTP is a 7.5 million gallons per day activated sludge facility. As part of this agreement, the BRA also administers the Industrial Pretreatment Program for the permitted industries that discharge to Doshier Farm, as well as performing operations and maintenance (O&M) for the reuse pumping facility. The Central and Lower Basin Water Treatment Operations, which includes O&M staff, superintendents, pipeline technicians. industrial pretreatment, stormwater, and administrative staff, provide support to this project.

### Accomplishments for 2021

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Promoted daily safe work practices.
- Achieved 99.78 percent regulatory compliance with TPDES permit requirements.
- Modified the influent screw pumps and gear boxes to improve reliability.
- Modified operations and maintenance staffing plans to work through Winter Storm URI and staffed the plant throughout the freeze event.
- Secured professional engineering services to design and create construction documents to modify administrative building.

Effectively operated and maintained the reuse water facility suppling industrial customers.

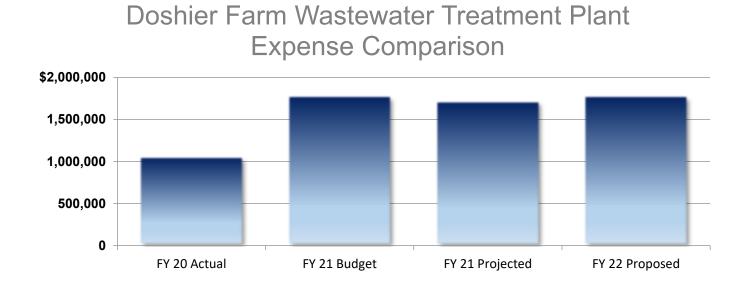
### **Objectives for 2022**

- Promote daily safe work practices.
- Maintain regulatory compliance with TPDES permit requirements.
- Continue the evaluation of operational practices in an effort to improve overall efficiency.
- Award contract to successful bidder to erect a stand-alone conference/meeting room next to the office structure.
- Complete all planned capital projects for the plant and related lift stations.

#### Significant Changes/Comments

BRA continues to coordinate efforts with the City to identify critical equipment and improvements necessary to ensure efficient operation of the wastewater system.

	Actual FY 2019	Actual FY 2020	Budgeted FY 2021	Estimated FY 2021	Projected FY 2022
Average Flow (mgd)	3.08	2.00	3.01	2.77	2.60
Peak Flow (mgd)	18.30	5.01	22.50	8.92	22.50
Total Flow (mg)	1,123.94	729.96	1,100.00	1,010.00	950.00



### DOSHIER FARM WASTEWATER TREATMENT PLANT

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed	
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Landfill/Sludge Hauling Direct Labor Overhead Capital Outlay	\$	251,644 129,806 66,374 13,190 138,371 30,114 - 31,121 1,765 200 52,067 202,981 65,458 85,592	\$	$\begin{array}{c} 254,827\\ 142,367\\ 141,292\\ 15,118\\ 143,719\\ 211,526\\ 400\\ 38,743\\ 7,325\\ 300\\ 62,150\\ 346,783\\ 72,133\\ 354,500 \end{array}$	\$	$\begin{array}{c} 280,198\\ 137,286\\ 108,945\\ 12,370\\ 116,537\\ 155,484\\ 350\\ 28,846\\ 4,175\\ 200\\ 56,400\\ 239,791\\ 61,610\\ 528,264 \end{array}$	\$	$\begin{array}{c} 296,954\\ 157,193\\ 146,791\\ 22,362\\ 131,910\\ 226,316\\ 400\\ 39,243\\ 7,325\\ 300\\ 66,150\\ 393,381\\ 72,241\\ 230,000 \end{array}$
TOTAL	\$	1,068,683	\$	1,791,183	\$	1,730,456	\$	1,790,565
O & M Management Fee	\$	32,061	\$	49,220	\$	47,324	\$	48,917

### HUTTO WASTEWATER SYSTEM

### Description

The Brazos River Authority (BRA) operates the Hutto Wastewater System, which currently includes the Hutto Central Plant, a 1.5 million gallons per day (mgd) plant which began operation in 1998, and the Hutto South Plant, which is designed to treat 2.0 mgd and went online in February 2017. The Central and Lower Basin Water Treatment Operations, which includes operations and maintenance staff, superintendents, pipeline technicians, stormwater coordinator, and administrative staff, provide support to this project.

### Accomplishments for 2021

- Promoted daily safe work practices resulting in no lost time accidents in Fiscal Year 2021.
- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Achieved 99.85 percent regulatory compliance at the Central Plant and 99.71 percent regulatory compliance at the South Plant with TPDES permit requirements.
- Completed the installation of a new belt filter press and process building to process solids at the Central Plant. This new press will reduce hauling cost and save the City of Hutto approximately \$60,000 annually.

- Modified operations and maintenance staffing plans to work through Winter Storm URI and staffed all facilities throughout the freeze event.
- Continued the evaluation of operational practices in an effort to improve overall efficiency.
- Replaced all three decant float valves at the South Plant through the manufacturer at no cost to the City.
- Completed all planned capital projects.

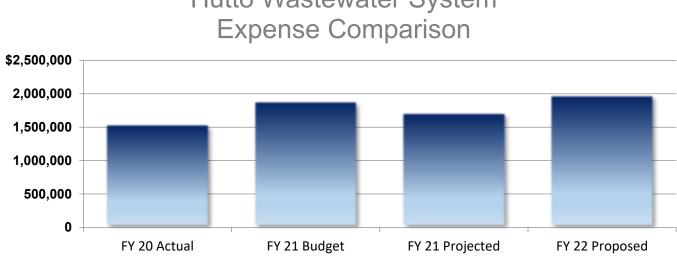
### **Objectives for 2022**

- Promote daily safe work practices.
- Maintain regulatory compliance with TPDES permit requirements.
- Continue evaluation and implementation of practices to improve overall efficiency.
- Complete all planned capital projects.

### Significant Changes/Comments

BRA continues to coordinate efforts with the City to identify critical equipment and improvements necessary to ensure efficient operation of the wastewater systems.

Hutto Central	Actual	Actual	Budgeted	Estimated	Projected
Wastewater Treated	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022
Average Flow (mgd)	1.14	0.56	0.55	0.55	0.58
Peak Flow (mgd)	2.27	1.15	7.00	2.35	7.00
Total Flow (mg)	415.88	204.08	200.00	200.00	210.00
Hutto South Plant	Actual	Actual	Budgeted	Estimated	Projected
Hutto South Plant Wastewater Treated	Actual FY 2019	Actual FY 2020	Budgeted FY 2021	Estimated FY 2021	Projected FY 2022
			e e e e e e e e e e e e e e e e e e e		- -
Wastewater Treated	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022



## Hutto Wastewater System

### HUTTO WASTEWATER SYSTEM

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected	F	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Rent Travel Employee Development Regulatory Landfill/Sludge Hauling Direct Labor Overhead Capital Outlay	\$	73,754 32,451 100,082 200,410 105,471 110,434 35,328 2,498 22,030 222,760 405,352 55,432 191,743	\$ 91,409 46,397 164,327 295,862 127,624 151,272 27,009 100 1,500 25,663 188,843 398,982 65,754 319,500	\$	96,502 41,422 137,146 240,211 98,712 120,986 41,247 393 1,850 22,030 165,000 360,009 57,262 350,600	\$	147,846 61,937 121,373 287,504 113,224 167,683 27,009 100 3,625 25,663 132,000 427,672 75,868 403,000
Sub-total	\$	1,557,745	\$ 1,904,242	\$	1,733,370	\$	1,994,504
R & R Expenditures		-	80,000		-		80,000
TOTAL	\$	1,557,745	\$ 1,984,242	\$	1,733,370	\$	2,074,504
O & M Management Fee	\$	77,888	\$ 95,212	\$	86,669	\$	99,725

### SANDY CREEK REGIONAL WATER TREATMENT PLANT

### Description

The Sandy Creek Regional Water Treatment Plant is owned by the City of Leander (City) and consists of a 12.0 million gallons per day direct filtration water treatment plant, floating raw water intake structure, raw water pipeline, and a transmission pipeline. The plant began operation in September 2001 and supplies drinking water from the Colorado River Basin to the City. The Central and Lower Basin Water Treatment Operations, which includes operations and maintenance (O&M) staff, superintendents, pipeline technicians, and administrative staff, provide support to this project.

#### Accomplishments for 2021

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Continued to maintain a safe work environment with no lost time accidents in Fiscal Year 2021.
- Coordinated and adjusted planned capital project work with City staff as required due to unexpected outages with the City's other water supply source.
- Set new historic production levels while managing limited staffing due to COVID-19.
- Naintained 100% regulatory compliance.
- Modified O&M staffing plans to work through Winter Storm URI and staffed the water treatment plant throughout the freeze event.

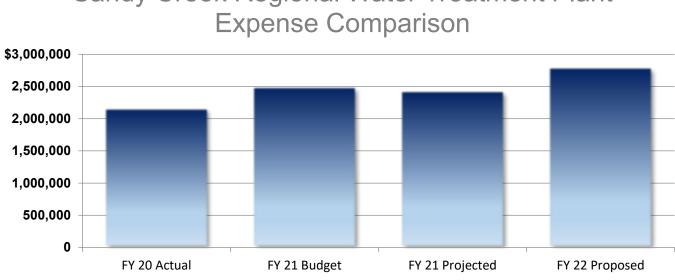
### Objectives for 2022

- Maintain a safe work environment.
- Continue to work with City engineers and staff to identify options to improve solids handling and disposal.
- Complete all planned capital projects.
- Continue inspection and cleaning efforts at the raw water intake and optimize control measures to mitigate Zebra Mussel impact on system equipment.
- Continue the evaluation of operational practices to improve overall efficiency.

### Significant Changes/Comments

The Brazos River Authority continues to coordinate efforts with the City to ensure efficient operation of the water treatment plant. The plant has been providing more water for the City than expected over the last couple of years due to problems with the City's other water supply source.

	Actual	Actual	Budgeted	Estimated	Projected
	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022
Average Flow (mgd)	6.80	6.41	6.23	8.07	4.23
Peak Flow (mgd)	10.40	10.50	8.00	11.00	8.00
Total Flow (mg)	2,482.00	2,340.10	2,275.00	2,945.00	1,545.00



## Sandy Creek Regional Water Treatment Plant

### SANDY CREEK REGIONAL WATER TREATMENT PLANT

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		I	FY 2022 <sup>D</sup> roposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Landfill/Sludge Hauling Direct Labor Overhead Capital Outlay	\$	216,261 87,121 239,578 589,775 8,561 61,831 1,287 10,263 2,076 - 611,949 179,556 96,755 72,100	\$	309,747 128,033 247,024 560,382 10,753 143,497 5,928 19,778 7,357 100 600,000 252,325 83,544 140,500	\$	253,687 106,157 251,232 591,740 9,840 134,044 2,000 19,881 6,003 100 600,000 227,577 97,351 149,000	\$	353,983 140,517 197,518 568,596 10,430 140,511 5,928 19,778 7,517 - 906,000 190,072 97,091 176,100
TOTAL	\$	2,177,113	\$	2,508,968	\$	2,448,612	\$	2,814,041
O & M Management Fee	\$	108,767	\$	102,648	\$	122,430	\$	140,702

## EAST WILLIAMSON COUNTY REGIONAL WATER SYSTEM

### Description

The Brazos River Authority (BRA) purchased what has become the East Williamson County Regional Water System (EWCRWS) from the City of Taylor (City) in May 2004. The EWCRWS serves as a regional water treatment facility to meet the needs of the City, Jonah Water Special Utility District, and Lone Star Regional Water Authority. The EWCRWS includes a 12.3 million gallons per day water treatment plant, a terminal storage reservoir, a raw water intake facility, a raw water pipeline, a treated water pipeline, and a groundwater well. The Central and Lower Basin Water Treatment Operations, which includes operations and maintenance (O&M) staff, superintendents, pipeline technicians, and administrative staff, provide support to this project.

#### Accomplishments for 2021

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Maintained a safe work environment with no lost time accidents in Fiscal Year 2021.
- Completed all planned capital projects.
- 🔷 Hired a new Chief Operator and added a Crew Leader for the maintenance department, further strengthening а very experienced and professional staff.
- Contracted with an engineering firm to design and implement a repair to the eroding slope at the intake structure.
- Nodified O&M staffing plans to work through Winter Storm URI and staffed the EWCRWS throughout the freeze event.

- 🟘 Worked around the clock to restore water treatment following the power outage associated with Winter Storm Uri.
- Received successful TCEQ annual inspection/investigation with no violations.
- 🔷 Awarded a contract to CDM Smith to develop preliminary engineering and recommendations for the upcoming Phase II expansion project, addressing future water demand, delivery, and treatment options.

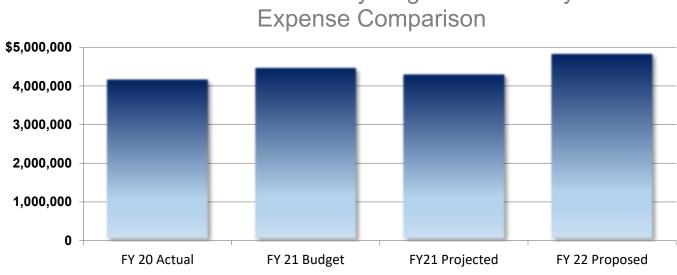
#### Objectives for 2022

- Continue to promote a safe work environment.
- Work with CDM Smith and customers to ensure a comprehensive plan for design of the Phase II system expansion project.
- Implement power supply redundancy through greater back-up generation capability.
- Complete all planned capital projects.
- Conduct quarterly coordination meetings with our three EWCRWS customers.

### Significant Changes/Comments

BRA continues to ensure efficient operation of the EWCRWS. Timely expansion of the facility will be essential to meet rapidly growing customer demands into the future. Decisions on groundwater integration and/or aquifer storage and recovery will also play a part in expansion planning and design.

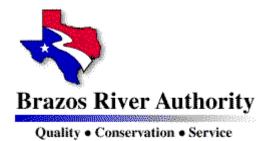
	Actual	Actual	Budgeted	Estimated	Projected
	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022
Average Flow (mgd)	4.70	5.67	5.46	5.75	6.30
Peak Flow (mgd)	7.95	9.59	8.00	10.00	8.16
Total Flow (mg)	1,718.77	2,070.44	1,995.00	2,100.00	2,300.00



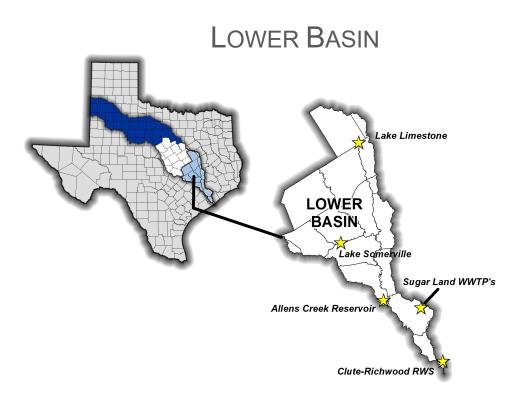
## East Williamson County Regional Water System

### EAST WILLIAMSON COUNTY REGIONAL WATER SYSTEM

Budget	FY 2020 Actual			FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed
Salaries	\$	406,634	\$	510,955	\$	380,800	\$	499,948
Benefits		142,743		186,662		132,150		199,035
Materials & Supplies		167,892		248,747		247,010		285,906
Utilities		284,468		305,907		357,834		304,543
Outside Services		45,602		51,665		49,443		45,868
Repair & Maintenance		73,476	_	132,715		99,650		177,279
Travel		3,731		<mark>8,35</mark> 2		3,950		8,352
Rent		10,961	-	35,383		27,021		67,383
Employee Development		3,089		16,412		13,470		16,079
Regulatory		325		624		600		624
Miscellaneous Operating		1,100		2,000		1,500		2,000
Direct Labor		50,372		13,599		49,215		62,670
Overhead		403,239		394,451		365,566		432,364
Capital Outlay		93,335		81,500		86,600		249,000
Sub-total	\$	1,686,967	\$	1,988,972	\$	1,814,809	\$	2,351,051
Debt Service		2,534,618		2,536,214		2,536,214		2,538,405
TOTAL	\$	4,221,585	\$	4,525,186	\$	4,351,023	\$	4,889,456



This page left blank intentionally



### Description

The Lower Basin Region includes all or part of 19 counties, beginning in Freestone and Limestone Counties and following the Brazos River to the Gulf of Mexico south of Freeport in Brazoria County. The Lower Basin includes the following Brazos River Authority facilities: Lake Limestone, Sugar Land Regional Wastewater Treatment and Reclaimed Water Facilities, Clute-Richwood Regional Wastewater System, and the proposed Allens Creek Reservoir. Water is also supplied from Lake Somerville, which is a U.S. Army Corps of Engineers reservoir. The Lower Basin is located in two of the state water planning areas: Regions G and H.

#### **Major Initiatives**

- Maintain, operate, and manage wastewater treatment facilities.
- Naintain, operate, and manage Lake Limestone.
- Begin permitting and design of Allens Creek Reservoir.
- Continue to participate on the Region H Water Planning Group.
- Work with customers to identify water and wastewater needs.
- Participate in stakeholder groups in the Lower Basin, such as the Lower Brazos River Flood Protection Planning Study Group.
- Develop and maintain relationships with customers and local elected officials.

### LAKE LIMESTONE

#### Description

The Sterling C. Robertson Dam, which impounds Lake Limestone (LL), was completed in 1978. LL is located on the Navasota River and supplies approximately ten percent of the Brazos River Authority's (BRA) system water for industrial, municipal, agricultural, and domestic uses and is a significant recreational facility. LL is currently estimated to have a total storage capacity of approximately 204,000 acre-feet. Substantial water users include two electric generating plants, one owned by NRG and another by Luminant. Total project personnel consist of 12 full-time employees who operate and maintain the Dam and all BRA owned structures and facilities, including two public parks, and provide regulatory and law enforcement activities on LL and in the parks.

#### Accomplishments for 2021

- Promoted daily safe work practices.
- Connected Administrative Complex and Park
   1 restrooms to local Water Supply
   Corporation.
- 100% completion of inspections of On-Water and Water Use facilities on LL.
- Assisted with completion of design and issuance of a Request for Bids for Park 5 Access Pier and Upgrade Project.
- Installed new siding and trim on shop buildings.

- Initiated Hydrostatic Relief System Assessment and Replacement Project.
- Reviewed LL Tainter Gate improvements 95% design.

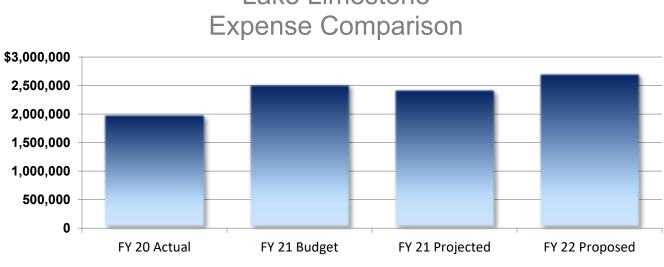
#### **Objectives for 2022**

- Complete Park 5 Access Pier and Upgrade Project.
- Complete Scope of Work and contract for Hydrostatic Relief Project.
- Inspect all On-Water and Water Use facilities.
- Continue implementation of BRA Health and Safety Procedures.
- Complete the rejuvenation of the LL Project Site, including painting of buildings and facilities.
- Complete LL facility rehabilitation projects, finalize design and bidding of Tainter Gate improvements, and begin construction.
- Promote daily safe work practices.
- Effectively operate facilities.

#### Significant Changes/Comments

LL continues to manage various projects that will improve public access to the lake and other projects designed to maintain operability and safety of our dam.

	Actual FY 2019	Actual FY 2020	Budgeted FY 2021	Estimated FY 2021	Projected FY 2022
Flood event operations/days of operations	18/140	9/64	8/50	11/50	12/60
Inspect boat dock permits for compliance	100%	100%	100%	100%	100%
Inspect all water front properties for unauthorized facilities	100%	100%	100%	100%	100%
Customer contacts by law enforcement officers/tickets	7293/192	6846/93	9846/334	5939/92	6393/134



# Lake Limestone

### LAKE LIMESTONE

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Miscellaneous Operating Direct Labor Overhead Capital Outlay	\$ 665,835 295,540 60,057 63,674 179,515 59,847 11,710 18,114 7,581 10,503 70,300 20,081 553,819	\$	$719,091 \\ 341,059 \\ 69,250 \\ 94,500 \\ 167,303 \\ 112,177 \\ 21,920 \\ 45,834 \\ 31,746 \\ 12,912 \\ 80,095 \\ 60,609 \\ 685,734 \\ 101,000 \\ 80,005 \\ 100,000 \\ 100$	\$	709,280 320,756 57,169 79,520 164,940 104,031 14,000 32,440 9,885 11,011 70,500 20,307 636,912 221,171	\$	766,396 384,262 68,250 94,620 165,871 108,727 18,920 45,834 33,371 12,912 80,095 41,491 743,958 161,500
TOTAL	\$ 2,016,576	\$	2,543,230	\$	2,451,922	\$	2,726,207

### ALLENS CREEK RESERVOIR

### Description

Allens Creek Reservoir (ACR) is a proposed offchannel reservoir in Austin County near the confluence of Allens Creek with the Brazos River. Water will be pumped from the Brazos River for storage in the reservoir when river flows are adequate and will be available to supply downstream customers. The Brazos River Authority (BRA) has been a partner to an interlocal agreement with the City of Houston (City) to develop ACR (70 percent Houston and 30 percent BRA) since April 2000. Most of the property for ACR has been acquired and was purchased using Texas Water Development Board (TWDB) State Participation Program funding; therefore, TWDB is also a partner in the project. The ACR site includes approximately 9,600 acres and is estimated to provide an annual firm water supply of 99,650 acre-feet.

The estimated cost to construct the reservoir currently exceeds \$400 million. The operations and maintenance costs presented here are solely for maintaining the property, which is currently being leased to agricultural tenants prior to reservoir construction. Costs for permitting, design, and construction will be funded separately as a capital project.

BRA and the City have been unable to reach agreement on moving the project forward. However, the 86<sup>th</sup> Texas Legislature passed House Bill 2846 in May 2019, which required the City to enter into a contractual agreement to transfer all of the City's ownership interests in the project to the BRA no later than January 1, 2020, and for the BRA to transfer \$23 million dollars to the City in exchange for the City's interests in the project.

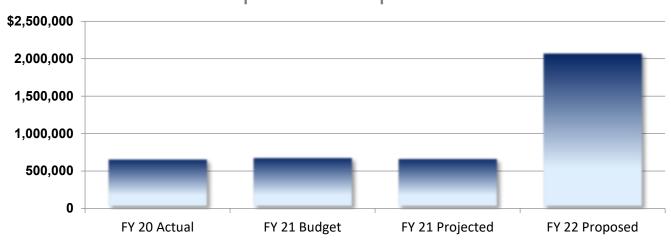
In response, the City filed a lawsuit in July of 2019 against the State of Texas and the BRA challenging, among other aspects, the constitutionality of this bill. A Travis County District Court ruled in favor of the City's challenge in late 2019; however, the BRA and the State of Texas have appealed the District Court decision and continue to pursue it through the appeal process. BRA will be pursuing this path forward in Fiscal Year 2022.

### Accomplishments for 2021

- Pursued appeal of District Court ruling in Houston's favor challenging House Bill 2846 with support of outside Legal Counsel.
- Progressed contract negotiations with Stantec, the engineering firm selected to provide for the permitting, design, and construction of ACR.
- Continued communication with local stakeholders to advise them of project status.
- Managed the reservoir property site.

#### **Objectives for 2022**

- Continue to pursue appeal of District Court ruling in Houston's favor challenging House Bill 2846 with support of outside Legal Counsel.
- Finalize contract negotiations with Stantec for design, engineering, and 404 permitting.
- Evaluate and develop the organizational staffing structure needed to manage the project upon commencement.
- Continue to manage the reservoir property site.



### Allens Creek Reservoir Expense Comparison

### ALLENS CREEK RESERVOIR

Budget	l	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed
Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Miscellaneous Operating Direct Labor Overhead Capital Outlay	\$	305 6,384 32,096	\$	1,000 480 500 5,000 3,000 5,500 - 43,263 -	\$	- 9,407 - 39,865 -	\$	1,000 - - 10,000 1,500 4,000 - 47,522 -
Sub-total	\$	38,785	\$	58,743	\$	49,272	\$	64,022
Debt Service TOTAL	\$	641,463 680,248	\$	641,366 <b>700,109</b>	\$	641,366 <b>690,638</b>	\$	2,036,000 <b>2,100,022</b>

### SUGAR LAND WASTEWATER

### Description

In 1975, the Brazos River Authority (BRA) constructed the Sugar Land North Wastewater Treatment Plant. The BRA operated the Sugar Land North Plant until 2005, when its ownership was turned over to the City of Sugar Land (City). The BRA began contract operations of the City's North and South Wastewater Treatment Plants (WWTPs) in 2005. The Sugar Land North Plant is rated at 6 million gallons per day (mgd) and the Sugar Land South Plant is rated at 7.5 mgd. In October 2018, the BRA took over operation, maintenance, and management of the newly annexed Sugar Land Greatwood (1.35 mgd) and Sugar Land New Territory (2.50 mgd) WWTPs. The Sugar Land WWTPs are operated and maintained with support from operations and maintenance (O&M) staff, superintendents, administrative assistants, and industrial pretreatment and stormwater coordinators from other BRA departments.

### Accomplishments for 2021.

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Completed the year with no lost time accidents.
- Achieved near 100% regulatory compliance with TPDES permit requirements.

Greatwood WWTP = 99.94% New Territory WWTP = 99.69% North WWTP = 99.96% South WWTP = 99.96%

- Secured equipment purchase and installed a new belt filter press at the New Territory WWTP, which resulted in operational cost reductions for sludge processing.
- Modified O&M staffing plans to work through Winter Storm URI and staffed the plants throughout the freeze event.
- Completed all planned capital projects.

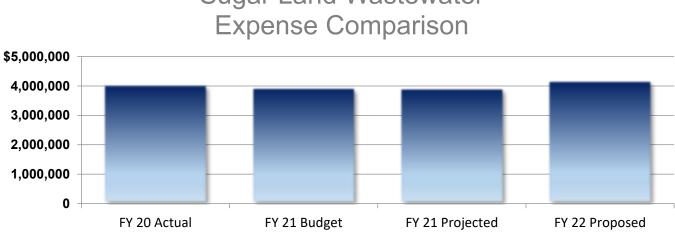
#### Objectives for 2022

- Promote daily safe work practices.
- Maintain regulatory compliance with TPDES permit requirements.
- Continue evaluation and implementation of practices to improve overall efficiency.
- Complete all planned capital projects.

### Significant Changes/Comments

BRA continues to coordinate efforts with the City regarding day-to-day operations and to identify critical equipment and improvements necessary to ensure efficient operation of the wastewater systems.

	Actual	Actual	Budgeted	Estimated	Projected
Wastwater Treated	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022
Average Flow (mgd)	11.01	10.47	11.04	11.10	11.10
Peak Flow (mgd)	15.79	23.39	36.00	25.00	36.00
Total Flow (mg)	4,016.95	3,820.34	4,030.00	4,050.00	4,050.00



## Sugar Land Wastewater

### SUGAR LAND WASTEWATER

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Rent Travel Employee Development Regulatory Landfill/Sludge Hauling Direct Labor Overhead Capital Outlay	\$ 650,122 316,585 575,474 26,568 277,557 385,387 45,720 2,160 9,776 800 840,757 164,944 178,047 592,398	\$	$739,798 \\ 377,548 \\ 533,580 \\ 32,135 \\ 320,120 \\ 361,177 \\ 46,539 \\ 4,650 \\ 13,641 \\ 800 \\ 725,661 \\ 240,894 \\ 202,286 \\ 375,000 \\ 1375,000 \\ 1000 $	\$	726,632 330,340 599,722 35,540 299,519 424,590 14,178 3,300 11,837 1,350 673,000 151,239 169,075 508,344	\$	$796,038 \\ 404,885 \\ 652,184 \\ 33,335 \\ 298,040 \\ 390,516 \\ 32,370 \\ 4,650 \\ 13,641 \\ 800 \\ 710,636 \\ 199,804 \\ 177,583 \\ 500,000 \\ $
TOTAL	\$ 4,066,295	\$	3,973,829	\$	3,948,666	\$	4,214,482

## CLUTE-RICHWOOD REGIONAL WASTEWATER SYSTEM

### Description

The Brazos River Authority (BRA) operates a 4.0 million gallons per day wastewater treatment plant (WWTP) and a reuse facility for the Cities of Clute and Richwood (Cities). The BRA began operation on October 1, 2000. The Central and Lower Basin Water Treatment Operations, which includes operations and maintenance (O&M) staff, superintendents, pipeline technicians, storm water coordinator, and administrative staff, provide support to this project.

### Accomplishments for 2021

- Created emergency staffing plans and modified shifts and schedules to work through the COVID-19 Pandemic.
- Completed the year with no lost time accidents or incidents.
- Achieved 99.52 percent regulatory compliance with TPDES permit requirements.
- Reviewed and confirmed the power reduction goal resulting from the digester aeration modifications.
- Modified O&M staffing plans to work through Winter Storm Uri and staffed the plant throughout the freeze event.
- Continued to work with Cities' staff to identify and reduce unauthorized discharges resulting from heavy rain events and inflow and infiltration within the collection system.
- Completed the majority of planned capital projects.

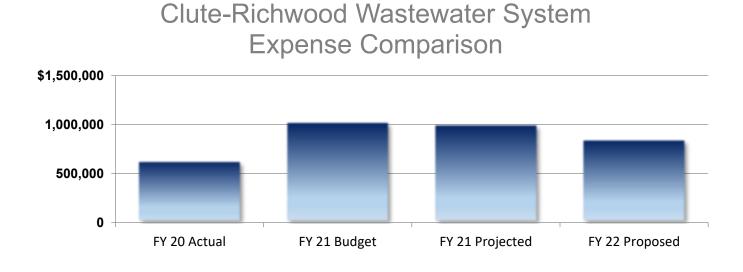
### **Objectives for 2022**

- Promote daily safe work practices.
- Maintain regulatory compliance with TPDES permit requirements.
- Assist the Cities, to the extent possible, on the O&M contract Request for Proposal/Request for Qualifications.

### Significant Changes/Comments

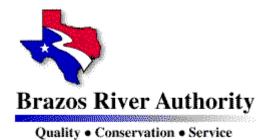
BRA continues to coordinate efforts with the customer Cities to ensure efficient operation, maintenance, and management of the WWTP and reuse facility. The existing operations agreement expires on September 30, 2021. BRA plans to continue O&M beyond this date either by working with Cities on a renewal of the existing agreement, or by responding to a request for proposals if the Cities choose that process.

	Actual	Actual	Budgeted	Estimated	Projected
Wastwater Treated	FY 2019	FY 2020	FY 2021	FY 2021	FY 2022
Average Flow (mgd)	3.34	2.54	2.74	2.74	2.88
Peak Flow (mgd)	13.07	14.09	12.00	10.50	12.00
Total Flow (mg)	1,217.59	928.50	1,000.00	1,000.00	1,050.00



### CLUTE-RICHWOOD REGIONAL WASTEWATER SYSTEM

Budget	FY 2020 Actual	FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Landfill/Sludge Hauling Direct Labor Overhead Capital Outlay	\$ 204,341 70,986 75,176 13,947 42,895 22,366 249 4,607 2,011 2,218 36,037 44,495 74,880 44,134	\$ 217,404 84,469 104,822 18,655 55,615 57,687 3,934 10,620 5,096 200 49,400 67,462 82,322 282,500	\$	$\begin{array}{c} 219,447\\71,937\\86,450\\12,234\\47,061\\37,700\\2,250\\6,739\\5,057\\200\\45,000\\34,746\\76,541\\365,000\end{array}$	\$	234,926 81,762 111,549 23,824 50,985 57,687 3,934 10,620 5,096 200 49,400 56,066 78,014 94,100
TOTAL	\$ 638,342	\$ 1,040,186	\$	1,010,362	\$	858,163
O & M Management Fee	\$ 31,917	\$ 52,009	\$	50,518	\$	42,908



This page left blank intentionally

### **Technical Services**

#### Description

Technical Services provides the Brazos River Authority (BRA) with best practices through capital improvement planning by prioritization of asset renewal or replacement; engineering support for projects and operations; construction services; project management; property management; Supervisory Control and Data Acquisition (SCADA) and electrical support.

#### **Major Initiatives**

- Continue the development of a risk-based capital planning and asset management program to be utilized for long term planning of asset renewal and replacement as part of our capital planning process.
- Provide engineering assistance for the:
  - Bid and construction of the Sterling C. Robertson Dam Tainter Gate Replacement and Improvements.
  - Technical support and review of the Preliminary Engineering Report for the Belhouse Drought Preparedness Project.
  - Technical support for construction of the DeCordova Bend Dam Low Flow Outlet Works Facility Project.
  - Assessment and design of the East Williamson County Regional Water System Plant Expansion Phase II.
  - Design and construction of the Morris Sheppard Dam Spillway Pump and Piping project.
- Provide technical assistance for the:
  - Support for Phase III of the Morris Sheppard Dam Concrete Assessment and Service Life Extension (CAASLE) Project.
  - Assessment of the DeCordova Bend Dam Buttresses Nos. 1 and 44 Project.
  - Integrated Water Resources Plan Project.
- Continue to develop and integrate the Project Management Office (PMO) for the BRA, to provide a uniform approach to project management and improve project delivery processes. Provide support to project managers by developing and implementing best practice methodologies to train, equip and enable project managers to deliver projects that exceed stakeholder expectations.
- Complete Phase I of the Property Master Plan that encompasses all BRA owned properties throughout the basin and provide strategic direction for present and future management of property resources.
- Maintain working relationships with local, state, and federal regulatory authorities that improves performance and coordination associated with BRA facilities.

### **TECHNICAL SERVICES MANAGEMENT**

### Description

The Technical Services Management Department provides technical support to the Upper, Central and Lower Basins for infrastructure operations; capital project delivery; infrastructure assessments; capital planning and asset management; property management; and project management. Technical Services Management also leads efforts to further improve project planning and delivery processes.

### Accomplishments for 2021

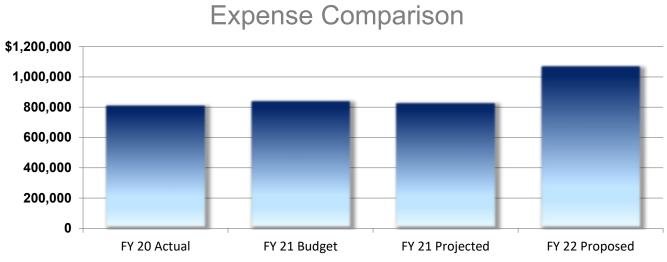
- Initiated efforts towards completion of Phase
   I of the Property Master Plan as led by the
   Property Management Committee.
- Awarded professional services contract and started implementing a multi-year Risk-Based Asset Management and Capital Improvements Planning program to be utilized to determine asset renewal and replacement criteria.
- Provided engineering and technical support for projects to include the Belhouse Drought Preparedness Project, Sterling C Robertson Tainter Gate Replacement, Phase II of the PK Concrete Assessment and Service Life Extension (CAASLE), and the East Williamson County Phase II Expansion.
- Continued to support BRA Project Leadership and Management (PLM) initiative by developing a functional Project Management Office (PMO) to improve internal capital project delivery processes.

### Objectives for 2022

- Complete Phase I and start Phase II in development of the comprehensive BRA Property Master Plan.
- Continued implementation of the Risk-Based Asset Management and Capital Improvements Planning program.
- Further develop the capital improvement planning process by leveraging information from additional initiatives such as the Risk-Based Asset Management and Capital Planning Program and the Integrated Water Resources Plan.
- Continue to provide engineering and technical support for all capital and operating projects including the Belhouse Drought Preparedness Project, Sterling C Robertson Tainter Gate Replacement, East Williamson County Phase II Expansion, and the DeCordova Bend Dam Low Flow Facilities Replacement Projects.
- Continue to lead the PLM initiative through the PMO by improving project management processes and training.
- Developing a comprehensive BRA Portfolio Schedule to support Capital Improvement Planning and budgeting; and developing a BRA Project Delivery Handbook to support project managers through standardized processes.

### Significant Changes/Comments

Due to increased volume of active projects and future workload, Technical services is requesting additional staff in Engineering Services to support these efforts.



### Technical Services Management Expense Comparison

### **TECHNICAL SERVICES MANAGEMENT**

Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	I	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Employee Development Direct Labor Overhead Central Office Common Capital Outlay	\$ 572,605 165,770 13,107 3,204 1,234 3,160 4,224 (77,496) 120,588 19,386	\$ 584,907 194,477 11,200 2,390 973 302 10,991 20,986 (141,331) 141,318 27,447	\$ 558,127 177,053 8,200 2,850 1,442 302 6,000 12,730 (82,386) 133,308 22,702	\$	622,980 215,045 11,300 3,732 1,176 302 11,491 22,966 - 171,993 23,069
TOTAL	\$ 825,782	\$ 853,660	\$ 840,328	\$	1,084,054

### ENGINEERING

### Description

The Engineering Services Group is comprised of engineers and technical staff who have experience and expertise in dam safety, water and wastewater engineering, power and process control, and system automation. The Engineering provides Services Group engineering, construction management and automation and power services for the planning, budgeting, and implementing of facility designing expansions and improvements. Work includes oversight of third-party engineers, consultants, contractors and in-house performance of services when needed.

### Accomplishments for 2021

- Provided technical review for the 60% and 95% Sterling C. Robertson Tainter Gate Replacement design submittals.
- Provided technical support for the consultant selection and scope and fee negotiation for the East Williamson County Water Treatment Plant Expansion Phase II.
- Provided technical support for the consultant selection and scope and fee negotiation for the Williamson County Regional Raw Waterline 5-year Inspection and Phase III Pump Expansion.
- Provided technical support for the scope and fee negotiation and contract award for the Copper Ion Generator design.
- Designed, bid, and award the Lake Limestone Park 5 fishing pier, loading dock and park roads pavement; and the Lake Granbury 2slip boathouse.
- Provided technical support for the DeCordova Bend Dam Low Flow Outlet Replacement design, bid and award.

- Provided technical support for the scope and fee negotiation and contract award for the DeCordova Bend Dam reinforced concrete assessment.
- Provided technical support for the scope and fee negotiation and contract award for the Morris Shepperd Dam Spillway Pump & Piping project.

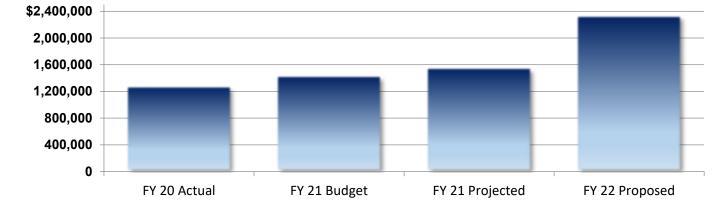
### Objectives for 2022

- Provide technical support for completion of the Copper Ion Generator design, bid, award and construction.
- Provide technical support for the bid, contract award and start of construction to replace the Sterling C. Robertson Tainter Gates.
- Provide technical support for the East Williamson County Water Treatment Plant Expansion Phase II Assessment and begin the Phase II Design.
- Provide technical and construction support for the DeCordova Bend Dam Low Flow Outlet Replacement

### Significant Changes/Comments

Technical Services and Legal staff updated the BRA Division 1 Document Specifications providing a uniform starting point when developing design/bid documents for construction projects, ultimately increasing efficiency.

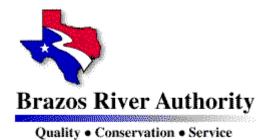
Technical Services provided technical support for the consultant selections, scope and fee negotiations, and designs of 30 projects.



### Engineering Expense Comparison

### Engineering

Budget	FY 2020 Actual			FY 2021 Projected	I	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Direct Labor Overhead Central Office Common Capital Outlay	\$ 1,059,020 388,460 15,366 17,837 12,697 19,103 23,532 5,140 6,683 (669,914) 354,220 55,674	\$ $\begin{array}{c} 1,265,751\\ 495,269\\ 45,200\\ 20,920\\ 17,435\\ 31,440\\ 68,037\\ 4,014\\ 48,985\\ (1,014,984)\\ 339,614\\ 27,447\\ 100,132 \end{array}$	\$	$\begin{array}{c} 1,052,521\\ 397,602\\ 40,550\\ 20,950\\ 15,291\\ 40,490\\ 60,967\\ 2,744\\ 34,155\\ (554,691)\\ 333,998\\ 22,702\\ 100,132 \end{array}$	\$	$\begin{array}{c} 1,412,455\\ 562,847\\ 41,800\\ 21,280\\ 15,935\\ 36,240\\ 72,287\\ 4,014\\ 50,100\\ (496,596)\\ 423,067\\ 65,362\\ 142,000 \end{array}$
TOTAL	\$ 1,287,818	\$ 1,449,260	\$	1,567,411	\$	2,350,791



This page left blank intentionally

### OFFICE OF SECURITY & SAFETY

#### Description

The Office of Security and Safety (OSS) department's mission is to assist management in providing a safe work environment; protect people and property by conducting various assessments and implementing approved upgrades.

#### **Major Initiatives**

- Provide cybersecurity administration for all BRA networks and IT systems.
- Provide facility protection by providing recommended upgrades and implementation.
- Work closely with BRA personnel and local, state, and federal officials to ensure operational procedures and plans are appropriate for the threat environment and integrated with supporting organizations.
- Monitor environmental, health and safety compliance and risk management; workers' compensation claims and accident investigations.
- Conduct specialized health and safety training courses aimed at minimizing employee safety hazards and consequences with minimal impact to work activities.
- Conduct objective-based emergency management tabletop exercises (TTX), preparedness, and participate in actual emergency response or disaster management events.

### OFFICE OF SECURITY & SAFETY

### Description

The Office of Security and Safety (OSS) department's mission is to assist management in providing a safe work environment; protect people and property by conducting various assessments and implementing approved upgrades. OSS staff specialize in cybersecurity administration, facility protection, environmental, health and safety compliance and risk management; workers' compensation claims and accident investigations; comprehensive emergency management and related training in support of all Brazos River Authority (BRA) facilities and personnel.

### Accomplishments for 2021

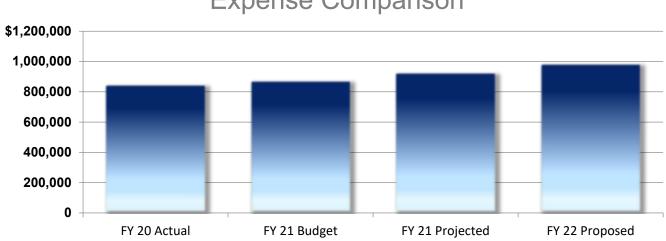
- Developed health and safety procedures and manual. Implemented protective measures for the COVID-19 Pandemic response. Implemented a learning management system to train BRA staff on a variety of safety components.
- Achieved compliance for the Risk Management Program and the American Water Infrastructure Act (AWIA) for the BRA water treatment facility at East Williamson County.
- Achieved compliance for dam safety emergency action plan updates and implemented OSS emergency notification responsibilities to multiple county emergency management coordinators for controlled gate releases at all three BRA reservoirs. Conducted Department of Homeland Security (DHS) Dam Safety Tabletop Exercise for PK and LG.
- Completed FEMA based Threat Identification and Risk Assessments (THIRA) for three BRA reservoirs and the water treatment facility in East Williamson County. Installed security equipment at BRA facilities at Central Office

(Waco), Georgetown and East Williamson County. Conducted security vulnerability assessments at BRA owned and municipally owned facilities

Developed organization-wide cybersecurity procedures and incident response plan. Achieved an agency-wide IT penetration test and completed a mitigation plan based on known vulnerabilities. Complied with mandated cybersecurity training. Developed and implemented cybersecurity training for facility operators.

### **Objectives for 2022**

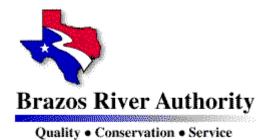
- Finalize a BRA wide health and safety program. Conduct four emergency response plan evaluations as required by the EPA. Update dam safety emergency action plans for all three BRA reservoirs. Develop a BRA-wide and facility specific business continuity plans.
- Security equipment installation at all three BRA reservoirs. Develop a formal protective intelligence program. Advance liaison for the emergency management and security programs.
- Coordinate the delivery of DHS/Cybersecurity and Infrastructure Security Agency (CISA) provided surveillance detection training courses for staff at all three BRA reservoirs.
- Improve cybersecurity monitoring capabilities for BRA's IT networks including SCADA security upgrades. Present mandated cybersecurity training.
- Develop a BRA aerial drone program including operating procedures, flight manual and pilot training regimen.



### Security and Safety Expense Comparison

### SECURITY AND SAFETY

Budget	FY 2020 Actual		FY2021 Budget		FY 2021 Projected		FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Regulatory Direct Labor Overhead Central Office Common Capital Outlay	\$	475,963 140,412 71,768 3,655 5,926 675 11,069 - 13,057 50 (10,015) 95,787 16,284 30,939	\$ 451,070 153,091 27,800 4,880 1,789 39,650 34,250 (3,727) 111,600 200 (112,157) 120,884 22,872 30,000	\$	454,322 144,025 25,570 3,880 1,902 37,651 20,500 1,900 79,250 200 - 115,586 18,919 30,000	\$	496,724 177,888 24,900 3,860 1,774 7,350 40,750 (3,727) 42,260 200 (22,094) 152,795 23,069 48,000
TOTAL	\$	855,569	\$ 882,202	\$	933,705	\$	993,749



This page left blank intentionally

### SPECIAL PROJECTS AND STRATEGIC INITIATIVES

### Description

Special Projects & Strategic Initiatives provides guidance and coordination of project planning efforts, including strategic planning, project identification and implementation, and support of regional and basin-wide initiatives.

#### **Major Initiatives**

- Identify and pursue achievable strategies for implementing new water supply resources to meet future basin needs.
- Continue to support and coordinate efforts to advance the Allens Creek Reservoir project.
- Provide technical support for the business initiatives within each region for meeting the Brazos River Authority's strategic objectives.
- Provide project management support for the Integrated Water Resource Plan project.

### SPECIAL PROJECTS & STRATEGIC INITIATIVES

### Description

Special Projects & Strategic Initiatives is a resource for evaluation of business opportunities, identification and assessment of potential water supply resources, project management support, and improvements to the management decision-making process. The primary mission is to position the Brazos River Authority (BRA) to meet the future water needs of the Brazos River basin and the State of Texas.

Special Projects & Strategic Initiatives is responsible for:

- The BRA's analysis of future lines of business and water supply strategies.
- Working with regions in analyzing, evaluating, and accomplishing innovative projects and business opportunities.
- Developing and managing special projects as assigned by the General Manager/CEO.

#### Accomplishments for 2021

- Coordinated scope development for Phase I of the Integrated Water Resource Plan Project.
- Initiated evaluation of alternative water supply strategies to meet future demands in Williamson County including technical assessment of potential resources and development of preliminary needs projections.
- Supported development of the Allens Creek Reservoir project by coordinating contract negotiation for design, engineering, and 404 permitting.

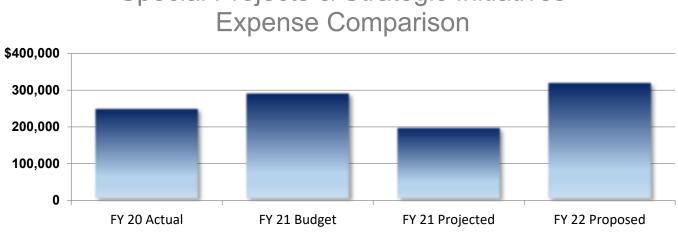
Identified and initiated assessment of potential water supply resources to address the future needs of BRA customers.

### Objectives for 2022

- Coordinate Phase I of the Integrated Water Resource Plan project including project management as well as internal and external coordination of stakeholders.
- Continue the evaluation of alternative water supply strategies to meet future demands in Williamson County with focus on identifying a feasible option to pursue project development.
- Support the development of the Allens Creek Reservoir project.
- Continue the identification and assessment of additional potential water supply resources to address the future needs of BRA customers throughout the basin.

### Significant Changes/Comments

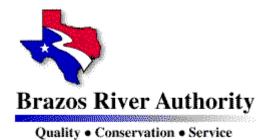
The Special Projects & Strategic Initiatives department will continue in FY 2022 to support the identification, evaluation, and development of projects to meet the future water supply needs of the Brazos River Basin.



## Special Projects & Strategic Initiatives

### **SPECIAL PROJECTS & STRATEGIC INITIATIVES**

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected	FY 2022 Proposed		
Salaries Benefits Materials & Supplies Utilities Outside Services Direct Labor Travel Employee Development Overhead Central Office Common	\$	181,996 47,656 452 885 184 (4,494) 1,330 24,002 3,334	\$	197,403 65,768 550 1,780 195 - 775 1,600 24,907 4,574	\$ 130,000 38,193 1,091 936 131 - 700 1,400 27,029 3,784	\$	208,664 68,829 3,150 936 135 - 750 1,600 33,171 7,690	
TOTAL	\$	255,345	\$	297,552	\$ 203,264	\$	324,925	



This page left blank intentionally

### WATER SERVICES

### Description

Water Services manages the water supply of the Brazos River Authority (BRA) which consists of a system of eleven reservoirs. This includes the administration and monitoring of BRA's water rights and water supply contracts. Water Services staff monitors, collects, maintains, analyzes, and reports information concerning hydrology, water supply, and water use in managing the reservoir system and meeting customers' water supply needs. Additionally, Water Services performs and supports water resource planning functions and project management of important water supply development initiatives.

#### **Major Initiatives**

- Operate and manage the BRA water supply system.
- Monitor water use and compliance of raw water contracts and BRA's water rights.
- Provide direction of gate operations during flood events at the three BRA-owned reservoirs.
- Develop and maintain decision support tools for long-term water contract decisions and future planning with the System Operation Permit in place.
- Provide support and project management for various projects and Regional Water and Flood Planning activities.
- Continue to manage and update both the Drought Contingency Plan and the Water Conservation Plan for the BRA.

### WATER SERVICES

### Description

Water Services provides three vital functions to the Brazos River Authority (BRA): (1) day-to-day operational control of the BRA's system of eleven reservoirs; (2) administration and monitoring of the BRA's water rights and water supply contracts; and (3) water resource planning support and management. Water Services staff monitors, collects, maintains, analyzes, and reports information concerning hydrology, water supply, and water use in managing the eleven reservoirs and meeting customers' water supply needs. Water Services staff directs floodgate operations at the three BRA-owned reservoirs, and reviews, tests and revises its operating procedures for managing and accounting for water supply.

#### Accomplishments for 2021

- Successfully managed the BRA water supply system including customer water contracts, reservoir data management, regulatory reporting requirements, and passage of floodwater.
- Provided water supply planning support and technical support for BRA water supply development initiatives.
- Provided technical support for Regional Water Planning activities.
- Participated in and became the designated sponsor for the in the Texas Water Development Board's initial Regional and State Flood Planning process for the Lower Brazos Regional Flood Planning Group (Region 8).
- Coordinated and managed the initiation of the mandatory 10-year System Operation Permit/Water Management Plan amendment.

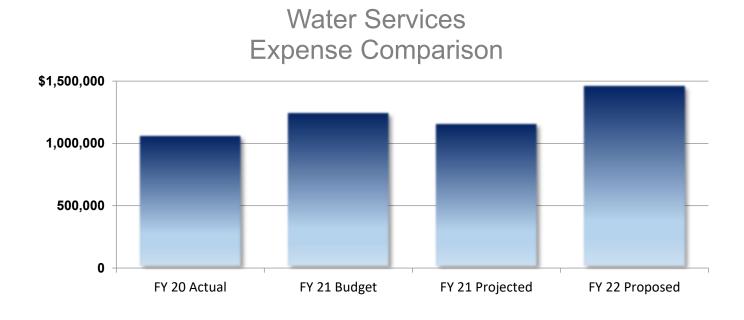
Managed and coordinated the annual update of the BRA's Strategic Plan.

#### **Objectives for 2022**

- Successfully manage the BRA water supply system (drought and/or flood) and meet all contract and regulatory reporting requirements.
- Continue to serve as the designated sponsor for the Lower Brazos Regional Flood Planning Group (Region 8) of the Texas Water Development Board's initial Regional and State Flood Planning process.
- Continue to manage and coordinate the mandatory 10-year System Operation Permit/Water Management Plan amendment process.
- Provide technical support for Regional Water Planning activities.

#### Significant Changes/Comments

In October 2020, the Lower Brazos (Region 8) Regional Flood Planning group designated the BRA as sponsor and administrative agent for the initial cycle of regional flood planning. The initial regional flood plan for the Lower Brazos region is due to the Texas Water Development Board in January 2023.



### WATER SERVICES

Budget	FY 2020 Actual		FY 2021 Budget		FY 2021 Projected		FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Travel Employee Development Direct Labor Overhead Central Office Common Capital Outlay	\$	585,417 224,701 4,844 2,818 78,088 3,156 1,081 (2,167) 153,121 25,005	\$ 665,832 264,477 5,600 980 176,862 7,924 13,981 (118,720) 208,588 34,308	\$	620,936 228,081 8,247 980 76,418 4,000 9,223 - 198,695 28,378 -	\$	745,960 301,455 4,100 980 146,446 7,924 13,923 (3,420) 228,901 32,681
TOTAL	\$	1,076,064	\$ 1,259,832	\$	1,174,958	\$	1,478,950

### FEDERAL RESERVOIRS AND PURCHASED WATER

### Description

The Federal Reservoirs and Purchased Water budget is used to account for various water supply-related costs and fees including: (1) Brazos River Authority's (BRA) portion of operating costs and debt service for the eight U.S. Army Corps of Engineers (USACE) lakes that BRA has storage space in; (2) payments for Colorado Basin water; (3) Brazos Watermaster and water right fees; 4) Brazos G state water planning costs; 5) Region 8 state flood planning costs, and 6) other water supply related costs not specific to a particular location/facility.

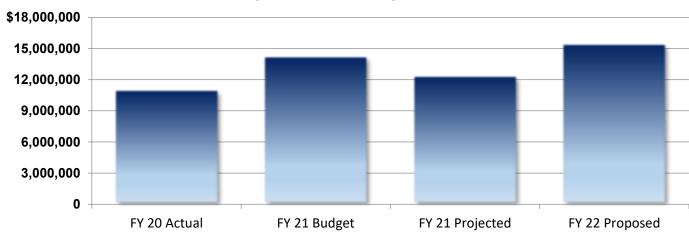
### Accomplishments for 2021

- Served as Administrative Agent and designated political subdivision for Brazos G regional planning group supporting the development of the 2021 Regional Water Plan.
- Conducted semi-annual meetings with the U.S. Army Corps of Engineers (USACE) Fort Worth District Office, Three Rivers Regional Office and the Capital Regional Office to discuss projects, budgets and issues.
- Accounted for and invoiced the amounts due from Colorado Basin was that was sued during FY 2021.
- Reported, on a weekly basis, actual water usage and projected diversions for the upcoming weeks to the Brazos Watermaster.
- Attended Watermaster Advisory Committee meetings to discuss issues and offer input to the development of the Brazos Watermaster budget.

- Coordinated review and timely payment of invoices for Operations & Maintenance expenses and debt service related to the storage space in the eight USACE lakes.
- Submitted the final 2021 Regional Water Plan to the Texas Water Development Board.

### Objectives for 2022

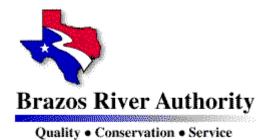
- Continue semi-annual meetings with personnel from the USACE to facilitate open communication and information sharing.
- Continue to provide all water usage information requested by the Brazos Watermaster on a timely basis.
- Continue to serve as a member of the Brazos
   Watermaster Advisory Committee.
- Continue to serve as Administrative Agent and designated political subdivision for the Brazos G regional planning group.



### Federal Reservoirs and Purchased Water Expense Comparison

### FEDERAL RESERVOIRS AND PURCHASED WATER

Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Benefits Materials & Supplies Utilities Outside Services Travel Employee Development Regulatory Miscellaneous Operating Overhead LCRA Purchased Water Capital Outlay	\$ 447,51 5 14 5,339,05 4,16 30 86,74 56,76 1,259,33 2,279,01	9       7,800         .1       300         33       7,185,207         60       6,500         90       350         91,082       91,082         92       1,075,136         92       1,711,246	<ul> <li>\$ 463,040</li> <li>150</li> <li>400</li> <li>6,430,495</li> <li>4,000</li> <li>710</li> <li>86,744</li> <li>56,000</li> <li>1,561,573</li> <li>2,290,756</li> </ul>	<ul> <li>\$ 485,307</li> <li>200</li> <li>400</li> <li>8,105,953</li> <li>5,000</li> <li>710</li> <li>91,082</li> <li>1,085,636</li> <li>1,928,388</li> <li>2,380,642</li> </ul>
Sub Total Debt Service TOTAL Grant Funding (Brazos G and Region 8)	<ul> <li>9,473,08         <ol> <li>1,632,36</li> <li>11,105,44</li> </ol> </li> <li>\$ 810,42</li> </ul>	1,587,340 1 \$ 14,325,623	<ul> <li><b>10,893,868</b> <ol> <li>1,587,340</li> </ol> </li> <li><b>12,481,208</b></li> <li>\$ 875,050</li> </ul>	\$ 14,083,318         1,587,342         \$ 15,670,660         \$ 993,310



This page left blank intentionally

# **ENVIRONMENTAL SERVICES**



#### Description

Environmental Services conducts comprehensive water quality and biological monitoring, analysis, and data management that provides scientific information on basin environmental conditions. This information is used to develop and implement effective watershed-based strategies to maintain and improve environmental health throughout the Brazos River basin and to support other departments and activities. Additionally, Environmental Services staff provides regulatory compliance support and permitting assistance to other Brazos River Authority (BRA) departments.

#### **Major Initiatives**

- Water quality sampling, analysis, and assessment.
- Instream and riparian zone biotic integrity assessment.
- Evaluation of environmental flow standards.
- Environmental permitting for BRA projects.
- Threatened, endangered, and invasive species monitoring.
- Aquatic species relocation services.
- Participate in local watershed protection efforts.

# ENVIRONMENTAL SERVICES

### Description

Environmental Services conducts comprehensive water quality and biological monitoring, analysis, and data management that provides scientific information on basin environmental conditions. This information is used to develop and implement effective watershed-based strategies to maintain and improve environmental health throughout the Brazos River basin. Additionally, Environmental Services Staff provides regulatory compliance support and permitting assistance to other departments.

#### Accomplishments for 2021

- Executed Candidate Conservation Agreement with Assurances with the USFWS for conservation of freshwater mussels in the basin.
- Continued participation in the Texas Clean Rivers Program. Hosted virtual Steering Committee and Coordinated Monitoring meetings.
- Resumed full water quality monitoring schedule after disruptions caused by COVID-19. Attained a data completion rate of 98%.
- Completed four riparian zone assessments and three instream biology assessments.
- Completed feasibility study and conceptual design for new Environmental Services Laboratory and equipment storage building.
- Reviewed nine projects to identify environmental and cultural resource permitting implications. Completed four cultural resource consultations with the Texas Historical Commission, two shellfish surveys, and one U.S. Army Corps of Engineers Section 404 Permit to support Basin projects.

### Objectives for 2022

- Begin implementation of the conservation strategies included in the Candidate Conservation Agreement with Assurances for freshwater mussels.
- Continue water quality, riparian zone, and biological sampling in support of the Clean Rivers Program, Texas Environmental Flow Standards, and BRA initiatives.
- Maintain data completion rate at 98%

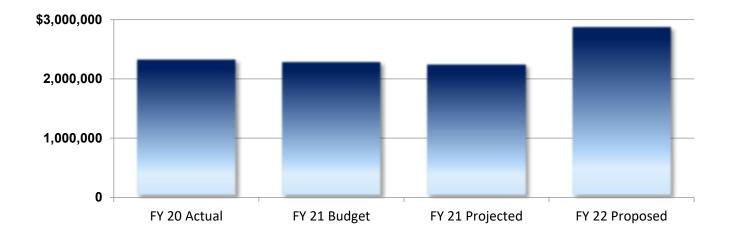


- Review projects implemented during 2022 for environmental and cultural resource permitting implications. Complete required surveys, consultations and permitting documents.
- Procure engineering firm and complete design of new Environmental Services Laboratory and equipment storage building.
- Begin enhanced water quality monitoring initiative on BRA reservoirs.

### Significant Changes/Comments

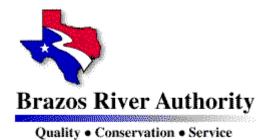
The winter storm in February 2021 caused a significant disruption in water quality sampling and laboratory analysis during that month. Laboratory staff, after much hard work, was able to revive/repair all analytical equipment that was damaged due to the unanticipated power outage.

### Environmental Services Expense Comparison



### **ENVIRONMENTAL SERVICES**

Budget	FY 2020 Actual	FY 2021 Budget		FY 2021 Projected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Travel Rent Employee Development Repair and Maintenance Regulatory Miscellaneous Operating Direct Labor Overhead Central Office Common Capital Outlay	\$ 1,192,539 $386,809$ $72,505$ $1,392$ $153,934$ $18,478$ $5,388$ $11,849$ $29,996$ $1,265$ $1,032$ $(19,274)$ $379,493$ $53,344$ $73,617$	\$ $\begin{array}{c} 1,220,493\\ 410,299\\ 108,355\\ 9,420\\ 127,503\\ 42,233\\ 4,500\\ 52,487\\ 105,740\\ 1,500\\ 950\\ (238,091)\\ 387,477\\ 73,191\\ 18,000 \end{array}$	\$	1,091,648 352,677 75,980 9,420 132,994 19,900 4,734 21,170 107,445 1,265 500 - 365,885 60,540 33,000	\$ $\begin{array}{r} 1,338,664\\ 484,624\\ 117,794\\ 6,960\\ 192,796\\ 53,658\\ 4,800\\ 30,241\\ 84,299\\ 1,500\\ 950\\ (20,895)\\ 460,210\\ 69,207\\ 90,000\\ \end{array}$
TOTAL	\$ 2,362,367	\$ 2,324,057	\$	2,277,158	\$ 2,914,807
Grant Funding (Clean Rivers Program)	\$ 440,189	\$ 583,159	\$	583,159	\$ 398,159



This page left blank intentionally

# CENTRAL SERVICES

#### Description

Central Services includes Executive, Legal, Finance and Administration, Human Resources and Information Technology support to each basin and project.

#### **Major Initiatives**

- Direct the Brazos River Authority's (BRA's) project initiatives for the long-term water needs of the Brazos River basin and the State of Texas.
- Develop legal structure (policies, contracts, etc.) to accomplish the goal of good governance and facilitate water pricing strategies.

Expand and promote the BRA's legislative agenda, both State and Federal.

- Improve and develop the alignment of Human Resources functions to the strategic and business plan such as compensation, training and development, evaluation, etc.
- Enhance strategies to transform the workplace culture to align with its future and goals through such strategies as new employee orientation, recruiting, retention, recognition initiatives, etc.
- Continue to enhance and implement financial and administrative processes that promote best practices in accordance with the BRA's organizational structure.
- Manage a budgeting process and system that links to the strategic plan and creates a method to evaluate the effectiveness of existing and proposed programs and projects.
- Provide accurate and timely financial recordkeeping and reporting in accordance with Generally Accepted Accounting Principles (GAAP).

Implement technology to support the organization's strategic plan and business goals.

# BOARD OF DIRECTORS

#### Description

The 21-member Board of Directors (Board) is the governing body of the Brazos River Authority (BRA). Its members are appointed by the Governor, subject to confirmation by the Texas Senate, for six-year terms. The Board Presiding Officer appoints and organizes the Board into committees, each of which meets on an asneeded basis to develop and recommend policies, objectives, programs and actions for consideration by the full Board. The committees are: Administration and Audit, Executive Compensation and Evaluation, Ethics and Conflicts of Interest, Property Management, Security, and Retirement. The Board meets a minimum of four times a year. The calendar year meeting schedule is set during the meeting on the fourth Monday in January. Special meetings are held as necessary. The Board budget is primarily for Director fees and expenses for attendance at meetings.

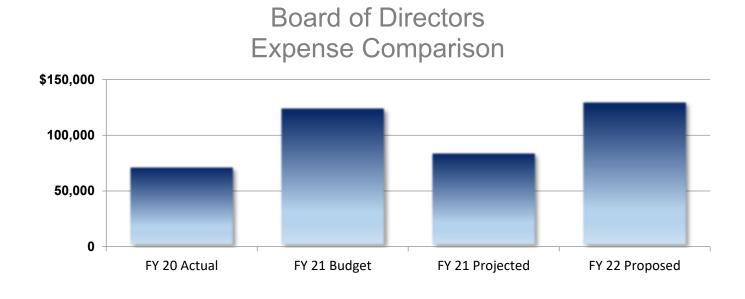
#### Accomplishments for 2021

- Approved an expanded Board meeting schedule to provide more interaction and guidance to help the BRA fulfill its mission and accomplish its goals.
- Set the overall policy, strategic objectives, and goals for the future growth and development of the BRA to accomplish its mission.
- Provided oversight of the Long Range Financial and Strategic Plans to ensure direction and future focus.
- Monitored and implemented the FY 2021 Annual Operating Plan (Budget).
- Authorized and approved the FY 2022 Annual Operating plan (Budget).

- Continued pursuit of new water supply projects and acceleration of timelines in light of Texas' ever-growing water needs.
- Authorized engineering and construction of BRA projects to ensure future water and wastewater requirements are met and the life of the current BRA facilities is maintained and prolonged.
- Monitored environmental studies in order to address any concerns in the transportation and delivery of water to basin customers.

#### **Objectives for 2022**

- Provide direction regarding the Long Range Financial and Strategic Plans to ensure informed decision making for the basin.
- Oversee the FY 2022 Annual Operating Plan (Budget) to ensure proper financial management.
- Authorize and approve the FY 2023 Annual Operating Plan (Budget).
- Continue pursuit of full ownership in the Allens Creek Reservoir project.
- Oversee continued enhancement of system-wide measures to ensure security of BRA assets and facilities.
- Assist in relaying BRA's mission and any roadblocks to elected officials.
- Promote BRA's mission and initiatives during meetings and communications with customers.



# **BOARD OF DIRECTORS**

Budget	I	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Materials & Supplies Postage & Delivery Rent Office Supplies Telephone/Communications Lodging Meals Transportation Director Fees Bonds/Insurance Professional Development	\$	1,464 321 2,692 15,354 5,754 7,053 8,839 18,300 4,038 9,040	\$ 5,790 620 2,150 3,500 16,240 14,025 21,250 23,650 23,775 4,276 10,000	\$ $10,642 \\ 500 \\ 200 \\ 3,000 \\ 16,543 \\ 4,000 \\ 8,660 \\ 6,182 \\ 18,150 \\ 12,536 \\ 5,000 \\$	\$ $\begin{array}{r} 1,500\\ 550\\ 1,500\\ 3,250\\ 10,006\\ 15,125\\ 27,270\\ 23,417\\ 25,350\\ 13,102\\ 10,000\\ \end{array}$
Donations and Gifts	\$	- 72,855	\$ 500 <b>125,776</b>	\$ - 85,413	\$ 500 131,570

# GENERAL ADMINISTRATION

### Description

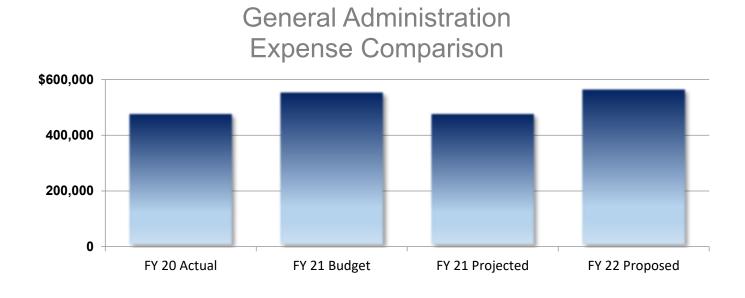
General Administration is the office of the General Manager/CEO (GM/CEO) supported by the Executive Assistant to the GM/CEO. The GM/CEO, hired by the Board of Directors (Board), provides strategic leadership to the organization, represents the Brazos River Authority (BRA) on a wide range of industry and policy issues, and coordinates issues and regional efforts with customers.

#### Accomplishments for 2021

- Monitored the Legislative proceedings that may affect BRA operations.
- Oversaw the response and recovery of all BRA facilities from the effects of Winter Storm Uri.
- Continued all BRA operations during the COVID-19 pandemic without any interruption or decrease in service levels.
- Successfully included language in the 2020 Water Resources Development Act requiring the Corps of Engineers to expedite a reallocation study at Lake Whitney.
- Communicated and coordinated with State officials and constituents on the status of BRA operations, projects, and drought/flood operations.
- Continued the rehabilitation and construction oversight efforts on BRA dams to ensure longevity and safety of the structures.
- Pursued development of the Allens Creek Reservoir project.
- Engaged with other river authorities and Regional Water Planning Groups on water related issues.

#### Objectives for 2022

- Continue development of the Allens Creek Reservoir project
- Pursue the development of additional water supply sources and water conservation to increase/extend water for future Texas population growth and management during drought years.
- Continue the enhancement of system-wide measures to ensure the security and safety of BRA employees, assets and facilities.
- Continue environmental studies to determine solutions to lessen the impact to water availability for customers.
- Implement any necessary policy changes as a result of legislation passed during the 87th Legislative Session, including the BRA Sunset Bill.
- Continue efforts to obtain federal funding for the Lake Whitney Reallocation project.
- Protect, develop and encourage the BRA's most valuable asset – the workforce, the backbone that ensures quality, productivity, and the BRA's mission.



# **GENERAL ADMINISTRATION**

Budget	FY 2020 Actual	FY2021 Budget	F	FY 2021 <sup>P</sup> rojected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Travel Rent Employee Development Miscellaneous Operating Central Office Common Capital Outlay	\$ 339,006 111,437 6,440 3,245 367 6,658 - 10,789 - 6,668 -	\$ 389,451 119,829 3,300 3,132 389 15,400 150 20,525 - 9,149 -	\$	351,006 100,882 6,243 2,760 262 3,900 - 11,500 - 7,567 -	\$ 386,239 124,132 7,300 3,276 270 17,900 150 22,025 - 11,534 -
TOTAL	\$ 484,611	\$ 561,325	\$	484,120	\$ 572,826

# LEGAL SERVICES

#### Description

The Legal Services department, headed by the General Counsel, oversees all legal matters for the BRA. Responsibilities of the Legal Department include: all contracts and contractual negotiations, management of litigation, support for all projects, and coordination of outside counsel services. Legal Services provides assistance in development, evaluation, and implementation of policy and management issues. Additionally, the Legal Services department provides legal services, representation and guidance on all legal issues or questions relating to BRA programs for the Board of Directors, the General Manager/CEO and all departments of the BRA. Authorized full-time positions include the General Counsel, two Senior Staff Counsels, a Junior Staff Counsel, a Senior Administrative Assistant, and a Contract Administrator.

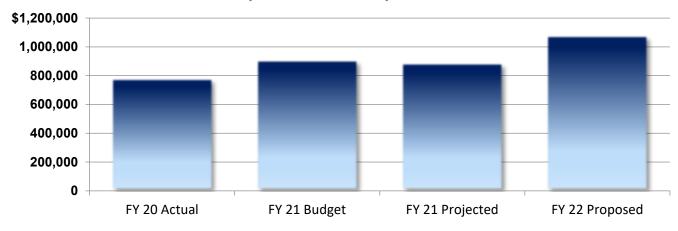
#### Accomplishments for 2021

- Facilitated negotiations and drafting of complex professional services contracts and construction contracts for infrastructure development and improvements.
- Continued negotiations with the City of Houston regarding the Allen's Creek Project.
- Began providing legal services to the Region 8 Flood Planning Group and continued providing legal services to Brazos G Regional Water Planning Group.
- Processed new and renewing water contracts and associated amendments, resale agreements, terminations, and assignments.
- Coordinated with Government and Customer Relations in the evaluation and interpretation of new legislation.

- Navigated legal issues associated with the Covid-19 Pandemic.
- Assisted in the Sunset Review process and prepared procedural amendments to facilitate the implementation of the Sunset Review recommendations.
- Coordinated the creation and development of the Contract Management Database to manage all contracts, with copies of pertinent documents and information.
- Received, managed, and processed a record number of Open Records Requests.
- Successfully represented the BRA in a water rights contested case, which was ultimately settled with protection of BRA's interests.
- Drafted significant revisions to the Health and Safety Procedure and the IT and Cybersecurity Procedure.
- Supervised outside legal counsel services.
- Assisted in developing and implementing contract management/negotiation process.

#### **Objectives for 2022**

- Provide effective organizational representation, with an emphasis on proactive liability avoidance strategies and beneficial contract negotiations.
- Continue negotiations with the City of Houston regarding the Allen's Creek project.
- Provide legal services in relation to: open government compliance; water rights application management; Region 8 and Brazos G regional planning groups; and creating, updating, and revising policies and procedures; implementation of Sunset Review recommendations.



### Legal Services Expense Comparison

# LEGAL SERVICES

Budget	FY 2020 Actual	FY2021 Budget	FY 2021 Projected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair and Maintenance Travel Employee Development Central Office Common Capital Outlay	\$ 577,285 172,245 8,355 2,304 1,198 356 5,458 18,183	\$ 626,406 199,294 4,900 2,880 25,973 - 7,050 21,040 25,160	\$ 616,931 192,972 6,400 2,880 25,787 - 7,050 21,040 20,810 -	\$ 722,658 255,142 18,000 4,122 25,811 - 7,050 21,040 28,836 -
TOTAL	\$ 785,384	\$ 912,703	\$ 893,870	\$ 1,082,659

# GOVERNMENT AND CUSTOMER RELATIONS

### Description

The Government and Customer Relations (G&CR) Department represents the Brazos River Authority (BRA) on regional, state and national matters. Responsibilities include: monitoring legislative areas of interest to the BRA; preparing position papers, testimony and correspondence to elected officials; serving as liaison with offices of elected officials and legislative committees; responding to all media-related inquiries; planning and implementing the BRA's public relations strategies, policies and procedures including maintenance and development of the BRA's website, Water School educational blog and social media sites; and responding to inquiries from BRA personnel, other agencies and the general public. G&CR also has the responsibility of maintaining the BRA's repository of files and records contained in Central Files. Finally, G&CR staffs the BRA's telephone switchboard, receptionist's desk and responsible for receipt/routing of incoming mail and deliveries.

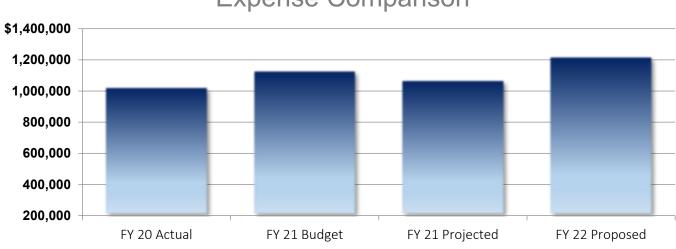
### Accomplishments for 2021

- Implemented an extensive educational upgrade to the BRA website with the addition of an Environmental section highlighting programs, testing and services employed within the Brazos River basin and highlighting at-risk native species.
- Extended BRA's educational efforts with the addition of video shorts employed across the organization's social media platforms.
- Increased organizational transparency with the implementation of the "Brown Bag on the Brazos" virtual town hall meetings. Established a new section of the website to list community-based questions and answers from these meetings.

- Implemented an educational and safetybased public relations campaign titled "Watch Your Wake" to bring attention to the increasing need for recreationists to observe "no wake" zones on BRA reservoirs and reduce watercraft wakes to lower the incidence of injury and property damage.
- Implemented monthly educational article series in the Hood County News.
- Implemented user-friendly sign-up system on the BRA website for downstream gate operation notifications.
- Managed BRA legislative priorities during the 87<sup>th</sup> Legislative Session, including the BRA Sunset Bill.
- Successfully included language in the 2020 Water Resources Development Act requiring the Corps of Engineers to expedite a reallocation study at Lake Whitney.

#### Objectives for 2022

- Reimplement educational efforts via inperson Water Safety Awareness Days at Lake Granbury and Possum Kingdom Lake post-COVID-19.
- Redesign remaining sections of the BRA website to reflect the style changes implemented in the Environmental section.
- Implement any necessary policy changes as a result of legislation passed during the 87<sup>th</sup> Legislative Session, including the BRA Sunset Bill.
- Continue efforts to obtain federal funding for the Lake Whitney Reallocation project.



### Government and Customer Relations Expense Comparison

# **GOVERNMENT AND CUSTOMER RELATIONS**

Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Travel Employee Development Miscellaneous Operating Central Office Common Capital Outlay	\$ 502,270 176,125 3,131 2,824 301,843 6,323 6,436 10,940 23,415	\$ 488,143 189,731 4,925 2,628 238,973 9,664 15,886 101,000 32,021	\$ 539,154 196,285 2,685 2,628 239,049 3,500 15,282 53,000 26,486	\$ 560,866 213,827 19,625 3,888 271,080 17,964 13,400 101,000 26,914
TOTAL	\$ 1,033,307	\$ 1,082,971	\$ 1,078,069	\$ 1,228,564

# HUMAN RESOURCES

### Description

The Human Resources (HR) Department supports the strategic plan in the areas of personnel and organizational culture. HR functions include supporting the mission of the Brazos River Authority (BRA) by working in cooperation with managers, supervisors, and employees to enhance recruitment and retention, training and development, health and safety initiatives, performance management, internal and external equity, diversity and inclusion, organizational development, and compensation and benefit programs. HR processes payroll, manages employee wages and salaries, administers benefit initiatives including all employee group insurance programs and retirement plans, manages employee performance and discipline issues, coordinates and provides employee and supervisor training, and maintains past and present employee and retiree records and files.

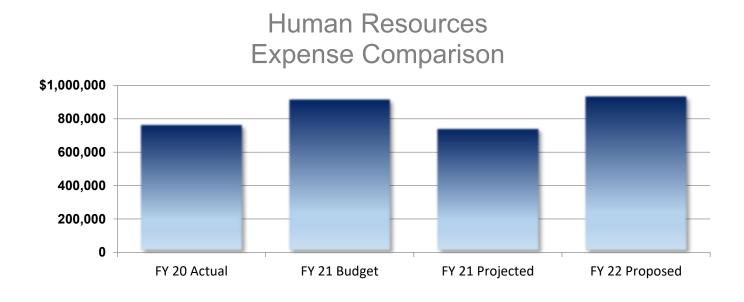
### Accomplishments for 2021

- Managed the changing benefit requirements and government guidance issued through the multiple COVID relief Acts and various government mandates.
- Solicited for proposals for a job evaluation system that uses a systematic method of grading positions to ensure consistency and equity, by establishing a hierarchy of jobs within the organization, based on objective and measurable compensable factors.
- Managed recruiting, onboarding, training, retirements, and various other personnel issues remotely throughout the basin.
- Provided resources and guidance of best practices to managers, supervisors, and employees to facilitate and promote a safe work environment during the pandemic.

Continued to provide employee financial wellness by promoting educational and training opportunities through our Financial Pathways program.

#### Objectives for 2022

- Complete the implementation of the job evaluation system.
- Solicit for an Investment Advisor for the BRA Deferred Compensation Plan.
- Continue to manage programs and educate supervisors to enhance the BRA's ability to effectively recruit and retain an experienced, diverse, and dedicated workforce.
- Review and re-bid, as necessary, BRA benefit plans and providers to maintain and/or improve employee benefits with minimal impact to the budget.
- Continue to conduct, provide, and support various BRA-wide leadership, supervisory, and employee training and development opportunities; encourage employee wellness participation; and promote teambuilding initiatives throughout the organization.
- Continue project to scan and electronically maintain documents from terminated employee personnel files, as required per the record retention policy.
- Continue to monitor healthcare and wellness regulations as they become applicable, or are reversed, and make appropriate benefit plan adjustments.



# HUMAN RESOURCES

Budget	FY 2020	FY 2021	FY 2021	FY 2022
	Actual	Budget	Projected	Proposed
Salaries	\$412,022	\$411,573	\$414,661	\$429,772
Benefits	146,132	157,241	149,915	172,229
Materials & Supplies	13,567	9,800	5,033	10,400
Utilities	936	936	1,158	1,380
Outside Services	118,819	192,748	121,830	174,595
Travel	2,068	2,355	600	2,355
Rent	-	-	-	-
Employee Development	65,973	121,475	40,856	135,354
Central Office Common	16,670	22,872	18,919	19,224
Capital Outlay	-	10,000	9,000	-
TOTAL	\$776,187	\$929,000	\$761,972	\$945,309

# FINANCE AND ADMINISTRATION

### Description

Finance and Administration provides financial and administrative support and services to the Brazos River Authority (BRA). The Chief Financial Officer oversees and directs the activities of this department, which include: cash and investment management, financial statement preparation and reporting, budget preparation and reporting, billing and accounts receivable, grant accounting, accounts payable, debt administration. purchasing and procurement, and risk management.

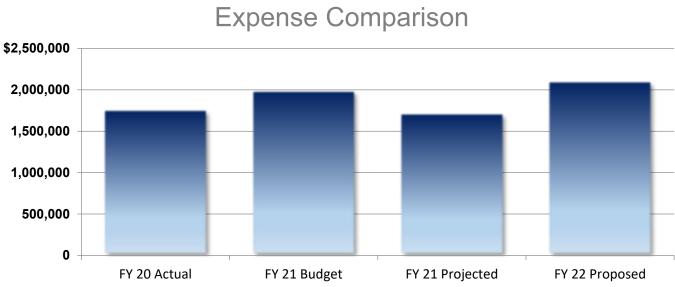
### Accomplishments for 2021

- Applied for and received the Government Finance Officer's Association (GFOA) award for "Excellence in Financial Reporting" for BRA's FY 2020 Annual Comprehensive Financial Plan (ACFR) for the 35<sup>th</sup> consecutive year.
- Developed the FY 2022 Annual Operating Plan (AOP) and Capital Improvement Plan (CIP) for approval by the Board of Director's in July 2021.
- Continued to perform all departmental functions during the COVID-19 pandemic with most employees working from home with no interruptions or delays in service.
- Completed the FY 2020 annual financial audit performed by our external auditors and received an unqualified opinion and no significant audit comments.
- Received the GFOA "Distinguished Budget Presentation Award" for the FY 2021 AOP and CIP.
- Provided monthly financial reporting to contract water and wastewater treatment customers.

Completed migration from Version 10 to Version 11 of Infor's new Landmark platform for our financial enterprise software.

#### Objectives for 2022

- Apply for and receive the GFOA awards for "Excellence in Financial Reporting" and "Distinguished Budget Presentation".
- Continue to develop and implement financial and administrative procedures that establish consistent guidelines and methods for managing the purchase of goods, supplies and services.
- Continued review of good faith effort to include Highly Underutilized Businesses (HUB's) in contracting opportunities.
- Continue to leverage the features of the new Infor Version 11 software to provide enhanced, timely and accurate financial information to BRA staff and customers.
- Complete the migration of the accounts receivable billing software to TruePoint.



### Finance and Administration Expense Comparison

# FINANCE AND ADMINISTRATION

Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Projected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Employee Development Central Office Common Capital Outlay	\$ 1,097,721 454,407 24,550 3,223 136,722 906 417 7,233 46,522	\$ 1,190,342 512,699 22,602 3,264 193,499 1,125 3,784 62,705 68,617	\$ 1,078,809 434,449 12,724 3,435 127,335 - 400 16,925 56,756 -	\$ 1,217,311 541,574 29,902 3,720 192,665 1,125 3,784 62,705 61,517
TOTAL	\$ 1,771,701	\$ 2,058,637	\$ 1,730,833	\$ 2,114,303

# INFORMATION TECHNOLOGY SERVICES

### Description

Information Technology Services provides technical support and services to the Brazos River Authority (BRA) to assist in reaching the business goals and objectives through the appropriate and timely use of technology. The group organization includes:

Network/Systems Administration maintains server/desktop hardware and software; provides connectivity to the BRA's computing environment; ensures local and wide area network security; and maintains and provides support for the centralized software programs, LabVantage (Lab Information Management), and (Computerized MicroMain Maintenance Management).

<u>Geographic Information System</u> (GIS) creates maps, coordinates and manages the collection of spatial data throughout the BRA, and creates interactive mapping applications.

<u>Programming/Web Development</u> creates and maintains custom software applications and develops, maintains and coordinates Internet and Intranet site content.

<u>Software Administration</u> optimizes, maintains, and supports purchased software packages.

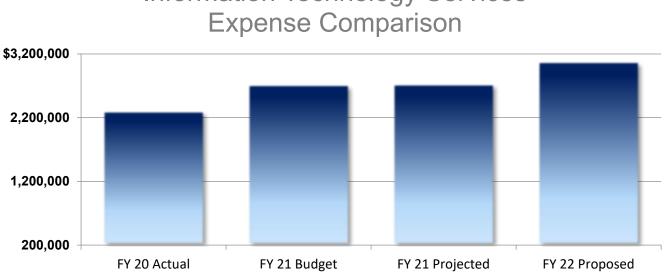
### Accomplishments for 2021

Network and Systems Administration: Hardware refresh of BRA owned security camera systems. Replacement of Wireless network controllers. Upgraded Wireless AP's central office to Wi-Fi 6. Replacement of storage network switches for servers. Completed fiber network upgrades at EWC and PK. Limestone fiber optic project. Upgraded circuit speeds at Lake Granbury and Central Office. Hardware refresh of Server hardware for Veeam Backup software. Surplus all old hardware in storage. Procure and install new Teams telephones throughout Authority. Completed Several Windows server upgrades.

- Programming/Web Development: Continued to develop, deliver, and implement requested business solutions. Updated technologies used for development and database management. Brazos.org website updates. Developed new collaboration website for the Lower Brazos Regional Flood Planning group.
- Software Administration: Implemented new meeting software, Convene. Continued working to finish financial software upgrade. Migrated more current SharePoint sites to Online. Maintained other purchased application packages.

### Objectives for 2022

- Network and Systems Administration: Complete Limestone Fiber optic project. Replace cisco routers possibly implement SD Wan solution. Complete revamp of Audio-Visual System throughout the Central Office. Continue Windows Server upgrades.
- Programming/Web Development: Continue working with other departments to seek out processes that can benefit from more streamlined and efficient solutions. Continue updating development technologies. Research security best practices when developing new custom solutions.
- Software Administration: Complete Financial Software upgrade. Complete migration to SharePoint Online. Work with finance staff to implement Billing software solution. Evaluate power platform tools for developing new custom business solutions. Continue updating and maintaining purchased applications.



# Information Technology Services

# **INFORMATION TECHNOLOGY SERVICES**

Budget	FY 2020 Actual	FY2021 Budget	FY 2021 Projected	FY 2022 Proposed
Salaries Benefits Materials & Supplies Utilities Outside Services Repair & Maintenance Travel Rent Employee Development Central Office Common Capital Outlay	\$ 940,439 323,121 50,398 126,542 24,842 762,967 2,194 14,880 13,800 41,984 15,384	\$ 950,495 364,352 93,431 184,706 61,283 868,216 10,012 12,250 36,849 61,755 88,000	\$ 936,993 336,875 93,180 154,706 32,503 863,866 3,857 12,250 18,949 51,080 238,090	\$ $\begin{array}{r} 993,981\\ 405,080\\ 62,281\\ 304,734\\ 60,468\\ 1,095,016\\ 10,012\\ 12,250\\ 50,949\\ 51,905\\ 45,000 \end{array}$
TOTAL	\$ 2,316,551	\$ 2,731,349	\$ 2,742,349	\$ 3,091,676

# CENTRAL OFFICE COMMON

### Description

Central Office Common consists of materials, supplies, and building and equipment maintenance costs necessary to operate the Central Office facility in Waco. These expenses cannot be directly attributed to any particular Central Office department and are therefore distributed among the departments that occupy the Central Office, based on the number of employees in each department.

#### Accomplishments for 2021

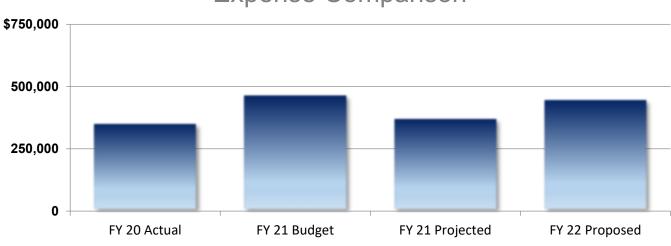
- Replaced Central Office Entrance Concrete walkway. This was due to existing sidewalk did not meet Texas Accessibility Standards (TAS), because of landings and cross-slopes out of regulation.
- Building and facility support contracts were monitored, renewed and administered to assure proper routine maintenance of building including cleaning services, fire alarm system, HVAC, generator and other vital services required to support the operation of the Central Office.
- Completed all necessary Central Office housekeeping. Monitored and ordered supplies and materials for upkeep of building services.
- Completed Exterior parking lot lighting conversion to LED fixtures. This change replaces energy inefficient metal halide lighting.
- Completed the Central Office parking lot sealing and restriping.

### Objectives for 2022

- Replace bathroom vanities and sinks throughout the Central Office.
- Continue to support current and future building maintenance contracts and building services.
- Continue administering the routine maintenance and building operations with current staff.

### Significant Changes/Comments

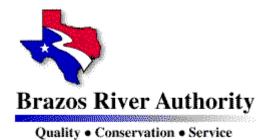
Due to the COVID-19 Pandemic, energy and utility usage to the Central Office was lower than normal.



### Central Office Common Expense Comparison

# CENTRAL OFFICE COMMON

Budget	FY 2020 Actual		FY2021 Budget	FY 2021 Projected	FY 2022 proposed
Benefits	\$ -	\$	-	\$ (3,353)	\$ -
Materials & Supplies	20,303		41,975	37,175	49,875
Utilities	126,683		177,250	139,050	177,250
Outside Services	36,283		<mark>33,</mark> 653	32,984	32,654
Repair & Maintenance	110,173		202,078	155,960	177,578
Travel	37	1	500	100	500
Rent	16,528	٦.	16,632	17,132	16,632
Miscellaneous Operating	-		N -	-	-
Central Office Common Allocation	(358,546)		(472,088)	(379,048)	(454,489)
Capital Outlay	48,538		-	-	-
TOTAL	\$ -	\$	-	\$ -	\$ -



This page left blank intentionally

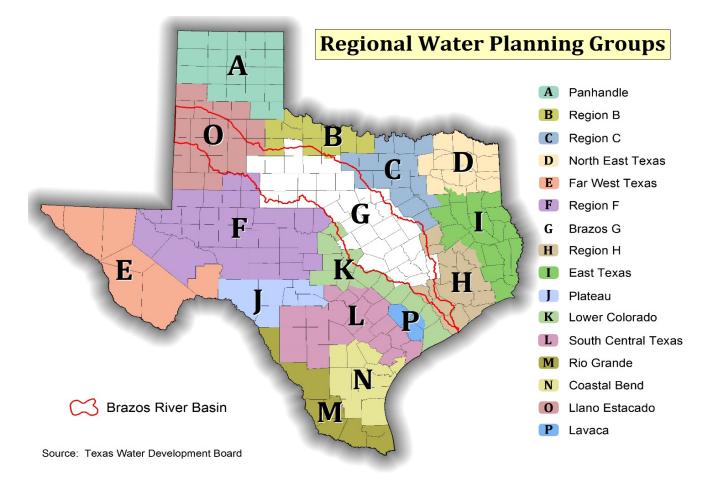
CAPITAL IMPROVEMENT PROJECTS



This page left blank intentionally

# **Capital Projects and Long Range Planning**

The State of Texas has adopted a 50 year horizon for water resource planning as prescribed in Senate Bill 1 which was passed in 1997. This legislation provides the framework for the State Water Plan, which is updated every five years. The State Water Plan seeks to provide options and solutions for the projected water needs of Texas by compiling input from the sixteen regional water planning groups within the state. The Brazos River basin falls within three of the planning regions; Region G, Region H and Region O.



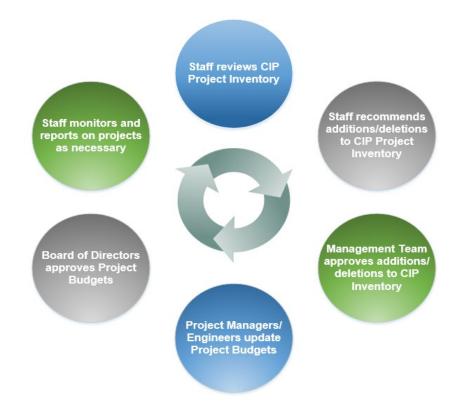
In order to complement the state's planning efforts, the Brazos River Authority (BRA) has also adopted a 50 year term for long range planning. The BRA's Long Range Plan includes recurring annual O&M expenses as well as specific project costs. The O&M expenses are based on the current O&M budget and are adjusted for each future year using category specific inflators, the effects of asset acquisition or divestiture, and forecasts and predictions about future events. A presentation of the Five-Year Forecast from the Long Range Plan is located on page 3-24. The projects included in the long range plan address not only the creation of new water sources to meet the growing demand in support of the State Water Plan, but also the maintenance of existing BRA infrastructure and the creation of new infrastructure.

### **Capital Improvement Plan**

The goal of the Capital Improvement Plan (CIP) is to maintain the Brazos River Authority's (BRA's) physical infrastructure at a level adequate to protect the BRA's capital investment, minimize future maintenance and replacement costs, and provide expansion to meet the long-term needs of the basin.

#### Capital Improvement Plan Budget Process

The process for Capital Improvement Plan budgeting is meant to be dynamic in order to respond to any changes in circumstances related to the projects while still maintaining adequate internal control.



#### **Project Budget Worksheets**

The information that is needed to compile the CIP Budget is captured in individual Project Budget Worksheets (PBW's). The Project Budget Worksheets are referred to collectively as the Project Inventory. The Project Managers are responsible for making sure that the information contained in the Project Budget Worksheet is accurate.

#### **CIP Budget Timeline**

- **December** A list of all projects and the corresponding Project Managers is distributed to staff for review. Any projects that need to be removed from the list or any changes to the assigned Project Manager should be reported to Finance & Administration. Staff is also given the opportunity to submit any new projects that need to be considered as additions to the Project Inventory.
- **January** Project Managers/Engineers are given the opportunity to update the Project Budget Worksheets for existing projects, including changes to budgets and timelines, and to submit Project Budget Worksheets for proposed new projects.
- **February** Finance & Administration reviews the Project Budget Worksheets and creates a summary report and presentation for the BRA Risk Management Committee.

- **March** Finance & Administration makes a presentation to the BRA Risk Management Committee on the proposed Capital Improvement Project budget which includes:
  - a) Estimated total expenditures for projects that are expected to be completed in the current fiscal year.
  - b) A list of any projects that were removed from the Project Inventory.
  - c) Projected actual expenditures versus budget for all projects with activity in the current fiscal year.
  - d) The proposed projects' budget for the upcoming fiscal year.
- **April/May** The proposed projects budget is incorporated into the Annual Operating Plan (AOP) and the Long Range Financial Plan.
- **July** The Annual Operating Plan is presented to the Board of Directors. The Board of Directors is asked to approve a resolution which includes setting the dollar amount of the Capital Improvement Project Budget for the upcoming fiscal year.

#### **Project Updates**

Once the AOP has been approved by the Board of Directors, the final versions of the PBW's are posted to a SharePoint site on BRA's intranet for reference during the fiscal year. Project Managers are encouraged to provide updates to the PBW's whenever significant changes occur to the project. All PBW's in the Project Inventory are updated during the annual budget process, as described above, to reflect the most current information about the project.

#### **Budget Approval/Amendments**

The Board of Directors approves the total Capital Improvement Plan expenditure for each fiscal year. From time to time unforeseen circumstances such as weather conditions, supply delays, or unanticipated complications may require the budget to be amended. Sometimes the amendments are needed to accommodate timing differences, while not affecting the overall project budget. Conditions may cause a project schedule to be accelerated or delayed, which means the anticipated cash flows for the project may not be in the fiscal year that they are needed. Other times, the amendments require the total project budget to be adjusted to reflect updated cost estimates. The cost estimates for a project may increase or decrease due to changes in the scope of the project or actual bid proposals coming in higher than anticipated in the original budget. If an amendment is needed to the project budget, it is presented to the Board of Directors for approval at one of their quarterly meetings.

#### **Reporting**

The quarterly budget report that is presented to the Board of Director's includes a section on Capital Projects. This section presents actual performance against the capital budget for the current year, as well as inception to date actual expenditures versus the total project budget. Any budget amendments that have been approved by the Board of Directors during the fiscal year are noted on the report. Once this report has been presented to the Board, it is then posted to the BRA website for general access.

The Finance & Administration department prepares a monthly summary report for all projects and posts on the BRA intranet for staff reference. Project Managers have the ability to access detail or summary financial reports for each project on an as needed basis through the BRA's enterprise financial software system. These reports can be filtered to look at specific time periods or categories within a project, or they can be expanded to look at multiple projects in a single report.

### **Project Classifications**

In order to summarize and analyze the information related to the many projects in the Brazos River Authority (BRA) project inventory, each project is given multiple classifications that allows it to be sorted into different groups as needed for presentation and analysis. The classifications focus on; the location of the project, the funding source for the project, and the type of project.

#### **Project Locations**

**<u>Primary Location</u>** indicates if a project is located; within one of the BRA regional basins, at the BRA Central Office facility in Waco, in a location that benefits the entire basin, or has no specific location.

<u>Secondary Location</u> indicates if a project is located at a specific site or overseen by a specific department. If neither condition applies, the Seconday Location is listed as "Other".

The Primary Location of a project is indicated by the first character set in the project name, the Secondary Location is indicated by the second character set. An index of these character sets is presented below:

1st Character Set	2nd Character Set
UB-Upper Basin	PK - Possum Kingdom
	LG - Lake Granbury
	OT - Other
CB - Central Basin	TB - Temple Belton
	DF - Doshier Farm
	HU - Hutto
	SC - Sandy Creek
	EW - East Williamson County RWS
	WCR - Williamson County Regional Pipeline
	WH - Lake Whitney
	AQ - Lake Aquilla
	BE - Lake Belton
	ST - Lake Stillhouse
	GR - Lake Granger
	OT - Other
LB - Lower Basin	LL - Lake Limestone
	AC - Allens Creek
	CL - Clute/Richwood
	LS - Lake Somerville
	SL - Sugar Land
	OT - Other
BW - Basin Wide	TS - Technical Services
	WS - Water Services
	ES - Environmental Services
	IT - Information Technology
	FA - Finance and Administration
	SP - Special Projects & Strategic Initiatives
	OT - Other
CO - Central Office	TS - Technical Services
	WS - Water Services
	ES - Environmental Services
	OSS - Office of Safety & Security
	IT - Information Technology
	FA - Finance and Administration
	SP - Special Projects & Strategic Initiatives
	OT - Other

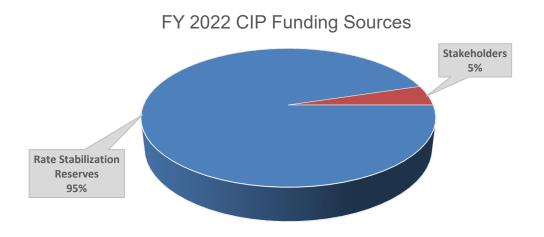
#### Project Types

All projects are also identified by type. A project type is assigned based on the goal of the project. Below is a current listing of project types, along with a short definition:

Infrastructure Maintenance	- Rehabilitation or upgrade of existing BRA infrastructure facilities.
New Infrastructure	<ul> <li>The acquisition or construction of new infrastructure that does not add to the available water resources in the basin.</li> </ul>
New Water	- Efforts that increases the amount of water resources available in the basin.
Studies/Assessments	- Activities which are undertaken to study, evaluate, or add to the knowledge base of a particular issue.
Technology	<ul> <li>Major upgrades or replacements to the BRA technology infrastructure.</li> </ul>
Water Quality	- Undertaking to assess, identify, quantify, or mitigate the effects of natural or man- made conditions that may pose a risk to water quality.
Water Distribution	- Efforts that increase the efficiency and quality of the water distribution services available to the basin customers.

### **CIP** Funding

The Brazos River Authority (BRA) seeks to fund projects in the most cost efficient manner possible. This includes using a variety of different funding sources, including external funding from grants and stakeholders when feasible and available. The BRA uses the Long Range Financial Planning model to determine the best mix of funding sources. The following graph shows that 95% of the BRA's CIP funding in FY 2022 will come from Rate Stabilization Reserves.



#### **BRA Funding Sources**

#### **BRA Current Revenues**

The BRA may use current revenues, including System Rate Water Sales, to fund some projects.

#### **BRA Rate Stabilization Reserves**

Rate Stabilization Reserves are reserves that are in excess of any required reserve amounts. For details, refer to the Five Year Financial Forecast on page **3-24**. This category of reserve is utilized to help pay for projects in lieu of issuing debt.

#### Bonds/Debt

When other means of project funding are unavailable or insufficient, the BRA will issue debt to finance projects. The debt may be either regular open market revenue bonds or, if available, state participation debt.

#### **External Funding Sources**

#### **Grants**

When feasible, the BRA will seek out grant funding to help defray the costs of the project.

#### Stakeholder Funding

BRA may seek to partner with other stakeholders who would benefit from the project to help provide funding.

#### FY 2022 CIP Budget Project Index Alphabetical by Project Name

Project Name	Project Type	Basin Location	Page #
Allens Creek Reservoir	New Water	Lower	13-36
Belhouse Drought Preparedness	New Infrastructure	Central	13-31
Environmental Services Building	New Infrastructure	Central Office	13-40
EWCRWS Expansion Phase II	New Infrastructure	Central	13-32
Lake Granbury Low Flow Facilities	Infrastructure Maintenance	Upper	13-22
Lake Granbury Reinforced Concrete Components	Infrastructure Maintenance	Upper	13-23
Lake Granbury Road Repair	Infrastructure Maintenance	Upper	13-24
Lake Granbury Trolley Replacement	Infrastructure Maintenance	Upper	13-25
Lake Granbury Two Slip Boathouse Replacement	Infrastructure Maintenance	Upper	13-26
Lake Limestone Hydrostatic Relief System Assessment and Replacement	Infrastructure Maintenance	Lower	13-37
Lake Limestone Park 5 Access Pier and Park Upgrade	New Infrastructure	Lower	13-38
Lake Limestone Tainter Gate Replacement and Improvements	Infrastructure Maintenance	Lower	13-39
Possum Kingdom Bay 9 Weir Box	Infrastructure Maintenance	Upper	13-27
Possum Kingdom Flow Control Gate Replacement	Infrastructure Maintenance	Upper	13-28
Possum Kingdom Southside Boathouse	New Infrastructure	Upper	13-29
Possum Kingdom Spillway Pump and Piping	Infrastructure Maintenance	Upper	13-30
Trinity Groundwater	New Water	Central	13-33
WCRRWL Copper Ion Generator	Water Distribution	Central	13-34
WCRRWL Phase 3 Pumps	Water Distribution	Central	13-35

#### FY 2022 CIP Budget Project Index By Basin Location

Project Name	Project Type	Basin Location	Page #
Lake Granbury Low Flow Facilities	Infrastructure Maintenance	Upper	13-22
Lake Granbury Reinforced Concrete Components	Infrastructure Maintenance	Upper	13-23
Lake Granbury Road Repair	Infrastructure Maintenance	Upper	13-24
Lake Granbury Trolley Replacement	Infrastructure Maintenance	Upper	13-25
Lake Granbury Two Slip Boathouse Replacement	Infrastructure Maintenance	Upper	13-26
Possum Kingdom Bay 9 Weir Box	Infrastructure Maintenance	Upper	13-27
Possum Kingdom Flow Control Gate Replacement	Infrastructure Maintenance	Upper	13-28
Possum Kingdom Southside Boathouse	New Infrastructure	Upper	13-29
Possum Kingdom Spillway Pump and Piping	Infrastructure Maintenance	Upper	13-30
Belhouse Drought Preparedness	New Infrastructure	Central	13-31
EWCRWS Expansion Phase II	New Infrastructure	Central	13-32
Trinity Groundwater	New Water	Central	13-33
WCRRWL Copper Ion Generator	Water Distribution	Central	13-34
WCRRWL Phase 3 Pumps	Water Distribution	Central	13-35
Allens Creek Reservoir	New Water	Lower	13-36
Lake Limestone Hydrostatic Relief System Assessment and Replacement	Infrastructure Maintenance	Lower	13-37
Lake Limestone Park 5 Access Pier and Park Upgrade	New Infrastructure	Lower	13-38
Lake Limestone Tainter Gate Replacement and Improvements	Infrastructure Maintenance	Lower	13-39
Environmental Services Building	New Infrastructure	Central Office	13-40

#### FY 2022 CIP Budget Project Index By Project Type

Project Name	Project Type	Basin Location	Page #
Lake Granbury Low Flow Facilities	Infrastructure Maintenance	Upper	13-22
Lake Granbury Reinforced Concrete Components	Infrastructure Maintenance	Upper	13-23
Lake Granbury Road Repair	Infrastructure Maintenance	Upper	13-24
Lake Granbury Trolley Replacement	Infrastructure Maintenance	Upper	13-25
Lake Granbury Two Slip Boathouse Replacement	Infrastructure Maintenance	Upper	13-26
Possum Kingdom Bay 9 Weir Box	Infrastructure Maintenance	Upper	13-27
Possum Kingdom Flow Control Gate Replacement	Infrastructure Maintenance	Upper	13-28
Possum Kingdom Spillway Pump and Piping	Infrastructure Maintenance	Upper	13-30
Lake Limestone Hydrostatic Relief System Assessment and Replacement	Infrastructure Maintenance	Lower	13-37
Lake Limestone Tainter Gate Replacement and Improvements	Infrastructure Maintenance	Lower	13-39
Possum Kingdom Southside Boathouse	New Infrastructure	Upper	13-29
Belhouse Drought Preparedness	New Infrastructure	Central	13-31
EWCRWS Expansion Phase II	New Infrastructure	Central	13-32
Lake Limestone Park 5 Access Pier and Park Upgrade	New Infrastructure	Lower	13-38
Environmental Services Building	New Infrastructure	Central Office	13-40
Trinity Groundwater	New Water	Central	13-33
Allens Creek Reservoir	New Water	Lower	13-36
WCRRWL Copper Ion Generator	Water Distribution	Central	13-34
WCRRWL Phase 3 Pumps	Water Distribution	Central	13-35



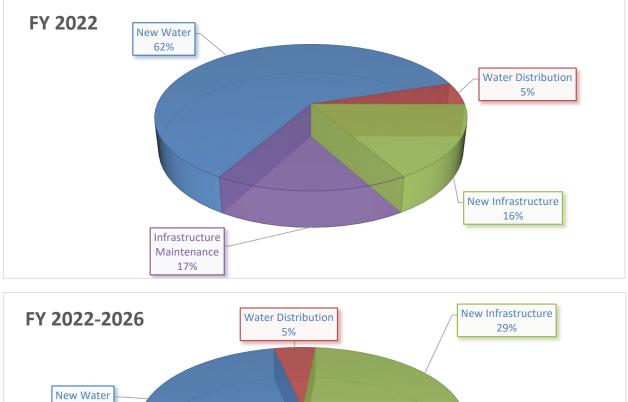
Quality • Conservation • Service

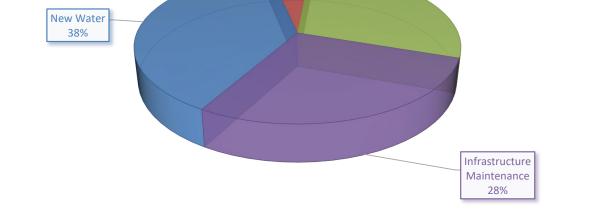
This page left blank intentionally

# **Projects by Type**

The chart and graphs below demonstrate that the main focus of the Brazos River Authority's (BRA) Capital Improvement Projects over the next five years will be the development of new water sources. This reflects the BRA's commitment to meeting the anticipated future needs of the basin. Considerable funding is also allocated to Infrastructure Maintenance. The BRA's three dams range in age from 42 to 79 years, and all three structures have a series of repair and rehabilitation projects planned over the next five years.

Туре	F	Y 2022	F	Y 2023		Y 2024 Nounts in		Y 2025	F	Y 2026
				Бийде	el all	nounts in	000	5		
New Water	\$	40,413	\$	20,075	\$	17,250	\$	10,900	\$	28,000
Water Distribution		3,242		1,314		5,000		5,000		502
New Infrastructure		10,776		7,846		20,689		29,489		18,465
Infrastructure Maintenance		11,002		17,810		17,593		22,636		16,800
Total	\$	65,433	\$	47,045	\$	60,532	\$	68,025	\$	63,767





# FY 2021 Capital Improvement Project Budgets vs. Estimated Actual

	FY 2021 An	inual Budget	(in 000's)	FY 2021 Est	imated Actua	al (in 000's)		
Project Name	Bonds/ Grants/ Stakeholder Funding	Reserves	Total Annual Budget	Bonds/ Grants/ Stakeholder Funding	Reserves	Total Estimated Actual	FY 2021 \$ Over/(Under) Budget	FY 2021 % Over/(Under) Budget
Upper Basin								
UB-LG-Low Flow Facilities	-	1,770	1,770	-	80	80	(1,690)	-95%
UB-LG-Reinforced Concrete Components	-	998	998	-	200	200	(798)	-80%
UB-LG-Road Repair	-	392	392	-	392	392	-	0%
UB-LG-Trolley Replacement	-	236	236	-	230	230	(6)	-3%
UB-LG-Two Slip Boathouse Replacement	-	350	350	-	150	150	(200)	-57%
UB-PK-Bay #9 Weir Box	-	604	604	-	5	5	(599)	-99%
UB-PK-Flow Control Gate Replacement	-	882	882	-	5	5	(877)	-99%
UB-PK-Southside Boathouse	-	319	319	-	5	5	(314)	-98%
UB-PK-Spillway Pump and Piping	-	608	608	-	65	65	(543)	-89%
Central Basin								
CB-BE-Belhouse Drought Preparedness	-	1,661	1,661	-	950	950	(711)	-43%
CB-EW-EWCRWS Expansion Phase 2	-	1,024	1,024	-	500	500	(524)	-51%
CB-OT-Trinity Groundwater	-	1,347	1,347	-	75	75	(1,272)	-94%
CB-WCR-WCRRWL Copper Ion Generator	2,114	-	2,114	261	-	261	(1,853)	-88%
CB-WCR-WCRRWL Phase 3 Pumps	550	-	550	100	-	100	(450)	-82%
Lower Basin								
LB-AC-Allens Creek Reservoir	-	39,736	39,736	-	100	100	(39,636)	-100%
LB-LL-Dam Hydrostatic Relief	-	779	779	-	150	150	(629)	-81%
LB-LL-Low Flow Facility Modifications & Improvements	-	239	239	-	-	-	(239)	-100%
LB-LL-Park 5 Access Pier and Park Upgrades	-	827	827	-	50	50	(777)	-94%
LB-LL-Dam Tainter Gate Replacement	-	3,298	3,298	-	805	805	(2,493)	-76%
Basin Wide/Central Office								
CO-ES-Environmental Services Building	-	3,314	3,314	-	50	50	(3,264)	-98%
Total	\$ 2,664	\$ 58,384	\$ 61,048	\$ 361	\$ 3,812	\$ 4,173	\$ (56,875)	-93%

Below is an alphabetical listing of all of the Capital Improvement Projects (CIP) currently in the Brazos River Authority's 50 Year CIP Inventory which are expected to have activity in FY 2022 and beyond, along with anticipated spending levels.

				Expe	ndit	ures (ii	n 00(	)'s)	
Title	Pric	or years	2	022 thru 2026	-	27 thru 2036		87 thru 2072	Total
BW-WS-COE Pool Rise Construction - Aquilla	\$	-	\$	-	\$	-	\$	26,442	\$ 26,442
CB-BE-Belhouse Drought Preparedness		2,358		52,400		-		3,550	58,308
CB-EW-EWCRWS Expansion Phase II		708		16,623		3,490		7,000	27,821
CB-GR-Lake Granger Intake Future Expansion		-		3,000		-		-	3,000
CB-OT-Lake Somerville Augmentation Construction		-		-		-		80,000	80,000
CB-OT-Trinity Groundwater		7,063		13,725		1,536		-	22,324
CB-WCR-WCRRWL Copper Ion Generator		261		1,906		-		-	2,167
CB-WCR-WCRRWL Phase 3 Pumps		100		13,152		-		1,500	14,752
CB-WH-Lake Whitney Reallocation Construction		-		-		90,000		-	90,000
CO-ES-Environmental Services Building		268		11,153		-		-	11,421
CO-TS-Parking Lot Pavement Assessment & Repair		98		1,500		-		-	1,598
LB-AC-Allens Creek Reservoir		8,289		102,913	3	331,000		-	442,202
LB-LL-Hydrostatic Relief System Assessment & Replacement		411		5,905		200		2,700	9,216
LB-LL-Low Flow Facility Modifications & Improvements		24		4,000		500		10,500	15,024
LB-LL-Park 5 Access Pier and Park Upgrades		70		750		-		1,600	2,420
LB-LL-Road Repairs & Improvements		-		12,500		-		-	12,500
LB-LL-Tainter Gate Replacement and Improvements		3,325		27,458		500		11,500	42,783
UB-LG-Upstream Embankment Construction		-		-		14,500		-	14,500
UB-LG-Inspection Walkway Lighting		68		1,628		-		-	1,696
UB-LG-Low Flow Facilities		3,261		2,513		-		-	5,774
UB-LG-Low Flow Facility Access Walkway		-		1,392		160		-	1,552
UB-LG-Reinforced Concrete Components		266		2,685		-		-	2,951
UB-LG-Rip Rap Repair		-		6,000		-		-	6,000
UB-LG-Road Repair		1,106		300		-		-	1,406
UB-LG-Tainter Gate Transmission System Modifications		-		4,000		25,000		-	29,000
UB-LG-Trolley Replacement		1,281		1,760		-		-	3,041
UB-LG-Two Slip Boathouse Replacement		150		285		-		-	435
UB-PK-Bay #9 Weir Box		55		835		-		-	890
UB-PK-COC Ring Jet Valve Replacement		-		1,250		2,250		-	3,500
UB-PK-Flow Control Gate Replacement		77		1,760		-		-	1,837
UB-PK-North Bank Reconstruction		-		11,750		-		-	11,750
UB-PK-Rebuild Morris Sheppard Dam		-		-		-	2,	000,000	2,000,000
UB-PK-Southside Boathouse		5		319		-		-	324
UB-PK-Spillway Pump and Piping		92		1,340		-		-	1,432
	\$	29,336	\$	304,802	\$ 4	469,136	\$2,	144,792	\$ 2,948,066

	Five-	Ye	ar Deta	Five-Year Detail ( in 000's)													
Project Name	Project Type		otal Project Budget 8/31/2020		Budget Funding Changes	То	tal Proposed Project Budget	Ex	ife-to-date penditures 3/31/2021		otal Project Budget Balance at 9/1/2021						
Upper Basin																	
UB-LG-Low Flow Facilities	Infrastructure Maintenance	\$	1,770	\$	4,004	\$	5,774	\$	3,261		2,513						
UB-LG-Reinforced Concrete Components	Infrastructure Maintenance		2,048		903		2,951		266		2,685						
UB-LG-Road Repair	Infrastructure Maintenance		392		1,014		1,406		1,106		300						
UB-LG-Trolley Replacement	Infrastructure Maintenance		2,041		1,000		3,041		1,281		1,760						
UB-LG-Two Slip Boathouse Replacement	Infrastructure Maintenance		350		85		435		150		285						
UB-PK-Bay #9 Weir Box	Infrastructure Maintenance		808		82		890		55		835						
UB-PK-Flow Control Gate Replacement	Infrastructure Maintenance		1,832		5		1,837		77		1,760						
UB-PK-Southside Boathouse	New Infrastructure		419		(95)		324		5		319						
UB-PK-Spillway Pump and Piping	New Infrastructure		888		544		1,432		92		1,340						
Central Basin	Subtotal	\$	10,548	\$	7,542	\$	18,090	\$	6,293	\$	11,797						
CB-BE-Belhouse Drought Preparedness	New Infrastructure	\$	51,611	\$	6,697	\$	58,308	\$	2,358	\$	55,950						
CB-EW-EWCRWS Expansion Phase II	New Infrastructure		15,634		12,187		27,821		708		27,113						
CB-OT-Trinity Groundwater	New Water		16,073		6,251		22,324		7,063		15,261						
CB-WCR-WCRRWL Copper Ion Generator	Water Distribution		2,164		3		2,167		261		1,906						
CB-WCR-WCRRWL Phase 3 Pumps	Water Distribution		12,202		2,550		14,752		100		14,652						
	Subtotal	\$	97,684	\$	27,688	\$	125,372	\$	10,490	\$	114,882						
Lower Basin																	
LB-AC-Allens Creek Reservoir	New Water	\$	433,736	\$	8,466	\$	442,202	\$	8,289	\$	433,913						
LB-LL- Hydrostatic Relief System	Infrastructure Maintenance		3,257		5,959		9,216		411		8,805						
LB-LL-Park 5 Access Pier and Park Upgrades	Infrastructure Maintenance		827		1,593		2,420		70		2,350						
LB-LL-Tainter Gate Replacement and Improvements	Infrastructure Maintenance		29,448		13,335		42,783		3,325		39,458						
	Subtotal	\$	467,268	\$	29,353	\$	496,621	\$	12,095	\$	484,526						
Basin Wide/Central Office																	
CO-ES-Environmental Services Building	New Infrastructure		18,635		(7,214)		11,421	\$	268		11,153						
	Subtotal		18,635	\$	(7,214)		11,421	\$	268	\$	11,153						
Total	Water Supply	\$	594,135	\$	57,369	\$	651,504	\$	29,146	\$	622,358						

# Capital Improvement Projects with Activity in FY 2022 Five-Year Detail ( in 000's)

# Capital Improvement Projects with Activity in FY 2022 Five-Year Detail (in 000's)

Project Name	Ρ	Proposed FY 22 Total		Proposed FY 23 Total	I	Proposed FY 24 Total	F	Proposed FY 25 Total	I	Proposed FY 26 Total		FY 27 & Beyond
Upper Basin												
UB-LG-Low Flow Facilities	\$	1,913	\$	600	\$	-	\$	-	\$	-	\$	-
UB-LG-Reinforced Concrete Components		560		475		550		550		550		-
UB-LG-Road Repair		300		-		-		-		-		-
UB-LG-Trolley Replacement		707		850		203		-		-		-
UB-LG-Two Slip Boathouse Replacement		285		-		-		-		-		-
UB-PK-Bay #9 Weir Box		435		400		-		-		-		-
UB-PK-Flow Control Gate Replacement		945		700		115		-		-		-
UB-PK-Southside Boathouse		300		19		-		-		-		-
UB-PK-Spillway Pump and Piping		450		600		290		-		-		-
Subtotal	\$	5,895	\$	3,644	\$	1,158	\$	550	\$	550	\$	-
Central Basin	¢	000	¢	4 500	¢	45 500	¢	20,000	¢	44 500	¢	2.550
CB-BE-Belhouse Drought Preparedness	\$	900	\$	1,500	\$	15,500	\$	20,000	ф	14,500	\$	3,550
CB-EW-EWCRWS Expansion Phase II		2,500		1,500		4,575		4,875		3,173		10,490
CB-OT-Trinity Groundwater		500		75		3,250		4,900		5,000		1,536
CB-WCR-WCRRWL Copper Ion Generator		1,592		314		-		-		-		-
CB-WCR-WCRRWL Phase 3 Pumps		1,650		1,000		5,000		5,000		502		1,500
Subtotal Lower Basin	\$	7,142	\$	4,389	\$	28,325	\$	34,775	\$	23,175	\$	17,076
LB-AC-Allens Creek Reservoir	\$	39,913	\$	20,000	\$	14,000	\$	6,000	\$	23,000	\$	331,000
LB-LL- Hydrostatic Relief System		755		575		575		2,500		1,500		2,900
LB-LL-Park 5 Access Pier and Park Upgrades		750		-		-		-		-		1,600
LB-LL-Tainter Gate Replacement and Improvements		4,652		10,860		10,860		1,086	_	-		12,000
Subtotal	\$	46,070	\$	31,435	\$	25,435	\$	9,586	\$	24,500	\$	347,500
Basin Wide/Central Office												
CO-ES-Environmental Services Building		6,326		4,827	_	-	<u>_</u>	-	÷	-	_	-
Subtotal		6,326	\$	4,827	\$	-	\$	-	\$	-	\$	-
Total Water Supply	\$	65,433	\$	44,295	\$	54,918	\$	44,911	\$	48,225	\$	364,576



Quality • Conservation • Service

This page left blank intentionally

### Impact on Future Operating Budgets

As part of the long term financial planning process of the Brazos River Authority (BRA), the annual financial impacts on the operating budget that are created with the completion or acquisition of each new project are taken into consideration. The evaluation process for each project includes capturing information about expanded facility capacity, additional revenues that may be generated, additional operating costs and staffing levels, additional debt service payments, or operational savings/efficiencies.

The table below represents a summary of the operational impacts of the projects on the BRA's five-year financial forecast. Details of these revenue/expenses can be found on the individual project description sheets. Operating impacts on the current year, FY 2021, are already included in the Annual Operating Plan (AOP).

Almost one third of the projects included in the current Capital Improvement Project Inventory with expenditures planned during the next five years are related to Infrastructure Maintenance (refer to the graphs on page 13-13). Most of these Infrastructure Maintenance projects focus on repairing existing hard structures (roads, concrete and steel dam structures) and have little to no impact on future operating budgets.

		F	Y 2023	FY 2024	FY 2025	F	Y 2026
<u>Revenues</u>							
None identified			-	-	-		-
	Total Revenues	\$	-	\$-	\$ -	\$	-
<b>Operating Expenses</b>							
CB-OT-Trinity Groundwater	Routine O&M costs related to operation of new wells		90,000	93,000	97,000		-
CO-ES-Environmental Services Building	Routine O&M costs related to occupancy of the new building		_	30,000	30,000		30,000
	Total Expenses	\$	90,000	\$ 123,000	\$ 127,000	\$	30,000
Net Fi	nancial Demand	\$	90,000	\$ 123,000	\$ 127,000	\$	30,000



This page left blank intentionally

FY 2022 CAPITAL IMPROVEMENT PROJECTS DETAIL SHEETS

# **UB-LG-Low Flow Facilities**

**Description:** The Low Flow Outlet Works project at De Cordova Bend Dam involves replacement of various low flow outlet work sluice gates and ancillary components to better meet operational requirements. This project includes the following: installation of a new hydraulic gate operator system for each gate in the north and south bays/wells of the Low Flow Outlet Works, installation of 2 new stainless-steel slide gates, and coating repairs to the carbon steel gate components for gates 1 – 6.

#### Primary Location: Upper Basin Secondary Location: Lake Granbury Project Type: Infrastructure Maintenance

#### Outside Funding Source: n/a BRA Funding Source: Reserves Strategic Plan Reference: II - b Capital or Operating: CIP

Financial Plan (in	thousands	s of dollars	5):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	3,181	1,770	80	1,913	600	-	-	-	-	5,774
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	3,181	1,770	80	1,913	600	-	-	-	-	5,774
Sources of BRA Fun	ding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	3,181	1,770	80	1,913	600	-	-	-	-	5,774
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (00	0):		Operating Impacts (	000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$ 13	\$ 38	Revenues	-	-	-	-	-
Construction	1,300	3,213	Expenses	-	-	-	-	-
Contingency	-	50						
Design/Engineering	600	2,220	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	-			4			
Legal	-	125		*	1			
Other	-	100						
Surveying	-	-		THE FAMILY	The second of			
Testing/Environmental	-	28					States and states of the local division of the local division of the local division of the local division of the	

Project Schedule	
FY21	Design
FY22	Design and Construction
FY23	Complete Construction
Notes:	

Total \$

1,913

\$

5,77



# **UB-LG-Reinforced Concrete Components**

**Description:** During recurring inspections, BRA staff have continued to monitor the joints where Buttresses 1 and 44 adjoin the downstream embankment retaining walls. The first phase of the project will produce an assessment of the condition of the concrete components and the embankment loads behind them. The report will make recommendations on whether design and construction are warranted to rehabilitate these areas. The project budget includes design and construction phases if repairs are recommended. The concrete deterioration of these joints does not pose a dam safety issue.

Primary Location: Upper Basin Secondary Location: Lake Granbury Project Type: Infrastructure Maintenance

	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	66	998	200	560	475	550	550	550	-	2,951
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	66	998	200	560	475	550	550	550	-	2,951
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	66	998	200	560	475	-	-	-	-	1,301
Debt	-	-	-	-	-	550	550	550	-	1,650

<b>Estimated Project</b>	ct Costs (00					<b>Operating Impacts</b>					
			FY	Ρ	roject		FY	FY	FY	FY	FY
			22		Total		22	23	24	25	26
BR	A Staff Time	\$	-	\$	35	Revenues	-	-	-	-	-
	Construction		-		1,216	Expenses	-	-	-	-	-
	Contingency		-		100						
Design	/Engineering		560		1,500	Explanation:					
	Equipment		-		-						
Infrastructure	e Acquisition		-		-						
Land Easemen	t/Acquisition		-		-						
	Legal		-		-						
	Other		-		100						
	Surveying		-		-	200 - 1 -					
Testing/Er	nvironmental		-		-						
	Total	\$	560	\$	2,951						
							A BIRDE		ALLER		
Project Schedule	2:						S. S. Car	SHAR	Star St	At 20	1
FY21	Finalize con	tract	/begin a	sses	sment		- ales		Contraction of the		and and
										22.10	
FY21/22	Complete as	ssess	sment/b	egin	design	A CONTRACT	1	and a second			all and
E) (00 /0 /			n : 10						200		
FY23/24	Complete de construction		gea\bia\	jin					AND	YK	
	Construction							and the second	P-4	Sec.	W See
							C. H	ALC: Y	Rither	ANT	
Notes:								1 20		AN-	Sale and
							The lot h	A series	822	- R	15 m
							R. P. Color	A 22 10	P-T V	the second	~
1						Pictured ab	ove: North,	downstream e	embankment i	etaining wall	

## **UB-LG-Road Repair**

**Description:** The roadway pavement on the north and south embankments of DeCordova Bend Dam, as well as at the Lake Granbury maintenance facilities and parks, have deteriorated and a new surface needs to be applied to prevent base failures from occurring. The first phase of the project would repair the roads in the public use areas (parks). The second phase would repair the roads within the restricted area and would commence once the large construction projects on the dam are completed.

Primary Location: Upper Basin Secondary Location: Lake Granbury Project Type: Infrastructure Maintenance Outside Funding Source: n/a BRA Funding Source: Reserves Strategic Plan Reference: II - b Capital or Operating: CIP

					<u> </u>	apital or C	peruting.			
Financial Plan (in	thousands	of dollars	5):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
	Actual	Suager	Actual							
Total Expenditures	714	392	392	300	-	-	-	-	-	1,406
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	714	392	392	300	-	-	-	-	-	1,406
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	714	392	392	300	-	-	-	-	-	1,406
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Project	t Costs (00	0):		Operating	g Impacts	(000):				
		FY	Project			FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
	A Staff Time		\$ 140		Revenues	-	-	-	-	-
	Construction	250	640		Expenses	-	-	-	-	-
	Contingency	50	313							
Design/	Engineering	-	68	Ex	planation:					
	Equipment	-	-							
		-	-							
Land Easement	-	-	-	Ser Ser Ser						No. St.
	Legal	-	200	i i all			"MAN	I A I I	Sale Lare	
	Other	-	15	THE	1 LTC					
Testing/Er	Surveying vironmental	-	- 30							the second second
resting/Er	Total	\$ 300	\$ 1,406			2				
			. ,		S. Store .	and the second	22			all and a second
Project Schedule:	:			A State of the						
FY19	Issue and construction	award F	RFB, begin			and the second				
FY20	Begin constr	uction		and the second second						
FY21	Continue cor	struction		10 Jan				-		
FY22	Complete co	nstruction						~		
Notes:				e China						
						and the second			The second second	

Pictured above: DeCordova Bend Park

# **UB-LG-Trolley Replacement**

**Description:** DeCordova Bend Dam utilizes two Hoist-Trolleys for positioning stoplogs used to dewater the spillway bays. Operating both hoist-trolleys for 40+ years has led to malfunctions and component failures. A previous study recommended the replacement of both hoist-trolleys with one multi-functional crane. The BRA is pursuing a multi-functional crane for stoplog operations. The existing hoist-trolley buildings will be removed to accommodate the new crane and allow for modifications to improve access to the top of the dam.

Primary Location: Upper Basin Secondary Location: Lake Granbury Project Type: Infrastructure Maintenance Outside Funding Source: n/a BRA Funding Source: Reserves Strategic Plan Reference: II - b Capital or Operating: CIP

	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	1,051	236	230	707	850	203	-	-	-	3,041
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	1,051	236	230	707	850	203	-	-	-	3,041
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	1,051	236	230	707	850	-	-	-	-	2,838
Debt	-	-	-	-	-	203	-	-	-	203

Estimated Project	Costs (00)	<b>۱</b> ۰			Operating Impacts	(000).				
Estimated Project		5 <u>7.</u> FY	P	roject	Operating impacts	(000). FY	FY	FY	FY	FY
		22		Total		22	23	24	25	26
BRA	Staff Time	\$-	\$	340	Revenues	-	-	-	-	-
	onstruction	-		1,719	Expenses	-	-	-	-	-
C	ontingency	-		-						
Design/E	Ingineering	632		899	Explanation:					
	Equipment	-		-						
Infrastructure	Acquisition	-		-						
Land Easement/	Acquisition	-		-						
	Legal	75		83						
	Other	-		-	100	-				
	Surveying	-		-	T					
Testing/Env		-		-				E - 1		
	Total	\$ 707	\$	3,041			AN .		1 Prove	
Project Schedule:										
	Arcadis close Peer Review		ett Fl	eming				5		
FY21/22 E	Engineer sele design/Media	ection/revie	w ex	isting						A
	Complete me Design-projec		ermi	ne New	1					
	Design/Engin									
Notes:									-	
					Pictured above	e: Existing N	lorth Hoist Tro	lley on DeCor	dova Bend Da	im

13 - 25

# **UB-LG-Two Slip Boathouse Replacement**

**Description:** The existing boathouse was installed in 1995 and is located in downtown Granbury, approximately 13 miles from the dam. It's central location makes it ideal for responding to calls for service in the central and upper reaches of the lake in a timely manner. This project is to replace the boathouse due to the deterioration in the metal substructure from the lake water.

#### Primary Location: Upper Basin Secondary Location: Lake Granbury Project Type: Infrastructure Maintenance

Land Easement/Acquisition

Testing/Environmental

**Project Schedule:** 

Notes:

Legal Other Surveying

Total \$

FY21 Design and construction

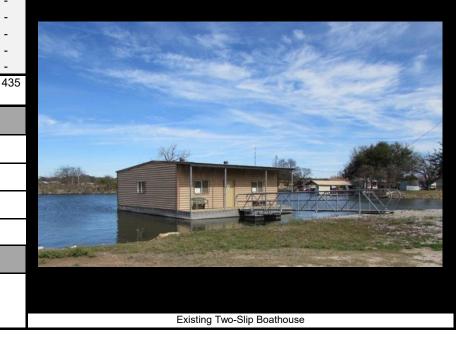
FY22 complete construction

\_

285

\$

		of dollars	,						1	
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	350	150	285	-	-	-	-	-	435
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	350	150	285	-	-	-	-	-	435
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	-	350	150	285	-	-	-	-	-	435
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Project										
ESUINALEU FLUIEU	t Caste (00(	<b>า</b> \.		Oporating	Impacts	(000).				
	t Costs (000	): FY		Operating	g Impacts		FY	FY	FY	FY
	t Costs (000	•	Project Total	Operating	g Impacts	(000): FY 22	FY 23	FY 24	FY 25	FY 26
	t Costs (000	FY 22	Project	Operating	Impacts Revenues	FY				
BRA		FY 22	Project Total	Operating		FY				26
BRA	A Staff Time	FY 22 \$ -	Project Total \$ 35	Operating	Revenues	FY				26
BRA (	A Staff Time Construction	FY 22 \$- 250	Project Total \$ 35 350		Revenues	FY				26
BRA (	A Staff Time Construction Contingency	FY 22 \$- 250	Project Total \$ 35 350 50		Revenues Expenses	FY				26



# **UB-PK-Bay #9 Weir Box**

Description: The Bay #9 Weir Box measures flow in the upstream cracked transition beam. The concrete box was built in 1989 and is corroded and needs to be replaced in order to perform accurate measurements of the flow. This project will be completed as part of the Possum Kingdom Miscellaneous Structural Improvements Project.

#### Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: Infrastructure Maintenance

Financial Plan (in	thousand	s of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	50	604	5	435	400	-	-	-	-	890
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	50	604	5	435	400	-	-	-	-	890
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	50	604	5	435	400	-	-	-	-	890
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (	000):		Operating Impacts					
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Tim	e\$7	\$ 40	Revenues	-	-	-	-	-
Constructio	n 235	525	Expenses	-	-	-	-	-
Contingence	;y -	75						
Design/Engineerin	g 173	225	Explanation:					
Equipme		-						
Infrastructure Acquisition		-						
Land Easement/Acquisition	n -	-						
Leg		-						
Othe		-						
Surveyir		-	And the second second					
Testing/Environment								
Tota	<b>al</b> \$435	\$ 890	12 million and the					
						A		
Project Schedule:			a second	S.C.M.	Carden -	aller M		a alter
FY21/22 Develop c	ontract						- Are	Contraction of the second
FY22 Design/Er	gineering		and the la	Site	tak.			
FY23 Construct	on			AT	R.			
			13 5 Calk Mar		THE			
Notes:				A.	20A	i.		
			Pic	ctured above	e: South wall of	Bay #9 weir	box	

# **UB-PK-Flow Control Gate Replacement**

**Description:** The roller gates have experienced maintenance issues in the past due to design flaws when Morris Sheppard Dam was originally constructed. The roller gates will be replaced with slide gates which is a more reliable gate design. In addition, the associated actuators, pedestals, and gate stems will be replaced, as well as all necessary electrical upgrades/renovations to facilitate the operation of the new actuators.

#### Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: Infrastructure Maintenance

	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	72	882	5	945	700	115	-	-	-	1,837
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	72	882	5	945	700	115	-	-	-	1,837
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	72	882	5	945	700	-	-	-	-	1,722
Debt	-	-	-	-	-	115	-	-	-	115

Estimated Project Costs (000	):		Operating Impacts (000):
	FY	Project	FY FY FY FY FY
	22	Total	22 23 24 25 26
BRA Staff Time	\$ 151	\$ 100	Revenues
Construction	316	1,170	Expenses
Contingency	20	30	
Design/Engineering	423	495	Explanation:
Equipment	-	-	
Infrastructure Acquisition	-	-	
Land Easement/Acquisition	-	-	
Legal	-	-	
Other	10	10	
Surveying	-	-	
Testing/Environmental <b>Total</b>	25 ¢ 045	\$ 1.927	
iotai	\$ 945	\$ 1,837	
Project Schedule:			
FY21 Start Design			
FY22 Complete De	sign		
FY23 Construction			
FY24 Construction			
Notes:			
			Pictured above: Existing Gate Actuator for Operating Pier at Morris Sheppard Dam.

# **UB-PK-Southside Boathouse**

**Description:** The south side of Possum Kingdom Lake continues to be the most populated area with most of the boating traffic. Lake Patrol currently has a two slip boat dock located on the north side of the lake. Positioning a three slip enclosed dock on the south side would allow: 1) a quicker and safer response to the south side of the lake, 2) less fuel used, 3) less wear on patrol boats and 4) ability for Reservoir System Maintenance Unit to house a boat on the water near the dam for transportation to and from the work barge.

Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: New Infrastructure

Financial Plan (in	thousand	ls of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	319	5	300	19	-	-	-	-	324
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	319	5	300	19	-	-	-	-	324
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	-	319	5	300	19	-	-	-	-	324
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (00	00):		Operating Impacts	(000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$ 35	\$ 40	Revenues	-	-	-	-	-
Construction	140	140	Expenses	-	-	-	-	-
Contingency	25	25						
Design/Engineering	100	119	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	-						
Legal	-	-		a state		-		
Other	-	-						2. 34
Surveying	-	-	and the second s				-	-
Testing/Environmental	-	-						
Total	\$ 300	\$ 324						and the second s
Project Schedule:							a 1460	
FY22 Design				U				
FY22/23 Finalize Construction	Design, 1	Bid and	Mail and Ministers					
			14					
								and the second s
Notes:				Ser.				
				Pictured ab	ove: Northside	e Boat House	9	

# **UB-PK-Spillway Pump and Piping**

**Description:** The Spillway Pump in the Power House was designed to provide hydraulic pressure to the nine spillway gates to allow for raising the gates at low lake levels. With decommissioning of hydroelectric generation, the pen stocks have been removed and there is no longer an available means to supply water to the spillway pump for operation. The inability to operate the spillway pump means we might be unable to reliably raise the gates when the lake level falls below elevation 994. This ability is necessary for us to perform gate maintenance and testing when the lake level is low.

Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: Infrastructure Maintenance

#### Outside Funding Source: n/a BRA Funding Source: Reserves Strategic Plan Reference: II-b Capital or Operations: CIP

Financial Plan (in	thousand Prior Years Actual	s of dollar: FY 21 Budget	s): FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	27	608	65	450	600	290	-	-	-	1,432
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	27	608	65	450	600	290	-	-	-	1,432
Sources of BRA Fur	nding:									
Current Revenues	-	-	-	-	-	-	-	-	-	-
Reserves	27	608	65	450	600	-	-	-	-	1,142
Debt	-	-	-	-	-	290	-	-	-	290

Estimated Project Costs (00	00):		<b>Operating Impacts</b>	(000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$9	\$ 48	Revenues	-	-	-	-	-
Construction	-	664	Expenses	-	-	-	-	-
Contingency	-	-						
Design/Engineering	441	695	Explanation:					
Equipment	-	25						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	-						
Legal	-	-			<b>)</b> =),=)			
Other	-	-	+ S					-
Surveying	-	-						
Testing/Environmental	-	-					THE R	
Total	\$ 450	\$ 1,432		ME				
Project Schedule:							A	T CC
FY18 Pump re-fur	bishment co	mpleted						
								A2
FY21 Preliminary e	evaluation							
FY22 Complete de	sian		-	a later				
1 122 Complete de	Sign			1	- 1 - 8			
FY23/24 Complete co	onstruction			11.0	No.00	3-71		
Notes:							63/04/	2015
				1	. 21			

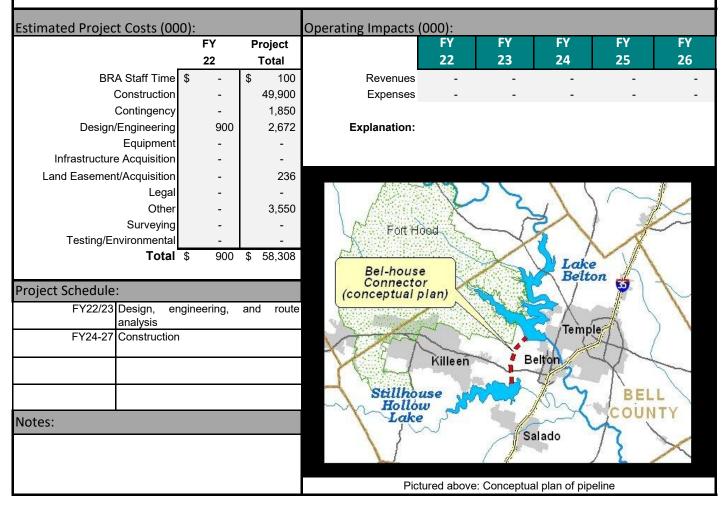
Pictured above: Spillway Pump removed, looking at pump motor

### **CB-BE-Belhouse Drought Preparedness**

Description: In 2005, the BRA authorized additional water supply contracts from Lakes Belton and Stillhouse Hollow to meet future demands. To meet these demands during dry times, a raw water transfer system is required to manage this portion of the water supply system to increase supplies to the region. The raw water transfer system will consist of multiple components, including an intake and pumpstation at Lake Belton, an outlet at Stillhouse Hollow Lake, and a transmission pipeline between the lakes. Development of the transfer system will occur in multiple phases to carefully address project risk and to ensure the project configuration can be implemented in a cost-effective manner. Phase 1 includes evaluation, feasibility, and preliminary design, along with significant jurisdictional and environmental agency coordination and public involvement. Future project phases will include environmental permitting, final design, contractor procurement, and construction phase services.

#### Primary Location: Central Basin Secondary Location: Lake Belton Project Type: New Infrastructure

Financial Plan (in	thousands	s of dollars	5):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	1,408	1,661	950	900	1,500	15,500	20,000	14,500	3,550	58,308
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	1,408	1,661	950	900	1,500	15,500	20,000	14,500	3,550	58,308
Sources of BRA Fui	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves Debt	1,408 -	1,661 -	950 -	900 -	1,500 -	- 15,500	- 20,000	- 14,500	3,550 -	8,308 50,000



# **CB-EW-EWCRWS Expansion Phase II**

Description: The East Williamson County Regional Water System (EWCRWS) was expanded to 12.8 mgd in 2009. The design and plans for future expansions of the EWCRWS will allow the BRA maximum flexibility for phasing future expansions. This flexibility will allow for the most optimum expansions of both the treatment facilities, raw water intake, and treated water delivery system. Phase II expansion is expected to be 7-10 mgd.

#### Primary Location: Central Basin Secondary Location: EWCRWS Project Type: New Infrastructure

Financial Blan (in thousands of dollars)

Financial Plan (In	thousand	s of dollars	5):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	208	1,024	500	2,500	1,500	4,575	4,875	3,173	10,490	27,821
Outside Funding	-	-	-	-	-	-		-	-	-
BRA Funding	208	1,024	500	2,500	1,500	4,575	4,875	3,173	10,490	27,821
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	208	1,024	500	2,500	1,500	-	-	-	-	4,708
Debt	-	-	-	-	-	4,575	4,875	3,173	10,490	23,113

Estimated Project Costs (00	00):		Operating Impacts	(000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$-	\$ 50	Revenues	-	-	-	-	-
Construction	-	12,397	Expenses	-	-	-	-	-
Contingency	-	-						
Design/Engineering	2,500	4,034	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	700						
Legal	-	-			A PROVIDE TRADE	T		<u> </u>
Other	-	10,490		Ser .				
Surveying		-	A State State	1				and the second division of the second divisio
Testing/Environmental	-	150			E.	and and and and	A second	
Total	\$ 2,500	\$ 27,821		PANE			- ne the	Note -
Project Schedule:			and the second					and Service
FY21 Begin study	phase			21/1				
FY22 End study design/engi	/ phase	and begin se.	1 al		and the second			
FY23 Design/engi	neering			1				
FY24-26 Construction	ו							
Notes:						C	1.5	
FY36, 51, 66 CIP plant expansion	ns - \$10.49N	l.				in cit		1
			Pictured above: Eas	t Williamso	n County Re	egional Wate	er System (E	WCRWS)

## **CB-OT-Trinity Groundwater**

**Description:** Rapid population growth and development in Williamson County requires additional water supplies. Conjunctive use of surface water and groundwater resources for the Brazos G water plan features the use of surface water supplies during normal and wet periods and groundwater sources during droughts. The Lake Granger Augmentation Plan calls for the expansion of EWCRWS, the construction of a new intake structure, and the conjunctive use of groundwater from the Trinity and Carrizo aquifers. This project is for the well construction for the Trinity aquifer source.

Primary Location: Central Basin Secondary Location: Other Project Type: New Water

Financial Plan (in	thousands	s of dollars	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	6,988	1,347	75	500	75	3,250	4,900	5,000	1,536	22,324
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	6,988	1,347	75	500	75	3,250	4,900	5,000	1,536	22,324
Sources of BRA Fun	ding:									
Current Revenues	-	-	-	-	-	-	-	-	-	-
Reserves	4,735	1,347	75	500	75	-	-	-	1,536	6,921
Debt	2,253	-	-	-	-	3,250	4,900	5,000	-	15,403

Estimated Drainat	Costs (000)				On a rating Immosta	(000).				
Estimated Project	. Costs (000)	FY	-	)voloot	Operating Impacts	(000): FY	FY	FY	FY	FY
		22	г	Project Total		22	23	24	25	26
		22	•			22	25	24	25	20
	Staff Time \$	-	\$	467	Revenues	-	-	-	-	-
-	Construction	-		17,360	Expenses	85	90	93	97	-
	Contingency	-		-						
Design/E	Engineering	-		2,020	Explanation:					
	Equipment	-		-						
Infrastructure	-	-		-						
Land Easement	-	500		1,958						
	Legal	-		-			<b>H</b>			
	Other	-		496						
	Surveying	-		8						
Testing/Env	vironmental	-		15						
	Total \$	500	\$	22,324						
							AF			
Project Schedule:							I AL		tot	
FY21 F	Property main	tenance	for	existing		TTE		A AA	1 /	~
	property and						- FRATE		ALL REAL PROPERTY AND	in all
-	purchase of ad								CONTRACTOR ON PAGE	
	Purchase of around EWC.	additior	nal	parcels						
	-				and the second second second	a washing a	a start and		- and a spectral in	the second second second
	Property main	tenance	for	existing	and the second second	Arra .		a contraction		
	parcels.				The state was a set		in the second	and the second second	S. S. T. Marsh	and the second second
	Possible cons							The second and	4 Born	
	wells if deemed		iry a	as part of	and the second	- Caller	Carlin -	- All		and the second
	the EWC expar				the set	and the second second	and and the se		The state	1.
Notes:					- A BAR AND A BAR AND A	A CHANGER	- martin and and and and and and and and and an	Con manager	The same is	2. 22 - 22
					Pictu	ired above: V	Vork on Trini	ty productio	n well	

### **CB-WCR-WCRRWL Copper Ion Generator**

**Description:** A study was done to determine options for controlling zebra mussels at the Stillhouse Hollow intake for the WCRRWL. The customers, City of Round Rock, City of Georgetown, and Brushy Creek MUD, chose to go forward with the purchase and installation of the copper ion generator.

#### Primary Location: Central Basin Secondary Location: WCRRWL Project Type: Water Distribution

#### Outside Funding Source: Stakeholder BRA Funding Source: n/a Strategic Plan Reference: Capital(CIP) or Operating(OP): CIP

				-			utilig(OI ).	•		
Financial Plan (in	thousand	s of dollar	s):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
	Actual		Actual							
Total Expenditures	-	2,114	261	1,592	314	-	-	-	-	2,167
Outside Funding	-	2,114	261	1,592	314	-	-	-	-	2,167
BRA Funding	-	-	-	-	-	-	-	-	-	-
Sources of BRA Fu	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Projec	t Costs (00	00):		Operating	g Impacts	(000):				
		FY	Project		,	FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
BRA	A Staff Time		\$ -		Revenues	-		-	-	-
	Construction		160		Expenses	-	-	-	-	-
(	Contingency	-	-							
Design/	Engineering	-	261	Ex	planation:					
	Equipment		-							
Infrastructure			1,719							
Land Easement			-				A			
	Legal		-	Ion	Water		-	1	14	
	Other		27							
Testing/En	Surveying vironmental		_				G			La La Maria
r ooting/En	Total		\$ 2,167			_		-		ca-
				Ioniza	ation		-		-	
Project Schedule	:			Flow			- U			
FY21	Design and	bid		Press	ure Gauge					ma .
FY22	Purchase a	nd constructi	on	Ion C	hamber		8		Nour Party Sector	
FY23	Complete co	onstruction a	nd start-up.					4		3.0
				Ion Ch	amber Coupling					
Netos				Wate	r		NU	G		14
Notes:							1			
Budget and timeline Walker Partners.	based on th	he schedule	provided by	Drain						
							BALL -		- 10 C	

Pictured above: Copper Ion Generator

# **CB-WCR-WCRRWL** Phase 3 Pumps

Description: The original construction of the WCRRWL intake structure anticipated the need to add additional pumps in the future to fully utilize the capacity of the pipeline. Projected water demands in the 2020-2025 timeframe indicate a need for increased pumping capacity. Two additional 2500 HP pumps will maximize the pump station capacity.

#### Primary Location: Central Basin Secondary Location: WCRRWL Project Type: Water Distribution

#### Outside Funding Source: Stakeholder BRA Funding Source: n/a Strategic Plan Reference I-e Capital or Operating: CIP

Financial Plan (in	thousand	ls of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	550	100	1,650	1,000	5,000	5,000	502	1,500	14,752
Outside Funding	-	550	100	1,650	1,000	5,000	5,000	502	1,500	14,752
BRA Funding	-	-	-	-	-	-	-	-	-	-
Sources of BRA Fu	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (00	00):		<b>Operating Impacts</b>	(000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$-	\$-	Revenues	-	-	-	-	-
Construction	-	10,050	Expenses	-	-	-	-	-
Contingency	500	500						
Design/Engineering	1,000	2,552	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	-	nd 1	1		de mail a se	1	
Legal	-	-	200				F	
Other	-	1,500	1000			-	4	
Surveying	-	-	10000	ST			1	
Testing/Environmental	150	150		1			-	
Total	\$ 1,650	\$ 14,752					1	
							~	
Project Schedule:			Se III					
FY21/22 Phase 3	pump d	esign and						
engineering	and	WCRRWL		Could be	1000		-	
condition as						1		
FY22-FY25 Phase 3 pu construction		rchase, and					174	
FY45-FY65 Future ma replacement		cations or			TET			
			- the	E.	1 and		1970	
Notes:			- 90	allic	P			
			Pic	tured abov	e: Existing W	CRRWL P	umps	

# **LB-AC-Allens Creek Reservoir**

Description: This reservoir will provide a new supply of water to the Lower Brazos basin. It will be a "scalping reservoir" in which water will be pumped from the Brazos River during normal and high flow periods for storage in the reservoir and for subsequent use downstream. The firm yield is estimated at 99,650 acre-feet/year. Environmental permitting, mitigation, and engineering design work must be completed prior to construction.

#### Primary Location: Lower Basin Secondary Location: Allens Creek Project Type: New Water

	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	8,189	39,736	100	39,913	20,000	14,000	6,000	23,000	331,000	442,202
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	8,189	39,736	100	39,913	20,000	14,000	6,000	23,000	331,000	442,202
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	2,189	39,736	100	39,913	4,000	2,800	1,200	4,600	-	54,802
Debt	6,000	-	-	-	16,000	11,200	4,800	18,400	331,000	387,400

Estimated Project Costs (00	00):		<b>Operating Impacts</b>	(000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$-	\$ 2,664	Revenues	-	-	-	-	-
Construction	-	235,000	Expenses	-	-	-	-	-
Contingency	-	50,000						
Design/Engineering	6,700	43,000	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	23,000	9,538						
Legal	-	-						
Other	4,707	63,000						
Surveying	-	-	GRIMES		JA Line		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Constant of
Testing/Environmental	5,506	39,000		ONTGOMERY		San F	elipe	1 Star
Total	\$ 39,913	\$ 442,202	WASHINGTON W		Se 90	aly	10	
Project Schedule: Phase I FY22-26 Environment			AUSTIN FIVE	14	iston		AUSTIN COUNTY	Waller county
preliminary e	engineering	design work	T T TOP	Sugar Land	Co Lo	SAIN	AL DE	
Phase II FY26-28 Final Permit	ting and Des	ign			- STAL			-1-
Phase III FY29-34 Construction	ı		Allens Greek	~ ( ) ~	12 ASI	ADO SIM		200
Notes: Used Stantec Jan 23, 2020			Reservoir Proposed Site	BRAZORIA	Aller Dam & R	posed as Creek eservoir Site	Wallis 60	B FORT BENB
Services FY22-26; also includes Houston in FY22, which assu				7	Miles 0 1 2	2 Minagery: NAIP 2012	~~~~~	COUNTY
Court decision on Houston leg								
litigation is still pending and uncertain.	the outco	me remains	Pictured abo	ove: Map of	proposed A	llens Creek	Reservoir Si	te
					r. 5p0000 //			

# LB-LL-Hydrostatic Relief System Assessment & Replacement

**Description:** The 2012 annual maintenance inspection of Sterling C. Robertson Dam noted that due to the age (est. 40+ years) and material of the piping for the hydrostatic relief system located within the embankments and service spillway, it is recommended to conduct a video inspection to assess the condition of the piping. To that end, in order to ensure the functionality and/or condition for the entire hydrostatic relief system, the BRA will also pursue an evaluation of the hydrostatic relief system and instrumentation located within both the embankments and service spillway.

Primary Location: Lower Basin Secondary Location: Lake Limestone Project Type: Infrastructure Maintenance

Financial Plan (in	thousand	s of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	261	779	150	755	575	575	2,500	1,500	2,900	9,216
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	261	779	150	755	575	575	2,500	1,500	2,900	9,216
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	261	779	150	755	575	-	-	-	2,900	4,641
Debt	-	-	-	-	-	575	2,500	1,500	-	4,575

Estimated Project Cost	ts (000	)):		Operating Impacts (	000):				
		FY	Project		FY	FY	FY	FY	FY
		22	Total		22	23	24	25	26
BRA Staff	Time §	\$5	\$ 121	Revenues	-	-	-	-	-
Constru	uction	-	4,395	Expenses	-	-	-	-	-
Conting	gency	-	-						
Design/Engine	ering	750	1,800	Explanation:					
Equip	ment	-	-						
Infrastructure Acquis	sition	-	-						
Land Easement/Acquis	sition	-	-						
l	Legal	-	-						
(	Other	-	2,900						1
Surve	eying	-	-	and the second se	- Life and	The Section	Sale State	Contraction of the second	1
Testing/Environm	nental	-	-	March Colores		State I	-	- Color	TIL
Т	fotal 🕄	\$ 755	\$ 9,216			MA VAL		and the second	
Project Schedule:				A CONTRACTOR				R	TT.
FY22 Study	Phase								11-
FY23/24 Design	n/Engine	eering				-		E	
FY25/26 Constr	ruction						É,		Part and a second
							4		
Notes:						A	21		
				Pictured abo	ve: Stilling	g Basin at St	terling C. Ro	bertson Darr	1

# LB-LL-Park 5 Access Pier and Park Upgrades

**Description:** A previous loading/access pier in Brazos River Authority Park 5 on Lake Limestone has been removed due to deterioration beyond repair. The new access pier will be in a new location, separating the boating activities from other recreational activities, and meeting the setbacks of our current regulations. Park upgrades will consist of new pavement in a parking area, re-coating of existing pavement, and an ADA compliant pathway between the parking lot and the new Access Pier. Also included will be the installation of additional power lines with dusk to dawn lighting.

Primary Location: Lower Basin Secondary Location: Lake Limestone Project Type: New Infrastructure

							poruting.	-		
Financial Plan (in	thousands	of dollars	5):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
	Actual	Duuget	Actual	22	25	24	25	20		
Total Expenditures		827	50	750	-	-	-	-	1,600	2,420
Outside Funding	-	-	-	-					1,000	- 2,420
BRA Funding	20	827	50	750	_	_	_	_	1,600	2,420
-		021	00	100					1,000	2,420
Sources of BRA Fur	nding:									
Current Revenues	-	-	-	-	-	-	-	-	-	-
Reserves	20	827	50	750	-	-	-	-	1,600	2,420
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Projec	t Costs (00	D):		Operating	Impacts	(000):				
		FY	Project			FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
BR	A Staff Time	\$-	\$ 23		Revenues	-	-	-	-	-
(	Construction	750	750		Expenses	-	-	-	-	-
(	Contingency	-	17							
Design/	/Engineering	-	30	Ex	planation:					
	Equipment	-	-							
Infrastructure	e Acquisition	-	-							
Land Easemen	t/Acquisition	-	-							
	Legal	-	-					2	Achieve	18 <b>1</b> 8
	Other	-	1,600						A BROAM	
	Surveying	-	-	100		71	BAR ING		1.1	Sec. 24
Testing/Er	nvironmental	-	-				( CAR			<b>新教授</b> 授
	Total	\$ 750	\$ 2,420		Persona	I Piers		1 Contraction	Section.	
Project Schedule:	:			10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10000000		ABIER A		al filters	15.0
FY21	Survey, desig	gn, permit a	nd bid.		Loading Pier		5 INT	Roads & Parking	188	C BART
								100	. //	- and
FY22	Complete co	nstruction		S. S. Log			rend	10	Portentiontro	win-s - 10
						Personal Pie	L		New Dealer of	A MARTINE P
								ADA Parment		a lange
								ADAPas		
					ADA Path	way/Access F	Pier	1		
Notes:						*	*	1- Carlos		
							*	Guude		-
					and a start of the			Church Bill	Contract of the second	Statement Street, Stre
							M		1.5	
					Р	ictured abov	e: Map of lo	cation of Pa	rк 5	

# **LB-LL-Tainter Gate Replacement and Improvements**

**Description:** Per an engineering investigation and cost analysis, it was recommended to replace the five (5) existing Tainter Gates, install a cathodic protection system, and install a coating on the new gates. In addition, during the design of the Tainter Gates, it was determined that the existing Tainter Gate power transmission systems require replacement. Also, the handrails on the dam will be replaced as well as concrete repairs will be implemented to the service spillway chute.

#### Primary Location: Lower Basin Secondary Location: Lake Limestone Project Type: Infrastructure Maintenance

#### Outside Funding Source: n/a BRA Funding Source: Reserves Strategic Plan Reference: II-b Capital or Operating: CIP

FY 26 -

Financial Plan (in	thousand	s of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	2,520	3,298	805	4,652	10,860	10,860	1,086	-	12,000	42,783
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	2,520	3,298	805	4,652	10,860	10,860	1,086	-	12,000	42,783
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	-	-	-	-	-	-	-
Reserves	2,520	3,298	805	4,652	10,860	-	-	-	12,000	30,837
Debt	-	-	-	-	-	10,860	1,086	-	-	11,946

stimated Project Costs (000	Operating Impacts (000):							
	FY	Project		FY	FY	FY	FY	
	22	Total		22	23	24	25	
BRA Staff Time \$	5 12	\$ 112	Revenues	-	-	-	-	
Construction	4,344	27,931	Expenses	-	-	-	-	
Contingency	-	-						
Design/Engineering	296	2,740	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	-						
Legal	-	-	2 martin					
Other	-	12,000	all a subserve	11	and the second	- Concernant	the same state of	
Surveying	-	-			And a second of the			
Testing/Environmental	-	-						
Total \$	4,652	\$ 42,783			ANG			
				14. 14			Ref. Dises and	
roject Schedule:			and the second second					
						1		
FY21 Complete desi	gn		A MAR AN VERSION		115			

	1121	
	FY22	RFB published/begin construction
		phase
	FY25	Complete construction/Project completion
Notes:		

Pictured above: Upstream side of one spillway Tainter Gate at Sterling C. Robertson Dam

# **CO-ES-Environmental Services Building**

**Description:** The existing Environmental Services laboratory, located within the Central Office building, has grown to a level that insufficient workspace is available for the department.. This project includes a needs assessment of all Central Office departments, as well as a feasibility study and initial design to determine the site, size, and estimated cost to build a new facility to house the Environmental Services Department. Project will also include design and construction.

#### Primary Location: Central Office Secondary Location: Environmental Services Project Type: New Infrastructure

#### Outside Funding Source: n/a BRA Funding Source: Reserves/Debt Strategic Plan Reference: III - a Capital or Operating: CIP

						apital of C	Operating:	CIP		
Financial Plan (in	thousand	s of dollar	s):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
	Actual	Ŭ	Actual							
otal Expenditures	218	3,314	50	6,326	4,827	-	-	-	-	11,421
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	218	3,314	50	6,326	4,827	-	-	-	-	11,421
Sources of BRA Fu	ndina:									
Current Revenues	-	-	-	-	-	-	-	-	-	-
Reserves	218	3,314	50	6,326	4,827	-	-	-	-	11,421
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Projec	t Costs (00	00):		Operating	g Impacts	(000):				
		FY	Project	<b>·</b>		FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
	A Staff Time		\$1		Revenues	-	-	-	-	-
	Construction	4,450	8,900		Expenses	-	-	30	30	30
	Contingency	445	890							
Design/I	Engineering	1,400	1,450	Ex	planation:	Estimated	O&M costs f	or the new b	building	
Infractructura	Equipment	-	50							
Infrastructure	-	-	-							
Land Easement	Legal	-	-					A Street of		and the second
	Other		- 100					A REAL PROPERTY AND		
	Surveying	5	5					LINE R		-
Testing/En	vironmental	25	25	B. S		8				
	Total	\$ 6,326	\$ 11,421				Contraction of the second			and the second
				The second second			12-			
Project Schedule	:					1	M		1	P
FY21	Post-Covid	reanalysis	of feasibility				M	A A	R	-
	study results		ith Board of						290	
	Directors									1
FY22	Begin Desig	n & Constru	ction		_	- Calles	1.16			2 4
FY23	Complete C	onstruction		6		17	2			
1120	Complete C					A			Colder Contract	V ABONG
				-	db	7				The A
				and the second	2					
Notes:										-
				. F	Second Second	1 Same				
					States and					
					Dictured at	oovo: Evicti	ng Central (	fies Enviro	nmontal Loh	

Pictured above: Existing Central Office Environmental Lab

Operating Projects



This page left blank intentionally

# **Operating Projects**

Operating Projects are similar to Capital Improvement Projects (CIP's) in that they do not recur on an annual basis and often take more than one fiscal year to complete. For this reason, they are not included in the departmental O&M budgets. Operating Projects are different from CIP's in that they do not usually result in the creation of a capital asset, but may provide significant maintenance or rehabilitation of an existing capital asset. They are considered part of the overall Operations & Maintenance Budget and are expensed in the fiscal year in which they occur. Operating Projects often include studies, surveys, and assessments, some of which may necessitate future Capital Improvement Projects.

### **Operating Project Budget Process**

The process for Operating Project budgeting is meant to be dynamic in order to respond to any changes in circumstances related to the projects while still maintaining adequate internal control. It follows the same process and timeline as the Capital Improvement Projects presented in Tab 13.

#### Project Budget Worksheets

The information that is needed to compile the Operating Project Budget is captured in individual Project Budget Worksheets (PBW's). The Project Budget Worksheets are referred to collectively as the Project Inventory. Operating Projects have Project Managers who are responsible for the accuracy of the information provided in the PBW's.

## **Operating Project Budget Timeline**

- **December** A list of all projects and the corresponding Project Managers is distributed to staff for review. Any projects that need to be removed from the list or any changes to the assigned Project Team should be reported to Finance & Administration. Staff is also given the opportunity to submit any new projects that need to be considered as additions to the Project Inventory.
- January Project Managers are given the opportunity to update the Project Budget Worksheets for existing projects, including changes to budgets and timelines, and to submit Project Budget Worksheets for proposed new projects.
- **February** Finance & Administration reviews the Project Budget Worksheets and creates a summary report and presentation for the BRA Risk Management Committee.
- **March** Finance & Administration makes a presentation to the BRA Risk Management Committe on the proposed Operating Project budget which includes:
  - a) Estimated total expenditures for projects that are expected to be completed in the current fiscal year.
  - b) A list of any projects that were removed from the Project Inventory.
  - c) Projected actual expenditures versus budget for all projects with activity in the current fiscal year.
  - d) The proposed Operating Projects budget for the upcoming fiscal year.
- April and May The proposed Operating Projects budget is incorporated into the Annual Operating Plan and the Long Range Financial Plan.
- July The Annual Operating Plan (AOP) is presented to the Board of Directors. The Board of Directors is asked to approve a resolution which includes setting the dollar amount of the Operations & Maintenance Budget, which includes the Operating Projects, for the upcoming fiscal year.

## **Operating Project Updates**

Once the AOP has been approved by the Board of Directors, the final versions of the PBW's are posted to a SharePoint site on BRA's intranet for reference during the fiscal year. Project Managers are encouraged to provide updates to the PBW's whenever significant changes occur to the project. All PBW's in the Project Inventory are updated during the annual budget process, as described above, to reflect the most current information about the project.

### **Budget Approval/Amendments**

The Board of Directors approves the total Operating Project budget as part of the total O&M expenditures for each fiscal year. From time to time unforeseen circumstances such as weather conditions, supply delays, or unanticipated complications may require the budget to be amended. Sometimes the amendments are needed to accommodate timing differences, while not affecting the overall project budget. Conditions may cause a project schedule to be accelerated or delayed, which means the anticipated cash flows for the project may not be in the fiscal year that they are needed. Other times the amendments require the total project budget to be adjusted to reflect updated cost estimates. The cost estimates for a project may increase or decrease due to changes in the scope of the project or actual bid proposals coming in higher than anticipated in the original budget. If an amendment is needed to an Operating Project budget, it is presented to the General Manager/CEO for approval.

### **Reporting**

The quarterly budget report that is presented to the Board of Director's includes a section on Capital Projects & Operating Projects. This section presents actual performance against the budget for the current year, as well as inception to date actual expenditures versus the total project budget. Any budget amendments that have been approved by the General Manager/CEO during the fiscal year are noted on the report. Once this report has been presented to the Board, it is then posted to the BRA website for general access.

Project Managers have the ability to access detail or summary financial reports for each project on an as-needed basis through the BRA's enterprise financial software system. These reports can be filtered to look at specific time periods or categories within a project, or they can be expanded to look at multiple projects in a single report. The Finance & Administration department continually seeks to provide meaningful reporting tools to the Project Managers and other staff involved in project delivery.

# **Project Classifications**

In order to summarize and analyze the information related to the many projects in the BRA project inventory, each project is given multiple classifications that allows it to be sorted into different groups as needed for presentation and analysis. The classifications focus on; the location of the project, the funding source for the project, and the type of project. The classification system used for Operating Projects is identical to the one used for Capital Improvement Projects.

#### **Program Locations**

**Primary Location** indicates if a project is located; within one of the BRA regional basins, at the BRA Central Office facility in Waco, in a location that benefits the entire basin, or has no specific location.

<u>Secondary Location</u> indicates if a project is located at a specific site or overseen by a specific department. If neither condition applies, the Secondary Location is listed as "Other".

The Primary Location of a project is indicated by the first character set in the project name, the Secondary Location is indicated by the second character set. An index of these character sets is presented below:

1st Character Set	2nd Character Set				
UB-Upper Basin	PK - Possum Kingdom				
	LG - Lake Granbury				
	OT - Other				
CB - Central Basin	TB - Temple Belton				
	DF - Doshier Farm				
	HU - Hutto				
	SC - Sandy Creek				
	EW - East Williamson County RWS				
	WCR - Williamson County Regional Pipeline				
	WH - Lake Whitney				
	AQ - Lake Aquilla				
	BE - Lake Belton				
	ST - Lake Stillhouse				
	GR - Lake Granger				
	OT - Other				
LB - Lower Basin	LL - Lake Limestone				
	AC - Allens Creek				
	CL - Clute/Richwood				
	LS - Lake Somerville				
	SL - Sugar Land				
	OT - Other				
BW - Basin Wide	TS - Technical Services				
	WS - Water Services				
	ES - Environmental Services				
	OSS - Office of Safety & Security				
	IT - Information Technology				
	FA - Finance and Administration				
	SP - Special Projects & Strategic Initiatives				
	OT - Other				
CO - Central Office	TS - Technical Services				
	WS - Water Services				
	ES - Environmental Services				
	OSS - Office of Safety & Security				
	IT - Information Technology				
	FA - Finance and Administration				
	SP - Special Projects & Strategic Initiatives				
	OT - Other				

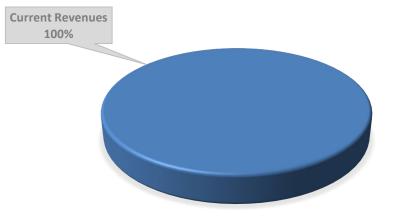
### Project Types

All projects are also identified by type. A project type is assigned based on the goal of the project. Below is a current listing of project types, along with a short definition:

Flood Control	-	Efforts to mitigate, to the extent possible, the negative effects of flooding in the basin
Infrastructure Maintenance	-	Rehabilitation or upgrade of existing BRA infrastructure facilities
Infrastructure Security	-	Additions or improvements to BRA infrastructure that enhance safety and security
New Infrastructure	-	The acquisition or construction of new infrastructure that does not add to the available water resources in the basin
New Water	-	Efforts that increases the amount of water resources available in the basin
Studies/Assessments	-	Activities which are undertaken to study, evaluate, or add to the knowledge base of a particular issue
Technology	-	Major upgrades or replacements to the BRA technology infrastructure
Water Quality	-	Undertaking to assess, identify, quantify, or mitigate the effects of natural or man- made conditions that may pose a risk to water quality

# **Operating Project Funding**

The Brazos River Authority (BRA) seeks to fund projects in the most cost efficient manner possible. This includes using a variety of different funding sources, including external funding from grants and stakeholders when feasible and available. The BRA uses the Long Range Financial Planning model to determine the best mix of funding sources. The following graph shows that 100% of the BRA's Operating Project funding in FY 2022 will come from Current Revenues.



# FY 2022 OPERATING PROJECT FUNDING SOURCES

### **BRA Funding Sources**

#### **BRA Current Revenues**

The BRA may use current revenues, including System Rate Water Sales, to fund some projects.

#### **BRA Rate Stabilization Reserves**

Rate Stabilization Reserves are reserves that are in excess of any required reserve amounts. For details, refer to the Five-Year Financial Forecast on page **3-24**. This category of reserve is utilized to help pay for projects in lieu of issuing debt.

#### Bonds/Debt

When other means of project funding are unavailable or insufficient, the BRA will issue debt to finance projects. The debt may be either regular open market revenue bonds or, if available, state participation debt.

### **External Funding Sources**

#### <u>Grants</u>

When feasible, the BRA will seek out grant funding to help defray the costs of the project.

#### Stakeholder Funding

BRA may seek to partner with other stakeholders who would benefit from the project to help provide funding.

# FY 22 Operating Budget Operating Projects Index Alphabetical by Project Name

Project Name	Project Type	Basin Location	Page #
Audiovisual Technology Integrations	Technology	Central Office	14-35
Brazos River Alluvium Study	Studies/Assessments	Basin Wide	14-31
Brazos Water Snake Study	Studies/Assessments	Basin Wide	14-26
Enterprise Financial Software	Technology	Central Office	14-34
EWC Intake Slope Stabilization	Infrastructure Maintenance	Central	14-24
Facility Safety and Systems Support	Studies/Assessments	Basin Wide	14-27
Integrated Water Resources Plan	Studies/Assessments	Basin Wide	14-32
Lake Granbury Workspace Needs Assessment	Studies/Assessments	Upper	14-20
Lake Limestone Fiber Optic Cable Upgrade	Information Technology	Lower	14-25
Possum Kingdom Concrete Assesment and Service Life Extension (CAASLE)	Infrastructure Maintenance	Upper	14-21
Possum Kingdom Powerhouse Infrastructure Stabilization	Infrastructure Maintenance	Upper	14-22
Possum Kingdom Recreational Development	Infrastructure Maintenance	Upper	14-23
Property Master Plan	Studies/Assessments	Basin Wide	14-29
Risk Based Capital Planning and Management Support	Studies/Assessments	Basin Wide	14-30
Security and Vulnerability Assesment Updates	Studies/Assessments	Basin Wide	14-28
USFWS Mussel Studies	Studies/Assessments	Central Office	14-33

## FY 22 Operating Budget Operating Projects Index By Basin Location

Project Name	Project Type	Basin Location	Page #
Lake Granbury Workspace Needs Assessment	Studies/Assessments	Upper	14-20
Possum Kingdom Concrete Assesment and Service Life Extension (CAASLE)	Infrastructure Maintenance	Upper	14-21
Possum Kingdom Powerhouse Infrastructure Stabilization	Infrastructure Maintenance	Upper	14-22
Possum Kingdom Recreational Development	Infrastructure Maintenance	Upper	14-23
EWC Intake Slope Stabilization	Infrastructure Maintenance	Central	14-24
Lake Limestone Fiber Optic Cable Upgrade	Information Technology	Lower	14-25
Brazos Water Snake Study	Studies/Assessments	Basin Wide	14-26
Facility Safety and Systems Support	Studies/Assessments	Basin Wide	14-27
Security and Vulnerability Assesment Updates	Studies/Assessments	Basin Wide	14-28
Property Master Plan	Studies/Assessments	Basin Wide	14-29
Risk Based Capital Planning and Management Support	Studies/Assessments	Basin Wide	14-30
Brazos River Alluvium Study	Studies/Assessments	Basin Wide	14-31
Integrated Water Resources Plan	Studies/Assessments	Basin Wide	14-32
USFWS Mussel Studies	Studies/Assessments	Central Office	14-33
Enterprise Financial Software	Technology	Central Office	14-34
Audiovisual Technology Integrations	Technology	Central Office	14-35

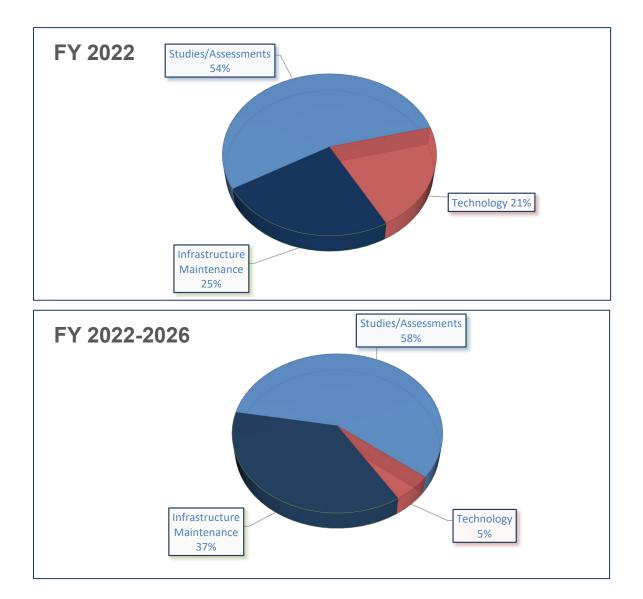
## FY 22 Operating Budget Operating Projects Index By Project Type

Project Name	Project Type	Basin Location	Page #
Lake Limestone Fiber Optic Cable Upgrade	Information Technology	Lower	14-25
EWC Intake Slope Stabilization	Infrastructure Maintenance	Central	14-24
Possum Kingdom Concrete Assesment and Service Life Extension (CAASLE)	Infrastructure Maintenance	Upper	14-21
Possum Kingdom Powerhouse Infrastructure Stabilization	Infrastructure Maintenance	Upper	14-22
Possum Kingdom Recreational Development	Infrastructure Maintenance	Upper	14-23
Brazos River Alluvium Study	Studies/Assessments	Basin Wide	14-31
Brazos Water Snake Study	Studies/Assessments	Basin Wide	14-26
Facility Safety and Systems Support	Studies/Assessments	Basin Wide	14-27
Integrated Water Resources Plan	Studies/Assessments	Basin Wide	14-32
Lake Granbury Workspace Needs Assessment	Studies/Assessments	Upper	14-20
Property Master Plan	Studies/Assessments	Basin Wide	14-29
Risk Based Capital Planning and Management Support	Studies/Assessments	Basin Wide	14-30
Security and Vulnerability Assesment Updates	Studies/Assessments	Basin Wide	14-28
USFWS Mussel Studies	Studies/Assessments	Central Office	14-33
Enterprise Financial Software	Technology	Central Office	14-34
Audiovisual Technology Integrations	Technology	Central Office	14-35

# **Operating Projects by Type**

The chart and graphs below show the breakout of the Brazos River Authority's Operating Projects by type over the next five years. The projects are spread out over five different categories, with a particular emphasis on Infrastructure Maintenance and Studies/Assessments.

Туре	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
1900		(Budge	t amounts in	000's)	
Studies/Assessments	3,173	4,022	2,295	3,085	2,313
Technology	1,216	200	-	-	-
Infrastructure Maintenance	1,446	2,559	2,750	2,005	700
Total	\$ 5,835	\$ 6,781	\$ 5,045	\$ 5,090	\$ 3,013



# FY 2021 Operating Projects Budgets vs. Estimated Actual

	FY 2021 Ann	ual Budget	(in 000's)	FY 2021 Esti	mated Actu			
Project Name	Bonds/ Grants/ Stakeholder Funding	Reserves	Total Annual Budget	Bonds/ Grants/ Stakeholder Funding	Reserves	Total Estimated Actual	FY 2021 \$ Over/(Under) Budget	FY 2021 % Over/(Under) Budget
BW-ES-Brazos Water Snake Study	\$-	\$ 225	\$ 225	\$ -	\$ 225	\$ 225	-	0%
BW-PD-Brazos River Alluvium Study	-	25	25	-	25	25	-	0%
BW-OSS-Security and Vulnerability Assessment Updates	-	360	360	-	360	360	-	0%
BW-OSS-Facility Safety and Systems Support	-	97	97	-	95	95	(2)	-2%
BW-TS- Risk Based Capital Planning and Management Support	-	450	450	-	125	125	(325)	-72%
BW-TS-Integrated Water Resources Plan	-	400	400	-	129	129	(271)	-68%
BW-TS-Property Master Plan	-	500	500	-	352	352	(148)	-30%
CB-EW-EWC WTP Intake Slope Stabilization		208	208	-	45	45	(163)	-78%
CO-ES-USFWS Mussel Studies	-	383	383	-	150	150	(233)	-61%
CO-FA-Enterprise Financial Software	-	150	150	-	105	105	(45)	-30%
CO-IT-Audiovisual Technology Integrations	-	500	500	-	-	-	(500)	-100%
UB-LG-Hunter Park Bulkhead Extension	-	350	350	-	350	350	-	0%
UB-PK-CAASLE (Concrete Assessment and Service Life Extension)	-	861	861	-	350	350	(511)	-59%
UB-PK-Operating Pier Trash Rack Replacement	-	161	161	-	10	10	(151)	-94%
Total	\$-	\$ 4,670	\$ 4,670	<u>\$-</u>	\$ 2,321	\$ 2,321	\$ (2,349)	-50%

## Total Costs - All Operating Projects (in thousands) 50 Year Forecast

Title	Prior years expenditures	2022 thru 2026	2027 thru 2036	2037 thru 2072	Total
BW-OSS-Facility Safety and Systems Support	\$ 95	\$ 763	\$ -	\$-	\$ 858
BW-OSS-Security and Vulnerability Assessment Updates	554	450	-	-	1,004
BW-ES-Brazos Water Snake Study	225	600	-	-	825
BW-PD-Brazos River Alluvium Study	67	175	-	-	242
BW-TS-Risk Based Capital Planning and Management Support	134	1,610	-	-	1,744
BW-TS-Integrated Water Resources Plan	129	2,158	-	-	2,287
BW-TS-Property Master Plan	352	940	-	-	1,292
CB-EW-EWC WTP Intake Slope Stabilization	45	445	-	-	490
CB-WH-Lake Whitney Reallocation Study	-	3,032	-	-	3,032
CO-ES-USFWS Mussel Studies	567	1,430	1,565	362	3,924
CO-FA-Enterprise Financial Software	426	300	-	-	726
CO-IT-Audiovisual Technology Integrations	-	500	-	-	500
LB-IT-Lake Limestone Fiber Optic Cable Upgrade	-	616	-	-	616
LB-LL-Concrete Assessment and Repairs	-	260	-	-	260
LB-LL-Upstream Embankment Assessment and Repairs	-	1,500	-	-	1,500
UB-LG-Hearth Stability Analysis	-	250	-	-	250
UB-LG-Lake Granbury Workspace Needs Assessment	-	250	-	-	250
UB-LG-South Dike Erosion Repair	-	225	-	200	425
UB-LG-Tainter Gate Evaluation	-	1,500	-	-	1,500
UB-LG-Targeted Concrete and Structural Condition Assessment	-	2,725	-	-	2,725
UB-PK-Bay 9 Transition Beam Leak Remediation	-	540	-	-	540
UB-PK-CAASLE	1,736	1,774	-	-	3,510
UB-PK-COC Recoating	-	250	-	-	250
UB-PK-Operating Pier Trash Rack Replacement	107	110	-	-	217
UB-PK-Powerhouse Infrastructure Stabilization	-	620	-	-	620
UB-PK-Recreational Development	1,482	1,124	523	-	3,129
UB-PK-Red Bluff Bridge Repair	-	400	-	-	400
UB-PK-Dam Elevator Upgrades	-	462	-	-	462
UB-PK-Seismic Analysis and Hydrographic Sedimentation Survey	-	355	-	-	355
UB-WS-PK Probable Maximum Flood Analysis	-	400	-	-	400
Totals	\$ 5,919	\$ 25,764	\$ 2,088	\$ 562	\$ 34,333

	Fiv	e-Ye	ear Deta	til	(in 000's	5)					
Project Name	Project Type		otal Project Budget 8/31/2021		Budget Funding Changes	Тс	otal Proposed Project Budget	Life-to-date Actual Expenditures 8/31/2021	5	Bu Bala	Project dget nce at 2021
pper Basin											
UB-LG-Lake Granbury Workspace Needs Assessment UB-PK-CAASLE (Concrete	Studies/ Assessments	\$	-	\$	250	\$	250	\$-		\$	250
Assessment and Service Life Extension)	Infrastructure Maintenance		2,184		1,326		3,510	1,73	6		1,774
UB-PK-Powerhouse Infrastructure Stabilization	Infrastructure Maintenance		-		620		620	-			62
UB-PK-Recreational Development	Infrastructure Maintenance		4,128		(999)		3,129	1,48	2		1,647
Subtotal		\$	6,312	\$	1,197	\$	7,509	\$ 3,21	8	\$	4,291
entral Basin											
CB-EW-EWC WTP Intake Slope	Infrastructure		208		282		490	4	5		44
Stabilization	Maintenance			<u>^</u>		<u> </u>			-	<u>^</u>	
Subtotal		\$	208	\$	282	\$	490	\$ 4	5	\$	44
ower Basin											
LB-IT-Lake Limestone Fiber Optic Cable Upgrade	Technology		-		616		616	-			61
Subtotal		\$	-	\$	616	\$	616	\$-		\$	61
asin Wide/Central Office											
BW-ES-Brazos Water Snake Study	Studies/ Assessments		225		600		825	22	5		60
BW-TS-Facility Safety and Systems Support	Studies/ Assessments		1,020		(162)		858	9	5		76
BW-TS- Security and Vulnerability Assessment Updates	Studies/ Assessments		650		354		1,004	55	4		45
BW-TS-Property Master	Studies/ Assessments		717		575		1,292	35	2		94
BW-TS- Risk Based Capital Planning and Management Support	Assessments		1,415		329		1,744	13	4		1,61
BW-WS-Brazos River Alluvium Study	Studies/ Assessments		25		217		242	6	7		17
BW-TS-Integrated Water Resources Plan	Studies/ Assessments		2,297		(10)		2,287	12	9		2,15
CO-ES-USFWS Mussel Studies	Studies/ Assessments		3,496		428		3,924	56	7		3,35
CO-FA-Enterprise Financial Software	Technology		150		576		726	42	6		30
CO-IT-Audiovisual Technology Integrations	Technology		-		500		500		-		50
Subtotal		\$	9,995	\$	3,407	\$	13,402	\$ 2,54	9	\$	10,85

# Operating Projects with Activity in FY 2022 Five-Year Detail (in 000's)

	Pr	oposed 2022 Total	I	Proposed 2023 Total	I	Proposed 2024 Total	I	Proposed 2025 Total	P	Proposed 2026 Total		FY 2027 Beyond
Jpper Basin												,
UB-LG-Lake Granbury Workspace Needs Assessment	\$	250	\$	-	\$	-	\$	-	\$	-	\$	-
UB-PK-CAASLE (Concrete Assessment and Service Life Extension)		774		500		500		-		-		-
UB-PK-Powerhouse Infrastructure Stabilization		5		230		385		-		-		-
UB-PK-Recreational Development		222		202		300		200		200		523
Subtotal	\$	1,251	\$	932	\$	1,185	\$	200	\$	200	\$	523
central Basin												
CB-EW-EWC WTP Intake Slope		445										
Stabilization		445		-		-		-		-		-
Subtotal	\$	445	\$	-	\$	-	\$	-	\$	-	\$	-
ower Basin												
LB-IT-Lake Limestone Fiber Optic Cable		616		_		_		_		_		_
Upgrade Subtotal	<u> </u>	616	\$	-	\$	-	\$	-	\$	-	\$	-
asin Wide/Central Office BW-ES-Brazos Water Snake Study		200		200		200		-		-		-
BW-TS-Facility Safety and Systems Support		263		250		250		-		-		-
BW-TS- Security and Vulnerability Assessment Updates		200		250		-		-		-		-
BW-TS-Property Master		640		300		-		-		-		-
BW-TS- Risk Based Capital Planning and Management Support		700		800		60		50		-		-
BW-WS-Brazos River Alluvium Study		75		50		50		-		-		-
BW-TS-Integrated Water Resources Plan		500		510		510		510		128		-
CO-ES-USFWS Mussel Studies		345		300		225		225		335		1,927
CO-FA-Enterprise Financial Software		100		200		-		-		-		-
CO-IT-Audiovisual Technology Integrations		500		-		-		-		-		-
Subtotal	\$	3,523	\$	2,860	\$	1,295	\$	785	\$	463	\$	1,927
Total Operating Projects	\$	5,835	\$	3,792	\$	2,480	\$	985	\$	663	\$	2,450
		- ,		-, -=		,	•				· ·	,



Quality • Conservation • Service

This page left blank intentionally

## Impact on Future Operating Budgets

As part of the long-term financial planning process of the Brazos River Authority (BRA), the annual financial impacts on the operating budget that are created with the completion or acquisition of each new project are taken into consideration. The evaluation process for each project includes capturing information about expanded facility capacity, additional revenues that may be generated, additional operating costs and staffing levels, additional debt service payments, or operational savings and efficiencies.

		F	Y 2023	F	Y 2024	F	Y 2025	F	Y 2026
<u>Revenues</u>									
None identified			-		-		-		-
	Total Revenues	\$	-	\$	-	\$	-	\$	-
<b>Operating Expenses</b>									
CO-FA-Enterprise Financial Software	Annual Maintenance Costs for new TruePoint Billing software		25,000		25,000		25,000		25,000
	Total Expenses	\$	25,000	\$	25,000	\$	25,000	\$	25,000
Net F	\$	25,000	\$	25,000	\$	25,000	\$	25,000	



Quality • Conservation • Service

This page left blank intentionally

# FY 2022 OPERATING PROJECTS DETAIL SHEETS

## **UB-LG-Lake Granbury Workspace Needs Assessment**

Description: In the past ten years, the staff at Lake Granbury has grown from 11 positions to 19. While some expansion work was completed in FY16, a more comprehensive review of current and future needs for staff, equipment and security is needed. The aging of the DeCordova Bend Dam requires a higher level of maintenance and more specialized equipment. The increase in population in the area has also required additional law enforcement staff and space. This project is to hire an architecture/engineering firm to assess how best to meet those needs.

Primary Location: Upper Basin Secondary Location: Lake Granbury Project Type: Studies/Assessments Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: III-a Capital(CIP) or Operating(OP): OP

Financial Plan (in	thousand	s of dollar	s):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years Actual	Budget	Projected Actual	22	23	24	25	26	Years	Total
Total Expenditures	-	-	-	250	-	-	-	-	-	250
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	-	-	250	-	-	-	-	-	250
Sources of BRA Fu	nding:									
Current Revenues Reserves	-	-	-	250	-	-	-	-	-	250
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Projec	t Costs (00	00):		Operating	, Impacts	(000):				
		FY	Project			FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
	A Staff Time Construction		\$-		Revenues	-	-	-	-	-
	Contingency		-		Expenses	-	-	-	-	-
	Engineering		250	Ex	planation:					
	Equipment		-							
			-							
Land Easement	t/Acquisition Legal		-							
	Other		-							
	Surveying		-							
Testing/En	vironmental		-							
	Total	\$ 250	\$ 250							
Project Schedule	:									
FY22	Issue RFF	, award	contract for						4	
	assessment	t, complete a	assessment.		Merenanika					
				2						and the second
								And the second second		
Notes:										

Pictured above: Lake Granbury facilities

## **UB-PK-CAASLE (Concrete Assessment and Service Life Extension)**

**Description:** The bulkhead and spillway sections of Morris Sheppard Dam consist of mass concrete elements, including foundations, buttresses, operating piers and deck panels. The high hazard dam community believes these mass concrete elements, when properly maintained, can be expected to serve 100 years and more. The dam has been in service for more than 70 years. In an effort to extend the service life of the concrete elements, the BRA seeks to develop a comprehensive concrete maintenance program that will complement the maintenance and repair programs now in place.

Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: Infrastructure Maintenance Outside Funding Source: n/a BRA Funding Source: Current Revenues/Reserves Strategic Plan Reference: II - b Capital or Operating: OP

Financial Plan (in										
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
otol Evnenditures	Actual	964	Actual	774	500	500				2.54
Fotal Expenditures Outside Funding	1,386	861	350	774	500	500	-	-	-	3,51
BRA Funding	- 1,386	- 861	- 350	- 774	- 500	- 500	-	-	-	- 3,51(
Sources of BRA Fun	dina:									
Current Revenues	683	861	350	774	500	500	-	-	-	2,80
Reserves	703	-	-	-	-	-	-	-	-	703
Debt	-	-	-	-	-	-	-	-	-	-
	c + (00	0)								
Estimated Project	Costs (UU	0): FY	Project	Operating	g Impacts (	(000): FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
BRA	Staff Time	\$ 49	\$ 410		Revenues	-	-	-	-	-
	Construction	-	-		Expenses	-	-	-	-	-
	Contingency	-	90							
Design/I	Engineering	675	2,280	E>	planation:					
	Equipment	-	-							
Infrastructure		-	-							
Land Easement	-	-	-							
	Legal Other	-	-					1993	1. 335	
	Surveying	_							6	
Testina/En	vironmental	50	730					and the	E.	
5	Total		\$ 3,510					1900	Sec.	
Project Schedule:							A	J	PO P	
-	Hire enginee	ring consult	ant		1 0	tr	AND I		12	
FY20/21	Engineering	study			-0	a de	3		613	
EV22	Engineering	design					NB		24	
		uccigii					B		1	
					100	10	R		1	
Notes:					Bay	1	1	1	9	
					Pictured a	bove: Concret	e spalling o	n downstream	n deck panel	

## **UB-PK-Powerhouse Infrastructure Stabilization**

**Description:** Due to the age of the Morris Sheppard Dam Powerhouse, numerous components and fixtures require upkeep to maintain a satisfactory material condition. Pipes and associated components are corroding and the integrity is questionable. This project will provide the necessary lead and/or asbestos testing which will be followed by recommendations and design for repairs.

#### Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: Infrastructure Maintenance

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: II-b Capital or Operating: OP

	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	-	-	5	230	385	-	-	-	620
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	-	-	5	230	385	-	-	-	620
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	-	-	-	5	230	385	-	-	-	620
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (0	00):				Operating Impacts (	(000):				
		FY	Pr	oject		FY	FY	FY	FY	FY
		22		otal		22	23	24	25	26
BRA Staff Time	\$	5	\$	25	Revenues	-	-	-	-	-
Construction		-		370	Expenses	-	-	-	-	-
Contingency	r	-		-						
Design/Engineering		-		195	Explanation:					
Equipmen	:	-		-						
Infrastructure Acquisition		-		-						
Land Easement/Acquisition		-		-						
Lega		-		-		( the second	14		200	1
Other		-		-		100			10	
Surveying		-		-		2109	1	Contraction of	The.	201
Testing/Environmenta		-		30	A WALL AND A	Santa Barris		1 12	-	19.14
Tota	\$	5	\$	620	and the second	de P		Pie I	and the second	(Press
Project Schedule:						and -	-		Com.	-
FY22 Perform tes	ting a	ind asse	essm	ent	and a second	N. BEL	20			/12/201
FY23 Perform de	sign/e	engineer	ing				-			
FY24 Constructio	n/rem	ediatior	1				-	借	E	
Notes:							12/12	-	02/	12/2019
					Pictured ab	ove: Pipes a	and compone	ents within the	powerhouse	

## **UB-PK-Recreational Development**

Description: There are currently 10 recreational areas, 7 boat ramps, and 16 miles of trails at Possum Kingdom Lake. The purpose of this project is to aid in the scheduling and upgrades of all future development, both maintenance upgrades and newly built projects, to ensure the recreational use of Possum Kingdom Lake is left enjoyable by all who visit for years to come.

#### Primary Location: Upper Basin Secondary Location: Possum Kingdom Project Type: Infrastructure Maintenance

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: II-b Capital or Operating: OP

Financial Plan (in	thousand	s of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	1,482	-	-	222	202	300	200	200	523	3,129
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	1,482	-	-	222	202	300	200	200	523	3,129
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	1,482	-	-	222	202	300	200	200	523	3,129
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (00	00):		Operating Impacts (000):
	FY	Project	FY FY FY FY FY
	22	Total	22 23 24 25 26
BRA Staff Time	\$ 137	\$ 1,450	Revenues
Construction	80	1,429	Expenses
Contingency	-	-	
Design/Engineering	5	-	Explanation:
Equipment	-	50	
Infrastructure Acquisition	-	-	
Land Easement/Acquisition	-	-	
Legal	-	100	
Other	-	100	
Surveying	-	-	Constant and a state of the sta
Testing/Environmental	-	-	
Total	\$ 222	\$ 3,129	
Project Schedule:			A TRIANGE
FY22 Sandy Bead wall, South I			
FY23 Sandy Beac Wall, Scenic			
FY24 Sandy Beac Wall	h / North D8	D Retaining	
Notes:			
Sandy Beach/North D&D retain completed if lake level drops to 99		an only be	
			Pictured above: North D&D Ramp & Shelters

## **CB-EW-EWC WTP Intake Slope Stabilization**

**Description:** The lake shoreline slope between the EWC raw water intake structure and Lake Granger has experienced erosion due to long periods of high water levels over the last few years. An engineered solution is needed to stabilize the slope and protect the intake structure from continued erosion.

#### Primary Location: Central Basin Secondary Location: EWCRWS Project Type: Infrastructure Maintenance

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: III-b Capital(CIP) or Operating(OP): OP

Financial Plan (in	thousands	s of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	208	45	445	-	-	-	-	-	490
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	208	45	445	-	-	-	-	-	490
Sources of BRA Fur	nding:									
Current Revenues	-	208	45	445	-	-	-	-	-	490
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Project	t Costs (00	00):		Operating	g Impacts	(000):				
		FY 22	Project Total			FY 22	FY 23	FY 24	FY 25	FY 26
	A Staff Time		\$-		Revenues	-	-	-	-	-
	Construction	420	420		Expenses	-	-	-	-	-
	Contingency	-	-							
Design/E	Engineering	-	45	Ex	planation:					
	Equipment	-	-							
Infrastructure		-	-	L						
Land Easement		-	-	- 6261 to	X O		N N	our		
	Legal	-	-		and the second second	Tool in	El			
	Other	-	-	S. Walk	1		8	158		
Teeting/En	Surveying	-	-	K			ation of the second			
Testing/⊨n		25 ¢ 445	25 \$ 400	States and the		S SAMP				
	Total	\$ 445	\$ 490			And States	m. =			
Project Schedule:	:					TYN C				
FY21	Complete de	sign and ad	dvertise RFB	Sam	Part -		Care h		1	lor
FY22	Begin and co	omplete con	struction		are in	a surther				
							the second	1	C	DB
Notes:								242 22	and a stand of the	the state
Cost assumptions b (MRC 2/24/21).	ased on rou	ugh estimat	es from JPI							
				Pictured ab	ove: Examp		eline erosior		ranger and th	e EWC rav

water intake structure.

## LB-IT-Lake Limestone Fiber Optic Cable Upgrade

**Description:** The data transfer rate at Lake Limestone is currently maxed out at 6Mbps utilizing 4 T1 lines over aged copper cabling. This project will replace 14 miles of existing copper lines with fiber optic cable, thus allowing us to increase our data transfer rate and operate more efficiently and reliably. We have sought to share the cost of construction with other entities, but have not been able to find interest due to the remoteness of the Lake Limestone office and lack of commerce in the area.

#### Primary Location: Lower Basin Secondary Location: Information Technology Project Type: Technology

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: IV-b Capital or Operating: OP

Financial Plan (in	thousand	s of dollars	5):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	-	-	616	-	-	-	-	-	616
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	-	-	616	-	-	-	-	-	616
Sources of BRA Fun	nding:									
<b>Current Revenues</b>	-	-	-	616	-	-	-	-	-	616
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (000	D):		Operating Impacts ((	000):				
,,	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$-	\$-	Revenues	-	-	-	-	-
Construction	616	616	Expenses	-	-	-	-	-
Contingency	-	-						
Design/Engineering	-	-	Explanation:					
Equipment	-	-						
Infrastructure Acquisition	-	-						
Land Easement/Acquisition	-	-						
Legal	-	-						
Other	-	-			1 Ale	. 10		ase in f
Surveying	-	-	111100	the second	All V			6///
Testing/Environmental	-	-			12. 11			
Total	\$ 616	\$ 616			1 / 21	2./ BX		1 +/
Project Schedule: FY22 Contract with	Windstream	n for project						
			Pic	ctured abo	ve: Fiber Op	tic Cable Sp	ool	

## **BW-ES-Brazos Water Snake Study**

Description: The Brazos water snake is found only in the Brazos basin and is identified by the Texas Parks and Wildlife Department as a threatened species. Little is known about the snake's population or distribution in the basin. With continuing water development needs in Texas and sparse knowledge of Brazos water snake population and needs, perceived impacts on the Brazos water snake may serve as a focal point for state and federal resource agencies into the future. Within the context of that concern, this study will attempt to fill these knowledge gaps regarding the snake.

#### Primary Location: Basin Wide Secondary Location: Environmental Services Project Type: Studies/Assessments

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: III-b Capital(CIP) or Operating(OP): OP

Financial Plan (in	thousand	ls of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	225	225	200	200	200	-	-	-	825
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	225	225	200	200	200	-	-	-	825
Sources of BRA Fu	nding:									
<b>Current Revenues</b>	-	225	225	200	200	200	-	-	-	825
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Projec	t Costs (0	00):		Operating	g Impacts	(000):				
		FY	Project			FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
BRA	A Staff Time	\$-	\$-		Revenues	-	-	-	-	-
	Construction		-		Expenses	-	-	-	-	-
	Contingency		-							
Design/	Engineering		-	Ex	planation:					
	Equipment		-							
Infrastructure			-							
Land Easement			-	and the	a state	" and	1242 3	the states	Really Roam	The factor
	Legal		-	The man	3100	12	in the	and the second	5-16 ·	- 1 ×
	Other		-	* 1000		2	and the	Later -	and the	and and a
- ·· /=	Surveying		-	3595			200	and the	and the second	and the second
l esting/En	vironmental		\$25 ¢ 825	the second	Y	and?		· jum		
	Total	\$ 200	\$ 825	7	X	The fait			10	ALS
Project Schedule	:				Ser.		and a second	Same	A CONTRACT	
	Begin distril	. Stakeholde bution survey nd habit stud	er Meetings. /s, and mark ies.							all a
	mark-recap	telemetry, ture studies	y/abundance habitat and			in free	1			2
FY23/24	Continue fie	eld data colle	ction.			-	a de			
Notes:									-	
						Pictured ab	ove: Brazo	s water snak	(e	

## **BW-OSS-Facility Safety and Systems Support**

**Description:** Develop consistent Standard Operating Procedures (SOP's) and facility specific plans for chemical handling, update facility specific Health and Safety Plans (HASP's), and provide on-going support for the Risk Management Plan (RMP).

#### Primary Location: Basin Wide Secondary Location: Safety & Security Project Type: Studies/Assessments

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: VI-g Capital or Operating: OP

Financial Plan (in	thousand	s of dollars	5):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	97	95	263	250	250	-	-	-	858
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	97	95	263	250	250	-	-	-	858
Sources of BRA Fun	ding:									
<b>Current Revenues</b>	-	97	95	263	250	250	-	-	-	858
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (000)	):		Operating Impacts (0	000):						
	FY	Project		FY	FY	FY	FY	FY		
	22	Total		22	23	24	25	26		
BRA Staff Time \$	; -	\$ 20	Revenues	-	-	-	-	-		
Construction	-	-	Expenses	-	-	-	-	-		
Contingency	-	-								
Design/Engineering	178	88	Explanation: P	Project sho	ould not crea	te additional	operating ex	kpenses, but		
Equipment	-	-			define best practices across BRA for cons operations.					
Infrastructure Acquisition	-	-	0							
Land Easement/Acquisition	-	-								
Legal	-	-		- A a		1 les		1121		
Other	85	750		Sec. 1			7.12			
Surveying	-	-		10.0			- mail *			
Testing/Environmental	-	-		115	* 12		Communication of the second	141		
Total \$	263	\$ 858			K. T.		CAR AN	6 N		
Project Schedule: FY20 Consultant sei general SOP/F FY21 Development, training for H BRA-owned ar FY22 Development, training for H BRA-owned ar FY23/24 Development, training for H BRA-owned ar FY23/24 Development, training for H BRA-owned ar Security & Vulnerability Assessment	ASP deve impleme ASPs and impleme ASPs and deased f impleme ASPs and deased f	elopment. entation, & d RMPs for facilities. entation, & d RMPs for facilities. entation, & d RMPs for facilities.								
			Pictured above: Chemi	ical tanks	at East Willi	amson Co. F	kegional Wat	er System		

14 - 27

## **BW-OSS- Security and Vulnerability Assessment Updates**

Description: Update and provide physical and cyber security vulnerability assessments for all Brazos River Authority assets.

#### Primary Location: Basin Wide Secondary Location: Safety & Security Project Type: Studies/Assessments

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: IV-b Capital or Operating: OP

Financial Plan (in	thousands	s of dollars	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	194	360	360	200	250	-	-	-	-	1,004
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	194	360	360	200	250	-	-	-	-	1,004
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	194	360	360	200	250	-	-	-	-	1,004
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Costs (000	):		Operating Impacts	(000):				
	FY	Project		FY	FY	FY	FY	FY
	22	Total		22	23	24	25	26
BRA Staff Time	\$ -	\$ 50	Revenues	-	-	-	-	-
Construction	-	-	Expenses	-	-	-	-	-
Contingency	-	-						
Design/Engineering	169	700		Study will	not create	an impact	on operating	revenue or
Equipment	-	200		•	•			oital projects
Infrastructure Acquisition	-	-		that would	need to be e	evaluated for	operating in	ipacis.
Land Easement/Acquisition	-	-						
Legal	-	-	R_					
Other	31	54						
Surveying	-	-		X			~ ~	
Testing/Environmental	-	-						
Total	\$ 200	\$ 1,004					1 10 10 10 10 10 10 10 10 10 10 10 10 10	
						STO	P	
Project Schedule:								
FY20 Conduct cyb					Balant o			
initial review o								
FY21 Conduct vulr and implement					and and		K	and and and
FY22 Conduct vulr					Contraction of the		- Brand	
and implement	t recomme	ndations						and the second second
Notes:								
FY 21 includes budget transfer in o		m BW-OSS		The state		AL AL		
Facility Safety and Systems Support	rt.							
			Pictured	l above: St	aff work on s	ecurity impr	ovements	

## **BW-TS-Property Master Plan**

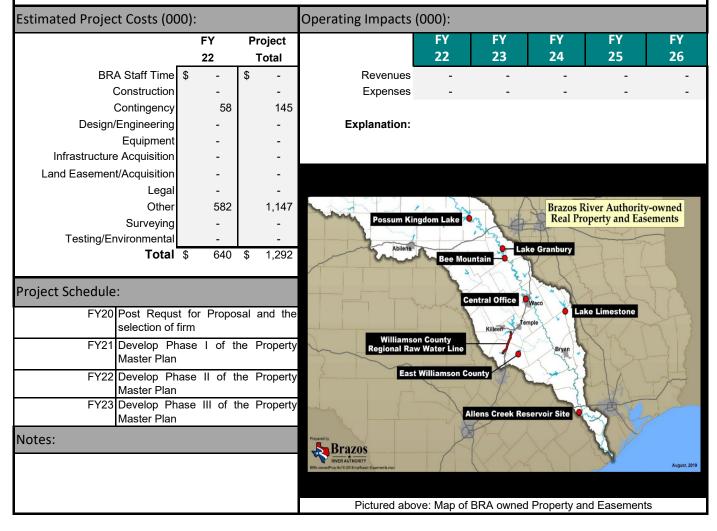
Description: Create a Master Plan for BRA property and easements utilized to accomplish our stated mission: "Develop, manage and protect the water resources of the Brazos River basin."

Primary Location: Basin Wide Secondary Location: Technical Services Project Type: Studies/Assessments

. . .

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: VI-b Capital(CIP) or Operating(OP): OP

Financial Plan (in	Prior Years Actual	FY 21 Budget	S): FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	-	500	352	640	300	-	-	-	-	1,292
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	500	352	640	300	-	-	-	-	1,292
Sources of BRA Fu	nding:									
<b>Current Revenues</b>	-	500	352	640	300	-	-	-	-	1,292
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-



## **BW-TS- Risk Based Capital Planning and Management Support**

Description: Develop and update the condition assessment information for all assets at all facilities included in capital planning and management decisions for the Brazos River Authority.

#### Primary Location: Basin Wide Secondary Location: Technical Services Project Type: Studies/Assessments

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: II-b Capital or Operating: OP

	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	9	450	125	700	800	60	50	-	-	1,744
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	9	450	125	700	800	60	50	-	-	1,744
Sources of BRA Fur	nding:									
Current Revenues	9	450	125	700	800	60	50	-	-	1,744
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-

Estimated Project Co	osts (000	D):		Operating Impacts	(000):				
		FY	Project		FY	FY	FY	FY	FY
		22	Total		22	23	24	25	26
BRA St	taff Time	\$-	\$-	Revenues	-	-	-	-	-
Con	struction	-	-	Expenses	-	-	-	-	-
Con	ntingency	-	-						
Design/Eng	gineering	700	994	Explanation:					
	quipment	-	750		or expense expenses.	e, but impro	ve planning	of operating	and capital
Infrastructure Ac	-	-	-		expenses.				
Land Easement/Ac	quisition	-	-			17 S S S S	1997 (1998) 1997 (1998)		
	Legal	-	-						1 Para
	Other	-	-						
	urveying	-	-						
Testing/Enviro		-	-						
	Total	\$ 700	\$ 1,744		The second s				the more
Project Schedule:				an a					
-	volon Acc	ot Managan	nent Program			A	and growing	Anna	
FIZIDE	velop Ass	et Managen	nent Flograffi			THE A			
		ondition and of PK and E	l criticality data WC.		1			-	5
Col		ndition and	new software criticality data naining BRA						T. T. T.
FY24/25 Lor	ng Range	& Capital P	lanning			-255		Street States	
Notes:					a the second		*		
Equipment funds ar implementation costs.	re for	software	license and						
					Pictured abo	ove: Morris S	Sheppard Da	am	

## **BW-WS-Brazos River Alluvium Study**

**Description:** This project will perform a study of the characteristics of the Brazos River Alluvium Aquifer (BRAA) within the central and lower portions of the Brazos River basin. This study aims to evaluate groundwater-surface water interactions within the central and lower portions of the basin. Additional objectives include identifying flow connections in the Brazos River and identifying recharge and discharge within the aquifer.

#### Primary Location: Basin Wide Secondary Location: Water Services Project Type: Studies/Assessments

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: I-b Capital or Operating: OP

Financial Plan (in	thousand	s of dollar	s):							
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	42	25	25	75	50	50	-	-	-	242
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	42	25	25	75	50	50	-	-	-	242
Sources of BRA Fu	nding:									
<b>Current Revenues</b>	42	25	25	75	50	50	-	-	-	242
Reserves	-	-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Project	t Costs (00	00):		Operating	g Impacts (	000):				
		FY	Project			FY	FY	FY	FY	FY
	-	22	Total			22	23	24	25	26
BR	A Staff Time	\$-	\$9		Revenues	-	-	-	-	-
	Construction	-	-		Expenses	-	-	-	-	-
	Contingency	-	-	_						
Design/	Engineering	-	-	Ex	planation:					
Infrastructure	Equipment	-	-							
Land Easemen		-	_							
Land Lasemen	Legal	-	_		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	P		N		
	Other	75	233			ر ۲۰۱۰ ک	5	A		
	Surveying	-	-		Bosque	2				
Testing/Er	nvironmental	-	-		Y	McLennan	7			
	Total	\$ 75	\$ 242					-		
Project Schedule							Rober	rtson		
	Complete No	-	ment Study			MI	am A	$/ \rightarrow$	7	
	Begin Middle	•					X	Brazos		
	End Middle Southern Se	gment					Burles on	Grime		
	End Souther Report		begin Final				Sa wa	shington		
	Complete Fi	nal Report						Austin 2	$\sum$	
Notes:								2 and the second		
Final report to be pre a budget transfer of \$							,000,000 1 1 1 1 50 1(	) 00 Kilometers	Fort Bend	
					Pictured ab	ove: Map of	the Brazo	s River Alluv	vium Aquifer	

## **BW-WS-Integrated Water Resources Plan**

**Description:** Internal analyses, regional water plans, and requests from current/potential customers indicate that additional water supplies are needed to meet future demands. This project will: 1) develop an inventory of strategies to create water supplies and scenarios of potential combinations of water supply strategies, 2) assess the effectiveness of scenarios in meeting various combinations of timing and location of demands and 3) consider the impact on reliable supply, factors of safety, System Rate implications etc. to recommend strategy scenarios for implementation.

Primary Location: Basin Wide Secondary Location: Water Services Project Type: Studies/Assessments Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: IV-a Capital or Operating: OP

							Serating.	J		
Financial Plan (in	thousand	s of dollars	5):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
	Actual	Duaget	Actual							
Total Expenditures	-	400	129	500	510	510	510	128	-	2,28
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	-	400	129	500	510	510	510	128	-	2,28
Sources of PDA Fur	adinau									
Sources of BRA Fur Current Revenues	iung.	400	129	500	510	510	510	128		2,28
Reserves	-	400	-	-	-	-	-	-	-	2,20
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Dusies	+ Casta (00			Oranatia	. luce a sta /	000).				
Estimated Project	t Costs (UU	FY	Project	Operating	g Impacts (	6000): FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
BR	A Staff Time		\$ 287		Revenues	22	23	24	23	20
	Construction	Ψ -	ψ 207		Expenses	-	_	-	_	_
	Contingency	-	-		Experieee					
	Engineering	500	2,000	Ex	planation:	The study w	ill help defin	e future op	perating reve	nue source
	Equipment		_,						ot create any	
Infrastructure			-							
Land Easement	t/Acquisition	-	-							
	Legal	-	-	147						
	Other	-	-	VV (	ater Supply B	zvaluation F	ramework	Modules a		encies
	Surveying	-	-	[	> 🛥 Scoping	Integration Object	tive		Inputs→-→ Framev	vork
Testing/En	vironmental	-	-			Options & Constro	ints		Module	Outcome 1
	Total	\$ 500	\$ 2,287	Board/Council		🛆 Uncertainti	ies			Outcome 2
				Direction	1	and Risks	Prioritized Unce Uncertainties/Ri		D	ependency
Project Schedule:	:			Concerns						
	Scope ar		negotiations,				> Level of Service	Performance M	etrics	
			tiation early				& Metrics	Level of Service	Goals	
FY22 -FY26	summer 202							📑 Evaluatio		
F122 -F120	Completion	or all phases						Approac	h 🕢 Uncertainty and Ris Portfolio Developm	sk Analysis nent
									A Modeling	
									and Tools (	Features & Options
										List of Needs
Notes:										
Anticipate three pha	ses of wor	k last appr	vimately 19			Balancing Cost and			bility Benefits	
months each. There							for Alternative Ev	alballons		
towards the end of ph										
				Di	aturad above		for Interne	ted Weter [		lan

Pictured above: Framework for Integrated Water Resources Plan

## **CO-ES-USFWS Mussel Studies**

**Description:** Negotiate a Candidate Conservation Agreement with Assurance (CCAA) permit with the U.S. Fish and Wildlife Service under Section 10(a)(1)(A) of the Endangered Species Act (ESA) to reduce the exposure of BRA's water supply system to ESA liabilities. Additional tasks included in the project include field data collection to support CCAA development, development of a Habitat Quantification Tool, and develop sampling plans and standard operating procedures to comply with the CCAA. Permit and CCAA were executed in June 2021. Implementation of conservation measure in the CCAA will begin in July 2021.

Primary Location: Basin Wide Secondary Location: Environmental Services Project Type: Studies/Assessments Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: III-b Capital or Operating: OP

Financial Plan (in thousands of dollars):												
	Prior Years Actual	FY 21 Budget	FY 21 Projected Actual	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total		
Total Expenditures	417	383	150	345	300	225	225	335	1,927	3,924		
Outside Funding	-	-	-	-	-	-	-		-	-		
BRA Funding	417	383	150	345	300	225	225	335	1,927	3,924		
Sources of BRA Fur	nding:											
<b>Current Revenues</b>	417	383	150	345	300	225	225	335	1,927	3,924		
Reserves	-	-	-	-	-	-	-	-	-	-		
Debt	-	-	-	-	-	-	-	-	-	-		

Estimated Project Costs (00	0):			
		FY	Р	roject
		22		Total
BRA Staff Time	\$	-	\$	-
Construction		-		-
Contingency		-		-
Design/Engineering		-		-
Equipment		-		-
Infrastructure Acquisition		-		-
Land Easement/Acquisition		-		-
Legal		-		-
Other		-		-
Surveying		-		-
Testing/Environmental		345		3,924
Total	\$	345	\$	3,924

# 22 23 24 25 Revenues Expenses

FY

FY

FY

FY

FΥ

26

Explanation:

Operating Impacts (000):



#### Pictured above: Texas Fawnsfoot mussel from the Brazos River.

	lotai	φ	φ	0,024
Project Schedule	:			
FY21	Complete p execute perr		egotiati	ons and
FY22	Begin pe compliance a		implem	nentation/
FY23	Continue compliance		implen	nentation/
FY24	Continue compliance		implen	nentation/
Notes:				

## **CO-FA-Enterprise Financial Software**

**Description:** The BRA implemented the existing financial system Infor (formerly known as Lawson) in 2002. The newest Infor Version 11 will take advantage of new cloud application features. The Infor Version 11 will provide many major enhancements across all core product lines. We will have access to new features, better functionality that will drive efficiency and speed. Modernizing our system will help dramatically reduce complex processes and standardize on a simple but powerful platform. Many of the new enhancements will be in the area of Budget, Project Management, Audit, and Dashboard.

Primary Location: Basin Wide Secondary Location: Finance & Administration Project Type: Technology Outside Funding Source: n/a BRA Funding Source: Current Revenues/Reserves Strategic Plan Reference: VI-c Capital or Operating: OP

					Ca	apital or C	Operating: (	OP		
Financial Plan (in	thousands	of dollars	5):							
	Prior	FY 21	FY 21	FY	FY	FY	FY	FY	Future	Project
	Years	Budget	Projected	22	23	24	25	26	Years	Total
	Actual	Ŭ	Actual							
Total Expenditures	321	150	105	100	200	-	-	-	-	72
Outside Funding	-	-	-	-	-	-	-	-	-	-
BRA Funding	321	150	105	100	200	-	-	-	-	72
Sources of BRA Fur	nding:									
<b>Current Revenues</b>	27	150	105	100	200	-	-	-	-	43
Reserves	294	-	-	-	-	-	-	-	-	29
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Project	t Costs (00			Operating	; Impacts (					
		FY	Project			FY	FY	FY	FY	FY
	<b>.</b> .	22	Total			22	23	24	25	26
	A Staff Time	\$-	\$-		Revenues	-	-	-	-	-
	Construction Contingency	-	-		Expenses	-	25	25	25	2
	Engineering	-	-	Fx	nlanation: /	Annual maii	ntenance fee	s for TrueP	oint software	
Design	Equipment	-	_	LA						
Infrastructure		-	-							
Land Easement	t/Acquisition	-	-							
	Legal	-	-							
	Other	100	526							
<b>T</b>	Surveying	-	-							
l esting/En	vironmental <b>Total</b>	- \$ 100	- \$ 726							
	Total	φ 100	φ 720							
Droiget Cabadula										
Project Schedule:								1111		
		gration to I	nfor Version			914				
	11, begin TruePoint	impleme Accounts	ntation of Receivable				nfor	5%		
	software					111		XX		
	Complete	implemen				1	_			
	TruePoint a budget software		evaluating							
	Begin implen		get software							
	<u> </u>		,							
Notes:										

Pictured above: Infor logo

## **CO-IT-Audiovisual Technology Integrations**

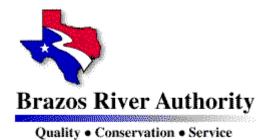
**Description:** Our existing audiovisual equipment in the Central Office Board room and Main Conference room is 9 years old. We are exploring new technologies that we may use to replace aged equipment in these rooms. In addition, we are looking at integrating technology and some automation into the remaining Central Office Conference rooms (Executive, Training, and Back conference rooms) to standardize equipment and technologies used from room to room to the extent feasible as to make utilization of these as intuitive as possible.

#### Primary Location: Central Office Secondary Location: Information Technology Project Type: Technology

#### Outside Funding Source: n/a BRA Funding Source: Current Revenues Strategic Plan Reference: VI-d Capital(CIP) or Operating(OP): OP

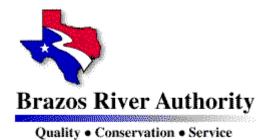
Financial Plan (in	thousand	s of dollar	s):			<u>,                                     </u>				
	Prior Years	FY 21 Budget	FY 21 Projected	FY 22	FY 23	FY 24	FY 25	FY 26	Future Years	Project Total
Total Expenditures	Actual	500	Actual	500	-	_	-		-	500
Outside Funding	-	-		-		_		-	-	-
BRA Funding	-	500	-	500	-	-	-	-	-	500
_										
Sources of BRA Fu Current Revenues	-	500	_	500	_	_	_	-	-	500
Reserves		-	-	-	-	-	-	-	-	-
Debt	-	-	-	-	-	-	-	-	-	-
Estimated Project	ct Costs (00	00):		Operating	g Impacts	(000):				
		FY	Project			FY	FY	FY	FY	FY
		22	Total			22	23	24	25	26
	A Staff Time		\$-		Revenues	-	-	-	-	-
	Construction		-		Expenses	-	-	-	-	-
	Contingency		-	<b>_</b>						
Design/	Engineering/ Equipment		40 360	EX	planation:					
Infrastructure			-							
Land Easemen			-							
	Legal		-			S.			" Manager and	
	Other	100	100			-01		1.000	1.1.1	
	Surveying		-							
Testing/Er	nvironmental		-							
	Total	\$ 500	\$ 500							
Project Schedule	:									
FY22	Procure, Insvisual equip		t new audio							
Notes:										
					Dist		Evicting oudi			

Pictured above: Existing audiovisual equipment



This page left blank intentionally

# Debt Service



This page left blank intentionally

# Debt

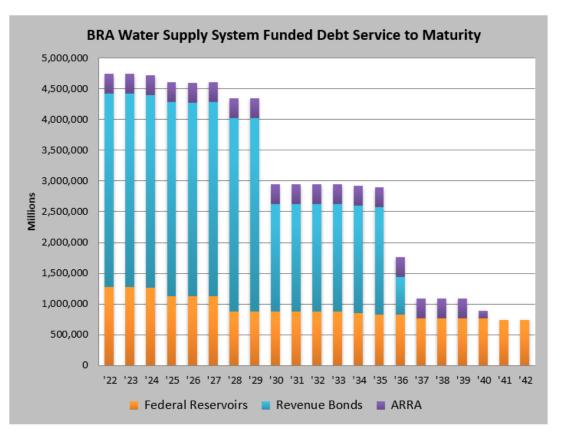
The Brazos River Authority (BRA) has a plan of Capital Improvement Projects to help fulfill our mission to develop, manage and protect the water resources of the Brazos River basin. Whenever possible, the BRA funds Capital Improvement Projects from reserve balances. The BRA's Long Range Financial Plan looks at existing debt, planned projects, coverage requirements and required reserve balances to forecast when the BRA might need to issue debt to fund a project.

When it is determined that a particular project will need to be debt funded, the BRA looks at multiple funding options, including Texas Water Development Board, to find the most economical route to finance the project. All debt issuances must be approved by the Board of Directors.

Unlike municipalities, the BRA does not need to hold bond elections and does not have a Legal Debt Margin. None of BRA's debt is supported by taxes, it is all revenue debt supported by the sale of raw and treated water.

The Brazos River Authority Board of Directors has set a target bond coverage ratio of 1.3. This means that net revenue available to pay debt service that is subject to the coverage ratio should be 30% higher than the debt service payments. Not all of BRA's debt is subject to coverage. Financing from the Texas Water Development Board or through the U.S. Army Corps of Engineers is not included in the debt coverage calculation.

The BRA's existing debt is secured by the net operating revenues of the Water Supply System and cost reimbursable operations. The BRA has contracted with the Federal Government for conservation storage space in nine flood control and water supply lakes constructed by the U.S. Army Corps of Engineers in the Brazos River basin. The BRA has also contracted to repay reconstruction, rehabilitation, or replacement (RR&R) funded by the American Recovery Re-Investment Act (ARRA).

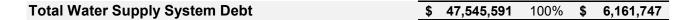


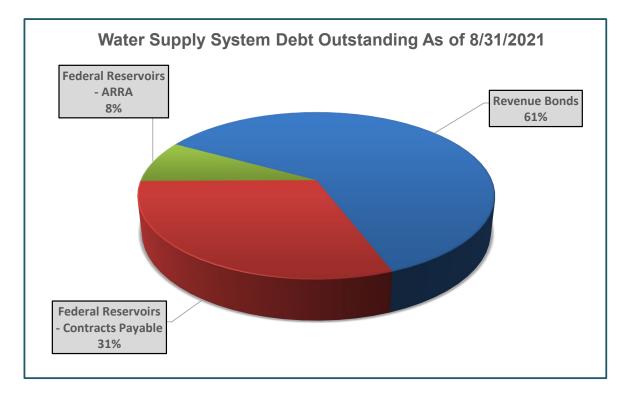
## Outstanding Debt Summary By Type as of August 31, 2021

		0	Debt utstanding	%	FY2022 Principal & Interest
Wa	ter Supply System Debt:		, in the second s	-	
BR	A Funded (Water Sales & Contracts)				
Rev	venue Bonds				
	Water Supply System, TWDB	\$	6,000,000	13%	\$ 610,800
	Water Supply System, TWDB *		-	0%	1,425,200
	Water Supply System, Series 2009		10,115,000	21%	1,400,955
	Water Supply System, Series 2015		12,945,000	27%	1,137,450
Fee	deral Reservoirs - Contracts Payable				
	Lake Belton		360,910	1%	126,456
	Lake Somerville		1,406,213	3%	265,774
	Lake Georgetown		3,794,635	8%	284,804
	Lake Granger		9,014,518	19%	599,360
Fee	deral Reservoirs - American Recovery and Re-inv	vestmen	t Act (ARRA)		
			0 000 045		040.047

Lake Belton	3,909,315	8%	310,947
-------------	-----------	----	---------

\* Allens Creek TWDB Debt to be assumed from the City of Houston in FY 2022



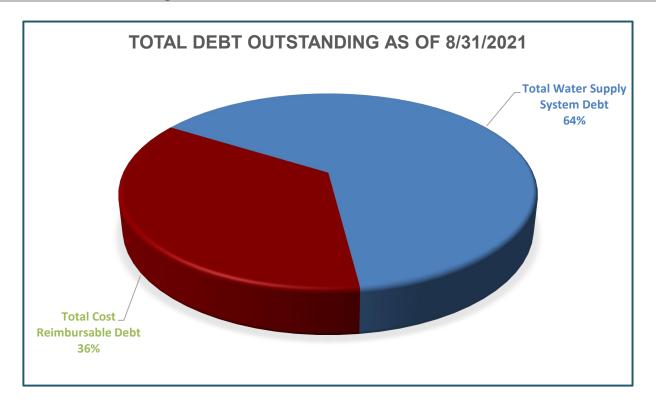


# Outstanding Debt Summary (Continued) By Type as of August 31, 2021

	_0	Debt utstanding	%	Ρ	FY2022 rincipal & Interest
Cost Reimbursable Debt:					
Water Conveyance					
WCRRWL - Series 2019	\$	13,265,000	50%	\$	1,467,550
WCRRWL - Series 2020		13,375,000	50%		1,555,100
Total Cost Reimbursable Debt	\$	26,640,000	100%	\$	3,022,650

#### Total Debt Outstanding

**\$ 74,185,591** 100% **\$ 9,184,397** 





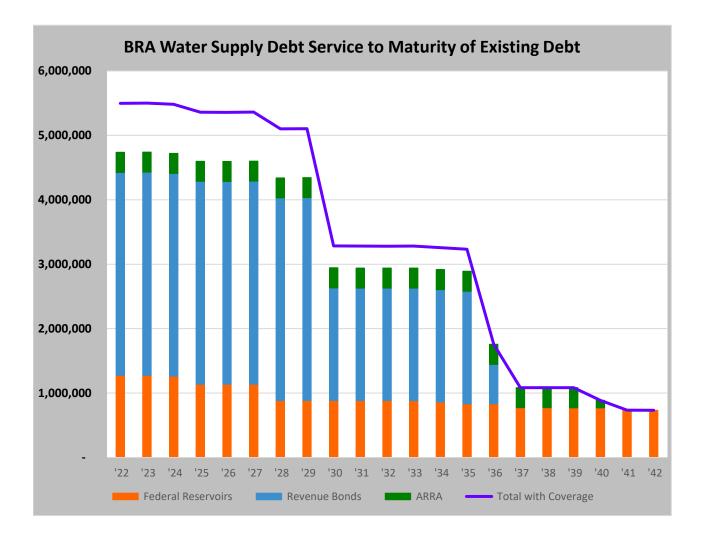
### **Brazos River Authority**

## Detail of Outstanding Debt Obligations as of Fiscal Year End 8/31/21

Series name	Issue Date	Туре	Purpose	Original Principal Amount	Coupon Interest rate
Water Supply System TWDB	2002	Texas Water Development Board State Participation Bond	Allens Creek land acquisition - BRA original 30% share	\$ 6,000,000	5.776% to 5.876%
Water Supply System 2009 TWDB	2009	Texas Water Development Board State Participation Bond	Construction of Lake Granger intake	22,000,000	0.174% to 2.815%
Water Supply System 2015	2015	Revenue Bond	Refund Series 2006	16,860,000	0.32% to 3.29%
Lake Belton #2	1975	U.S. Army Corps of Engineers Contract Payable	Water Supply Storage	3,600,909	2.54%
Lake Somerville	1974	U.S. Army Corps of Engineers Contract Payable	Water Supply Storage	7,383,391	2.74%
Lake Georgetown	1982	U.S. Army Corps of Engineers Contract Payable	Water Supply Storage	7,130,366	3.25%
Lake Granger	1992	U.S. Army Corps of Engineers Contract Payable	Water Supply Storage	15,178,384	3.26%
Lake Belton ARRA	2011	U.S. Army Corps of Engineers Contract Payable	Repairs/improvements at Lake Belton	5,439,122	4.25%
WCRRWL - Series 2019	2019	Contract Revenue & Refunding Bonds	Refund Series 1999 TWDB State Participation Loan for construction of WCRRWL	14,095,000	3.00% to 5.00%
WCRRWL Series 2020	2020	Contract Revenue Refunding & Improvement Bonds	Refund Series 2011 and add Copper Ion Generator	13,375,000	3.00%
			Total	\$ 111,062,172	

The Brazos River Authority does not levy taxes. None of the BRA's debt is supported by ad valorem taxes.

Maturity Date	Balance at 8/31/2021			FY 2022 Payments		
	Principal	Interest	Total	Principal	Interest	Total
8/15/36	\$ 6,000,000	\$ 3,180,779	\$ 9,180,779	\$ 260,000	\$ 350,800	\$ 610,800
2/15/29	10,115,000	1,094,903	11,209,903	1,160,000	240,955	1,400,955
2/15/35	12,945,000	2,952,813	15,897,813	750,000	387,450	1,137,450
	,,	, ,	- , ,	,		, - ,
9/30/23	360,910	18,497	379,407	117,294	9,162	126,456
1/1/27	1,406,213	136,580	1,542,793	227,216	38,558	265,774
3/3/42	3,794,635	1,314,429	5,109,064	161,365	123,439	284,804
1/21/42	9,014,519	3,570,422	12,584,941	305,848	293,513	599,360
9/4/43	3,909,315	1,801,823	5,711,138	144,801	166,146	310,947
9/1/32	13,265,000	2,687,975	15,952,975	1,010,000	442,700	1,452,700
9/1/30	13,375,000	1,992,600	15,367,600	1,170,000	357,650	1,527,650
	\$ 74,185,592	\$ 18,750,821	\$ 92,936,413	\$ 5,306,524	\$ 2,410,373	\$ 7,716,896

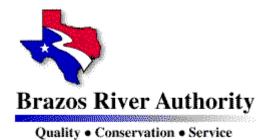


# **Proposed Debt**

In FY 2022 the BRA anticipates assuming the \$14,000,000 Allens Creek debt currently owed by the City fo Houston.

**Note:** The BRA expects Total Debt Outstanding to be \$68,879,068 at August 31, 2022, which includes principal reduction of \$5,306,068 in FY 2022.

# PERSONNEL AND STAFFING

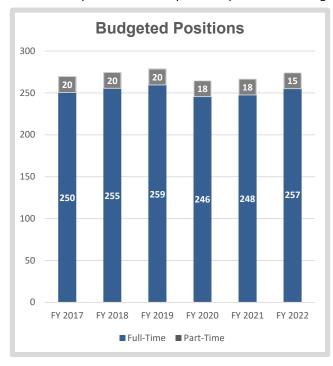


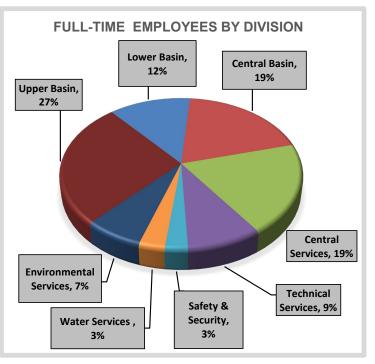
This page left blank intentionally

# Changes in Budgeted Positions FY 2022

Department	Department Title		Part-time / Temporary
Authorized Positions at 9/1/2020		248	18
FY 2022 Additions			
Environmental Services	Aquatic Scientist I	2	-
Government & Customer Relations	Asst. Legislative & Governmental Affairs Mgr.	1	-
Safety & Security	Senior Administrative Assistant	1	-
Upper Basin	Project Manager	1	-
Technical Services Engineering	Senior Project Engineer	1	-
Legal Services	Staff Counsel	1	-
Hutto Wastewater	Plant Maintenance Technician	1	-
FY 2022 Changes	Total FY 2022 Additions	8	-
Lake Granbury	Part-time Custodian to Full-time Maintenance Coordinator	1	(1)
Lake Limestone	Part-time Maintenance Worker to Full-time Maintenance Worker	1	(1)
	Total FY 2022 Changes	2	(2)
FY 2022 Deletions			
Lake Limestone	Part-time Maintenance Worker	-	(1)
Central Basin	Senior Plant Operator	(1)	-
	Total FY 2022 Deletions	(1)	(1)
Authorized Positions at 9/1/2021		257	15

Eight new full-time positions are being proposed for FY 2022. Two part-time positions are being changed to full-time positions. One full-time position and one part-time position are being deleted in FY 2022.





POSITIONS/TITLES	FY 2020	FY 2021	FY 2022
CENTRAL SERVICES			
General Administration			
	1	1	4
General Manager/CEO Executive Services Administrative Assistant (formerly Executive Assistant to the	1	1	1
General Manager)	1	1	1
Executive Services Coordinator	1	1	1
	3	3	3
Legal Services			
General Counsel	1	1	1
Senior Staff Counsel	1	1	1
Senior Staff Counsel	1	1	1
Staff Counsel (new position)	-	-	1
Junior Staff Counsel	-	1	1
Senior Administrative Assistant	1	1	1
Contracts Administrator	-	1	1
Legal Intern - Seasonal	1	1	1
	5	7	8
Human Resources		4	
Human Resources Manager	1	1	1
Human Resources Assistant	1	1	1
Human Resources Benefits Administrator	1	1	1
Human Resources Coordinator	1	1	1
Human Resources Payroll Specialist	<u>1</u> 5	<u>1</u> 5	1
Government & Customer Relations Legislative & Governmental Affairs Manager Public Information Officer	1	1	1
Assistant Public Information Officer	1	1	1
Public Information Coordinator	1	1	1
Records Administrator	1	1	1
Senior Administrative Assistant (transferred to F&A)	1	1	
Assistant Legislative & Governmental Affairs Manager (new position)	-	-	1
Receptionist	1	1	1
	7	7	7
Information Technology Services			
Information Technology Manager	1	1	1
Network & Systems Administration Manager	1	1	1
Network & Systems Administrator	1	1	1
Programming & Software Supervisor	1	1	1
Lead Programmer/Web Developer	1	1	1
Programmer/GIS Analyst	1	1	1
Programmer/Web Developer	1	1	1
Audiovisual & Application Specialist	1	1	1
Lead IT Technician	1	1	1
IT Technician	1	1	1
Software Administrator	1	1	1
GIS Coordinator	1	1	1
IT Coordinator	1	1	1
IT Intern - Seasonal	1	1	1
	14	14	14

POSITIONS/TITLES	FY 2020	FY 2021	FY 202
Financial Services			
Chief Financial Officer	1	1	1
Senior Administrative Assistant	1	1	1
Cash & Debt Manager	1	1	1
Financial Assistant	1	1	1
Accounting Manager	1	1	1
Budget Manager	1	1	1
Budget Analyst	1	1	1
Accountant	1	1	1
Accounts Receivable and Billing Coordinator	1	1	1
Accounting Clerk	1	1	1
Accounting Supervisor	1	1	1
Purchasing Card Administrator	1	1	1
Accounts Payable Clerk	1	1	1
Purchasing Manager	1	1	1
Purchasing Agent	1	1	1
Purchasing Assistant (formerly Sr. Administrative Assistant in G&CR)	-	-	1
	15	15	16
AUTHORIZED POSITIONS FOR CENTRAL SERVICES	49	51	53
Special Projects & Strategic Initiatives			
Special Projects & Strategic Initiatives Manager	1	1	1
Project Manager (formerly IPP Coordinator in CB WT Ops Mgmt.)	-	-	1
	1	1	2
Water Services			
Water Services Manager	1	1	1
Senior Water Resources Engineer	1	1	1
Senior Hydrologist	1	1	1
Senior Water Resources Planner	1	1	1
Water Resources Planner	1	1	1
Regional Planner	-	1	1
Water Accounting Specialist	1	1	1
Data Processing Specialist	1	1	1
Water Services Intern - Seasonal	1	1	1
	8	9	9
Environmental Services			
Environmental & Compliance Manager	1	1	1
Quality Assurance Officer	1	1	1
Deputy Quality Assurance Officer	1	1	1
Deputy Quality Assurance Officer	1	1	1
Environmental Programs Coordinator	1	1	1
Environmental Programs Coordinator	1	1	1
Regulatory Compliance & Permitting Coordinator	1	1	1
Field Operations Manager	1	1	<u>1</u> 1
Aquatic Scientist III Aquatic Scientist III	1	1	-
Aquatic Scientist II	<u> </u>	<u>1</u> 1	<u>1</u> 1
Aquatic Scientist II	1	1	1
Aquatic Scientist II	<u> </u>	1	1
	1	-	1
Aduatic Scientist L (new position)		-	1
Aquatic Scientist I (new position)	1		
Aquatic Scientist I (new position)	<u>1</u> 1	1	1
Aquatic Scientist I (new position) Lab Manager	1 1 1	1	1
Aquatic Scientist I (new position)	1		

POSITIONS/TITLES	FY 2020	FY 2021	FY 202
SECURITY & SAFETY			
Security & Safety Programs Manager	1	1	1
Cybersecurity Administrator	-	1	1
Facility Protection Technician (formerly Cybersecurity Technician)	1	1	1
Safety & Education Coordinator	1	1	1
Safety & Environmental Health Program Coordinator	1	1	1
Senior Administrative Assistant (new position)	-	-	1
	4	5	6
ECHNICAL SERVICES			
Vanagement			
Technical Services Manager	1	1	1
Senior Administrative Assistant	1	1	1
Property & Land Administrator	-	1	1
Capital Improvement Planning Administrator	1	1	1
Project Management Office Manager	1	1	1
Project Manager (formerly Project Management Coordinator)	1	1	1
	5	6	6
Engineering	4	4	4
Engineering Services Manager	<u> </u>	<u>1</u> 1	1
Senior Project Engineer	1	1	1
Senior Project Engineer	I	I	1
Senior Project Engineer (new position)	- 1	- 1	1
Project Engineer	1	-	I
Graduate Engineer (transferred to Legal dept. and re-named)	<u> </u>	_	-
Property & Land Administrator (transferred to TS Management)	-	-	-
Construction Services Manager	1	1	1
Project Coordinator	<u> </u>	<u>1</u> 1	1
Project Coordinator	1	1	1
Electrical & Automated Controls Supervisor			1
Senior Automated Systems Technician	1	1	1
Senior Automated Systems Technician	1	1	1
Senior Automated Systems Technician	1	-	-
Sr Controls Technician	1	1	1
Electrical Technician	1	1	1
Electrical Technician	1	1	1
Facilities Technician	1	1	1
Electrical Technician (formerly in CB WT Ops Mgmt.)	-	-	1
Engineering Intern - Seasonal	1	1	1
Engineering Intern - Seasonal	<u>1</u> 19	<u>1</u> 16	1 18
	19	16	- 18
AUTHORIZED POSITIONS FOR TECHNICAL SERVICES	24	22	24

POSITIONS/TITLES	FY 2020	FY 2021	FY 2022
UPPER BASIN			
Management			
Regional Manager, Upper Basin	1	1	1
Senior Administrative Assistant	1	1	1
Regional Business & Project Development Manager	1	1	1
Upper Basin Regional Government & Customer Relations Manager	1	1	1
Project Manager (new position)	-	- 4	1 5
Possum Kingdom Lake - Management			
Reservoir Manager	1	1	1
Project Manager/Program Coordinator	1	1	1
Inspections Supervisor	1	1	1
		-	
Inspector	1	1	1
Inspector	1	1	1
Office Supervisor	1	1	1
Asset Management Application Administrator	1	1	1
Administrative Assistant	1	1	1
	8	8	8
Possum Kingdom Lake - Lake Operations			
Lake Ranger - Sergeant (Resident)	1	1	1
Lake Ranger (Resident)	1	1	1
Lake Ranger (Resident)	1	1	1
Lake Ranger	1	1	1
Lake Ranger	1	1	1
Gatekeeper - Seasonal	1	1	1
	1	1	•
Gatekeeper - Seasonal	1	1	<u>1</u> 1
Gatekeeper - Seasonal	•	•	
Gatekeeper - Seasonal	1 9	<u>1</u> 9	<u>1</u> 9
	<b>.</b>	5	3
Possum Kingdom Lake - Maintenance			
Maintenance Chief	1	1	1
Maintenance Foreman	1	1	1
Maintenance Foreman	1	1	1
Lead Maintenance Worker	1	1	1
Lead Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Maintenance Worker	1	1	1
Maintenance Worker	1	1	1
Mechanic	1	1	1
Custodian	1	1	1
Maintenance Worker - Seasonal	1	1	1
Maintenance Worker - Seasonal	1	1	1
Maintenance Worker - Seasonal	1	1	1
	15	15	15
Possum Kingdom Lake - Solid Waste			
Senior Convenience Station Operator (formerly Convenience Station Operator)	1	1	1
Convenience Station Operator	1	1	1
	2	2	2

Possum Kingdom Lake - Reservoir System Maintenance Unit Maintenance Superintendent Concrete Maintenance Foreman (formerly Maintenance Foreman) Maintenance Supervisor Lead Welder Welder Welder Welder (formerly Welder/Crane Operator)	1 1 1	1	1
Concrete Maintenance Foreman (formerly Maintenance Foreman) Maintenance Supervisor Lead Welder Welder	1 1		4
Concrete Maintenance Foreman (formerly Maintenance Foreman) Maintenance Supervisor Lead Welder Welder	1	1	1
Maintenance Supervisor Lead Welder Welder			1
Lead Welder Welder		1	1
Welder	1	1	1
Welder (formerly Welder/Crane Operator)	1	1	1
	1	1	1
Lead Concrete Worker/Finisher	1	1	1
Concrete Worker/Finisher	1	1	1
Concrete Worker/Finisher	1	1	1
Concrete Worker/Finisher	1	1	1
Lead Welder/Crane Operator	1	1	1
Welder/Crane Operator	1	1	1
Welder/Crane Operator	1	1	1
Lead Abrasive Blaster/Metallizer/Painter	1	1	1
Abrasive Blaster/Metallizer/Painter	1	1	1
Abrasive Blaster/Metallizer/Painter	1	1	1
Abrasive Blaster/Metallizer/Painter	1	1	1
Heavy Equipment Mechanic	1	1	1
	18	18	18
.ake Granbury Reservoir Manager	1	1	1
Lake Ranger - Sergeant (formerly Lake Ranger - Sergeant (Resident))	1	1	1
Lake Ranger	1	1	1
Lake Ranger	1	1	1
Lake Ranger (Resident) (formerly Lake Ranger)	1	1	1
Project Manager/Program Coordinator	1	1	1
Inspections & Permitting Coordinator	1	1	1
Maintenance Chief	1	1	1
Maintenance Foreman	1	1	1
Lead Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Maintenance Worker	1	1	1
Maintenance Worker	1	1	1
Administrative Assistant	1	1	1
Senior Administrative Assistant (formerly Administrative Assistant)	1	1	1
	1	1	1
Maintenance Coordinator (formerly Custodian Part-time)	19	19	19

AUTHORIZED POSITIONS FOR THE UPPER BASIN	75
--	----

75

76

POSITIONS/TITLES	FY 2020	FY 2021	FY 2022
CENTRAL BASIN			
Central/Lower Basin Management			
Regional Manager	1	1	1
Senior Administrative Assistant	1	1	1
Regional Business & Project Development Manager	1	1	1
Senior Project Manager	1	1	1
Regional Government & Customer Relations Manager (Central Basin)	1	1	1
Regional Government & Customer Relations Manager (Lower Basin)	1	1	1
	6	6	6
Central Basin Water Treatment Management			
Regional Administrative & Ops Program Supervisor	1	1	1
Regional Maintenance Superintendent	1	1	1
Regional Water/Wastewater Operations Superintendent	1	1	1
Assistant Regional Superintendent (formerly Assistant Regional Operations	•		•
Supervisor)	-	1	1
Lead Pipeline Technician	1	1	1
Senior Pipeline Technician (not funded)	1	-	-
Pipeline Technician	1	1	1
Chief Operator - Hutto	1	1	1
Lead Plant Operator - Hutto	1	1	1
Senior Plant Operator (Floater) (position deleted)	1	1	-
Senior Plant Maintenance Technician (Floater)	1	1	1
Senior Plant Maintenance Technician	1	1	1
Lead Plant Maintenance Technician (formerly Senior Plant Maintenance			-
Technician)	1	1	1
Lead Maintenance Technician	1	1	1
Electrical Technician (moved to TS Engineering)	-	1	-
Industrial Pre-Treatment Coordinator (transferred to Special Projects & Strategic			
Initiatives)	1	1	-
Industrial Pre-Treatment Support Specialist	1	1	1
Regional Operations Programs Coordinator	1	1	1
Senior Administrative Assistant	1	1	1
	17	18	15
Central Basin Sludge Hauling			
Truck Driver	1	-	-
	1	0	0
T-B WWTP			
Chief Operator	1	1	1
Senior Administrative Assistant	1	1	1
Lead Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Plant Operator	1	1	1
Lead Plant Maintenance Technician	1	1	1
Compost Operation Technician	1	1	1
Compost Operation Technician	1	1	1
Operations Intern - Seasonal	1	1	1
	9	9	9

POSITIONS/TITLES	FY 2020	FY 2021	FY 2022
Temple Lift Stations			
Senior Plant Maintenance Technician	1	1	1
	1	1	1
Doshier Farm WWTP			
Plant Maintenance Crew Leader	1	1	1
Lead Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Plant Operator	1	1	1
	4	4	4
Hutto South			
	1	1	1
Senior Plant Operator Senior Plant Maintenance Technician	1	1	<u>1</u> 1
			•
Plant Maintenance Technician (new position)	2	2	1 3
SCRWTP			
Chief Operator	-	1	1
Lead Plant Operator	1	1	1
Lead Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Senior Plant Maintenance Technician	1	1	1
	4	5	5
East Williamson County RWS			
Chief Operator	1	1	1
Lead Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Plant Maintenance Crew Leader	-	1	1
Lead Plant Maintenance Technician	1	1	1
Senior Plant Maintenance Technician	1	1	1
Senior Administrative Assistant	1	1	1
Operations Intern - Seasonal	1	1	1
	8	9	9
AUTHORIZED POSITIONS FOR THE CENTRAL BASIN	52	54	52

POSITIONS/TITLES	FY 2020	FY 2021	FY 2022
OWER BASIN			
Lake Limestone			
Reservoir Manager	1	1	1
Assistant Reservoir Manager / Program Coordinator	1	1	1
Senior Administrative Assistant	1	1	1
Lake Ranger	1	1	1
Lake Ranger - Resident	1	1	1
Lake Ranger - Resident	1	1	1
Maintenance Foreman	1	1	1
Lead Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Senior Maintenance Worker	1	1	1
Maintenance Worker	1	1	1
Maintenance Worker	1	1	1
Maintenance Worker (formerly Maintenance Worker - Part-time)	1	1	1
Maintenance Worker - Part-time (delete position)	1	1	-
· · · · · · · · · · · · · · · · · · ·	14	14	13
Sugar Land			
Chief Operator	1	1	1
Senior Administrative Assistant	1	1	1
Lead Plant Operator	1	1	1
Lead Plant Operator	1	1	1
Lead Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Senior Plant Operator	1	1	1
Plant Operator	1	1	1
Plant Operator	1	1	1
Plant Maintenance Crew Leader	1	1	1
Lead Plant Maintenance Technician	1	1	1
Senior Plant Maintenance Technician	1	1	1
Plant Maintenance Technician	1	1	1
Plant Maintenance Technician	1	1	1
Operations Intern - Seasonal	1	1	1
	15	15	15
Clute			
Plant Supervisor	1	1	1
Plant Maintenance Tech	1	1	1
Lead Plant Operator	1	1	1
Plant Operator	1	1	1
	4	4	4
AUTHORIZED POSITIONS FOR THE LOWER BASIN	33	33	32
Total Full-Time Authorized Positions	246	248	257
Total Part-Time/Temporary Positions	18	18	15
TOTAL AUTHORIZED POSITIONS	264	266	272

FY 2022										
Pay Group	Pay Basis		Minimum	25	th Percentile		Midpoint		Maximum	
912	Annual	\$	27,163.21	\$	30,898.15	\$	34,633.10	\$	42,102.98	
	Semi-Monthly	\$	1,131.80	\$	1,287.42	\$	1,443.05	\$	1,754.29	
	Monthly	\$	2,263.60	\$	2,574.85	\$	2,886.09	\$	3,508.58	
	Hourly	\$	13.06	\$	14.85	\$	16.65	\$	20.24	
913	Annual	\$	28,794.12	\$	32,753.32	\$	36,712.51	\$	44,630.89	
	Semi-Monthly	\$	1,199.76	\$	1,364.72	\$	1,529.69	\$	1,859.62	
	Monthly	\$	2,399.51	\$	2,729.44	\$	3,059.38	\$	3,719.24	
	Hourly	\$	13.84	\$	15.75	\$	17.65	\$	21.46	
914	Annual	\$	30,577.50	\$	34,781.90	\$	38,986.31	\$	47,395.12	
	Semi-Monthly	\$	1,274.06	\$	1,449.25	\$	1,624.43	\$	1,974.80	
	Monthly	\$	2,548.12	\$	2,898.49	\$	3,248.86	\$	3,949.59	
	Hourly	\$	14.70	\$	16.72	\$	18.74	\$	22.79	
915	Annual	\$	32,535.71	\$	37,009.37	\$	41,483.03	\$	50,430.35	
	Semi-Monthly	\$	1,355.65	\$	1,542.06	\$	1,728.46	\$	2,101.26	
	Monthly	\$	2,711.31	\$	3,084.11	\$	3,456.92	\$	4,202.53	
	Hourly	\$	15.64	\$	17.79	\$ \$	19.94	\$	24.25	
916	Annual	\$	34,682.75	\$	39,451.63		44,220.51	\$	53,758.26	
	Semi-Monthly	\$	1,445.11	\$	1,643.82	\$	1,842.52	\$	2,239.93	
	Monthly	\$	2,890.23	\$	3,287.64	\$	3,685.04	\$	4,479.86	
	Hourly	\$	16.67	\$	18.97	\$	21.26	\$	25.85	
917	Annual	\$	37,042.40	\$	42,135.73	\$	47,229.06	\$	57,415.72	
	Semi-Monthly	\$	1,543.43	\$	1,755.66	\$	1,967.88	\$	2,392.32	
	Monthly	\$	3,086.87	\$	3,511.31	\$	3,935.75	\$	4,784.64	
	Hourly	\$	17.81	\$	20.26	\$	22.71	\$	27.60	
918	Annual	\$	39,635.63	\$	45,085.53	\$	50,535.43	\$	61,435.23	
	Semi-Monthly	\$	1,651.48	\$	1,878.56	\$	2,105.64	\$	2,559.80	
	Monthly	\$	3,302.97	\$	3,757.13	\$	4,211.29	\$	5,119.60	
	Hourly	\$	19.06	\$	21.68	\$	24.30	\$	29.54	
919	Annual	\$	42,490.43	\$	48,332.86	\$	54,175.29	\$	65,860.16	
	Semi-Monthly	\$	1,770.43	\$	2,013.87	\$	2,257.30	\$	2,744.17	
	Monthly	\$	3,540.87	\$	4,027.74	\$	4,514.61	\$	5,488.35	
	Hourly	\$	20.43	\$	23.24	\$	26.05	\$	31.66	
920	Annual	\$	45,636.16	\$	51,911.13	\$	58,186.10	\$	70,736.04	
	Semi-Monthly	\$	1,901.51	\$	2,162.96	\$	2,424.42	\$	2,947.34	
	Monthly	\$	3,803.01	\$	4,325.93	\$	4,848.84	\$	5,894.67	
004	Hourly	\$	21.94	\$	24.96	\$	27.97	\$	34.01	
921	Annual	\$	49,106.39	\$	55,858.52	\$	62,610.65	\$	76,114.90	
	Semi-Monthly	\$	2,046.10	\$	2,327.44	\$	2,608.78	\$	3,171.45	
	Monthly	\$	4,092.20	\$	4,654.88	\$	5,217.55	\$	6,342.91	
000	Hourly	\$	23.61	\$	26.86	\$	30.10	\$	36.59	
922	Annual	\$ ¢	52,936.09	\$	60,214.81	\$	67,493.52	\$	82,050.95	
	Semi-Monthly	\$	2,205.67	\$	2,508.95	\$	2,812.23	\$ ¢	3,418.79	
	Monthly	\$	4,411.34	\$	5,017.90	\$	5,624.46	\$	6,837.58	
000	Hourly	\$	25.45	\$	28.95	\$	32.45	\$	39.45	
923	Annual Somi Monthly	\$	57,170.98	\$	65,031.99	\$	72,893.00	\$ ¢	88,615.02	
	Semi-Monthly	\$ ¢	2,382.12	\$ ¢	2,709.67	\$ ¢	3,037.21	\$ ¢	3,692.29	
	Monthly	\$ ¢	4,764.25	\$ ¢	5,419.33	\$ ¢	6,074.42	\$ ¢	7,384.59	
	Hourly	\$	27.49	\$	31.27	\$	35.04	\$	42.60	

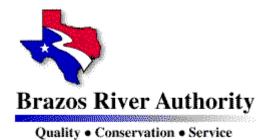
# Non-Exempt Pay Group Schedule FY 2022

# Location Differentials: PK 2%; EWC, SC, TB, & Doshier 4%; SL & Clute 9%; PK RSMU 12%

# Exempt Pay Group Schedule FY 2022

FY 2022									Movimum
Pay Group	Pay Basis	<b>^</b>	Minimum		oth Percentile	¢	Midpoint	Φ.	Maximum
612	Annual	\$	48,395.03	\$	55,654.28	\$	62,913.54	\$	77,432.04
	Semi-Monthly	\$	2,016.46	\$	2,318.93	\$	2,621.40	\$	3,226.34
	Monthly	\$	4,032.92	\$	4,637.86	\$	5,242.79	\$	6,452.67
	Hourly	\$	23.27	\$	26.76	\$	30.25	\$	37.23
613	Annual	\$	52,267.13	\$	60,107.20	\$	67,947.27	\$	83,627.41
	Semi-Monthly	\$	2,177.80	\$	2,504.47	\$	2,831.14	\$	3,484.48
	Monthly	\$	4,355.59	\$	5,008.93	\$	5,662.27	\$	6,968.95
	Hourly	\$	25.13	\$	28.90	\$	32.67	\$	40.21
614	Annual	\$	56,709.62	\$	65,216.07	\$	73,722.51	\$	90,735.40
	Semi-Monthly	\$	2,362.90	\$	2,717.34	\$	3,071.77	\$	3,780.64
	Monthly	\$	4,725.80	\$	5,434.67	\$	6,143.54	\$	7,561.28
	Hourly	\$	27.26	\$	31.35	\$	35.44	\$	43.62
615	Annual	\$	61,812.96	\$	71,084.91	\$	80,356.85	\$	98,900.74
	Semi-Monthly	\$	2,575.54	\$	2,961.87	\$	3,348.20	\$	4,120.86
	Monthly	\$	5,151.08	\$	5,923.74	\$	6,696.40	\$	8,241.73
	Hourly	\$	29.72	\$	34.18	\$	38.63	\$	47.55
616	Annual	\$	67,685.19	\$	77,837.97	\$	87,990.75	\$	108,296.31
	Semi-Monthly	\$	2,820.22	\$	3,243.25	\$	3,666.28	\$	4,512.35
	Monthly	\$	5,640.43	\$	6,486.50	\$	7,332.56	\$	9,024.69
	Hourly	\$	32.54	\$	37.42	\$	42.30	\$	52.07
617	Annual	\$	74,451.96	\$	85,619.75	\$	96,787.54	\$	119,123.13
	Semi-Monthly	\$	3,102.16	\$	3,567.49	\$	4,032.81	\$	4,963.46
	Monthly	\$	6,204.33	\$	7,134.98	\$	8,065.63	\$	9,926.93
	Hourly	\$	35.79	\$	41.16	\$	46.53	\$	57.27
618	Annual	\$	82,267.78	\$	94,607.94	\$	106,948.11	\$	131,628.44
	Semi-Monthly	\$	3,427.82	\$	3,942.00	\$	4,456.17	\$	5,484.52
	Monthly	\$	6,855.65	\$	7,884.00	\$	8,912.34	\$	10,969.04
	Hourly	\$	39.55	\$	45.48	\$	51.42	\$	63.28
619	Annual	\$	91,317.35	\$	105,014.95	\$	118,712.55	\$	146,107.75
	Semi-Monthly	\$	3,804.89	\$	4,375.62	\$	4,946.36	\$	6,087.82
	Monthly	\$	7,609.78	\$	8,751.25	\$	9,892.71	\$	12,175.65
	Hourly	\$	43.90	\$	50.49	\$	57.07	\$	70.24
620	Annual	\$	101,816.75	\$	117,089.27	\$	132,361.78	\$	162,906.81
	Semi-Monthly	\$	4,242.36	\$	4,878.72	\$	5,515.07	\$	6,787.78
	Monthly	\$	8,484.73	\$	9,757.44	\$	11,030.15	\$	13,575.57
	Hourly	\$	48.95	\$	56.29	\$	63.64	\$	78.32
621	Annual	\$	114,033.61	\$	131,138.65	\$	148,243.69	\$	182,453.78
	Semi-Monthly	\$	4,751.40	\$	5,464.11	\$	6,176.82	\$	7,602.24
	Monthly	\$	9,502.80	\$	10,928.22	\$	12,353.64	\$	15,204.48
	Hourly	\$	54.82	\$	63.05	\$	71.27	\$	87.72
622	Annual	\$	128,285.77	\$	147,528.63	\$	166,771.50	\$	205,257.23
	Semi-Monthly	\$	5,345.24	\$	6,147.03	\$	6,948.81	\$	8,552.38
	Monthly	\$	10,690.48	\$	12,294.05	\$	13,897.63	\$	17,104.77
	Hourly	\$	61.68	\$	70.93	\$	80.18	\$	98.68
623	Annual	\$	144,962.92	\$	166,707.36	\$	188,451.80	\$	231,940.67
	Semi-Monthly	\$	6,040.12	\$	6,946.14	\$	7,852.16	\$	9,664.19
	Monthly	\$	12,080.24	\$	13,892.28	\$	15,704.32	\$	19,328.39
	Hourly	\$	69.69	\$	80.15	\$	90.60	\$	111.51
L	ilouity	Ψ	00.00	Ψ	00.10	Ψ	00.00	Ψ	111.01

#### Location Differentials: PK 2%; EWC, SC, TB, & Doshier 4%; SL & Clute 9%; PK RSMU 12%



This page left blank intentionally

Expenditure Detail

Description	Professional Services	Consulting Services	Outside Lab Services	Advertising	Insurance	Total
UPPER BASIN						
Upper Basin Management						
Legal Fees	40,000	-	-	-	-	
Newspaper Advertising	-	-	-	400	-	
Property and Liability Insurance Total Upper Basin Management	40,000	-	-	- 400	540 540	40,940
Possum Kingdom Lake						
Contract Surveying	13,000					
Precision and Range-Line Surveys	-					
Pier Plate work consultation	50,000					
Engineering Consulting Services Annual DSSMR Report	25,000					
Updates to PFMA, STI and DSSMP	10,000					
Structural Engineering Consulting Services	25,000					
Annual Maintenance Inspection	25,000					
Evaluation of Instrumentation Threshold Values	15,000					
Instrumentation Evaluation	35,000					
Annual Geotechnical Inspection	25,000					
Automated Call Notifications		1,000				
Water Samples for Environmental Control		720				
EAP Hosted Meetings		700				
Request for Bids; Job Openings; Reserve Program				1,000		
Property and Liability Insurance Total Possum Kingdom Lake	238,000	2,420		1,000	73,010 73,010	314,430
	238,000	2,420	-	1,000	73,010	514,450
Lake Granbury						
Surveying	3,000					
5-year Eng Insp/Precision and Range-Line Survey	50,000					
Engineering geotechnical consulting services	50,000					
Annual Maintenance Inspection	25,000					
Engineering consulting services	25,000	4 000				
Services Fees for Replacement Generator Automated Call Notification		1,800				
Request for Bids; Job Openings		1,000		2,450		
Property and Liability Insurance				2,400	14,410	
Total Lake Granbury	153,000	2,800	-	2,450	14,410	172,660
CENTRAL BASIN						
Central/Lower Basin Management						
CB/LB Project Development	85.000					
Advertise Public Mtgs				500		
Property and Liability Insurance					811	
Total Central Basin Management	85,000	-	-	500	811	86,311
Central Basin Water Treatment Ops						
Property and Liability Insurance					13,060	
Total Central Basin Water Treatment Ops	-	-	-	-	13,060	13,060
Williamaan County Pagional Daw Water Line						
Williamson County Regional Raw Water Line Asset Condition Assessment	100,000					
Dig Tess and Line Locates		3,600				
Dive Inspection		7,250				
Easement Surveys		3,000				
Annual Inspection Overhead Crane		225				
Pump & Meter Calibration Property and Liability Insurance		8,250			02 000	
Total WCRRWL	100,000	22,325	-	-	27,238 27,238	149,563
T-B WWTP						
Lab Analysis			166,646			
Risk Mgmt Plan Compliance Consulting		1,956	100,040			
Property and Liability Insurance		1,000			946	
Total T-B WWTP	_	1,956	166,646	-	946	169,548

Description	Professional Services	Consulting Services	Outside Lab Services	Advertising	Insurance	Total
Doshier Farm	\$ -	\$ -	\$ 122,321	¢	¢	
Lab Analysis Risk Mgmt Plan Compliance Consulting	ъ -	<u></u> - 1,956	\$ 122,321	<b>р -</b>	\$ -	
Property and Liability Insurance		1,000			810	
Total Doshier Farm	-	1,956	122,321	-	810	125,087
Hutto						
PLC/SCADA Service		3,000				
Electrician Service Crane Inspections		3,600 800				
Gensets (Load testing and inspection)		4,000				
Lab Analysis			98,038		070	
Property and Liability Insurance Total Hutto	-	11,400	98,038	-	270 270	109,708
Sandy Creek			,			
Lab Analysis Property and Liability Insurance			9,101		1,329	
Total Sandy Creek	-	-	9,101	-	1,329	10,430
East Williamson County RWS						
Dive Services (Underwater Tank/Intake Inspections)		2,000				
Risk Mgmt Plan Compliance Consulting		1,950				
Pump and Meter Calibration		250				
Overhead Crane Inspection		250	9,110			
Property and Liability Insurance			0,110		32,211	
Total East Williamson County RWS	-	4,450	9,110	-	32,211	45,771
LOWER BASIN						
Lake Limestone						
5-year Eng Insp/Precision and Range-Line Survey Annual Maintenance Inspection	50,000					
Geotechnical Services	25,000 50,000					
Engineering Consulting Services	25,000					
Automated Call Notification		1,000				
Publish Lake Rules and Regs and Public Notices Property and Liability Insurance				1,000	13,871	
Total Lake Limestone	150,000	1,000	-	1,000	13,871	165,871
Sugar Land						
Lab Analysis			259,025			
Advertise for Position Vacancies			,	1,654		
Property and Liability Insurance Total Sugar Land			259.025	1.654	24,012 <b>24,012</b>	284,691
, i i i i i i i i i i i i i i i i i i i	-	-	259,025	1,054	24,012	204,091
Clute Chlorinator Maintenance		1 650				
Detcon CL2 Leak Detector		1,650 390				
Effluent Flow Meter Annual Certification		390				
Risk Mgmt Plan Compliance Consulting		1,956	40.000			
Lab Analysis Employment Advertisements			43,332	295		
Property and Liability Insurance				235	906	
Total Clute	-	4,386	43,332	295	906	48,919
ENVIRONMENTAL SERVICES						
Environmental Services						
System Operations Permit support Print Basin Summary Report	135,000	250				
Fisheries Habitat Improvement		15,000				
Miscellaneous Analysis		,	70,000			
Job Postings and Public Notices				2,100	0.540	
Property and Liability Insurance Total Environmental Services	135,000	15,250	70,000	2,100	3,546 3,546	225,896
	155,000	10,200	10,000	2,100	0,040	220,000

Description	Professional Services	Consulting Services	Outside Lab Services	Advertising	Insurance	Total
WATER SERVICES						
Water Resources	<b>*</b> (00.000)	•	•	•	•	
Contract Analysis Tool Maintenance Rainfall Radar Data Subscription	\$ 100,000	\$ - 20,000	\$-	\$-	\$ -	
Groundwater/Surface Water Study		25,000		500		
Public notices, RFPs, etc. Property and Liability Insurance				500	946	
Total Water Resources	100,000	45,000	-	500	946	146,446
TECHNICAL SERVICES						
Technical Services - Management						
Property and Liability Insurance Total Technical Services - Management	-	-	-	-	<u>1,176</u> 1,176	1,176
Technical Services - Engineering						
CADD Services for ESG Standards			9,500			
Advertisements (RFP and Recruiting) Property and Liability Insurance				1,500	4 025	
Total Technical Services - Engineering	-	-	9,500	1,500	4,935 <b>4,935</b>	15,935
Office of Safety & Security						
Property and Liability Insurance					1,774	4 774
Total Office of Safety & Security	-	-	-	-	1,774	1,774
Federal Reservoirs	0.005.005					
Federal Reservoirs O&M Brazos Basin Watermaster	6,335,085 433,000					
Brazos G Engineering	310,000					
Region 8 Engineering	670,000					
System Operations Legal Fees	350,868			7.000		
Advertising Total Federal Reservoirs	8,098,953	-	-	7,000 <b>7,000</b>	-	8,105,953
SPECIAL PROJECTS & STRATEGIC INITIATIVES						
On a sial Dusis sta 9. Otrata nia kuitistimaa						
Special Projects & Strategic Initiatives Property and Liability Insurance					135	
Total Special Projects & Strategic Initiatives	-	-	-	-	135	135
CENTRAL SERVICES						
Central Office Common						
Legal Advertising (Surplus Property) Property and Liability Insurance				500	32,154	
Total Central Office Common	-	-	-	500	32,154	32,654
Board of Directors						
Director's Fees		25,350				
Director's Bond					190	
Property and Liability Insurance Total Board of Directors	-	25,350	-	-	12,912 13,102	38,452
General Administration Property and Liability Insurance					270	
Total General Administration	-	-	-	-	270	270
Legal						
Retainer	25,000				044	
Property and Liability Insurance Total Legal	25,000	-	-	-	811 <b>811</b>	25,811
Government & Customer Relations						
State Legislative Consulting		185,000				
Federal Legislative Consulting		85,000				
Property and Liability Insurance					1,080	
Total Government & Customer Relations		270,000			1,080	271,080

Description		ssional vices	Consı Servi	•	Outside Lab Services	Adver	tising	Insura	nce	Total
Human Resources										
Legal Fees	\$	4,900	\$	-	\$ -	\$	-	\$	-	
Payroll and Tax Services			5	4,985						
Consulting			5	0,000						
Benefits Consultant & Benefit Connector			5	0,400						
FSA, HRA and COBRA Administration Fees				3,735						
TCG Advisors				9,000						
Employment Advertising							900			
Property and Liability Insurance									675	
Total Human Resources		4,900	16	8,120	-		900		675	174,595
Finance & Administration										
Annual Audit		110,000								
Infor Issues		-,	3	0,000						
Printing Services for Comprehensive Annual Financial			-	.,						
Report, AOP and Invoices				4,575						
Financial Consultant				1.600						
Online Bill Pay				3,600						
Bids, etc.							1,000			
Property and Liability Insurance								1	,890	
Total Finance & Administration		110,000	7	9,775	-		1,000	1	,890	192,665
Information Technology										
Web Consulting/Programming				5.000						
Network Engr/Consulting				5,000						
Project/RDBM Consulting/Crystal Reports				1.500						
Infor Consulting				1,000						
Outside hosting of Video for brazos.org				200						
SDK License				150						
Apple Developer License				150						
SSL Certificates				2.070						
Sentinel IPS Services				7,776						
Offline Storage Backup				3.000						
Yearly DNS Host Fees				2,500						
Property and Liability Insurance				,				2	.122	
Total Information Technology		-	_5	8,346	-		-		,122	60,468
									, <u> </u>	
Grand Total Outside Services	\$9,	239,853	\$ 714	,534	\$ 787,073	\$ 2	20,799	\$ 268,	040	\$ 11,030,299

# Brazos River Authority FY 2022 Budget Capital Outlay Requests

# Water Supply

Accounting Unit Description	FY 2022 Proposed Amount	Item Description
CB WT Ops Management	35,000	Replace Truck #1879 (2012 Chevy Silverado, 146,000+ miles)
CB WT Ops Management		Replace Truck #7575 (2016 Chevy Silverado, 127,000+ miles)
CB WT Ops Management		Replace Truck #2678 (2013 Ford F150, 140,000+ miles)
CB WT Ops Management		New furniture for EWC Building
CB WT Ops Management		EWC Building Remodel/Addition
East Williamson County		East Plant filter flow meters
East Williamson County		Paint clarifier and replace bad metal (West Plant)
East Williamson County		Emergency Generator connection (High Service)
East Williamson County		Security Upgrades
East Williamson County	15,000	Emergency Generator connection (Chemical Building)
East Williamson County		Replace unit 9526 - Service Truck and crane
Environmental Services		Replace Truck #1663 (Chevy 2500, 144,000+ miles)
Environmental Services		Chevy 2500 Crew Cab
Information Technology		Replace Truck #5059 (2011 Ford Expedition, 122,000+ miles)
Lake Granbury - Maintenance	55,000	Replace Truck #5653 (2010 Ford F150, 127,000+ miles)
Lake Granbury - Dam Operations	35,000	
Lake Granbury - Dam Operations	135,000	Chevy Silverado 5500 with Hydraulic Crane
Lake Limestone - Lake Operations	37,000	Replace Truck #7488 (Ford F150, 80,000+ miles)
Lake Limestone - Dam Operations	12,000	Purchase of 2 Storm Shelters
Lake Limestone - Dam Operations	12,500	Purchase of MiniCam for Piezometer Inspections
Lake Limestone - Dam Operations	50,000	Replace Truck #7058 (2003 Ford F150, 126,000+ miles)
Lake Limestone - Employee Housing	50,000	Generator for Building 6
Possum Kingdom - Maintenance	35,000	Kubota M6060 Tractor
Possum Kingdom - Maintenance	9,000	Equipment Trailer
Possum Kingdom - Engineering	5,000	6'x10' Cargo Trailer w/ ac for ROV
Possum Kingdom - Dam Operations	17,500	Scaffolding
Possum Kingdom - Dam Operations	8,500	JET Horizontal Band Saw
Possum Kingdom - Dam Operations	6,500	Miller Millermatic 350P Mig Welder
Possum Kingdom - Dam Operations	6,500	Bench Crimping Machine
Possum Kingdom - Employee Housing	24,500	AC Units for houses 0, 1, & 3
Sugar Land -South	250,000	Replace South Plant Office Building
Sugar Land - New Territory	250,000	Purchase of Generator
Office of Safety and Security	48,000	Replace Truck #5060 (2011 Ford Expedition, 147,000+ miles)
Technical Services - Engineering	7,000	Pipe Threading Equipment
Technical Services - Engineering	45,000	Replace Truck #7192 (2012 Chevy 1500 Ext. Cab, 145,000+ miles)
Technical Services - Engineering	45,000	Replace Truck #2036 (2013 Ford F150 SuperCab, 165,000+ miles)
Technical Services - Engineering	45,000	Replace Truck #5307 (2016 Chevy Silverado, 130,000+ miles)

Total Water Supply System \$ 1,713,000

# **Brazos River Authority** FY 2022 Budget Capital Outlay Requests

Cost Reimbursable

Accounting Unit Description	FY 2022 Proposed Amount	Item Description
Clute-Richwood WWTP	28,000	Replace/upgrade CL2 feed equipment
Clute-Richwood WWTP	45,000	Replace/upgrade NPW system
Clute-Richwood WWTP	15,000	Security Upgrades
Clute-Richwood WWTP	6,100	Replace Camera System Recorder (Dell Power Edge T640)
Doshier Farm WWTP	30,000	Rebuild lower #2 RAS screw pump bearing
Doshier Farm WWTP	40,000	Rehab piping on #2 Anaerobic Digester
Doshier Farm WWTP	30,000	Spare shaft for Reactor in each channel
Doshier Farm WWTP	12,000	Replace Reactor MCC A/C
Doshier Farm WWTP	30,000	Complete Conference Room
Doshier Farm WWTP	16,000	Replace #1 influent and #1 effluent auto sampler
Temple Lift Station	18,500	Motor replacements
Temple Lift Station	18,500	Motor control panels upgrade
Temple Lift Station	35,000	Pump upgrades
Hutto Central WWTP	12,000	Replace portable lab building
Hutto Central WWTP	11,000	Metal shade awning
Hutto Central WWTP	50,000	Blast and paint Clarifier (West)
Hutto Central WWTP	15,000	Replace both Auto Samplers
Hutto South WWTP	15,000	Replace both Auto Samplers
Hutto South WWTP	300,000	Replace obsolete UV System
Sandy Creek WTP	6,100	Replace Camera System Recorder (Dell Power Edge T640)
Sandy Creek WTP	65,000	Recondition raw tank
Sandy Creek WTP	18,000	Replace waste valves and actuators
Sandy Creek WTP	10,000	Repair and rebuild ClaValves
Sandy Creek WTP	15,000	Modify Copper Sulfate feed system
Sandy Creek WTP	15,000	Rebuild Transfar Pump TBD
Sandy Creek WTP	15,000	Rebuild Backwash Pump TBD
Sandy Creek WTP	20,000	Upgrade 1 AC unit in the plant area
Sandy Creek WTP	12,000	Backwash Influent Valve Actuators
Temple-Belton WWTP	175,000	Storage and Training Room upgrades
Temple-Belton WWTP	745,200	Reactor Air Project - Phase 5
Temple-Belton WWTP	25,000	Upgrade lighting -belt press
Temple-Belton WWTP	55,000	Rehab belt press building
Temple-Belton WWTP	16,000	Purchase two effluent auto samplers
Belton Main Lift Station	25,000	Upgrade site fencing
WCRRWL	8,500	Purchase storage building
WCRRWL	6,100	Replace Camera System Recorder (Dell Power Edge T640)
WCRRWL	50,000	Motor repairs
WCRRWL	14,000	Rebuild 5 ARV's

Total Cost Reimbursable \$ 2,023,000

Grand Total Capital Outlay \$ 3,736,000

# Brazos River Authority FY 2022 Budget **Technology Items**

Replacement televisions at various locations (LG,	6,600		
AirWatch for Board of Directors iPads		2,000	
Replace Camera System Recorder Dell Power Ec	18,300		
	Sub-Total		26,90
urring Items			
Watercad rights to upgrades / support	Technical Services - Engineering	-	
Autocad rights to upgrades / support	Technical Services - Engineering	9,200	
Hammer Software rights to upgrades	Technical Services - Engineering	2,400	
Misc. Security Camera Repairs and Support	Possum Kingdom Lake	10,500	
Misc. Security Camera Repairs and Support	Lake Granbury	4,500	
Misc. Security Camera Repairs and Support	WCRRWL	4,500	
Misc. Security Camera Repairs and Support	Sandy Creek	3,500	
Misc. Security Camera Repairs and Support	East Williamson County	4,500	
Misc. Security Camera Repairs and Support	Lake Limestone	4,500	
Misc. Security Camera Repairs and Support	Clute	2,500	
Misc. Security Camera Repairs and Support	Central Office Common	7,500	
Misc. BRA Network Repairs and Maintenance	20 Locations	6,300	
Misc. Hardware / Software Purchases	19 Locations	22,500	
ArcGIS Annual Support	Possum Kingdom Lake	1,511	
ArcGIS Annual Support	Environmental Services	3,123	
ArcGIS Annual Support	Information Technology	20,093	
ArcGIS Annual Support	Technical Services - Management	302	
Labvantage Annual Support	CB Lab / Technical Services Environmental	10,000	
Weather Station SCADA Maintenance	Lakes - Possum Kingdom, Granbury, and Limestone	9,000	
IMECOM Fax Service for Central Office	Central Office Common	-	
IMECOM Fax Service for IT	Information Technology	9,000	
Comp Utility APC Service	Central Office Common	-	
Cellular Internet Service	14 Locations	6,720	
	Sub-Total		142,14
vork Connectivity - Multi-Packet Layerin	ig System (MPLS)		
	East Williamson County Water Plant	18,630	
	Lake Granbury	29,100	
	Lake Limestone	29,100	
	Possum Kingdom Lake	29,100	
	Georgetown Office	4,200	
	Hutto Wastewater Plant	-	
	Sandy Creek Water Treatment Plant	17,220	
	Temple /Belton Wastewater Plant	17,220	
		17,220	
	•	17 220	
	Doshier Farm Wastewater Plant	17,220	
	Doshier Farm Wastewater Plant Clute Wastewater Plant	17,220	
	Doshier Farm Wastewater Plant	,	

Sugar Land South Wastewater Plant

Information Technology

260,952

5,400

71,142

# **Brazos River Authority** FY 2022 Budget **Technology Items**

# Supervisory Control and Data Acquisition (SCADA)

Wonderware Premier Comp Support (An	nual)	
	Technical Services Engineering	2,500
	Clute	1,167
	East Williamson County	5,610
	Hutto - Central	3,501
	Hutto - South	3,501
	Temple-Belton WWTP	4,783
	Doshier Farm	2,500
	WCRRWL	3,598
	Lake Granbury	1,872
	Lake Limestone	1,167
	Building Services	1,411
	Possum Kingdom Lake	1,556
	Sandy Creek	4,783
	Sugar Land - North	3,143
	Sugar Land - South	1,756
Win-911 Pro		
<b>a a i</b>	amson County, Hutto - Central, Hutto - South, Temple- Granbury, Lake Limestone, Central Office, Possum Sugar Land - South	35,000
Rockwell Support		

Technical Services Engineering	8,500
SCADA Communications (radio modems, etc.)	
Clute, East Williamson County, Hutto - South, Hutto - Central, Temple-Belton WWTP, Doshier Farm, WCRRWL, Lake Granbury, Lake Limestone, Possum Kingdom Lake, Sandy Creek	39,000
SCADA Commences Deals on Device and Naturalian Environment	

#### SCADA Components, Back-up Power, and Networking Equipment

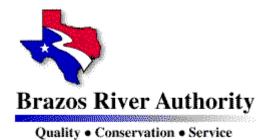
Clute, East Williamson County, Hutto - South, Hutto - Central, Temple-Belton WWTP, Doshier Farm, 164,950 WCRRWL, Lake Granbury, Lake Limestone, Possum Kingdom Lake, Sandy Creek

	Sub-Total	290,298
PC's, Laptops and Printers	No. of Replacements	Amount
Desktops	28	47,200
Laptops	43	104,000
iPads	8	7,500
Printers	30	42,900
	Sub-Total	201,600

#### Grand Total Technology Items

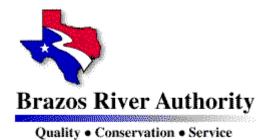
\$ 921,899

\* Some of these items are also included on the Capital Outlay schedule beginning on Page 17 - 6



This page left blank intentionally

FINANCIAL POLICIES



This page left blank intentionally

# BRAZOS RIVER AUTHORITY FINANCIAL POLICIES

# BUDGET 4.1

#### Purpose

This policy defines requirements for annual budgeting and long-term financial planning requirements for the Brazos River Authority. The purpose of budgeting and financial planning is to provide for the current and future needs of the Brazos River Authority, while providing a mechanism for planning and controlling costs. It is the intent of the Board of Directors to maintain a high level of financial stability and not to compromise long-term financial integrity to achieve short-term benefits.

#### Generally

The Brazos River Authority will adopt an annual operating plan ("AOP") prior to the start of each fiscal year. The AOP will authorize expenditures and direct objectives for the fiscal year. (TEX. WATER CODE §§ 49.057(b), 49.199(a)(6)(A); 30 TEX. ADMIN. CODE § 293.97(b).)

The Brazos River Authority will adopt a multi-year capital improvement plan ("CIP") prior to the start of each fiscal year. The CIP will authorize expenditures and direct objectives for the fiscal year. The CIP will authorize expenditures by project and may span several fiscal years.

The General Manager/Chief Executive Officer shall prepare and present a recommended AOP and CIP that meet the overall objectives and direction of the Board of Directors and standards for budgeting as established by state, federal, and/or industry requirements. A long-term financial forecast will be prepared and presented as part of the budget adoption and review process that takes into account all operating and capital requirements outlined in the AOP and CIP.

Adoption of the AOP and CIP shall authorize the General Manager/Chief Executive Officer to make expenditures for staffing, equipment, goods, and/or services and outlined therein and as authorized and/or restricted by Board Policy #2.01.

The Board of Directors may amend the AOP as needed to accommodate the needs of the Brazos River Authority Basin. The General Manager/Chief Executive Officer is authorized to transfer budgeted amounts among accounts and departments within major operating divisions, except as restricted by contractual agreements or as prohibited by law. Changes, transfers, or amendments that increase the total appropriated funds for a major division or capital project must be approved by the Board of Directors.

The Brazos River Authority shall give its wholesale potable water and wastewater services customers the opportunity to review and comment on the provisions contained in the annual budget that apply to these services before the budget is adopted. (TEX. WATER CODE § 49.200; 30 TEX. ADMIN. CODE § 292.11(a).)

# **INVESTMENTS AND FISCAL MANAGEMENT 4.2**

#### Generally

It is the policy of the Brazos River Authority, giving due regard to the safety and risk of investment, that all available funds shall be invested in conformance with state and federal law and applicable bond resolution requirements as well as the policies and investment strategy adopted by the Board of Directors. (TEX. WATER CODE §§ 49.157(a), 49.199(a)(3); TEX. GOV'T CODE §§ 2256.001-.055, 2257.001-.083.)

#### **Primary Objectives**

Effective cash management is recognized as essential to good fiscal management. Aggressive cash management and effective investment strategy development will be pursued to take advantage of interest earnings as viable and material revenue to all Brazos River Authority funds. The Brazos River Authority's portfolio shall be designed and managed in a manner responsive to the public trust and consistent with the provisions of this policy. Investments shall be made with the following primary objectives:

- (1) preservation of capital;
- (2) safety of Brazos River Authority funds;
- (3) maintenance of sufficient liquidity;
- (4) maximization of return within acceptable risk constraints;
- (5) diversification of investments; and
- (6) exemplary investment management. (TEX. GOV'T CODE §§ 2256.005(b)(2) & (3).)

#### Scope of Policy

This policy applies to all of the investment activities of the Brazos River Authority, excluding the Retirement Trust for Employees of Brazos River Authority and the Brazos River Authority 401(a) Employer Matching Contribution Plan non-vested funds. The goal of this policy is to establish guidelines for (1) the investment of Brazos River Authority funds, and for (2) the review of those investments. Bond funds, as defined by the Internal Revenue Service, shall be managed under the provisions of this policy as well as the provisions of any applicable state or federal law or governing resolution. (TEX. GOV'T CODE §§ 2256.004, 2257.003, 2257.081(a), 2257.082; 30 TEX. ADMIN. CODE § 292.13(3).)

#### Investment Strategy

In conjunction with the annual review of this policy, the Board of Directors shall adopt a separate written investment strategy for each of the funds or group of funds under its control. The investment strategy must describe the investment objectives for each particular fund according to the following priorities:

- (1) investment suitability;
- (2) preservation and safety of principal;
- (3) liquidity;
- (4) marketability prior to maturity of each investment;
- (5) diversification; and
- (6) yield. (TEX. GOV'T CODE § 2256.005(d).)

#### **Review and Amendment**

A detailed formal, written policy and investment strategy that meets the objectives and scope defined herein and the requirements of the Public Funds Investment Act, shall be reviewed and adopted annually by the Administration, Audit, Banking and Finance Committee and by the Board of Directors. Amendments to this policy and/or to the investment strategy must be approved by the Audit, Banking and Finance Committee and by the Board of Directors. The Board of Directors shall adopt a written resolution stating that it has reviewed this policy and the investment strategy. The resolution shall record any changes made either to this policy or to the investment strategy. (TEX. GOV'T CODE § 2256.001-.055.)

Authority for Policy 4.2

TEX. GOV'T CODE §§ 2256.001-.055, 2257.001-.083. TEX. WATER CODE §§ 49.156-.1571, 49.199(a)(3). EX. ADMIN. CODE § 292.13(3).

#### FINANCIAL AUDIT 4.3

#### Generally

A Comprehensive Annual Financial Report that complies with the Government Finance Officers Association of the United States and Canada Certificate requirements will be prepared and submitted to the Board of Directors.

An independent audit of Brazos River Authority financial statements and accounts will be conducted annually. The audit will be in accordance with generally accepted auditing standards and meet other applicable state and federal auditing standards as may apply to the Brazos River Authority and its funds.

The independent auditor will be selected by the Board of Directors, with the advice and recommendations of the General Manager/Chief Executive Officer and the Chief Financial Officer. The selected independent auditors will function in cooperation with, but be independent of Brazos River Authority's management.

The Brazos River Authority will conduct a comprehensive request for proposal process to evaluate independent financial auditors and services at least every five years. The evaluation process will be in accordance with state law for procurement of professional services.

The independent auditor will meet with the Board's Audit Committee at least once each year to discuss and report audit results and other related matters.

The independence of the auditor, both in appearance and in fact, is to be maintained within federal, state and industry guidelines. The independent auditor may be engaged to perform other audit and consulting services only if the Board of Directors specifically finds that the independence of the auditors is not compromised by the engagement.

The Board of Directors shall have the Brazos River Authority's fiscal accounts and records audited annually at the Brazos River Authority's expense. (TEX. WATER CODE § 49.191(a); see also SPEC. DISTS. CODE § 8502.005.)

The audit shall be performed by a certified public accountant or public accountant holding a permit from the Texas State Board of Public Accountancy. (TEX. WATER CODE § 49.191(c).)

The audit shall be completed within 120 days after the close of the Brazos River Authority's fiscal year. (TEX. WATER CODE § 49.191(d).)

The Brazos River Authority may change its fiscal year at any time; provided, however, it may not be changed more than once in any twenty- four-month period. After any change in the fiscal year, the Brazos River Authority shall notify the Texas Commission on Environmental Quality of such change within thirty days after adoption by the Board. (TEX. WATER CODE § 49.158.)

Except as otherwise provided by the accounting and auditing manuals adopted by the Texas Commission on Environmental Quality, the audit shall be performed according to the generally accepted auditing standards adopted by the American Institute of Certified Public Accountants. (TEX. WATER CODE § 49.192.)

The audit shall comply with Texas Water Code Section 49.199(a)(6)(C), which requires uniform reporting requirements that use "Audits of State and Local Government Units" as a guide on audit working papers and that use "Governmental Accounting and Financial Reporting Standards." (TEX. WATER CODE § 49.199(a)(6)(C).)

In conjunction with its annual financial audit, the Brazos River Authority shall perform a compliance audit of management controls on investments and adherence to Board Policy #4.02, Investments and Fiscal Management. (TEX. GOV'T CODE § 2256.005(m).)

#### Purpose of Audit

The Audit will be conducted in accordance with auditing standards generally accepted in the United States of America (GAAS); Government Auditing Standards issued by the Comptroller General of the United States (GAS); the provisions of the Single Audit Act; Subpart F of Title 2 U.S. CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; the U.S. Office of Management and Budget's Compliance Supplement; and guidance provided in the audit guide titled Government Auditing Standards and Circular A-133 Audits issued by the American Institute of Certified Public Accountants. Those standards, circulars, supplements, and guides require that the audit be planned and perform to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

#### Selection of Financial Auditor

The Brazos River Authority shall procure financial auditor services on the basis of demonstrated competence and qualifications to perform the services for a fair and reasonable price. As part of the selection process, the Brazos River Authority shall send requests for proposals to at least three pre-approved auditors for new projects expected to exceed \$25,000. (TEX. GOV'T CODE §§ 2254.001-.006; TEX. WATER CODE § 49.192; 30 TEX. ADMIN. CODE § 292.13(4)

The independence of the auditor, both in appearance and in fact, is to be maintained within federal, state, and industry guidelines.

#### Filing of Audit Reports

After the Board of Directors has approved the audit, it shall submit a copy of the report to the Texas Commission on Environmental Quality for filing within 135 days after the close of the fiscal year. If the Board refuses to approve the annual audit report, it shall submit a copy of the report to the Texas Commission on Environmental Quality for filing within 135 days after the close of the fiscal year, accompanied by a statement from the Board explaining the reasons for its failure to approve the report. The Brazos River Authority shall simultaneously file with the Texas Commission on Environmental Quality an annual filing affidavit stating that copies of the annual audit report have been properly filed. The affidavit shall be in the format prescribed by the Texas Commission on Environmental Quality. A copy of the audit report shall also be filed in the Brazos River Authority's office. (TEX. WATER CODE § 49.194.)

To the extent that the Brazos River Authority fails to comply with the filing requirements, it may be subject to a civil penalty of up to \$100 per day for each day that it willfully continues to violate the requirements after receipt of written notice of violation from the Texas Commission on Environmental Quality by certified mail, return receipt requested. The state may sue to recover the penalty. (TEX. WATER CODE § 49.003.)

# Review of Audit Report by Texas Commission on Environmental Quality

The Texas Commission on Environmental Quality may review the Brazos River Authority's annual audit report. If the Commission has any objections to or recommendations concerning the report, it shall notify the Brazos River Authority auditor and Board of Directors in order that the report be corrected. (TEX. WATER CODE § 49.195.)

#### **Fiscal Records**

The Brazos River Authority's fiscal records shall be prepared on a timely basis and maintained in an orderly fashion in accordance with generally accepted accounting principles. The records shall be available for public inspection during regular business hours. The fiscal records may be removed from the Brazos River Authority's office for the purposes of recording its fiscal affairs and preparing an audit, during which time the records are under the control of the Brazos River Authority's auditor. (TEX. WATER CODE § 49.196; 30 TEX. ADMIN. CODE § 293.95(a).)

#### Submittal of Annual Fiscal Report

The Brazos River Authority is required to submit an annual report of financial records to the Comptroller of Public Accounts pursuant to Texas Local Government Code Section 140.008. Section 140.008(g) provides that the Brazos River Authority satisfies this requirement if it submits its annual financial audit report conducted under Texas Water Code Section 49.194 to the Comptroller of Public Accounts. Accordingly, the Brazos River Authority shall submit its annual financial audit report to the comptroller of public accounts as provided in Texas Local Government Code Section 140.008(g). (TEX. LOCAL GOVERNMENT CODE § 140.008(h); TEX. WATER CODE § 49.194.)

#### Audit Committee

The Brazos River Authority shall have an audit committee of the Board of Directors. (TEX. WATER CODE § 49.199(a)(6)(B).)

Authority for Policy 4.3

SPEC. DISTS. CODE § 8502.005 TEX. GOV'T CODE §§ 2254.001-.006, 2256.005(m). TEX. LOCAL GOVERNMENT CODE §§ 140.008(g), (h). TEX. WATER CODE §§ 49.003. 49.158, 49.191, 49.192, 49.194-.196, 49.199(a)(6)(C). 30 TEX. ADMIN. CODE §§ 292.13(4), 293.95(a).

# **INDUSTRIAL DEVELOPMENT BONDS AND POLLUTION CONTROL BONDS 4.4**

The Brazos River Authority shall properly disclose the existence of any industrial development corporations with which it is associated. (TEX. WATER CODE § 49.199(a)(5); 30 TEX. ADMIN. CODE § 292.13(5).) The Brazos River Authority shall comply with the memorandum issued by the State Auditor on October 7, 1988 relating to the disclosure of industrial development and pollution control bonds. (TEX. WATER CODE § 49.199(a)(5); 30 TEX. ADMIN. CODE § 292.13(5).)

Authority for Policy 4.4

TEX. WATER CODE § 49.199(a)(5). 30 TEX. ADMIN. CODE § 292.13(5).

#### CAPITAL IMPROVEMENT PLAN 4.5

#### Purpose

The goal of the Capital Improvement Plan (CIP) is to maintain the Brazos River Authority's physical infrastructure at a level adequate to protect the Brazos River Authority's capital investment, minimize future maintenance and replacement costs, and provide expansion to meet the long-term needs of the basin.

#### Generally

The Brazos River Authority will adopt and update a multi-year plan for capital infrastructure maintenance and expansion as part of the Annual Operating Plan (AOP) process. The CIP will identify estimated costs, timelines, and funding sources for applicable projects.

Capital infrastructure includes dam and gate infrastructure, water and wastewater treatment facilities, transmission pipelines, intake structures, office and administrative facilities, and the professional services required to acquire, design, construct or rehabilitate the aforementioned. Capital infrastructure does not include items determined to be operating capital.

The Board of Directors may amend the CIP as needed to accommodate the needs of the Brazos River Authority Basin.

The Brazos River Authority will maintain a scheduled level of maintenance and replacement for its operating capital. Operating capital items include, but are not limited to, fleet, information technology hardware and software, communications equipment and software, and heavy machinery.

#### **CONTINGENCY RESERVES 4.6**

Maintaining financial integrity is critical to accomplishing the mission of the BRA and establishing reserve funds will maintain the BRA's financial integrity while serving the long-term interests of its customers. It is prudent to establish both Operating and Non-Operating Reserve Funds. The Operating and Non-Operating Reserve Funds should be funded through deposits of Net Revenue to the Water Supply System.

Operating and Non-operating Reserves are created to meet different needs, each with a distinct set of characteristics as to utilization. The Brazos River Authority has created five (5) Reserve Funds:

- (1) Working Capital Fund;
- (2) Repair and Replacement Fund;
- (3) Contingency Reserve Fund;

- (4) Self Insurance Fund; and
- (5) Rates Stabilization Reserve Fund.

The Working Capital Fund is only used to cover operations and maintenance cash flow needs created by the timing difference between the Authority's billing cycle and receipt of payments. Due to the contractual nature of the Brazos River Authority's Water Supply System income stream and the nature of the Brazos River Authority's expenditures, Working Capital needs are reasonably predictable and should be no less than 90 days of annual Water Supply System operation and maintenance expense. The Board of Directors will establish the annual budgeted Operating Reserve Working Capital Fund at a target level of not less than 90 days of budgeted Water Supply System operation and maintenance expense.

The Repair and Replacement Fund is required by the Brazos River Authority's Bond Covenants and will be only used for the purpose of making repairs (including emergency repairs) to the System of an extraordinary nature required by normal and customary wear and use, and for providing replacements as called for in the Bond Covenants. A Repair and Replacement Fund avoids the necessity of issuing debt for eligible expenses in addition to outstanding debt issued previously for the original acquisition or construction of a facility. The covenants for the Brazos River Authority's outstanding Water Supply System Revenue Bonds establish a Repair and Replacement Fund to be maintained at a minimum level in the amount of \$200,000.00 (Two Hundred Thousand Dollars) or such increased amount, which may be established from time to time by the Board of Directors following review of the System at five year intervals by the Brazos River Authority. The first five year interval began with the issuance of the Brazos River Authority's Water Supply System Revenue Bonds, Series 2001A and Series 2001B (dated May 1, 2001). Emergency Repairs are defined as any unexpected or unbudgeted repair, which, if not affected immediately, will adversely affect the operations of a facility. The General Manager/CEO may approve expenditures from the Repair and Replacement Fund up to the \$500,000 spending limit established in the Brazos River Authority's General Operating Procedures, Section 2.01, for Emergency Repairs without prior approval of the Board of Directors. Such disbursements will be reported to the Board at their next regularly scheduled meeting. All other expenditures from the Repair and Replacement Fund should be authorized by the Board beforehand.

A Self Insurance Reserve Fund can only be used to pre-fund insurance deductibles and unanticipated or uninsured losses for general liability, property, casualty, workers' compensation and other risk expenses. As the number of facilities owned by the Brazos River Authority increases, the incidence of insurance requiring deductibles, the lack of coverage over certain limits, and other non-insured risks will increase. A Self Insurance Reserve Fund allows flexibility in pricing insurance coverage by examining variances in assumed risk versus premium quotes. The Self Insurance Reserve Fund target level should be based upon an actuarial analysis of potential exposures from unfunded liabilities. All expenses incurred for deductibles, coinsurance or uninsured claims and/or losses will be paid directly from this fund.

A Rates Stabilization Reserve Fund is needed to only address fluctuations in revenue requirements that will occur year-to-year based on significant increases in capital needs, among other things, and whether Working Capital Reserve Targets and Coverage Targets are maintained. Pre-funding significant capital improvements through a Rates Stabilization Reserve Fund can minimize long-term rate impacts and developing a Rates Stabilization Reserve Fund in anticipation of fluctuations in revenue requirements will moderate the need for significant rate changes. The Rates Stabilization Reserve Fund will be replenished only after all other Operating and Non-Operating Reserves have been either funded or have met their annual replenishment target. The Rates Stabilization Reserve Fund can also be used as a source of funding to address cash flow needs for major projects that are anticipated to be ultimately financed through the issuance of bonds or some other form of indebtedness. When the Rates Stabilization Reserve Fund is used for cash flow purposes, a Reimbursement Resolution will be executed by the General Manager/CEO in order to preserve the ability to issue Bonds in the future to replenish the balance of the Rates Stabilization Reserve Fund that has been depleted due to cash flows.

At no time shall any Operating or Non-Operating Reserve be used to make or pay any Debt Service on any outstanding or future bonds issued by the Brazos River Authority which have a pledge of revenues derived through the operation of the Brazos River Authority's Water Supply System. Debt Service payments shall only be made from those sources of funds specifically set aside and accounted for separately for the purpose of making Debt Service payments from the Brazos River Authority's Water Supply System.

If at any time any of the Reserves are depleted to a level that is less than the target levels prescribed, the Board of Directors will promptly implement a plan, to be recommended by the General Manager/CEO which could include rate increases, cost reductions, or any other means deemed appropriate to achieve sufficient Net Revenue to replenish the reserves to the prescribed target levels within no less than 36 months from the end of the fiscal year in which such depletions occurred.

# <u>DEBT 4.7</u>

#### Purpose

Debt financing may be used when non-continuous capital improvements are desired, and future citizens/customers will receive a benefit from the improvement. The Board of Directors intends that all debt financing maintain a high level of financial stability and not compromise long-term financial integrity to achieve short-term benefits.

# Generally

The issuance of debt requires an affirmative vote of the Board of Directors. The General Manager/Chief Executive Officer is authorized to approve resolutions expressing official intent to reimburse costs of projects from debt financing that meet state and federal requirements.

The Brazos River Authority will ensure that the debt is soundly financed by:

- (1) conservatively projecting the revenue sources that will be utilized to pay the debt;
- (2) financing the improvement(s) over a period not greater than the useful life of the improvements; and
- (3) determining that the cost benefit of the improvement including interest costs is positive.

The Brazos River Authority will not issue debt for working capital items.

Debt reserves will be established to protect bondholders from payment default. Adequate bond reserves are essential in maintaining good bond ratings and the marketability of bonds. Debt reserves, through cash or surety bonds, will be established by bond resolution.

For debt to be paid from water supply system revenues, the Brazos River Authority will maintain debt service coverage ratio of 1.10 with a target of 1.30. The debt coverage ratio will be calculated and reviewed as part of the annual budget process. (TEX. GOV'T CODE §§ 1371.001-.106.)

Authority for Policy 4.7

TEX. GOV'T CODE §§ 1371.001-.106.

# PRICING 6.6

#### Purpose

The purpose of this policy is to establish the pricing policy of the Brazos River Authority for the water and services provided by the Brazos River Authority.

#### Pricing, Generally

The Brazos River Authority shall establish rates for the sale of water and services that are fair, reasonable, and nondiscriminatory. (TEX. WATER CODE §§ 13.001(c), 13.043(j), 13.182, 13.186(a); see also TEX. WATER CODE §§ 11.036, 11.038.)

#### Rate-Setting Criteria

In setting rates, the Brazos River Authority shall consider, but not be limited to, the following criteria:

- (1) Payment of all Operating and Maintenance Expenses;
- (2) Production of Net Revenues at least 1.30 times the Maximum Annual Debt Service Requirements of outstanding Bonds; and
- (3) Payment of all other obligations of the System; including the Debt Service Requirements for the year for which rates are being set.

#### Water Sales Contracts

All future water sale contracts shall contain conditions requiring such conservation and water quality measures that may, in the opinion of the Brazos River Authority, be feasible, economical, and appropriate. The Brazos River Authority shall not supply or commit to supply any water to any other party except pursuant to a written contract. All contracts and resolutions along with associated rates will be considered to be for firm uninterruptible water unless the contract specifically provides that such commitment is subject to interruption or curtailment.

#### Responsibility of General Manager/Chief Executive Officer

It shall be the responsibility of the General Manager/Chief Executive Officer to see that all rates and rate changes are presented to the Board of Directors for approval and that all customers are afforded an opportunity to comment on such actions prior to the Board's approval.

#### Requirement to Publish Rules and Regulations

The Brazos River Authority shall make and publish reasonable rules and regulations relating to:

- (1) the method by which it will supply water;
- (2) the use and distribution of the water; and
- (3) the procedure for applying for the water and for paying for it. (TEX. WATER CODE § 11.037(a).)

#### Rights of Owners of Land Adjoining Water Source

A person who owns or holds a possessory interest in land adjoining or contiguous to a canal, ditch, flume, lateral, dam, reservoir, or lake ("water source") constructed and maintained under the provisions of chapter 11 of the Texas Water Code (pertaining to water rights) and who has secured a right to the use of water in the water source is entitled to be supplied from the water source with water for agricultural uses, mining, milling, manufacturing,

development of power, and stock raising, in accordance with the terms of the person's contract. (TEX. WATER CODE § 11.038(a).)

To the extent that the Brazos River Authority owns or controls the water in the water source, and the Brazos River Authority and the person owning or holding a possessory interest in the land adjoining or contiguous to the water source cannot agree on a price for a permanent water right or for the use of enough water for irrigation of the person's land or for agricultural uses, mining, milling, manufacturing, development of power, or stock raising, then the Brazos River Authority, if it has not contracted to others, shall furnish the water necessary for these purposes at reasonable and nondiscriminatory prices. (TEX. WATER CODE § 11.038(b).)

# Standby Fees

The Brazos River Authority, to the extent it provides or proposes to provide retail potable water, wastewater, or drainage services, may, with approval of the Texas Commission on Environmental Quality, adopt and levy standby fees. A standby fee means a charge, other than a tax, imposed on undeveloped property for the availability of water, wastewater, or drainage facilities and services. A standby fee does not mean an impact fee, tap fee, or a connection fee. (TEX. WATER CODE § 49.231; 30 TEX. ADMIN. CODE § 293.141.)

If the Brazos River Authority imposes standby fees, it must do so in compliance with the provisions of § 49.231 of the Texas Water Code and chapter 293, subchapter m, of title 30 of the Texas Administrative Code. (TEX. WATER CODE § 49.231; 30 TEX. ADMIN. CODE §§ 293.141-.150.)

#### Impact Fees

The Brazos River Authority may make application to the Texas Commission on Environmental Quality for approval of the assessment of impact fees. An Impact Fee is a charge or assessment imposed by the Brazos River Authority against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to such new development. An impact fee is also a charge or fee by the Brazos River Authority for construction, installation, or inspection of a tap or connection to Brazos River Authority water, wastewater, or drainage facilities, including all necessary service lines and meters, or for wholesale facilities that serve such water, sanitary sewer, or drainage facilities, that:

- (1) does not exceed three times the actual and reasonable costs to the Brazos River Authority for such tap or connection; or
- (2) if made to a nontaxable entity for retail or wholesale service, does not exceed the actual costs to the Brazos River Authority for such work and for all facilities that are necessary to provide Brazos River Authority services to such entity and that are financed or are to be financed in whole or in part by tax-supported or revenue bonds of the Brazos River Authority, shall not be deemed to be an impact fee. (30 TEX. ADMIN. CODE §§ 293.171(1), 293.172.)

If the Brazos River Authority assesses impact fees, it must do so in compliance with the provisions of Chapter 395 of the Local Government Code and Chapter 293, subchapter n, of title 30 of the Texas Administrative Code. (Tex. Local Gov't Code Chapter 395; Tex. Water Code § 49.212(d); 30 TEX. ADMIN. CODE §§ 293.171-.176.)

Authority for Policy 6.6

TEX. LOCAL GOV'T CODE CHAPTER 395. TEX. WATER CODE §§ 11.036, 11.037, 11.038, 13.001(c), 13.043(j), 13.182, 13.186(a), 49.212(d), 49.231. 30 TEX. ADMIN. CODE §§ 293.141-.150, 293.171-.176



### RESOLUTION OF THE BOARD OF DIRECTORS OF THE BRAZOS RIVER AUTHORITY JULY 26, 2021

### Agenda Item No. 12 Fiscal Year 2022 Annual Operating Plan (Budget) and Adoption of Budget

**"BE IT RESOLVED** by the Board of Directors of the Brazos River Authority (Board) that the Fiscal Year 2022 Annual Operating Plan and Multi-Year Capital Improvement Plan (Budget) as presented to the Board at the July 26, 2021 meeting be approved and adopted, including the following provisions:

**BE IT FURTHER RESOLVED** that the General Manager/CEO is hereby authorized to make expenditures and enter into contracts for expenditures as listed in the Budget, in accordance with the Brazos River Authority's General Operations Practices, Policy 2.01, Authority And Responsibilities Of The Board Of Directors And General Manager/Chief Executive Officer,

**BE IT FURTHER RESOLVED** that the General Manager/CEO is hereby authorized to make adjustments in the individual line item amounts of the Budget provided that the total amount expended shall not exceed the total amount authorized for each operating division as follows:

Water Supply	\$ 59,447,961
Cost Reimbursable	_ <u>15,071,458</u>
<b>Total Operating Budget</b>	<u>\$ 74,519,419</u>
Water Supply	\$ 62,191,000
Cost Reimbursable	<u>3,242,000</u>
<b>Total Capital Budget</b>	<u>\$ 65,433,000</u>

**BE IT FURTHER RESOLVED** that the Board hereby adopts the Multi-Year Capital Improvement Plan as presented in the Budget;

**BE IT FURTHER RESOLVED** that the Board hereby approves and adopts a rate of \$83.00 per acre-foot of water annually for Fiscal Year 2022, for both the System Water Rate and the Interruptible Water Rate;

**BE IT FURTHER RESOLVED** that the Board hereby approves and adopts a rate of \$58.10 per acre-foot of water annually for Fiscal Year 2022, for the Agricultural Water Rate;

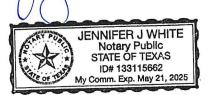
**BE IT FURTHER RESOLVED** that the Board hereby approves and adopts a methodology for Quarterly Payments or Monthly Payments to include a multiplier to be applied to the annual payment to allow the Brazos River Authority to recover interest lost on any unpaid balance plus a Service Charge for administrative costs, including, but not limited to, costs involving the billing, accounting and collecting for the quarterly or monthly payments;

**BE IT FURTHER RESOLVED** by the Board that the methodology used to determine the multiplier consists of applying the current savings rate the Brazos River Authority would be earning on the funds if paid in full annually, to the unpaid balance on a monthly or quarterly schedule, to determine lost interest; and that the Service Charge shall remain at twenty dollars (\$20.00) per invoice to cover additional administrative costs for billing, accounting and collecting the associated payments. The annual interest rate of 4.0% and a daily interest rate charge of .0109589% (4%  $\div$  365) to be applied for quarterly and monthly payments for Fiscal Year 2022 shall remain the same."

The aforementioned resolution was approved by the Board of Directors of the Brazos River Authority on July 26, 2021, to certify which witness my hand and seal.

Cynthia/A. Flores

**Cynthia**/**A. Flores** Presiding Officer



Notary Public in and for the State of Texas

Board of Directors July 26, 2021

GLOSSARY AND ACRONYMS

### Glossary

**100-year flood** - the magnitude of flood that might be expected to occur, on average, once every 100 years. A flood that has a 1% chance of occurring in any given year.

**accrual accounting** – a basis of accounting in which revenues are recognized in the accounting period in which they are earned, and expenses are recognized when they are incurred.

**acre-foot (AF)** - the volume of water required to cover an acre of ground to a depth of one foot. one acre-foot = 325,851 gallons of water.

**activated sludge process** - a biological wastewater treatment process in which a mixture of wastewater and activated sludge is agitated and aerated.

**appropriation** – an authorization made by the Board of Directors through an approved budget which permits the BRA to incur obligations and to make expenditures of resources. Appropriations lapse at the end of the fiscal year.

available yield - the amount of water available for long-term sale.

**balanced budget** - a budget is balanced when current expenditures are equal to or less than current revenues.

**billing unit** - for purposes of the BRA's System Water Rate, one acre-foot of water committed under a long-term contract.

**cfs** - cubic foot (or feet) per second. A measure of flow rate. One cubic foot per second equals about 7.5 gallons. It is the principal measurement used to gauge water discharge. 1 cfs is equal to a block of water one foot cubed flowing at an average velocity of one foot per second.

**conservation pool** - that portion of the water impounded by a dam that is reserved to meet water supply needs.

**dependable yield** – same as Firm Yield. It is the maximum volume of water which could be removed from a reservoir each year during a repeat of the drought of record. Analysis to determine firm yield includes considerations of the storage requirements of other reservoirs in the system and assumes that the reservoir's conservation pool is full at the beginning of the drought.

**diversion point** - physical location where water is withdrawn from a lake, river or stream for consumptive use. For example, water from a reservoir may be under contract to be supplied at a point downstream. Water is released from the lake to be made available at the diversion point.

**dsf** - day second foot (or feet). A measure of water volume equal to an average flow of one cubic foot per second for a 24-hour period. 1 dsf = 1.9835 acre-feet

**effluent** – something that flows out, in the context of water and wastewater treatment, it is the treated flow that leaves the treatment facility and is either re-used or enters the environment.

**enterprise fund** – a fund established to finance and account for operations (1) that are financed and operated in a manner similar to private business enterprises – where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (2) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purpose.

**fecal coliform** - rod-shaped bacteria from the colon that are generally introduced into the environment through feces.

**firm yield** – Same as Dependable Yield. The maximum volume of water which could be removed from a reservoir each year during a repeat of the drought of record. Analysis to determine firm yield includes consideration of the storage requirements of other reservoirs in the system and assumes that the reservoir's conservation pool is full at the beginning of the drought.

**flood pool** - the volume of space behind a dam which is specifically designed and built to capture flood water to alleviate flood damage downstream.

flood plain - an area of low-lying land adjacent to a river that is subject to periodic flooding.

**GIS** - Geographic Information System. A computer-based system for storing, analyzing and displaying various data in association with a geographic location.

**gpm** - gallons per minute.

**groundwater** - water that comes from beneath the surface of the ground, consisting largely of precipitation and surface water that has percolated down. Includes water that comes from wells or springs.

**hydrology** - having to do with the occurrence, circulation, distribution and properties of the waters of the Earth and the Earth's atmosphere.

**industrial pretreatment program (IPP)** - treating wastes at an industrial site to remove specified compounds or wastes prior to releasing the plant waste into the sewerage system.

**mgd** - million gallons per day.

mg/l - milligrams per liter; standard measurement for sampling water quality parameters.

**non-point source** - accumulated pollutants in water or air that do not originate from a single discrete source.

**NPW** – non-potable water. Water that has not been examined, properly treated, and not approved by appropriate authorities as being safe for consumption.

**OSSF** – On-Site Sewage Facility

penstocks - large tubes which carry water to the turbines in the hydroelectric facility.

**piezometers** - instruments designed to measure fluid pressure.

**pH** - hydrogen ion concentration, determines the acidic or basic condition of water. A pH of 2 would be acidic, a pH of 7 would be neutral and a pH of 10 would be caustic.

**PLC** – Program Logic Controller - is a digital computer used for automation of electromechanical processes.

**PMF** - probable maximum flood; the worst flood that could be expected to occur in a specific area as a result of the most adverse combination of meteorological and hydrological conditions, often resulting in extremely low probability of occurrence.

**point source** - pollutants in water or air that can be traced to a single effluent pipe or smokestack.

potable water - treated water that is suitable for human consumption.

**raw water** - untreated water from a lake, river or stream; not suitable for human consumption but generally usable for irrigation or industrial purposes.

**RMP** – Risk Management Plan

**run-of-the-river water permit** - water rights which can be exercised only if water is physically available for withdrawal from the stream at the permitted diversion site.

**sediment pool** - the space reserved in a reservoir for future deposits of naturally occurring soil and organic materials in a lake impoundment that occur as a result of stream run-off and riverbank erosion.

**spall** - a fragment removed from the face or edge of a material, such as stone or concrete, by age or weathering.

**spillway gates** - the spillway is the portion of a dam designed to have water flowing over it. Spillway gates are structures designed to control the quantity of water flowing over a spillway.

**standard project flood** - a flood of a particular size that could be expected to occur from the most severe combination of meteorological and hydrological conditions that are reasonably characteristic of a given area. It sets the standard for protection to be sought by the Corps of Engineers in designing flood control projects. A typical standard project flood is one which may be expected to occur once every 500 years.

**stilling basin** - feature of many dams, located directly below water release gates (and other discharge facilities) to dissipate the high energy (velocity) of the discharged waters to prevent damage to natural features below the dam.

**storage water permit** - water rights granted by the State which allow the BRA and other agencies to store water.

**stream gauging network** - system of equipment installed and operated, usually by the U.S. Geological Survey, to supply information about stream conditions. Usually includes elevation of water and quantities of water (flow rates) at the measurement station. May also include some water quality parameters.

**surface water** - all water on the surface of the Earth including lakes, ponds, rivers, oceans, streams, puddles, as distinguished from groundwater.

**system operations order** - a permit which allows the BRA to manage its individual reservoirs as elements of a single system. This allows the BRA to select the "best" reservoir from which to release water to meet a customer's need, thereby increasing efficiency and reducing water lost to evaporation during delivery to a customer.

**system water rate** - the billing rate per acre-foot of water per year set by the Brazos River Authority's Board of Directors (usually in July). It is determined by dividing the total cost of service to provide water by the total billing units (the total amount of water committed under long-term water contracts).

**System Water Availability Agreement** - the BRA's current standard long-term water supply contract for water to be made available to purchase from the BRA's system of water supply reservoirs, with the water being made available under the SWAA being purchased at the System Water Rate.

**System Water Supply Agreement** - a long-term water supply contract for a specific quantity of water from one or more of the BRA's system of water supply reservoirs, with that water being purchased at the System Water Rate. Superseded as the standard form of long-term water supply contract in 2000 by the System Water Availability Agreement (q.v.).

**tailwater** - elevation of water below a dam. Comparing tailwater elevation to headwater elevation (the height of water in the reservoir impounded by the dam) allows the calculation of the amount of water flowing through a turbine.

**take-or-pay** - a water supply contract which specifies that the water user pays for a specified quantity of water committed to it whether any water is actually used by the customer or not.

**TDS** - total dissolved solids, usually a water quality measurement.

**TMDL** - Total Maximum Daily Load. The Clean Water Act requires the determination of the maximum daily loading of any contaminant that has been demonstrated to cause a violation of Stream Standards.

**TPDES** - Texas Pollutant Discharge Elimination System. Each of the BRA's treatment plants is required to operate under the terms of a specific TPDES permit administered by the Texas Commission on Environmental Quality (TCEQ).

**TSS** - total suspended solids, usually a water quality measurement.

**turbidity** - a condition in water caused by the presence of suspended matter which results in the scattering and absorption of light.

water right - a legal right to use a specified amount of water for a beneficial purpose.

**water supply release** - discharge of water from a reservoir for downstream use to fulfill a water supply contract.

**watershed management** - management of water quality throughout a watershed drainage area by identifying and assessing activities and land-use patterns.

working capital - the excess of current assets over current liabilities.

.

## Brazos River Authority Acronyms, Agencies, Organizations

**AF** – acre foot/feet

AG – Attorney General

**Alliance** – The Brazos-Colorado Water Alliance created by the Brazos River Authority and the Lower Colorado River Authority to pursue water projects of benefit to both river basins.

- **AOP** Annual Operating Plan (the annual budget)
- BCRUA Brushy Creek Regional Utility Authority
- BCRWS Brushy Creek Regional Wastewater System
- **BEPC** Brazos Electric Power Cooperative
- **BOD** Board of Directors
- BRA Brazos River Authority
- **CCTV** Closed Circuit Television
- CFO Chief Financial Officer
- **CIP** Capital Improvement Project
- **COC** Controlled Outlet Conduit
- **CPI** Consumer Price Index

**CRP** – Clean Rivers Program. Created by the Texas Legislature in 1991 and is managed and funded by TCEQ. The BRA is the CRP contractor for the Brazos River basin.

**CRRSS** – Clute-Richwood Regional Wastewater System

- **CWA** Clean Water Act
- **DCB** DeCordova Bend Dam (Lake Granbury)
- **DSL** Digital Subscriber Line
- **DSSMP** Dam Safety Surveillance and Monitoring Plan
- ECI Employment Cost Index
- **EPA** Environmental Protection Agency

EWCRWS – East Williamson County Regional Water System

- F&A Finance and Administration
- FERC Federal Energy Regulatory Commission
- **FEMA** Federal Emergency Management Agency
- FY Fiscal Year
- **G&CR** Government and Customer Relations
- **GAAP** Generally Accepted Accounting Principles
- GASB Governmental Accounting Standard Board
- **GFOA** Government Finance Officers Association
- **GIS** Geographic Information Systems
- GM/CEO General Manager / Chief Executive Officer
- HB House Bill
- HD High Definition
- HL&P Houston Lighting & Power Company
- **HR** Human Resources
- ICMA International City Manager's Association
- **IPP –** Industrial Pretreatment Program
- IT Information Technology
- IWRP Integrated Water Resources Plan
- LCRA Lower Colorado River Authority
- LG Lake Granbury
- LIMS Lab Information Management System
- LL Lake Limestone
- LOA Letter of Agreement
- **LRFP** Long Range Financial Plan
- MG million gallons

- **MGD** million gallon per day
- **MOU** Memorandum of Understanding
- **MSD** Morris Sheppard Dam (at Possum Kingdom)
- MSL mean sea level
- MUD Municipal Utility District
- NWS National Weather Service
- **O&M** Operations and Maintenance
- P&I Principal and Interest
- **PBW –** Project Budget Worksheet Tool for capturing information about capital projects
- **PK** Possum Kingdom Lake
- **PUC** Public Utility Commission
- **R&R** Repair and Replacement
- **RFB** Request for Bids
- **RFP** Request for Proposals
- **RFQ** Request for Qualifications
- RSMU Reservoir System Maintenance Unit
- **SB** Senate Bill
- **SCADA** Supervisory Control and Data Acquisition
- **SCR** Sterling C. Robertson Dam (Lake Limestone)
- **SCWTP** Sandy Creek Water Treatment Plant
- SLGW Sugar Land Greatwood Plant
- **SLNP** Sugar Land North Plant
- SLNT Sugar Land New Territory Plant
- **SLSP** Sugar Land South Plant
- SLRSS Sugar Land Regional Sewerage System
- **SOI** Statement of Interest
- **SUD** Special Utility District

SWP – State Water Plan

TAES – Texas Agricultural Extension Service

**T-B WWTP** – The Temple-Belton Wastewater Treatment Plant

**TCEQ** – Texas Commission of Environmental Quality (formerly Texas Natural Resource Conservation Commission (TNRCC)). TNRCC was created September 1, 1993, with the merger of the Texas Water Commission and the Texas Air Control Board.

**TIAER** – Texas Institute for Applied Environmental Research, located at Tarleton State University in Stephenville, TX

TML – Texas Municipal League

**TPDES** – Texas Pollutant Discharge Elimination System

- **TPWD** Texas Parks and Wildlife Department
- **TRA** Trinity River Authority
- **TXU** Texas Utilities

**TWC** – Texas Water Commission (predecessor of the Texas Natural Resource Conservation Commission)

- **TWCA** Texas Water Conservation Association
- **TWDB** Texas Water Development Board
- **USACE** U.S. Army Corps of Engineers
- **USGS** United States Geological Service
- WCID Water Conservation and Improvement District
- WCRRWL Williamson County Regional Raw Water Line
- WEAT Water Environment Association of Texas
- **WMP** Water Management Plan
- **WPP** Watershed Protection Plan
- WWTP Wastewater Treatment Plant

# **Flooding Definitions**

**Caution stage -** significant rise within the river channel; will not exceed bank full but is a threat to equipment and livestock in the main river channel and tributaries.

**Bank full stage -** portions of banks of main channel or tributaries under water but not significantly into flood plain.

**Minor lowland flooding -** river flow extending into flood plain but not causing any damage.

**Moderate lowland flooding -** river flow extending well into flood plain and causing damage to crops, pasture land; minor roads flooded.

**Major lowland flooding -** extensive flooding of flood plain; primary roads flooded; evacuations; residences and commercial buildings may be flooded.

### Conversions:

#### Volumes:

- 1 cubic foot = 7.48 gallons
- 1 acre-foot = 43,560 cubic feet
- 1 day second foot = 1.935 acre feet
- 1 acre-foot = 325,851 gallons
- 1 million gallons per day (MGD) = 1,120 acre-feet per year

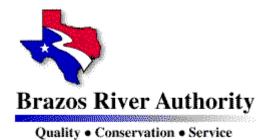
Flow Rates (volume divided by time):

1 cfs = 448.8 gallons per minute

1 cfs for 1 day = 2 acre-feet = 1 dsf

#### **Concentrations:**

mg/I = mass (milligram) in volume (liter) or approximately 1 part per million ppm = parts per million ppb = parts per billion



This page left blank intentionally