STATUS UPDATE: CAPITAL AREA GROUNDWATER CONSERVATION COMMISSION



PERFORMANCE AUDIT SERVICES ISSUED JULY 14, 2021

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July 14, 2021

The Honorable Patrick Page Cortez,
President of the Senate
The Honorable Clay Schexnayder,
Speaker of the House of Representatives

Dear Senator Cortez and Representative Schexnayder:

The purpose of this status report is to provide an update on the implementation of recommendations made to the Capital Area Groundwater Conservation Commission in a May 2019 report. In that performance audit report, we found that while the Commission took some actions to regulate water usage from the aquifer, it did not effectively regulate water withdrawals from the Southern Hills Aquifer System to reduce and manage saltwater encroachment and ensure the sustainability of fresh groundwater for the future. Effective regulation is important to ensure the long-term sustainability of the Southern Hills Aquifer System, which supplies water to the greater Baton Rouge area.

The 2019 report, *Regulation of Groundwater Resources - Greater Baton Rouge Area*, contained 19 recommendations. In our latest report, we found that the Commission has fully implemented five of them. The implemented recommendations were:

- Periodically evaluating water withdrawal fees and decide whether the fees should be raised
- Ensuring all wells are permitted before being constructed
- Taking action to incorporate Ascension Parish wells into its district
- Working with the Legislature to amend state law to include Ascension Parish as part of its district
- Obtaining an opinion from the Louisiana Board of Ethics about whether the composition of the Commission violates state law

In addition, we found the Commission has partially implemented one recommendation and is in the process of implementing 12 more. One recommendation – consider limiting usage by well to better manage the withdrawal of water from the aquifer – has not been implemented.

The Honorable Patrick Page Cortez, President of the Senate The Honorable Clay Schexnayder, Speaker of the House of Representatives July 14, 2021 Page 2

The report contains our findings, conclusions, and recommendations. I hope this report will benefit you in your legislative decision-making process.

We would like to express our appreciation to the Capital Area Groundwater Conservation Commission for its assistance during this audit.

Respectfully submitted,

Michael J. "Mike" Waguespack, CPA

Legislative Auditor

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Louisiana Legislative Auditor

Michael J. "Mike" Waguespack, CPA

Status Update: Capital Area Groundwater Conservation Commission



July 2021 Audit Control # 40200024

Introduction

We conducted this review to provide an update on the status of Capital Area Groundwater Conservation Commission's (Commission) implementation of recommendations we made in the May 2019 audit report, *Regulation of Groundwater Resources – Greater Baton Rouge Area*. Effective regulation is important to ensure the long-term

In our May 2019 performance audit, we made 19 recommendations to the Commission and it agreed with all of them. See Exhibit 2 for a list and implementation status of those recommendations.

sustainability of the Southern Hills Aquifer System, which supplies water to the greater Baton Rouge area. Louisiana Revised Statute (R.S.) 38:3071 *et. seq.* created the Commission in 1974. These laws require that the Commission effectively reduce and manage saltwater encroachment and manage groundwater withdrawals. The Commission regulates wells that are used to withdraw water for industry and public supply. It does not regulate wells used for agricultural, horticultural, and individuals' domestic wells.

The Commission is currently comprised of 17² members representing industry, public water suppliers, state agencies, and other stakeholders such as the Louisiana Cattleman's Association. The Commission hired a new Executive Director in September 2020 who has implemented several new initiatives to address the recommendations from our May 2019 audit. For example, in Fall 2020 the Commission engaged the Water Institute of the Gulf (Water Institute) to develop a strategic plan for long-term sustainable groundwater resources management at a total cost of \$1.95 million. Appendix C provides more detail on the tasks and costs associated with the development of the plan. In addition to the Executive Director, the Commission has one Administrative Assistant and contracts with a field inspector to conduct inspections of all the wells in the district.

The Commission's main source of revenue is production fees from users of the aquifer. The Commission uses these fees to fund its operations, including paying the salaries of the Executive Director and Administrative Assistant; and to fund its contracts, including those with the United States Geological Survey and the Water Institute. During calendar year 2020, users paid more than \$1 million in fees for its use of almost 51 billion gallons of water from the aquifer (an average of 139.5 million gallons per day). The top 10 users of groundwater are summarized in Exhibit 1.

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¹https://lla.la.gov/PublicReports.nsf/782AD0921011AF4E862583F60053DA0D/\$FILE/0001CAA9.pdf

² As of June 2021, the Commission has one open member position that has not been filled.

Exhibit 1					
Top 10 Users in the Capital Area District					
Calendar Year 2020					
Company	Total Paid	Total Gallons Pumped* (in Thousands)			
Baton Rouge Water Company**	\$473,303	23,665,164			
Exxon Chemical North	146,243	7,312,131			
EthosEnergy	57,977	2,898,874			
Georgia Pacific 50,551 2,527,544		2,527,544			
West Baton Rouge Gas & Water	45,159	2,257,972			
Exxon Chemical/BRPO	28,784	1,424,215			
Eco-services	22,307	1,092,373			
Honeywell/UOP	17,722	882,116			
City of Gonzales	17,533	876,672			
City of Zachary	17,406	870,308			
Total Top 10 \$876,987 43,807,369					
Overall Calendar Year 2020	\$1,020,412	50,929,993			
Top 10 Percentage of Total 85.9% 86.0%					

^{*}This number is self-reported by the companies to the Commission.

Source: Prepared by legislative auditor's staff using information obtained from the Commission.

In our May 2019 performance audit, we found that while the Commission took some actions to regulate water usage from the aquifer, the Commission did not effectively regulate water withdrawals from the aquifer to reduce and manage saltwater encroachment and ensure the sustainability of fresh groundwater for the future. For this status update, we requested that Commission management provide us with its status of implementing the recommendations we made in our 2019 report. We did not conduct detailed audit work to verify its responses; however, we did review documentation submitted by Commission management.

The objective of this review was:

To provide an update on the implementation of recommendations made to the Capital Area Groundwater Conservation Commission in May 2019.

Our results are summarized on the next page and discussed in detail throughout the remainder of the report. Appendix A contains the Commission's response to this status update, and Appendix B contains our scope and methodology. Appendix C provides information on the Commission's engagement with the Water Institute of the Gulf.

^{**}Bills under the name Baton Rouge Water Company and Parish Water Company

Objective: To provide an update on the implementation of recommendations made to the Capital Area Groundwater Conservation Commission in May 2019.

According to Commission management, it has implemented or is in the process of implementing most of the 19 recommendations from our May 2019 audit. As of May 2021, the Commission has fully implemented five recommendations, partially implemented one, is in the process of implementing twelve, and has not implemented one. Exhibit 2 summarizes the May 2019 audit recommendations and the implementation status of each as of May 2021. According to its billing records as of December 2020, the Commission regulated 82 companies owning 389 wells in six parishes.

Exhibit 2 May 2019 Audit Recommendations and Status As of May 2021			
May 2019 Recommendation	Status		
1. The Commission should ensure all information is complete in its database so the information can be used to monitor water withdrawal from the Southern Hills Aquifer System.	Implementation in Progress. The Commission is working with the Louisiana Office of Conservation (OC) to update and maintain an accurate inventory of wells within the District. The Commission also hired a field inspector to locate each well based on the Commission's list of wells it had in its database. During the inspection, the inspector also photographed the site and the meter, if available, and collected technical information such as the discharge line size, power supply, materials, and construction. As of May 2021, the field inspector had conducted inspections on 386* wells.		
2. The Commission should reconcile its population of wells against the Office of Conservation's well registry to help ensure they have a complete population of wells to regulate.	Implementation in Progress. According to the Commission, it intends to compare the field inspector reports to the OC well registration database to ensure it is regulating all wells in the District that meet the regulation requirements. Management expects to begin comparing the field inspector reports to OC's well registration database by the end of August 2021.		
3. The Commission should consider setting limits to restrict withdrawals from the 1,500- and 2,000-foot sands that actually will decrease production from the aquifer in order to address saltwater intrusion.	Implementation in Progress. The Commission voted in December 2019 to adopt rules limiting pumping amounts to 25 million gallons per day for the 1,500- foot sand and 23.5 million gallons per day for the 2,000- foot sand. According to the Commission, it will promulgate rules once the Water Institute has completed its work on the long-term strategic plan to determine if the limits set by the Commission in December 2019 will actually address saltwater intrusion.		

4. The Commission should ensure it reserves the 1,500-/1,700- foot sands for public supply by not allowing any new wells to be installed in these sands unless they are for public consumption purposes.

Implementation in Progress. The Commission voted in June 2019 to adopt rules limiting all new water production in the 1,000-, 1,500-, and 1,700- foot sands to be reserved for the public supply. According to the Commission, it will promulgate rules once the Water Institute has completed its work on the long-term strategic plan to determine if limiting public supply to these sands will actually help with the long-term sustainability of the aquifer for public supply.

5. The Commission should continue to monitor the scavenger well in the 1,500-foot sand to determine if it is successful in addressing saltwater intrusion and whether it is an appropriate option for the 2,000-foot sand.

Implementation in Progress. According to the Commission, it now receives quarterly reports from the Baton Rouge Water Company showing the 1,500-foot scavenger well chlorides and monitors the readings from these reports. However, this report does not show what the production well chlorides would be in the 1,500-foot sands if the scavenger well was not present. The Commission should consider requesting that the Baton Rouge Water Company include this information in subsequent reports so the Commission can use this information to help it determine if the scavenger well is effective at addressing saltwater intrusion and is an appropriate option for the 2,000-foot sand.

6. The Commission should define "northward away" when approving how close a new well can be installed to the Baton Rouge Fault Line.

Implementation in Progress. According to the Commission, the Water Institute will be developing a Groundwater Availability Model (GAM) in Phase 2 of the contract to develop a strategic plan for long-term sustainable groundwater resources management. The GAM will provide the Commission with the data and information it needs on the saltwater movement, as well as the changes in saltwater movement as a result of various alternatives. Until the Commission has this information, it does not have the information available to define "northward away" related to the permitting of new wells in proximity of the fault. The work is expected to be completed by December 31, 2024, and is expected to cost \$550,120. Appendix C provides more detail on the tasks and costs associated with the development of the plan.

7. The Commission should consider limiting usage by well in order to better manage the withdrawal of water from the aquifer and give it a mechanism to enforce the limits it sets for each sand.

Not Implemented. According to the Commission, limiting usage by well would not affect the overall withdrawal of groundwater. However, the new study by The Water Institute will generate a three-dimensional model that can predict the effects of such an occurrence. In addition, the Commission stated that it is limited by Louisiana law and the rule of capture. House Resolution 88 was passed in the 2021 Regular Session, which urges and requests the Commissioner of Conservation within the Department of Natural Resources to adopt any necessary rules and regulations to limit the withdrawal of groundwater by commercial or industrial facilities in the Southern Hills Aquifer System to 5 million gallons per day by the year 2026. The average use by commercial or industry facilities in calendar year 2020 was approximately 50 million gallons per day.

8. The Commission should consider other fee structures to encourage conservation, such as implementing a fee structure that charges a higher fee at a higher rate of production. This should include working with the Legislature to clarify that R.S. 38: 3076(A)(14) allows the Commission to enforce a fee structure for rates of usage as long as it is the same rate structure for all users of the aquifer purposes.

Implementation in Progress. The legislature passed House Bill 590 of the 2021 Regular Session, which allows the Commission to assess fees on individual wells based on either annual flows or specific costs for wells to individual users based on capital, debt service, and operation and maintenance costs; late fees for non-payment of monthly or quarterly invoices; and an application fee. This legislation goes into effect on August 1, 2021. However, the Commission should consider working with the Legislature to revise R.S. 38:3076(A)(14) to allow it to assess variable fees for different users of the aquifer.

9. The Commission should ensure it collects fees on all wells that meet the regulation standards.

Implementation in Progress. According to the Commission, it is tracking which companies have not submitted the required water usage fees on wells that meet regulation standards. However, until the Commission starts monitoring each well, it will not know the actual water usage. According to the Commission, 13 companies have not paid required fees totaling \$3,557 for the first quarter of 2021 as of June 2021. In addition, as noted in Recommendation 2, the Commission intends to compare the field inspector reports to the OC's well registration database to ensure it is regulating and collecting fees on all wells in the district that meet the regulation requirements.

10. The Commission should consider using its authority in state law to require all wells regulated by the Commission to be metered for recording withdrawal amounts.

Implementation in Progress. During its Commission meeting on May 20, 2021, the Commission approved, by a vote of nine to seven, the metering of every well in the District for a capital cost of \$10.4 million with a yearly cost of \$1.6 million. According to the Commission, this would require the user fees to be increased from \$20 to a maximum cost of \$52 for every million gallons of water withdrawn, with an estimated passthrough cost of up to \$0.23 to each household per month. During this meeting, the Commission moved to defer approving the increase in the rate structure to support the metering program to the Administrative Committee. House Bill 2 of the 2021 Regular Session appropriated the Commission \$7.85 million for its metering program, and it plans to request the additional \$2.55 million from the Legislature during mid-year. According to the Commission, it is unclear if or by how much it will need to increase the fees because of this appropriation. The Commission also stated that the overall collection of fees may increase without having to raise the user fee because the usage will no longer be self-reported by the company and may be higher than what has been reported in the past.

11. The Commission should develop a process to conduct inspections to verify withdrawal amounts on wells to ensure they are collecting the correct amount in fees.	Implementation in Progress. According to the Commission, it has conducted field inspections on 386 wells. Until the metering infrastructure is installed, the Commission is requiring that the entities provide a beginning and ending meter reading to verify water usage for those wells that have meters instead of allowing entities to self-report the amount of water withdrawn, as was done previously. However, based on the inspections the Commission conducted, at least 46 wells do not have meters. As a result, these companies would not be able to provide a beginning and ending meter reading and would have to continue
	to estimate their usage.
12. The Commission should periodically evaluate the withdrawal fees and decide whether the fees should be raised to in order to meet its regulatory needs.	Implemented. The Commission raised the withdrawal fee in March 2019 from \$10.00 to \$20.00 per million gallons of water withdrawn. According to the Commission, it regularly reviews fees to ensure the fees are sufficient to meet its regulatory needs.
13. The Commission should ensure all wells are permitted before being constructed.	Implemented. At the September 25, 2019, Commission meeting, the Commission approved the requirement that the Commission approve future water well permits before they are issued. In addition, according to the Commission, it is reviewing all well applications in conjunction with the OC's registering of wells to ensure they are identifying all wells that were registered and meet the Commission's regulation requirements, but did not seek a permit from the Commission. The Commission is also currently reviewing its permitting process to require additional information that will incorporate an analysis of the effects of new wells on the aquifer. According to the Commission, it will charge a permit application fee to the company and then contract with the United States Geological Survey or the Water Institute to conduct this analysis.
14. The Commission should consider charging an application fee for new well permits and developing penalties to well owners if they fail to obtain a permit before installing a new well.	Partially Implemented. The legislature passed House Bill 590 of the 2021 Regular Session that allows the Commission to assess fees based on either annual flows or specific costs for wells to individual users based on capital, debt service, and operation and maintenance costs; late fees for non-payment of monthly or quarterly invoices; and an application fee. This legislation goes into effect on August 1, 2021. The Commission intends to develop a permit application fee; however, this legislation did not address developing penalties for well owners if they fail to obtain a permit before installing a new well.
15. The Commission should ensure its management plan includes a timeline to control saltwater movement, specific performance measures on controlling saltwater, and a financial plan to ensure the Commission's revenues meet their regulatory priorities they establish.	Implementation in Progress. The Commission has a five-year budget plan in place to begin saltwater management activities. This is part of the ongoing project with The Water Institute. According to the Commission, it intends to develop a timeline to control saltwater movement in Phase 3 of the Water Institute contract. The Water Institute is currently working on Phase 2, which is expected to be completed by December 31, 2024. Phase 2 includes the development of a Groundwater Availability Model (GAM). Until this model is developed, the Commission cannot develop a timeline to control saltwater movement because it does not have the data needed.

 16. The Commission needs to start taking actions to incorporate Ascension wells into its district, including regulating water withdrawal and collecting fees based on the amounts withdrawn. 17. The Commission needs to work with the Legislature to amend R.S. 38:3071 to include Ascension Parish as part of its district. This will allow Ascension Parish to have representation on the Commission. 	Implemented. According to the Commission, it is now collecting fees from the applicable Ascension Parish wells. During calendar year 2020, the Commission collected \$19,701 from 10 companies in Ascension Parish. Implemented. The legislature amended R.S. 38:3071 during the 2019 Regular Session (through Act 200) to add Ascension Parish as part of the Capital Area Groundwater Conservation District and to allow them representation on the Commission.
18. The Commission should obtain an opinion from the Ethics Board regarding whether the composition of the board is in violation of R.S. 42:1111(C)(2)(d).	Implemented. According to the Commission, it asked the Louisiana Board of Ethics for an opinion which replied, " the Board has declined to opine on the compliance with the commissioners of the Capital Area Groundwater Conservation District with La. R.S. 42:1111(C)(2)(d), as the question is not proper subject matter for an advisory opinion." Afterwards, the Board of Ethics took action against certain Board members. Specifically, the Board of Ethics filed charges against five members for violating state law because they received a thing of economic value (their salaries) for services provided to their employer during the time they served as members of the commission, and at a time when their employers had a contractual, business, or financial relationship with the commissioner and/or at a time when their employers conducted operations or activities that are regulated by the commission.**
19. The Commission should consider investing in educating citizens on the need for conservation and how to reduce withdrawals from the aquifer to help reduce saltwater migration.	Implementation in Progress. The Commission is producing a presentation/documentary about the board for public information that will include interviews with the U.S. Geological Survey, Louisiana State University, and the Water Institute; it will also use data from the Baton Rouge Water Company. In addition, the Water Institute will poll people on water use as part of Phase 2. The Commission is also implementing a new public education program. Specifically, the Water Institute will be evaluating public understanding of groundwater resources and evaluating public attitudes and uses related to groundwater management in order to engage the public as part of conservation and understanding of long-term groundwater management at an estimated cost of \$146,598.

*Of the 386 wells the Commission has inspected, 18 of these wells were identified during an inspection and currently not on the Commission's list of wells it regulates for billing purposes. The Commission should further investigate these wells.

**The legislature passed Senate Bill 203 of the 2021 Regular Session that provides an exemption to the Code of Governmental Ethics by allowing Commission members who are employed by industry users of the aquifer and regulated by the Commission to serve as members. However, this bill was vetoed by the Governor on June 21, 2021.

Source: Prepared by legislative auditor's staff using unaudited responses and information provided by the Capital Area Groundwater Commission.

APPENDIX A: MANAGEMENT'S RESPONSE



Executive Director

Capital Area Groundwater Conservation District

July 7, 2021

Michael J. Waguespack Louisiana Legislative Auditor P.O. Box 94397 Baton Rouge, La 70804-9397

Re: Status Update

Dear Mr. Waguespack,

The Capital Area Groundwater Conservation District ("District") is in receipt of the draft of the Status Report relative to our District. We offer the following comments:

- 1. We are continuing to work toward the completion of the engineering and scientific analysis of the Southern Hill Aquifer which is being conducted by the Water Institute of the Gulf. In association with USGS and LSU, we anticipate that the 3-D model of the aquifer will enable us to determine the actual conditions of the salt water intrusion across the southern fault line. The model will also be able to assist us in evaluating future conditions based on actions taken by the District relative to water withdrawals from the various water stratas within the aquifer.
- 2. We are moving forward with the metering program which will provide the District with accurate information on the daily withdrawals of water from each strata. This data will also be provided to USGS, the Water Institute, and LSU so that the accuracy of the model will be enhanced.
- 3. We have initiated the preliminary engineering regarding new infrastructure which can be used for either reclaimed water or surface water, thereby reducing the demand for our groundwater resources. We are also looking at available resources to fund these new projects.

If you have any questions or issues, please feel free to contact my office. Thank you.

Sincerely,

Gary J. Beard, PE Executive Director

APPENDIX B: SCOPE AND METHODOLOGY

We conducted this review under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended, to provide an update on the Capital Area Groundwater Commission's (Commission) implementation of recommendations we made in the May 2019 audit report, *Regulation of Groundwater Resources-Greater Baton Rouge Area*. Our audit objective was:

To provide an update on the implementation of recommendations made to the Capital Area Groundwater Conservation Commission in May 2019.

The scope of our audit was less than that required by *Government Auditing Standards*. We believe the evidence obtained provides a reasonable basis for our findings and conclusions. To answer our objective, we performed the following audit steps:

- Requested from the Commission a status update on each of the 19 recommendations made in our May 2019 performance audit.
- Reviewed supporting documentation provided by the Commission for each recommendation.
- Researched laws governing the Commission and proposed or implemented changes to the Commission since our previous report.
- Attended and reviewed Commission meetings and minutes to observe proceedings and met with Commission staff several times to discuss how they were implementing our recommendations.
- Met with Commission staff on multiple occasions to understand what progress has been made on the recommendations.
- Obtained and analyzed multiple sources of data including: (1) the Commission's list of wells it regulates and the usage amounts of each well for calendar year 2020, (2) the Commission's inspection results conducted during fiscal year 2021, and (3) the fees paid by users for calendar year 2020.
- Provided our results to the Commission staff to review for accuracy and reasonableness.

APPENDIX C: WATER INSTITUTE OF THE GULF'S TASKS, COSTS, AND DUE DATES FOR THE DEVELOPMENT OF LONG-TERM STRATEGIC PLAN FOR WATER RESOURCES

Phase	Description of Work	Cost	Due Date
	1.1: Identify alternatives (including the status quo and the potential use of alternative surface water sources) that address the long-term water resources needs 1.2: Evaluate the state of the science,		
Phase 1	information, and data related to groundwater use and aquifer conservation and develop report that includes identified gaps and a proposal for evaluating alternatives and filling gaps in future phases of work	\$250,000	June 2019
	2A: Evaluate existing data and water demand across the capital region, evaluate public understanding of groundwater resources, conduct economic analyses and evaluate existing aquifer monitoring framework	745,169	09/30/21
Phase 2	2A.1: Forecast water demand across capital region 2B: Quantify groundwater supply for the capital region and develop a Groundwater Availability	64,807	12/31/24
	Model (GAM); develop outreach and conservation education materials Total	1,141,914 \$2,201,890	

Source: Prepared by legislative auditor's staff using information from the Water Institute of the Gulf's scope of work.