



John Keel, CPA
State Auditor

An Audit Report on

The Brazos River Authority

August 2014

Report No. 14-040

Overall Conclusion

The Brazos River Authority (Authority) has processes and controls for financial management, determining employee compensation, and funding and managing capital projects to ensure that it complies with state requirements and Authority policies and procedures. In addition, the Authority has sufficient documentation to support its decision to decommission a hydroelectric facility in 2010. That process included gathering information from multiple sources and performing a cost analysis.

However, the Authority did not always have approved, written procedures for certain key financial and information technology processes and did not consistently adhere to its human resources policy. The Authority also should strengthen certain information technology controls over its financial data.

The Authority substantially complied with state requirements and Authority policies and procedures for financial management.

The Authority has implemented processes for receiving and depositing customer payments, purchasing, paying invoices, paying employees, and managing its assets. Specifically, the Authority:

- Billed its water supply and cost reimbursable customers based on approved rates and contract terms, made timely deposits, and performed monthly account reconciliations.
- Adequately segregated its duties for paying invoices and ensured proper authorization of payments.
- Procured goods and services in compliance with statute and the Authority's operations policy.
- Recorded capital assets in its asset management system, performed annual inventories, and obtained approval from its Board of Directors for asset disposals in accordance with Authority procedures and state law.

Background Information

The Texas Legislature created the Brazos River Authority (Authority) in 1929 to develop and manage the water resources of the Brazos River basin. As of April 2014, the Authority had 255 employees who develop and distribute water supplies, provide water and wastewater treatment, monitor water quality, and pursue water conservation through public education programs.

The Brazos River is the longest river in Texas, with its watershed stretching from New Mexico to the Gulf of Mexico.

The Authority does not levy or collect taxes and does not receive subsidies from the State or the counties it serves. Except for occasional governmental grants, the Authority earns funds entirely through water and wastewater management and water supply sales.

In fiscal year 2013, the Authority's operating revenue was \$52,836,000, and its operating expenses were \$43,936,000.

Source: The Authority.

However, the Authority does not have approved, written procedures for purchasing, paying invoices, or paying employees, and it did not consistently adhere to its human resources policy. Specifically, the Authority did not ensure that supervisors reviewed time sheets the Human Resources Department approved when the supervisors were not available. Without supervisor review, the Authority cannot verify that the reported hours on the approved time sheets accurately reflect the hours worked.

The Authority has implemented processes to ensure that its compensation decisions and pay actions are supported and authorized.

The Authority's process for determining compensation rates included contracting for compensation studies and annually monitoring economic conditions. In addition, the Authority performed employee evaluations to support recommended pay actions, which the Authority's general manager approved in accordance with Authority policies. The Authority's Board of Directors evaluated the general manager's performance and approved all related pay actions.

The Authority has implemented processes for funding and managing capital projects.

The Authority has effective processes for assessing and funding capital projects to help ensure that it complies with Authority policies and state requirements when it issues bonds and disburses bond and reserve fund proceeds. Those processes include determining need, obtaining authorization, and monitoring project progress through onsite inspections and invoice review. For all projects audited, the Authority disbursed funds within the approved scope of the projects and, for bond-funded projects, in accordance with the bonds' purposes.

The Authority had sufficient documentation supporting its decision to shut down and decommission its hydroelectric facility at Possum Kingdom Lake.

The Authority considered information from multiple sources to arrive at its decision to shut down the hydroelectric facility at Possum Kingdom Lake for safety reasons. That included information from multiple engineering firms over several years regarding the deterioration of the facility and related safety issues. In addition, the Authority contracted with professional engineering, legal, and energy firms to assess the costs for alternate scenarios, including rehabilitating and decommissioning the facility.

The Authority also consulted with a finance company to determine the best financing options for both scenarios. The cost analysis showed a net loss of \$17.8 million to rehabilitate the facility and a cost of \$8 million to decommission the facility. The documentation shows that the Board was regularly updated about the Possum Kingdom Lake facility before it voted unanimously in November 2010 to decommission it.

The Authority should strengthen some of its information technology controls.

The Authority has some information technology controls over its financial data; however, it should implement a process to secure access to its financial data and remove inappropriate user accounts. Additionally, the Authority should strengthen its information technology policies and procedures related to user access, passwords, and backups.

Auditors communicated other, less significant issues related to the Authority's financial management processes to Authority management separately in writing.

Summary of Management's Response

The Authority agreed with the recommendations in this report. The Authority's detailed management responses are presented immediately following each set of recommendations in the Detailed Results section of this report.

Summary of Information Technology Review

Auditors performed a limited review of selected general controls governing the operations of two systems: the Authority's financial system and the Authority's payroll contractor's system. Auditors reviewed controls over user access, passwords, and backup and recovery and determined that the Authority has implemented controls over passwords and backup and recovery. However, as discussed above, the Authority should strengthen user access controls and its information technology policies and procedures related to user access, passwords, and backups.

Summary of Objective, Scope, and Methodology

The objective of this audit was to determine whether selected Authority financial management processes and related controls help ensure compliance with state requirements and Authority policies and procedures and prevent or detect fraud, waste, and abuse.

For activities related to the Authority's financial management processes, executive compensation, bond issuance, and capital projects management, the scope of this audit covered the time period from September 1, 2010, to January 31, 2014. For the activities related to the decisions affecting the decommissioning of the hydroelectric facility, the audit scope went back to 2003, to cover the time period during which the Authority made relevant decisions.

The audit methodology included gaining an understanding of and evaluating the controls over selected financial management processes at the Authority, including controls related to revenues, assets, and expenditures. Auditors also evaluated the

Authority's decisions related to executive compensation, capital project management, and the decommissioning of the hydroelectric facility at Possum Kingdom Lake. Auditors interviewed Authority personnel, analyzed accounting data, performed testing, and evaluated the results. Auditors also reviewed Authority policies and procedures, the Texas Administrative Code, the *Texas Commission on Environmental Quality Water District Financial Management Guide*, and relevant statutes.

Auditors assessed the reliability of the data used in the audit by performing a limited review of controls for two systems: the Authority's financial system (Lawson) and the Authority's payroll contractor's system. Auditors performed analytical procedures on the data, traced the data to supporting documentation, and performed a limited review of selected general controls governing the operations of the two systems. In addition, auditors reviewed the payroll contractor's *Service Organization Controls (SOC 1) Report on the Suitability of the Design and Operating Effectiveness of Controls* for fiscal year 2013. Auditors determined that the data in the two systems was sufficiently reliable for the purposes of this audit.

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Detailed Results

Chapter 1

The Authority's Financial Management Processes Substantially Comply with State Requirements and Authority Policies and Procedures; However, the Authority Should Ensure That It Has Written Procedures

The Brazos River Authority (Authority) has controls in place over key financial management processes to ensure substantial compliance with state requirements and Authority policies and procedures. However, the Authority should improve controls over its time sheet approval process and develop approved, written procedures for paying invoices, paying employees, and purchasing.

The Authority billed its customers and made deposits in accordance with state requirements, customer contracts, and Authority procedures.

The Authority's main sources of operating revenue are its water supply system contracts and cost reimbursable operations. The Authority contracts to supply raw water from 11 reservoirs in the Brazos River basin to municipal, industrial, and agricultural water customers at rates established by the Authority's Board of Directors (see Appendix 2 for locations of those reservoirs). The Authority's cost reimbursable operations include water treatment and wastewater treatment facilities it operates and maintains for municipalities. Those municipalities reimburse the Authority for operating, capital, and debt service costs and pay an additional management fee. The Authority has processes for billing customers, receiving customer payments, and depositing those payments that comply with customer contracts, state requirements, and Authority procedures. Specifically:

- For all 30 customer invoices tested, the Authority billed its water supply and cost reimbursable customers in accordance with customer contracts and Authority Board-approved rates.
- All 30 deposits tested had adequate supporting documentation and were made in a timely manner in accordance with Authority procedures.
- For all four months tested, the Authority performed accurate and timely reconciliations of its bank accounts, deposits, and accounts receivable subsidiary ledger in accordance with the *Texas Commission on Environmental Quality's Water District Financial Management Guide*.

The Authority substantially complied with its policy requiring supervisors to approve employee time sheets.

The Authority uses a contractor to process its payroll. The Authority's human resources policy requires employees to enter the hours they worked into a time sheet in the payroll contractor's system and for an employee's supervisor to approve those hours. The payroll contractor's system will not process payroll without supervisors approving employee time sheets. If a supervisor is not available to approve a time sheet, the Authority's Human Resources Department will approve that time sheet to process payroll. However, to comply with its policy, when the Human Resources Department approves a time sheet, a supervisor should still review that time sheet to verify that the reported hours reflect the actual hours worked. However, a supervisor did not review 3 (50 percent) of 6 Human Resources Department-approved time sheets tested. The lack of supervisor approval of time sheets could result in the Authority paying employees incorrectly or charging incorrect amounts to capital projects or cost reimbursable customers.

In addition, although the Authority has a human resources policy, it does not have written payroll procedures.

The Authority made purchases in compliance with its procurement policy and state procurement laws and has controls over its accounts payable process.

The Authority's purchasing process begins with a departmental request for goods or services. The purchasing method and the required authorization depend on the dollar amount of the request; higher dollar purchases require multiple levels of approval. In addition, the Authority's Legal Department and general manager must approve all contracts. Authority procurement policy and state procurement laws include soliciting, bidding, and awarding requirements. Those requirements apply to procurement of professional services, construction, information technology, and personal property. For all 30 purchases tested, the Authority adhered to applicable Authority procurement policy, including required authorizations and approvals, and state procurement laws.

The Authority receives invoices for purchases it makes and has a process for paying those invoices, which includes verifying the receipt of goods or services before payment, authorizing payments, and ensuring adequate segregation of duties. That process complies with the *Texas Commission on Environmental Quality's Water District Financial Management Guide*. Specifically:

- All 30 expenditures tested were properly authorized and supported, and there was evidence of the receipt of goods or services before payment.
- The Authority appropriately segregated duties for payment processing and secured its check stock.

Although the Authority has controls in place over its purchasing and accounts payable processes, it has not formally documented those processes.

The Authority followed its procedures to record and inventory its capital assets and obtained Board approval to dispose of its capital assets in accordance with its procedures and state law.

Capital Asset

A capital asset has a single cost of \$5,000 or greater and has a useful life greater than three years.

Source: Authority Capital Assets and Capitalization Procedures.

The Authority's asset management procedures require it to record capital assets (see text box for definition of a capital asset) in its asset management system and to perform an annual inventory. Auditors tested 16 capital assets and traced them to the Authority's asset management system and to their physical location.

The Authority performs inventories by having custodians from various locations verify that capital assets are still in their possession and report this information to the Authority's Finance and Administration Department. The Authority performed the required annual inventories in fiscal years 2011 through 2013.¹

The Authority has a process for disposing of capital assets when those assets are no longer useful. The Authority's custodians report those capital assets to the Finance and Administration Department, which compiles a list that it presents to the Authority's Board for approval. For all 20 asset disposals tested, the Authority obtained Board approval to dispose of those assets in accordance with its procedures, the Texas Water Code, and the Texas Special District Local Laws Code.

Recommendations

The Authority should:

- Develop and implement a formal process to ensure that its Human Resources Department obtains supervisor review of time sheets it approves.
- Develop and implement approved written procedures for its purchasing, payroll, and accounts payable processes.

Management's Response

The Authority agrees with the recommendation to implement a formal method to ensure that its Human Resources Department obtains supervisor review of timesheets it approves. The Human Resources Manager has initiated a process to obtain written verification from the supervisor whenever Human Resources approves an employee's timesheet on behalf of the supervisor.

¹ The fiscal year 2014 inventory was still in progress during the scope of this audit.

Although Human Resources will make every effort to obtain the appropriate supervisor's approval prior to processing payroll, there will be occasions when it won't be feasible. Rather than Human Resources obtaining verbal authorization from a supervisor to approve their employees' timesheets, the supervisor will be required to forward a signed copy of any timesheet that was approved by the Human Resources Department.

The Authority also agrees with the recommendation to develop and implement approved written procedures for its purchasing, payroll, and accounts payable processes.

Target implementation date: August 31, 2015

Title of individuals with responsibility for implementation of this response:

- *Chief Financial Officer*
- *Human Resources Manager*

The Authority's Employee Compensation Decisions Are Supported and Authorized

The Authority has implemented processes to ensure that its compensation decisions and pay actions are supported and authorized. Those processes include contracting for compensation studies, annually monitoring economic conditions, and performing employee evaluations. Those processes are discussed in more detail below.

The Authority has a methodology for maintaining pay equity for its employees, including executive management. That methodology includes contracting for compensation studies and annual monitoring of the U.S. Bureau of Labor Statistics' employment cost index. Evergreen Solutions, a public sector consulting firm, completed the most recent compensation study in 2009² and determined that the Authority had a sound classification and compensation plan that had an overall consistency with the market. The Authority's Board of Directors approved Evergreen Solutions' recommendation to increase the minimum of each pay range by 1 percent as part of the Authority's fiscal year 2010 budget.

The Authority approved pay actions that were sufficiently supported by performance evaluations and awarded with Board-authorized funds. The Authority may reward individual job performance through annual merit increases based on performance evaluations. The Authority awards those merit increases from a pool of funds that the Board approves as part of the Authority's annual operating budget. When the Authority is determining if it should budget for merit increases, it considers the economic situation of customer cities that have a cost reimbursable relationship with the Authority. Any pay increase awarded to Authority employees would automatically increase the costs to the customer cities. For that reason, as well as the state of the overall economy at that time, the Authority did not award pay increases for exempt employees for fiscal year 2010 through fiscal year 2012 or for non-exempt employees for fiscal year 2010 through fiscal year 2011.

The Authority's general manager determines and approves executive management merit increases, while the Board evaluates the general manager's performance and must approve any related pay actions. For all other employees, supervisors recommend merit increases and the general manager must approve the increases.

Auditors tested pay actions for 40 employees (which included executive management and regular employees) and determined that all were properly supported by performance evaluations and authorized in accordance with Authority policies.

² According to the Authority, Evergreen Solutions is performing another compensation study that will be complete in August 2014.

Positions Reviewed

Auditors reviewed the salaries for the following executive management positions at the Authority:

- General manager.
- Chief financial officer.
- General counsel.
- Government and customer relations manager.
- Human resources manager.
- Information technology manager.
- Planning and development manager.
- Regional manager (two employees).
- Technical services manager.

The Authority's executive compensation is generally comparable to the compensation of executives at similar sized river authorities in Texas.³

Auditors reviewed executive management salaries at several Texas river authorities with a similar number of full-time equivalent employees as the Authority (see text box for a list of positions reviewed). Excluding the general manager, 8 of the 9 executive management salaries were within 11 percent of the average salary for similar positions at the other river authorities. The other salary was 27 percent less than the average salary for a similar position. The general manager's salary exceeded the average salary for general managers at the other river authorities by 21 percent. (See Appendix 3 for more information about general manager salaries at the other river authorities.)

³ Auditors did not consider the managers' experience or the time spent in their positions when comparing the salaries.

The Authority Has Implemented a Process for Funding and Managing Capital Projects

The Authority has effective processes for assessing and funding capital projects to help ensure it complies with Authority policies and state requirements. Those processes include determining need, obtaining authorization, and monitoring project progress.

The Authority monitored its Board-approved capital projects and authorized project expenditures.

The Authority has a process to identify and document the need for capital projects in its capital improvement plan. That plan is part of the Authority's annual operating budget and includes a description of the capital project, estimated cost, project schedule, and funding source. Auditors tested six capital projects, including the decommissioning of the hydroelectric facility at

Possum Kingdom Lake (see Chapter 4 for more information about the decommissioning of that facility), and determined that the Authority identified and documented a need for all six projects and included those projects in its capital improvement plans for fiscal years 2011 through 2014 (see Appendix 4 for more information about the projects). The Authority's Board authorized all six capital projects as part of its annual operating budget. In addition, the Authority appropriately funded the six capital projects using its Rates Stabilization Reserve Fund (see text box for information about this fund).

Rates Stabilization Reserve Fund

The Authority's Rates Stabilization Reserve Fund addresses fluctuations in revenue requirements that can occur year-to-year based on significant increases in capital needs. This fund helps to moderate the need for significant water rate changes.

Source: The Authority's *Operations Policy Manual*.

2005A Series Bond

The purpose of issuing the 2005A Series Bond was to (1) pay the costs of repairs at Morris Sheppard Dam on Lake Possum Kingdom and (2) pay the costs associated with the bond issuance.

2011 Series Bond

The purpose of issuing the 2011 Series Bond was to (1) add additional pumps to the Williamson County Raw Water Line Project intake structure, (2) pay the costs of engineering and design, (3) refund the interest on the Authority's outstanding Contract Revenue Bonds, and (4) pay the costs associated with the bond issuance.

Source: Bond Official Statements provided by the Authority.

The Authority monitored all six capital projects tested. That monitoring process included having project managers regularly communicate with project engineers, perform site visits, and review and approve invoices. The Authority performed multiple levels of review to verify that the costs were appropriate per the contract and within the scope of the project. For all 30 expenses related to the six capital projects tested, the Authority ensured that (1) the expenses received all required approvals, including the general manager's final approval, and (2) the expenses were within the scope of the related project.

The Authority issued bonds in accordance with state requirements and spent the related bond proceeds in accordance with the bonds' purposes.

The Authority issues bonds to pay for some capital projects. Auditors tested two of those bond issues (see text box for a description of the two bond issues tested). The Authority issued \$12.9 million in bonds in 2005 to make repairs at Morris Sheppard Dam on Possum Kingdom Lake, including repairs to the hydroelectric facility; and it issued \$17.2 million in

bonds in 2011 to continue work on the Williamson County Regional Raw Water Line Project.

The Authority's Board approved the two bond issues tested in accordance with Special District Local Laws Code, Section 8502.008. In addition, for all 40 bond-funded expenses tested related to those two bonds, the Authority approved the expenses and the expenses were made in accordance with the purpose specified in the related bond's official statement.

The Authority Had Sufficient Documentation Supporting Its Decision to Shut Down and Decommission Its Hydroelectric Facility at Possum Kingdom Lake

The Authority operated the hydroelectric facility at Possum Kingdom Lake beginning in 1942 and sold all of the electricity it produced to the Brazos Electric Power Cooperative (Cooperative) until both hydroelectric units at the facility were shut down for safety reasons in 2007. When the Authority's attempt to lease the facility to the Cooperative failed, it hired consultants to determine the cost of repairing the facility and for decommissioning it.

The Authority shut down the hydroelectric facility at Possum Kingdom Lake for safety reasons. The Authority received information regarding the deterioration of its hydroelectric facility from multiple engineering firms over several years (see Appendix 5 for a time line). Those included inspections the Federal Energy Regulatory Commission required to be conducted of the dam at Possum Kingdom Lake, including the hydroelectric facility, and other inspections of only the hydroelectric facility. Those inspections identified corrosion in both hydroelectric units; however, the corrosion in one unit was more severe than in the other. Documentation shows that in response to the reported corrosion, the Authority shut down one of the hydroelectric units in May 2007. After the Authority shut down the first unit, the second unit experienced load rejections (see text box). According to the Authority, subsequent load rejections could have caused the second unit to fail, which could create an uncontrolled draining of the lake. Because of that, the Authority shut down the second hydroelectric unit in August 2007.

Load Rejection

Load rejection is when the electrical grid suddenly rejects electricity from a generator, potentially causing damage to the generator.

Source: The Authority.

The Authority's cost analysis led to its decision to decommission the hydroelectric facility. In 1991, the Authority renewed its agreement to sell the electricity that the hydroelectric facility produced to the Cooperative through 2019. That agreement set a fixed rate for the first five years and established that the rate was subject to the regulatory authority of the Public Utility Commission of Texas. However, in 1999, the 76th Legislature passed Senate Bill 7, which deregulated the electricity generation market to allow for competition in the retail sale of electricity. As a result, according to the Authority, the Public Utility Commission of Texas no longer had jurisdiction over the agreement with the Cooperative, which prevented the Authority from seeking a rate adjustment from the Public Utility Commission of Texas per the agreement. The Authority also was not able to successfully negotiate new rates with the Cooperative.

The Authority continued to sell electricity to the Cooperative at the 1991 rate. According to the Authority, it lost more than \$1,750,000 from 2002 until it shut down the facility in 2007. Negotiations to lease the facility to the Cooperative failed, and the Cooperative brought legal action against the Authority in 2009 for breach of contract. The Authority prevailed when an

appellate court overturned a lower court's decision in favor of the Cooperative, and the Supreme Court of Texas denied the Cooperative's petition for review.

In 2010, the Authority consulted with an engineering firm, a legal firm, and an energy company to assess the facility and to calculate the cost of rehabilitating the facility versus decommissioning it. That cost analysis included the cost to relicense the facility in 2019 and the cost of operating the facility under a new license. In addition, the Authority consulted with a finance company to determine the best financing options for both scenarios. The Authority also consulted with an energy company to project the revenues the facility would generate over the next 40 years, the period that its Federal Energy Regulatory Commission license would cover. The energy company projected revenues considering the possibility that the U.S. Congress might pass a carbon tax on electricity generated using fossil fuels. That would allow the Authority to charge higher prices for hydroelectric-produced energy. It also projected revenues with no carbon tax.⁴

The estimated total rehabilitation cost was \$104,973,377, while the projected revenues for the 40-year period were \$87,217,984. The cost analysis showed a net loss of \$17,755,393 to rehabilitate the facility and a cost of \$8,003,947 to decommission the facility.⁵ The Authority identified areas of uncertainty related to the projections, which included the difficulty of accurately predicting energy prices over a 40-year time period. In addition, projected engineering and construction costs related to the relicensing and rehabilitation of the facility were more uncertain than those related to decommissioning the facility because additional construction requirements could be discovered once work began on a rehabilitation project. The relicensing cost estimates also did not consider the potential for significant costs related to removing any encroachments (see text box) constructed around the lake since the Authority received its previous license, which the relicensing process might require.

Encroachment

An encroachment is a structure built in an area that the builder does not own.

Source: The Authority.

A review of the Authority's Board minutes and resolutions showed that the Authority regularly updated its Board regarding the information related to the hydroelectricity facility. In November 2010, the Board unanimously voted to decommission the facility. In December 2011, the Federal Energy Regulatory Commission approved the Authority's plan to complete a project to permanently disable the facility. In March 2014, upon completion of that project, the Federal Energy Regulatory Commission approved the Authority's request to surrender its hydroelectric license.

⁴ As of July 2014, the U.S. Congress had not passed a carbon tax; therefore, auditors presented only the revenue projections with no carbon tax in this report.

⁵ *Morris Sheppard Dam Hydroelectric Facility Cost Benefit Analysis*, Stratus Energy Group, LLC, July 20, 2010.

The Authority Should Strengthen Certain Information Technology Controls

The Authority has developed and implemented information technology controls over its financial data; however, it should strengthen its user access controls by developing and implementing a process to regularly review user access. The Authority also should strengthen its information technology controls by developing written policies and procedures related to user access, passwords, and backup and recovery.

Auditors reviewed user access to the Authority's financial system, which maintains accounting, purchasing, and asset data, and the Authority's payroll contractor's system, which is a Web-based application that the Authority uses to enter timekeeping and employee information.

While the Authority appropriately restricted access to its payroll contractor's system, it did not review user access to its financial system and did not have documented user access policies and procedures. As a result, the Authority did not restrict access to its network and its financial system to only authorized or appropriate users. Specifically:

- Six user accounts and three system accounts that the Authority no longer needed were still active.
- Twenty-two user accounts had access that exceeded the employees' job duties.

Not reviewing and appropriately restricting access to its financial system increases the risk of unauthorized changes to the Authority's financial data.

In addition, the Authority did not appropriately restrict access to purchasing-related screens in its financial system. As of May 2014, 33 (94 percent) of the 35 employees who are supposed to only create requisitions in the financial system also had inappropriate access to approve those requisitions. All 16 employees who are supposed to only approve requisitions also had inappropriate access to create requisitions. In addition, while the approval screens had a control requiring the approver to enter an authorization code, that control was not effective because most employees who created requisitions had access to a screen containing the authorization codes required to approve those requisitions. As a result, an employee could inappropriately create and approve a requisition. Not restricting access to purchasing-related screens increases the risk of unauthorized purchases.

The Authority has password, backup, and recovery controls; however, it does not have approved policies and procedures. The Authority's password settings adhered to industry best practices. However, the Authority's password policies and procedures were in draft form as of May 2014 and did not address requirements for certain parameters, including password history, length, and complexity, and for user account lockout.

The Authority has a process to back up its financial data daily to both a primary onsite server and a secondary server at a regional office. The Authority also creates backup tapes and rotates them daily to a secure, offsite location. However, as of May 2014, the Authority did not have written backup and recovery policies and procedures.

Recommendations

The Authority should:

- Develop and implement a process to regularly review user access to identify and remove or restrict inappropriate access.
- Develop and implement approved written policies and procedures for its user access, password, backup, and recovery processes.

Management's Response

The Authority agrees that certain information technology controls can be improved. The first recommendation has been addressed immediately. The issues identified have been resolved, and processes have been implemented that require regular review of user access to identify and remove or restrict inappropriate access. BRA staff is modifying the Information Technology Procedure to address user access, password specifications, and backup and recovery process.

Target implementation date: October 1, 2014.

Title of individual with responsibility for implementation of this response:

- *IT Manager*

Appendices

Appendix 1

Objective, Scope, and Methodology

Objective

The objective of this audit was to determine whether selected Brazos River Authority (Authority) financial management processes and related controls help ensure compliance with state requirements and Authority policies and procedures and prevent or detect fraud, waste, and abuse.

Scope

For activities related to the Authority's financial management processes, executive compensation, bond issuance, and capital projects management, the scope of this audit covered the time period from September 1, 2010, to January 31, 2014. For the activities related to the decisions affecting the decommissioning of the hydroelectric facility, the audit scope went back to 2003 to cover the time period during which the Authority made relevant decisions.

Methodology

The audit methodology included gaining an understanding of and evaluating the controls over selected financial management processes at the Authority, including controls related to revenues, assets, and expenditures. Auditors also evaluated the Authority's decisions related to executive compensation, capital project management, and the decommissioning of the hydroelectric facility at Possum Kingdom Lake. Auditors interviewed Authority personnel, analyzed accounting data, performed testing, and evaluated the results. Auditors also reviewed Authority policies and procedures, the Texas Administrative Code, the *Texas Commission on Environmental Quality Water District Financial Management Guide*, and relevant statutes.

Sampling methodology

Auditors selected non-statistical samples primarily through random selection designed to be representative of the population. In those cases, results may be extrapolated to the population, but the accuracy of the extrapolation cannot be measured. In some cases, auditors used professional judgment to select sample items for testing. Those sample items generally are not representative of the population and, therefore, it would not be appropriate to extrapolate those results to the population.

Auditors assessed the reliability of the data used in the audit by performing a limited review of controls for two systems: the Authority's financial system

(Lawson) and the Authority's payroll contractor's system. Auditors performed analytical procedures on the data, traced the data to supporting documentation, and performed a limited review of selected general controls governing the operations of the two systems. In addition, auditors reviewed the payroll contractor's *Service Organization Controls (SOC 1) Report on the Suitability of the Design and Operating Effectiveness of Controls* for fiscal year 2013. Auditors determined that the data in the two systems was sufficiently reliable for the purposes of this audit.

Information collected and reviewed included the following:

- The Authority's policies and procedures.
- Data from the Authority's financial system and the Authority's payroll contractor's system.
- Authority board meeting minutes and resolutions.
- Authority annual financial reports and operating plans.
- Authority records, including customer contracts and invoices; deposit records; bank statements; reconciliations; vendor invoices; payment records; purchase requisitions and orders; procurement records; asset records; payroll records; employee performance evaluations; capital project documents and reports; bond documents; and other accounting documents.
- Dam inspection and engineering reports.
- Cost analysis and projection reports.
- Information system support related to general controls over the Authority's contractor's payroll system and the Authority's financial system.

Procedures and tests conducted included the following:

- Interviewed Authority management and staff.
- Reviewed monthly account reconciliations for timeliness and accuracy.
- Traced a sample of deposits back to supporting documentation.
- Tested a sample of customer invoices to determine whether the Authority appropriately charged its customers.
- Traced a sample of asset purchases to the asset management system and physical location.

- Tested a sample of disposed assets to determine whether the disposal was documented and approved.
- Tested a sample of purchase orders to determine whether the Authority followed the appropriate purchasing method.
- Tested a sample of expenses and payments to determine whether they were authorized and approved.
- Tested a sample of pay actions to determine whether they were properly supported and approved.
- Compared the Authority's executive compensation with similar positions at similar-sized river authorities in Texas.
- Reviewed a compensation study that an Authority contractor performed.
- Tested a sample of expenditures funded with bond proceeds to determine whether they complied with bond requirements and any applicable laws.
- Tested a sample of capital projects to determine whether the Authority followed its processes and received Board approval for the projects
- Tested a sample of capital project expenditures for management approval and adherence to project scope.
- Reviewed information related to the Authority's decision to decommission the hydroelectric facility at Possum Kingdom Lake to determine whether the decision was supported.
- Reviewed selected information technology controls.

Criteria used included the following:

- The Authority's policies and procedures.
- *Texas Commission on Environmental Quality Water District Financial Management Guide.*
- Texas Government Code, Chapters 2253 and 2254.
- Texas Local Government Code, Chapters 252 and 271.
- Texas Special District Local Laws Code, Chapter 8502.
- Texas Water Code, Chapter 49.
- Title 30, Texas Administrative Code, Chapters 292 and 293.

- Department of Information Resources Security Policy and Standards for Passwords.
- Microsoft's *Password Best Practices*, January 21, 2005.

Project Information

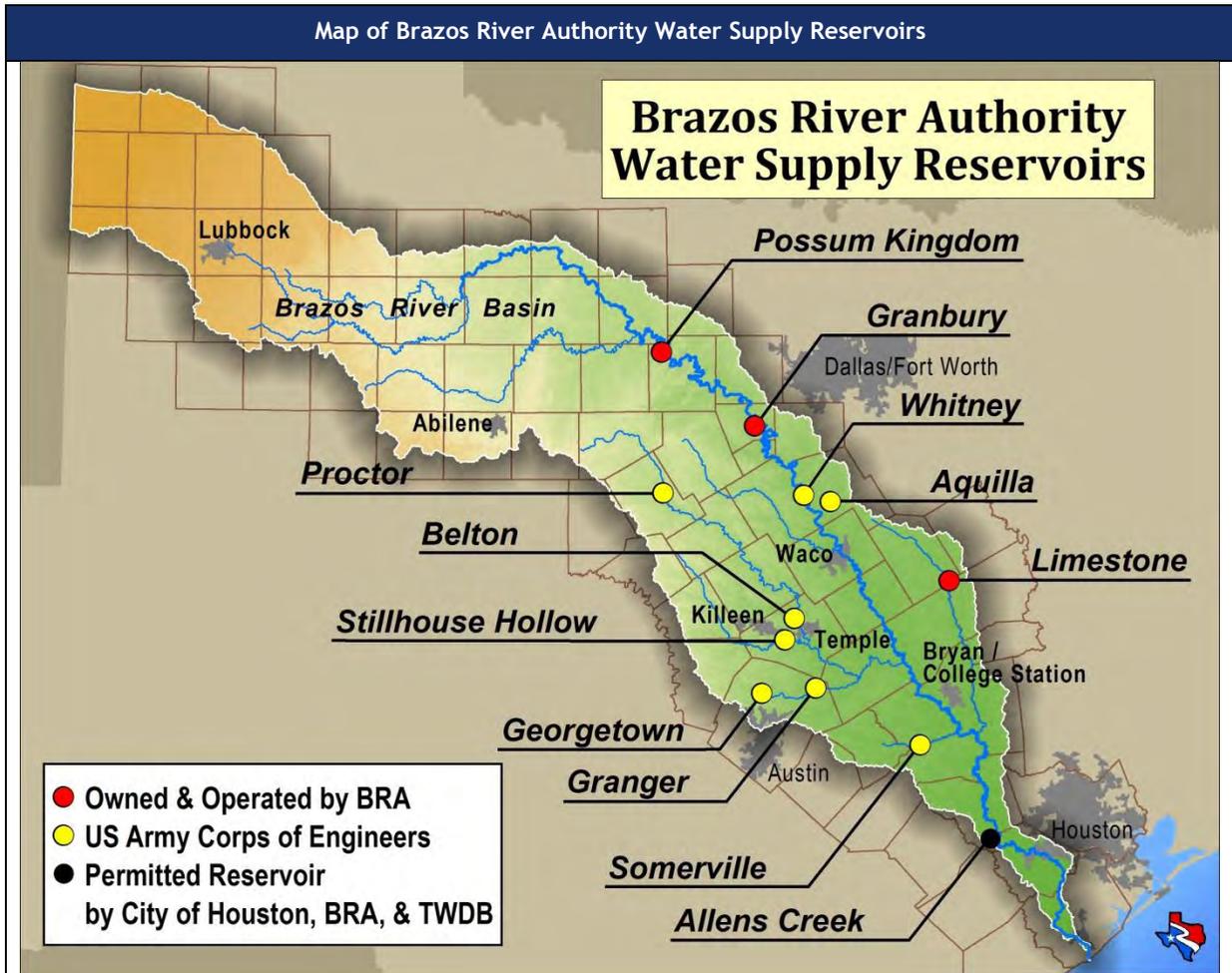
Audit fieldwork was conducted from April 2014 through June 2014. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The following members of the State Auditor's staff performed the audit:

- Michael F. Boehme, CIA, PHR (Project Manager)
- Sonya Tao, CFE (Assistant Project Manager)
- John Barnhart
- Katherine M. Curtsinger
- Karen S. Mullen, CGAP
- Charles Wilson, MPAFF
- Michael C. Apperley, CPA (Quality Control Reviewer)
- Nicole M. Guerrero, MBA, CIA, CGAP (Audit Manager)

Figure 2 shows a map of the three water supply reservoirs that the Authority maintains and operates and the eight flood control reservoirs that the U.S. Army Corps of Engineers operates, all of which serve as water supply storage for the Authority. Allens Creek is a planned water storage lake that will provide water to meet the future needs of the City of Houston and surrounding communities.

Figure 2



Source: The Authority.

General Manager Compensation

Auditors obtained information regarding the general managers' annual salaries, bonus eligibility, and bonus range from the Brazos River Authority and six other river authorities in Texas. Those salaries, as well as the total number of full-time equivalent employees, are listed in Table 1.

Table 1

General Manager Compensation				
River Authority	Number of Full-time Equivalent Employees as of April 2014	General Manager Annual Salary in Fiscal Year 2014	Is Bonus Part of Compensation?	Bonus Range
Brazos River Authority	255	\$ 294,000	Yes ^a	None
Guadalupe-Blanco River Authority	148	\$ 256,506	No	Not Applicable
Lower Neches River Authority	103	\$ 236,226	Yes ^b	None
Sabine River Authority	102	\$ 232,920	Yes ^c	None
San Antonio River Authority	225	\$ 224,000	No	Not Applicable
Trinity River Authority	398	\$ 270,000	No	Not Applicable
Lower Colorado River Authority	1,760	\$ 415,000	Yes ^d	Up to 25 percent of Annual Salary
Average Annual Salary		\$243,930^e		

^a The Authority's general manager received a bonus of \$95,000 in fiscal year 2012. This was the only bonus the general manager received during the audit period.

^b The Lower Neches River Authority's general manager received bonuses of \$25,000.00 in fiscal year 2011; \$35,000.00 in fiscal year 2012; and \$16,160.40 in fiscal year 2014.

^c The Sabine River Authority's general manager did not receive any bonuses during the audit period.

^d The Lower Colorado River Authority's general manager started in this position in February 2014.

^e The Brazos River Authority's general manager salary was not included in the average annual salary calculation. In addition, the Lower Colorado River Authority was not included in the calculation of the average annual salary because it is significantly larger than the other river authorities. It is listed here for informational purposes only.

Sources: Information provided by the river authorities. With the exception of the Brazos River Authority, auditors did not independently verify this information.

Authority Capital Projects Reviewed

Table 2 lists the six Brazos River Authority (Authority) capital projects that auditors reviewed for this audit. The Authority initiated these projects in fiscal years 2011 through 2014.

Table 2

Authority Capital Projects Reviewed			
Capital Project	Fiscal Year Initiated ^a	Project Budget (as of Fiscal Year 2014)	Project Scope
Possum Kingdom Lake Hydroelectric Facility Decommissioning	2011	\$9,300,000	The Possum Kingdom Lake Hydroelectric facility was constructed in 1940 and, as of 2003, was in need of major rehabilitation. The plant has not generated power since 2007. An assessment of the feasibility of upgrading or decommissioning the plant was performed. Upon recommendation of the assessment, the Authority's board of directors voted to decommission the plant in November 2010. Staff filed the license surrender application with the Federal Energy Regulatory Commission and received conditional approval.
DeCordova Bend Hoist Building Relocation/Trolley Replacement	2011	\$1,479,695	DeCordova Bend Dam currently uses two hoist-trolleys for installing and removing the stop logs, which are used to adjust the water levels. The North hoist-trolley is used to set and remove the larger stoplogs for dewatering the tainter gates and the South hoist-trolley is used to set and remove the smaller stops for de-watering the low flow outlet works. Due to operating both hoist-trolleys for more than 40 years, malfunctions and component failures are becoming more common. Because replacement parts are no longer available "off the shelf," all replacements have to be specially fabricated in a machine shop. In addition, an engineering consultant's 2011 report recommended the replacement of both hoist-trolleys with one multi-functional crane.
Trinity Groundwater	2012	\$30,241,083	Rapid population growth and development in Williamson County require 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 in the 2011 Brazos G water plan calls for the expansion of East Williamson County Regional Water System (EWCWRS), the construction of a new intake structure, and the conjunctive use of groundwater from the Trinity and Carrizo aquifers. This project reflects only the well construction for the Trinity aquifer source.
Morris Sheppard Dam - Dam Corbels and Deck Panels	2013	\$1,000,000	The bulkhead and spillway sections of Morris Sheppard Dam consist of mass concrete elements including foundations, buttresses, operating piers, and deck panels. When constructed, these mass concrete elements were typically expected to have a 50-year service life. The large high hazard dam community now believes these mass concrete elements, properly maintained, can be expected to serve 100 years and more. Morris Sheppard Dam, constructed between 1939 and 1941, has been in service for more than 70 years. In an effort to extend the service life of the concrete elements of Morris Sheppard Dam and all of its dam structures, the Authority seeks to develop a comprehensive concrete maintenance program that will complement the monitoring, inspection, and mechanical equipment maintenance and repair programs now in place. In addition, numerous concrete cracks and spallings (breaks or flakes in the concrete) have occurred to the buttresses and deck panels and if left unrepaired could reduce the service life of the dam.
West Central Brazos Pipeline Motor Control Center Replacement	2014	\$350,000	The motor control center (MCC) at the Possum Kingdom Pump Station is obsolete. Because replacement parts are no longer readily available, an electrical failure in the MCC could shut down the entire system for an extended period of time. Repairs might not be possible. Therefore, the MCC needs to be replaced.

Authority Capital Projects Reviewed

Capital Project	Fiscal Year Initiated ^a	Project Budget (as of Fiscal Year 2014)	Project Scope
Central Office HVAC, Carpet Replacement, and Building Automation	2014	\$1,975,900	The Authority's mold remediation project determined that the heating, ventilation, and air conditioning (HVAC) system in the Authority's central office as originally installed was a major contributing factor to the moisture in the building due to condensate leaks, drain pan overflows, and the inability to dehumidify the air in the building. This project replaces the existing chilled water system with a system that keeps humidity and condensate outside of the building envelope. All chilled water and all condensate formation will occur outside of the building, eliminating the major sources of atmospheric water and moisture. In addition, the carpet in the central office is 12 years old and approaching the end of its useful life. The carpet replacement and HVAC work will require each workspace to be vacated for a short time. To minimize the disruption, these two projects will be run in parallel. A building automation system will be installed to monitor humidity and temperature levels.

^a The fiscal year initiated is the fiscal year in which the capital project was first included in the Authority's Annual Operating Plan.

Source: The Authority's Annual Operating Plans for Fiscal Years 2011 through 2014 (available at <http://www.brazos.org/Annual-Budget.asp>).

Time Line of the Authority's Decommissioning of the Possum Kingdom Lake Hydroelectric Facility

Table 3 provides a chronology of the events associated with the Authority's decision to decommission the hydroelectric facility at Possum Kingdom Lake.

Table 3

Time Line of the Authority's Decommissioning of the Possum Kingdom Lake Hydroelectric Facility	
Date	Event
1942	The Authority began selling electricity it produced at the Possum Kingdom Lake hydroelectric facility to the Brazos Electric Power Cooperative (Cooperative).
1989	The Authority renewed its hydroelectric license through 2019 with the Federal Energy Regulatory Commission.
1991	The Authority entered into a power supply contract and rate agreement with the Cooperative through 2019. The agreement fixed the rates for the first five years of the agreement and thereafter until changed by the Public Utility Commission of Texas.
1999	The 76th Legislature passed Senate Bill 7 to amend the Public Utility Regulatory Act, deregulating the wholesale electricity generation market in Texas.
2003	A Federal Energy Regulatory Commission-required inspection of the Possum Kingdom Lake dam identified signs of corrosion in both of the facility's hydroelectric units.
2004	The Authority contracted with an engineering firm to evaluate the hydroelectric units. The evaluation identified corrosion in both units and recommended strengthening the unit walls.
April 2007	The Authority contracted with an engineering firm to assess repairs needed for the hydroelectric units. The assessment indicated repairs should be implemented as soon as possible to address further corrosion of the units.
May 2007	The Authority shut down one of the hydroelectric units due to extreme corrosion.
August 2007	The Authority shut down the second hydroelectric unit due to load rejections.
2007	The Authority began negotiations to allow the Cooperative to operate, maintain, and repair the Possum Kingdom Lake hydroelectric facility and to use all power generated by it.
2008	A Federal Energy Regulatory Commission-required inspection of the Possum Kingdom Lake dam recommended further evaluation of the deterioration of the hydroelectric units. The inspection also recommended that the Authority make repairs before resuming power generation if the evaluation identified significant deterioration.
2009	The Cooperative sued the Authority for breach of contract.
December 2009	The 414th District Court ruled in favor of the Cooperative.
June 2010	The Tenth Court of Appeals reversed the 414th District Court's ruling and dismissed the Cooperative's lawsuit against the Authority.
November 2010	The Authority's board of directors unanimously voted to surrender its hydroelectric license and to decommission the Possum Kingdom Lake hydroelectric facility.
July 2011	The Authority submitted an application to the Federal Energy Regulatory Commission to surrender its hydroelectric license for the Possum Kingdom Lake facility.
August 2011	The Supreme Court of Texas denied the Cooperative's motion to review the Tenth Court of Appeals' decision.
December 2011	The Federal Energy Regulatory Commission approved the Authority's application for surrender of its hydroelectric license, including the decommissioning plan for the Possum Kingdom Lake hydroelectric facility.
March 2014	The Authority completed construction to permanently disable its hydroelectric facility at Possum Kingdom Lake.
March 2014	The surrender of the hydroelectric license became effective.

Source: Documentation provided by the Authority, including engineering reports, legal documents, and Board documents.

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Brazos River Authority

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