



KANSAS LEGISLATIVE
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POST AUDIT

The Rundown podcast transcript for Performance Audit report titled ***Evaluating Groundwater Management Districts' Efforts to Conserve Water*** – Released February 2023

Mohri Exline, Host and Principal Auditor: [00:00]

Welcome to The Rundown, your source for the latest news and updates from the Kansas Legislative Division of Post Audit featuring LPA staff talking about recently released audit reports and discussing their main findings, key takeaways and why it matters. I'm Mohri Exline. In February 2022, Legislative Post Audit released a performance audit that evaluated groundwater management district's efforts to conserve water. I'm with Heidi Zimmerman, Principal Auditor at Legislative Post Audit, who supervised the audit. Heidi, welcome to The Rundown.

Heidi Zimmerman, Supervisor and Principal Auditor: [00:34]

Thanks for having me, Mohri.

Mohri Exline, Host and Principal Auditor: [00:36]

So to get started, can you tell me some background on how groundwater is managed in Kansas?

Heidi Zimmerman, Supervisor and Principal Auditor: [00:41]

Sure. Well, first groundwater in Kansas is defined as water that's located under the surface and held in an aquifer or water that supplies a well or spring. In Kansas, groundwater's used for a number of things like irrigation, drinking water, industrial uses, [and] even recreational purposes. And so, managing groundwater is an important task. In Kansas, multiple state and local agencies are tasked with managing different aspects of groundwater. So, there's three primary state agencies, first, the Department of Agriculture and they primarily regulate kind of water quantity issues. And so, they oversee how water is allocated and used. They issue water permits. They also administer some conservation programs. And then there's the Department of Health and Environment who are primarily tasked with regulating water quality. So, they set drinking water standards, test water wells, [and] facilitate cleanup when that's necessary. And then there's the Kansas Water Office, and they are their primary kind of planning and policy office in the state. And they develop and implement the Kansas Water Plan. And the Kansas Water Plan is really

the main planning tool the state uses to address current water issues and to plan for future water needs. And then additionally, there's a couple of local agencies as well. So, there are conservation districts which are responsible for conservation of soil, water, and other natural resources as well. And then there are the groundwater management districts. They oversee certain aspects of the groundwater within their district. And this audit focuses on the groundwater management districts.

Mohri Exline, Host and Principal Auditor: [02:35]

So when did the legislature establish groundwater management districts and what is their purpose?

Heidi Zimmerman, Supervisor and Principal Auditor: [02:40]

So the legislature established a process that allows local voters to create groundwater management districts. They established that process in 1972. So, this is a process that's been around for a little while. Since 1972 though, local voters have established five groundwater management districts, and those districts cover a portion of Western and central Kansas. So as far as the purposes though, they're pretty broad. Statute does lay out several purposes, which includes things like for the management and conservation of groundwater, to prevent economic deterioration and stabilize agriculture, [and] also to secure world markets. And then last, one of the purposes that's noted in statute is to establish the right of local water users to determine some aspects of how groundwater is used.

Mohri Exline, Host and Principal Auditor: [03:40]

Okay so with that, what powers do groundwater management districts have? And are they limited in any way?

Heidi Zimmerman, Supervisor and Principal Auditor: [03:46]

So there are a number of things that districts can do. Districts, first of all, they have boards. And the districts can determine how many members are on that board, and then they can hold elections to elect members for that board as well. And then statute allows a number of very specific activities. So, districts can acquire land, they can conduct research, they can require that meters be installed to monitor how much water is used. They can also levy water and land assessments. They can also do some additional things like recommend regulations to the Department of Agriculture, and they can also set reg[ulations] for their own districts as well. So obviously there's many things that the districts can do, but they still operate within some real limits. And that's because they don't have independent authority over many important state groundwater policies and actions. And so, for example, the districts can provide input on the state water plan, but they don't have a lot of formal authority to craft those policies. Districts also can, and do, offer advice on water permit applications, but it's the Department of Agriculture that approves or denies water permits. Districts also can recommend certain types of conservation measures, like local enhanced management areas or intensive groundwater use

control areas. And these are areas that have more stringent water use rules applied to them. And although the districts can recommend those areas to the Department of Agriculture, again, it's the Department of Agriculture that approves or denies them. So, there's many things that they can do, but they're still pretty limited in some really important ways.

Mohri Exline, Host and Principal Auditor: [05:42]

So the report mentions that districts are required by state law to have a management program. What is the management program? And did the team find any issues related to these programs?

Heidi Zimmerman, Supervisor and Principal Auditor: [05:54]

The management program is a written document that describes the district. It outlines areas of concern, defines the programs that the district plans to operate. So, for example, a district may note that it has concerns about declines in groundwater and maybe too much water waste from irrigation. And so, it then may outline programs such as soil moisture monitoring or public education programs to address those specific concerns. So, each district is required by state law to have a management program. Additionally, the law says the district's board must review that program annually. So, we checked to see if the districts complied with those two specific provisions in state law. What we found was that first, they all had management programs, but two of them had not reviewed them as the law required. So, we looked at 2020 and 2021.

Heidi Zimmerman, Supervisor and Principal Auditor: [06:53]

And in both of those years, District One and District Five had not reviewed their programs in those years. There is also one other aspect. State law also allows districts to revise their management programs, and that process is in state law. But the law does not require districts to revise their programs on any specific timetable. But we looked back the last 30 years and found that with one exception, which was District Four, districts revise pretty infrequently. So, for example, District Two had not revised its program since 1995 - although the district did tell us they are currently working on a revision right now. Additionally, District Three revised their program in 2022 but it was their first revision since 2004. And so, these aren't compliance issues though, because again, the statute does not say when the districts have to revise. It doesn't set them on any particular timetable. But there are still some issues there in terms of, an out of date document might clash with changes in legal requirements or regulatory requirements. And perhaps more importantly, it may end up describing concerns or programs that no longer reflect the conditions or the needs of that district.

Mohri Exline, Host and Principal Auditor: [08:21]

So your report mentions districts run a variety of programs. What types of programs do they operate and did they appear appropriate?

Heidi Zimmerman, Supervisor and Principal Auditor: [08:29]

We talked with the districts and reviewed various documents to understand what types of programs the districts currently operate. So, all the districts had programs related to things like data collection, conducting research, [and] public education. A few of them also provide programs related to providing water permit assistance to local water users. And then some also had more unique programs related to inspecting or plugging wells or programs related to recharging groundwater. So, there was a lot of variety across the district in what kinds of programs they offered. In terms of whether those programs appeared appropriate, yes, we thought that they did appear appropriate. Mainly because the statutory purposes of the districts are pretty broad and they're largely related to managing groundwater to support agriculture and the economy. And the district programs do support those purposes through things like public education, research, [and] monitoring. And so, we felt like those programs are appropriate to the districts' purposes.

Mohri Exline, Host and Principal Auditor: [09:43]

The report also notes that districts have a number of concerns related to groundwater management. What were their concerns and are the districts addressing them?

Heidi Zimmerman, Supervisor and Principal Auditor: [09:51]

So management programs detail the concerns the district has related to groundwater in their district. So, we reviewed those and we also talked to the district managers to understand what their concurrent concerns are. And districts had a number of concerns, but groundwater depletion and water quality concerns were the most common. In fact, all of the districts told us they had concerns about groundwater depletion. Some other concerns were things like keeping the public informed or the need for finding alternative sources of water. So, we did see a lot of variety kind of in the concerns that they had and did note that the districts do not all have exactly the same concerns. But we looked to see if the districts had programs addressing whatever their concerns were. And so, we looked at the programs that were in operation in 2021, and we found that all five districts operated at least one program that was intended to address all of their concerns. So, for example, districts addressed groundwater depletion concerns through programs related to improving irrigation practices or requiring water meters to be installed so that groundwater use can be better monitored. So overall, they address their concerns differently in some situations, but they did have programs meant to address those concerns.

Mohri Exline, Host and Principal Auditor: [11:23]

So how much did districts spend recently and what did they spend their funds on?

Heidi Zimmerman, Supervisor and Principal Auditor: [11:28]

We collected expenditure data from all of the districts for the 2021, calendar year. So,

across the five districts, they spent a total of \$6.1 million in 2021, although there was some variation there. So, District Four, spent about \$470,000 but District Five spent \$2.8 million. Although District Five's, expenditures were largely driven by a single \$2 million land purchase. We looked at their expenditures in two ways. So, one was through a kind of high-level categories, looking at things like salaries and professional services, administrative costs, that kind of thing. And when we looked at it in that way, we found that most was spent on salaries and benefits. So, across the five, 41% of their money was spent on salaries and benefits, 21% was on professional services like accountants, lawyers, consultants, 14% were on administrative costs, and that's things like rent, office supplies, [and] vehicle expenses and then the last 24% were for other expenses. And those were largely expenses related to grants or nonprofit foundations that some of the districts operated. So then second, we took that same expenditure data and we cut it in a different way. And we looked to see how much the district spent on programs, especially programs that address their areas of concern. And for this work though, we had to estimate. The districts don't keep their expenditure data by program. So, we had to work with the districts to get an estimate of how much they were spending per program. What we found was that overall 75% of their expenditures were for programs intended to address an area of concern. I think I mentioned before that water depletion was a big concern for all the districts. And we found that every district spent at least 50% of their expenditures on programs that addressed water quantity concerns. The last thing I would like to note here though is that most district expenditures are largely funded through local land and water use assessments. Districts may occasionally receive state funds for a specific project or a specific program, but they do not regularly receive a state appropriation. So most of these expenditures were not made with state funds.

Mohri Exline, Host and Principal Auditor: [13:58]

So in terms of effectiveness, what did your team find about current water trends in Kansas and whether district's efforts have made an impact?

Heidi Zimmerman, Supervisor and Principal Auditor: [14:07]

So we reviewed water level data provided by the Kansas Geological Survey, and we compared groundwater measurements taken in 2012 to those taken in 2022. And we found that three of the five districts had overall declines in groundwater levels over those 10 years, although the other two had slight increases in water level over that time. We also looked at water quality as well. And that data was provided by the Department of Health and Environment. And we looked again over the last 10 years and saw that all five districts had experienced at least some water quality issues. Most of those issues were related to nitrate contamination. However, we couldn't determine if those issues really have improved over that 10 years, though. And that's because when a well is contaminated, sometimes it's abandoned or it's filtered to clean the water, the data may indicate that there's an improvement even though that well is still actually contaminated. And so, our work in that area was a little bit

limited. In terms of the impact of district programs on water quantity trends, we really couldn't determine the impact of district programs. And that was for a couple of reasons. One is that isolating the effects of one program operated by one agency in an environment where many programs are being operated by many agencies is actually quite difficult. Additionally, environmental factors, such as the amount of rainfall or temperature can influence groundwater levels. And an understanding of those issues is pretty critical to really understanding district program effectiveness. And so, for us, time [and] data expertise limitations really meant that we were unable to determine whether district programs really effectively addressed their groundwater quantity concerns. However, we did review some research that was available and research that was largely conducted by the Department of Agriculture and K-State. And that research looked at the local enhanced management areas and in the intensive ground use control areas. I mentioned those a minute ago, those are areas within the districts that have much more stringent conservation efforts. And so, three of the five districts have at least one of those areas in their district. But when we reviewed the research, we actually found multiple studies on those very specific efforts. And those studies were actually quite positive and found that both of those measures did lead to reductions in groundwater use in the areas where they were implemented.

Mohri Exline, Host and Principal Auditor: [16:58]

So finally, what was the biggest takeaway from this audit?

Heidi Zimmerman, Supervisor and Principal Auditor: [17:02]

As we kind of did our work and worked through a number of issues with the districts and talked to them and read the statutes and things, a couple of things really stood out to us. First of all, the districts are not required to operate any particular program and they don't really receive a lot of direction from the state. We also noted that their independent authority is quite limited, and they are only one of many agencies involved in managing the state's groundwater resources. So, you know, based on our work, the districts do appear to operate, within their current expectations. But their overall role in addressing the state's water situation is quite limited.

Mohri Exline, Host and Principal Auditor: [17:47]

Heidi Zimmerman is a Principal Auditor at Legislative Post Audit. She supervised an audit that evaluated groundwater management districts' efforts to conserve water. Heidi, thanks for visiting the Rundown and discussing this audit's findings with me.

Heidi Zimmerman, Supervisor and Principal Auditor: [18:03]

Thanks for having me, Mohri.

Mohri Exline, Host and Principal Auditor: [18:04]

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