

APPENDIX D

REGIONAL MEETING ROUND 4



Round 4 Regional Meeting Summary October 2024

Issued November 2024



OKLAHOMA
Water Resources Board



US Army Corps
of Engineers

carollo

SECTION 1 **ROUND 4 REGIONAL MEETING**

EXECUTIVE SUMMARY

In October 2024, the Oklahoma Water Resources Board (OWRB) hosted a fourth series of Oklahoma Comprehensive Water Plan (OCWP) regional meetings across the state to engage with local officials, water utility suppliers, regulated industry, commercial agricultural producers, economic development entities, and other organizations to converse on local water challenges share opportunities and identify ways the OCWP can inform and support local water planning and management.

The meetings began with a welcome and team introduction by [Owen Mills, OWRB's Planning Director](#), and proceeded with a general OCWP update and a recap of the first three rounds of regional meetings (August 2023, December 2023, April and May 2024). In the first round of regional meetings, permitting / policy / regulations, funding / financing and infrastructure improvements, and collaboration / partnership emerged as key topical categories to frame breakout group discussions at the second round. The third round of meetings focused on draft baseline scenario data, illustrating the degree to which demands in each of the state's 82 planning Basins are projected to change from 2020 to 2075. The focus of the fourth round was established as water management strategy (WMS) feasibility and policy idea discussions. WMS are tools that can be used to reduce or eliminate projected gaps between demand and supply. The OCWP Team evaluated seven categories of potential WMS for their effectiveness in each of the OCWP 82 Basins.

Throughout the first three regional meetings, the OCWP Team consistently heard feedback on two primary issues across the state: the value of regional planning and management and the need for new funding sources. Background information, existing examples, and discussion questions were used to facilitate discussion. The following outlines key feedback shared by participants in the meetings.

- Stakeholders across the state are interested in the implementation of regional planning groups (RPGs). Organizing these groups by a shared water resource (i.e., watershed or aquifer, rather than counties or other political boundaries) received the most support statewide. Most agreed that demand/supply projections should be an RPG responsibility and that they should receive some local authority to more effectively manage local resources, while staying within the constraints of existing water law.
- Funding programs that would emulate aspects of Colorado and Kansas's programs did not see consistent support throughout the state. Funding coordination with the tribal nations will be needed, particularly if sports betting is an avenue the legislature explores further. Support was generally voiced for eliminating or easing the current cap on OWRB funding via the gross production tax. Many supported the reappropriation and/or the addition of various fees/taxes for a water designated fund.

The meetings concluded with a final discussion regarding bringing ideas together. Stakeholder issues are understood, and appropriate solutions have been discussed, but there is no existing forum or process for continuity and stakeholder collaboration to implement them. Most participants expressed support for developing a water management group between various organizations and agencies. Owen closed the meetings by thanking participants and providing a reminder to attend Round 5 of the regional meeting series in early 2025 where we will seek feedback on draft OCWP policy recommendations.

SECTION 2 **ROUND 4 REGIONAL MEETINGS**

In October 2024, OWRB hosted in-person meetings in Claremore, Oklahoma City, Woodward, Lone Wolf and Durant, plus a statewide virtual meeting, as part of the ongoing 2025 OCWP update. This was the fourth in a series of regional meetings designed to engage with local officials, water utility suppliers, regulated industry, commercial agricultural producers, economic development entities, and other organizations to converse on local water challenges, opportunities, and information the OCWP can provide to support their needs and efforts.

2.1 Welcome

Owen Mills, OWRB's Planning Director, welcomed guests by reminding them of the goals for the regional meetings, reviewing the agenda, and introducing key OCWP team members as well as legislators, local officials, and OWRB Board Members.

2.2 OCWP Overview

The 2025 OCWP Update is a multi-year project that seeks to define and address water supply challenges and solutions. In recognition of variability in hydrology and water uses across the state, analysis is completed on the Basin and Regional level. The OCWP Team seeks input from stakeholders across all water sectors to support technical and policy work.

The OCWP seeks to provide consistent information across the state to assess reliable water supply, which depends on physical supply (*is wet water available*), legal/permit availability (*do I have the water right to use the water*), and water quality. All of this depends on infrastructure (*do I have the necessary infrastructure in place to divert, treat, distribute, and use the water?*).

2.3 Round 1 Regional Meeting Recap

In August 2023, OWRB held five in-person and two virtual Round 1 regional meetings around the state. Figure 1 summarizes the relative prominence of topics that came up during these discussions. Summaries from Round 1 regional meetings were presented in each of the Round 3 meetings. Larger boxes were shown to indicate topics that were more frequently brought up by meeting participants. Across the state, the three most commonly identified topics were funding/financing and infrastructure improvements, permitting/regulations/policy, and collaboration/partnership.



Figure 1 Round 1 Regional Meeting Recap

2.4 Round 2 Regional Meeting Recap

Round 2 Regional Meetings were held around the state in December 2023; the following three topics identified were discussed in breakout groups. Throughout the five distinct areas of the state, a range of feedback was given with regard to the three topics. However, there was some degree of concurrence across the state's various regions, which is captured below.

Permitting / Policy / Regulations. Many participants expressed support for increasing timely enforcement of existing rules and use limits. Ideas for achieving this included establishing regional OWRB offices or representatives, local management authorities, or modifying enforcement rules. Nearly all participants expressed views that some form of local control or management of water resources would be beneficial, although there was no consensus on what management structures should be implemented or what kinds of authorities, if any, should be established.

Funding / Financing and Infrastructure Improvements. There was broad support regarding the development of a more robust education program for system management and board training, expanded planning and technical assistance programs, and providing significant and permanent state funding for water and wastewater management. Many participants agreed that these could be accomplished within existing program authorities if these programs were provided additional funding and/or staff.

Collaboration / Partnership. Many participants expressed support for developing regional water plans, and for the role coordination can play to leverage and improve individual local planning efforts within a Region. Participants noted that regional water plans can be useful tools in identifying capital project needs for water supply, and that the state could help incentivize regional planning through financial programs to assist with funding regional plan development and by either requiring, or providing bonus points for, inclusion of a capital project in a regional water plan as a condition for approving or prioritizing state funding for that capital project.

Participants identified several best management practices (BMP) for managing water and mechanisms through which the state can encourage or incentivize these voluntary BMPs. Examples include providing training and/or technical assistance for utilities to implement effective utility management and sustainable utilities practices (e.g., appropriate rate structures, regular rate increases, long-term planning, etc.).

2.5 Round 3 Regional Meeting Recap

In April and May 2024, OWRB hosted a third series of OCWP regional meetings across the state. During the Round 3 regional meetings, the OCWP Team presented draft baseline scenario data, illustrating the degree to which demands in each of the state’s 82 planning Basins are projected to change from 2020 to 2075 (Figure 2). Physical water supply gaps and depletions are defined as conditions where, respectively, surface water and groundwater supplies are insufficient to satisfy projected demands. These gaps/depletions vary over time and geographically across the state. See Appendix A for maps that show demand and supply projections by basin.

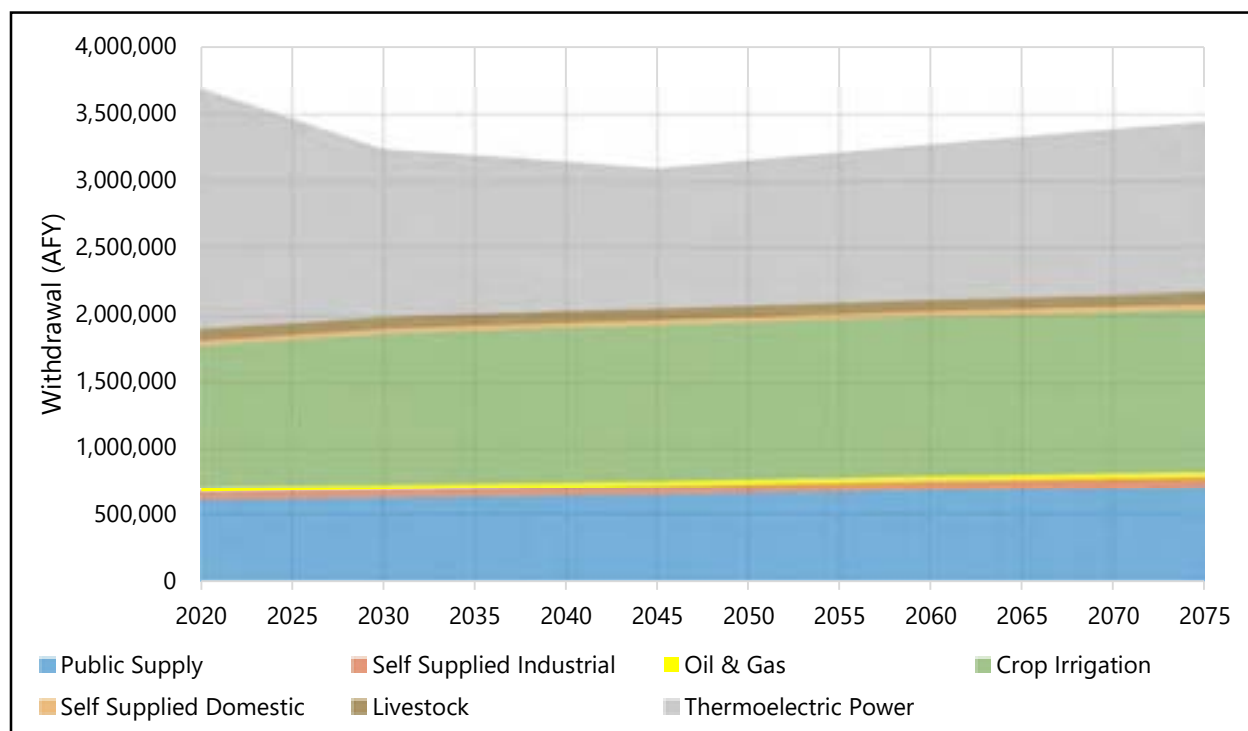


Figure 2 Statewide Water Withdrawal (Demand) Forecast by Sector

WMS were analyzed to assess their feasibility in mitigating projected physical water supply gaps/depletions in each Basin and to help OWRB and the State Legislature know which programs to focus on. Discussion of the effectiveness of strategies specific to each OCWP Planning Region was held in breakout groups. Participants were asked to provide input on the strategies that would be most effective in their area to address water supply challenges. Participants also suggested other strategies, expressed reasons for their positions, and listed potential methods of implementing the strategies. All told, from the five regional meetings, the top three WMS identified by participants as those likely to be most effective in Oklahoma were Demand Management, Agriculture Options, and Reuse (Figure 3). All seven WMS are defined in the document in Appendix A, which was provided to participants as a reference at the Round 3 and Round 4 meetings. Participants noted that watershed management and

nonconsumptive uses of water are also important aspects of Oklahoma's vast water resources, and that policy changes may be necessary to integrate these elements into state water planning.



Figure 3 Identified Statewide Most Effective Water Management Strategies

2.6 Water Management Effectiveness Evaluation

The OCWP Team evaluated the feasibility of each of WMS in each of the 82 Basins across the state. Evaluation results were organized and presented by planning region in each meeting, along with a summary of how the evaluation was conducted (Appendix B). Figure 4 (statewide map) can be used to help locate region names and basin numbers for specific locations.

Effectiveness was assessed on whether a water supply shortage was projected for 2075 by source (i.e., surface water, alluvial groundwater, or bedrock groundwater). The magnitude of a shortage was identified as “Minor” (less than 5% of 2075 demand), “Can be met with Demand Management” (less than 20% of 2075 demand), or “significant – needing mitigation” (more than 20% of 2075 demand) for each Basin and water source category.

The **Demand Management** and **Agriculture Options** strategies were scored as:

- **Typically Effective** if the gap/depletions did not exceed 20% of 2075 demand or
- **Partially Effective** when gap/depletions exceeded 20% of 2075 demand.

Increased Reliance on (in Basin) Surface Water and **Increased Reliance on (in Basin) Groundwater** strategies were scored as:

- **Typically Effective** if there is no shortage projected and there is physical and legal water available in 2075,
- **Partially Effective** if the 2075 shortage can be addressed by Demand Management and Agriculture Options, or
- **Less Effective** if the shortage is greater than 20% of 2075 demand.

If a Basin does not currently use a given water source type in the basin, its score was based on the legal and physical availability of that source type in that Basin.

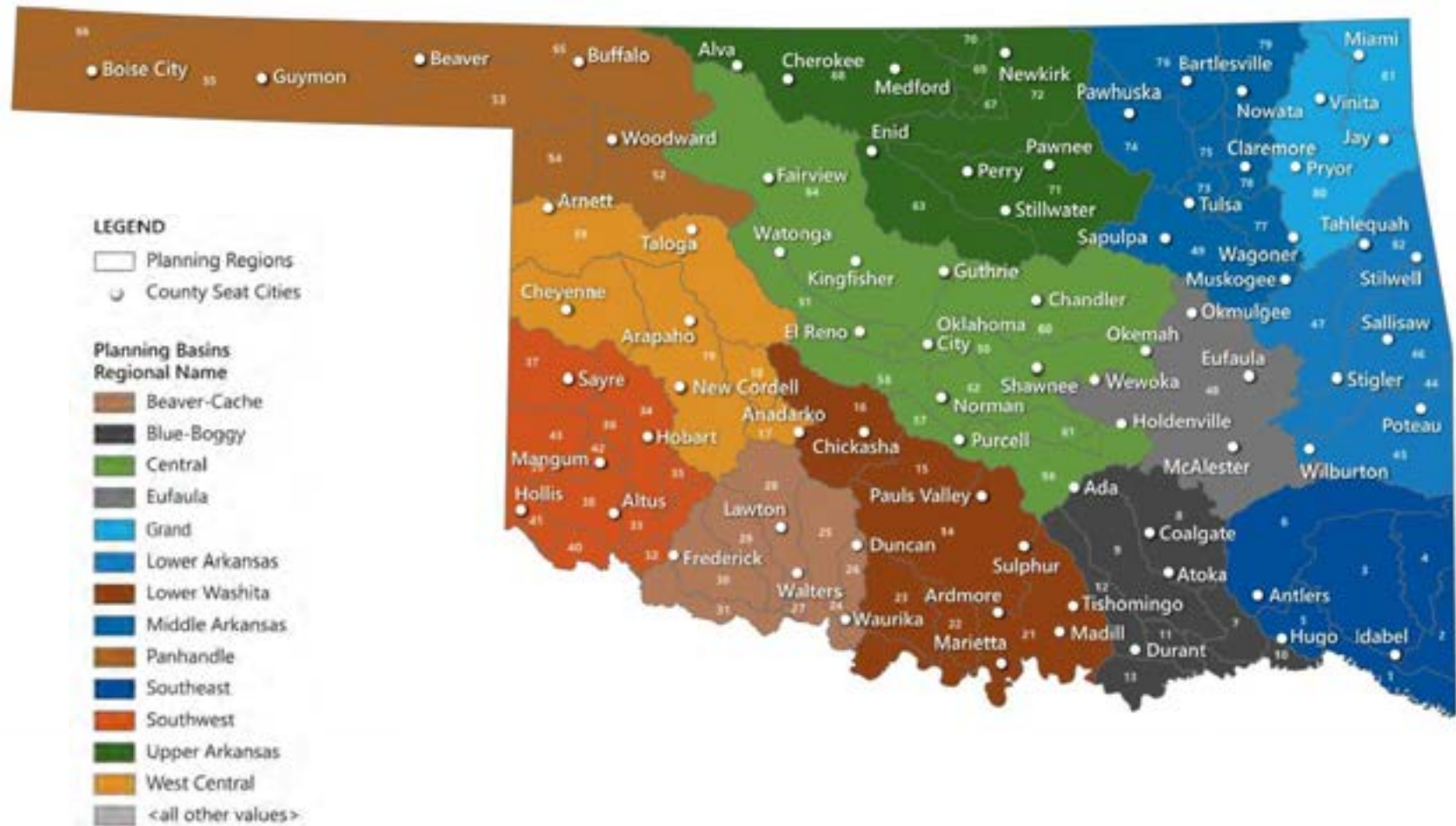


Figure 4 OCWP Statewide Region and Basin Level Planning Map with County Seat Cities

If a Basin's projected 2075 shortage can be met through Demand Management, Agriculture Options, Increased Reliance on (in Basin) Surface Water, or Increased Reliance on (in Basin) Groundwater, the other strategies are marked as **Can be Met with Other Strategies**. While these WMS may be effective and feasible in that Basin, water users may be more likely to employ low cost, local, traditional sources before looking to nontraditional or more distant sources of supply.

The **Stormwater Capture and Use** strategy was scored based on whether there are urbanized areas with stormwater systems, amount of annual precipitation, and how the potentially-available stormwater quantity compares to the projected 2075 shortage. Stormwater Capture and Use was scored as **Potentially effective**, **Partially effective**, or **Likely ineffective** based on these criteria.

The **Reuse** strategy was scored based on Public Supply and Self-supplied Industrial Demand, estimated treated wastewater effluent (return flow) quantity as a function of that demand, and how that quantity compares to the projected 2075 shortage. Reuse was scored as **Potentially effective**, **Partially effective**, or **Likely ineffective** based on these criteria.

The **Water Transfers** strategy was evaluated based upon whether there is a Basin within 100 miles with physical and legal surface water and/or groundwater available, relative to the magnitude of the projected 2075 shortage. Water Transfers was scored as **Potentially effective**, **Partially effective**, or **Likely ineffective** based on these criteria.

2.7 Policy Ideas Discussion

Across the state, the OCWP Team consistently heard feedback from stakeholders on several key concepts. These ideas will be refined into recommendations for the Round 5 Meetings and the 2025 OCWP Update. To further solidify these ideas into recommendations, the OCWP Team collected additional feedback from stakeholders on these topics.

2.7.1 Regional Planning & Management

Based upon the feedback received in previous meetings, there has been widespread interest in regional planning and management. The discussion in Round 4 meetings was designed to better understand the parameters for implementing regional planning.

Several regional planning groups have developed organically across the state (for example, Southwest Oklahoma, Northwest Oklahoma, Tulsa Regional, and Arbuckle-Simpson). However, if regional planning is to be integrated into the statewide water planning process, groups would likely need to be formed to cover all Oklahoma, and utilize consistent methods, with a common set of expectations, deliverables, and strategies.

To frame and provoke the discussion, examples of successful regional planning and management processes from Colorado, Nebraska, and Texas were presented (see slides in Appendix B).

The following sections capture the feedback received in each region on this topic.

- What types of planning responsibilities should a group have?
- Should regions be organized using the 13 OCWP Regions, or should a different regional grouping be considered?
- What minimum requirements are reasonable to place on these regional plans?
- What self-governance roles do you envision for the regional group, if any?

2.7.1.1 Northeast

Participants in this region did not have any pushback regarding the implementation of regional planning and management in the State. If regional planning groups (RPGs) were to be formed, participants suggested they be organized by watershed boundaries. At minimum, these groups would be responsible for managing demand and supply projections and evaluating how to satisfy demands through WMS implementation and ability incentivize them. Further RPGs responsibilities include identification of regional projects and their priority order to streamline funding opportunities. Participants expect RPGs to have some local authority but were uncertain of a path forward. Some participants cautioned that RPGs would need to stay within the boundaries of existing water law.

2.7.1.2 Central

It was generally agreed upon by Central region participants that regional planning is desired, noting that a few RPGs have organically formed across the state. One participant suggested that groups should be organized around shared water sources for the predominant supply in a given area (e.g., surface water watersheds in eastern Oklahoma, and aquifers in the west). Participants suggested that these groups should not be expected to fund themselves and should be provided with guidelines to follow so that there is consistent data collection and analysis between regions. Each group should be responsible for developing both demand forecasts and project lists for the region on a short-term (5-10 year) and long-term (50+ year) basis. Their planning efforts should recognize demand commitments to interstate compact agreements, economic development plans, and local wildlife needs especially to endangered and endemic species. At a minimum, these groups should conduct regular meetings among regional stakeholders. Communication should be maintained with OWRB, regional communities, and other water stakeholder agencies. To further communication efforts, it was suggested that the RPGs host regional water-related education & outreach activities and appoint liaisons, especially to the OWRB and tribal nations.

2.7.1.3 Northwest

Northwest meeting participants indicated that regional planning should move forward in Oklahoma, and state funds should be allocated to RPGs to support their development and ongoing facilitation. RPGs were suggested to be organized by watersheds and/or aquifers across the state, but some voiced support for county-by-county organization. Participants noted that the groups should include representatives from all regional water stakeholders and should be responsible for developing supply/demand projections. In addition, participants suggested that all RPGs should have the authority to monitor and assess water use in their region and can reduce allowable groundwater withdrawals in the region, and all rules should be enforced by the OWRB, or another state agency, rather than the RPG.

2.7.1.4 Southwest

Participants in the Southwest meeting voiced support for regional planning. RPGs were suggested to have certain responsibilities which include facilitating funding for regional projects, maintaining communication channels with water stakeholders within and outside of the region, appointing a liaison to OWRB, identifying regional issues, and then setting goals for solutions. Besides funding facilitation authority, RPGs should receive funding to support their development and facilitation, especially if a more sustainable water infrastructure fund is established in the state. Groups should not be organized by political boundaries because they are not descriptive of available water resources. RPG organization should be designed to reflect shared water resources. As such, the 13 OCWP Planning Regions are too large on a scale, but the 82 OCWP Planning Basins are too granular. Participants expressed support for self-governance of RPGs, though participants would like to see enforcement responsibilities facilitated by OWRB while RPGs manage monitoring of existing state and regional rules. RPGs should have the

capacity to set groundwater withdrawal limits that are more stringent than the OWRB's equal proportionate share values.

2.7.1.5 Southeast

Southeast meeting participants expressed an opinion that RPGs should be responsible for developing demand and supply projections and identifying regional needs – including both economic and ecological needs. Funds for these needs should be funneled through the RPG so that they can prioritize regional efforts, when appropriate. The group should facilitate communication between water users within the region and neighboring regions. Overall, participants gravitated toward organizing RPGs by shared water resources, rather than political boundaries. Suggested approaches include organization by watersheds and/or aquifers, the 13 OCWP Planning Regions, and more generally, in a manner that ensures coordination and communication among all surface and groundwater users. These groups should have some ability to self-govern, as some would like the ability to direct funding and management strategies toward sustainable regional goals.

2.7.2 Funding

Providing permanent funding for water projects and programs across was also a consistent request by stakeholders statewide. Technical assistance, operational assistance, capital improvement project design and construction, incentives for best management practices/water use reductions, and more have been identified as needs. As it stands now, Oklahoma has minimal funding for water infrastructure projects in comparison to some neighboring states. On an annual basis, Oklahoma appropriates \$1.2 million for Rural Economic Action Plan (REAP) grants to the OWRB, but additional appropriations can be made. Each Council of Government (COG) receives approximately \$3 million annually to distribute, but those funds are shared between water projects, transportation projects, and other initiatives. OWRB additionally receives approximately \$2.9 million from the state's gross production tax revenues for water planning and technical studies. This fund expires approximately every five years, unless renewed.

Colorado and Kansas have more robust and consistent funding programs for water planning and projects. In Colorado, 93% of revenues from sports betting taxes are allocated to the Colorado Water Conservation Board to fund water projects, with the remainder allocated to administration of the program and addiction programs. In fiscal year 2023, tax proceeds were \$27 million. Kansas takes an alternative approach by dedicating \$6 million from their State General Fund and a varying amount from their Economic Development Initiatives Fund to their State Water Plan Fund. Additionally, they have a dedicated additional water charge incorporated into various fees such as sand royalty and fertilizer registration. See slides in Appendix B for additional details on the Kansas and Colorado programs. These water funding approaches were presented in conjunction with the following discussion questions. The preceding sections capture meeting participant feedback in each of the regional meetings.

- Which elements (if any) of the Colorado or Kansas programs would work well here? Why?
- What ideas do you have for generation new funding for water needs?
- What are the biggest barriers to developing a new funding program?
- How should the use of any new funding programs be prioritized?

2.7.2.1 Northeast

Participants were interested in establishing a funding program in Oklahoma, but a consensus was not reached regarding what a program should look like. Some expressed that the funding program implemented should be applicable and approved statewide. In that regard, the Kansas approach sparked more attendees' interest as some were hesitant to support Colorado's, due to concerns regarding sports betting jurisdiction relative to the tribal nations. If similar programs were to be implemented in Oklahoma, it would be helpful to have studies and/or estimates to justify the decision.

Other suggestions participants noted were to raise funds for water infrastructure include putting an additional tax on bottled water, creating a water license plate, and setting a water tourism tax on hotel rooms and vacation rentals statewide. However, some participants voiced that any additional taxes will not go over well in Oklahoma. To manage this concern, it was suggested taxes be targeted statewide rather than target specific industries and the term “fee” should be used instead of “tax.” An attractive approach would be to adjust current tax allocations to more appropriately supplement water planning and projects. Overall, it is understood that all Oklahomans must play a role in working towards cooperative solutions.

2.7.2.2 Central

Central meeting participants resonated with components of both the Kansas and Colorado models. The Kansas model provides a consistent funding source and does not target a specific industry, allowing a broad range of users to invest in water infrastructure. Some reluctance was expressed regarding sports betting since it is unclear how this would be done in cooperation with tribal nations. Similar thoughts were expressed regarding state lottery proceeds.

Participants also suggested alternative funding ideas. Many regional meeting participants have noted that medical marijuana producers are large volume water customers throughout the state. Due to its high demand, there is some interest in reportioning some of its current taxes to water infrastructure, or potentially adding a new water tax to its sale. Another suggestion was to allocate a portion of funds from boat registration fees, fishing licenses, and hunting licenses to water projects, or to potentially increase the cost of each to include a water fee. Recently, the City of Oklahoma City raised its tourism tax on all hotels and rental properties. A similar model could be introduced across the state as a water fee to subsidize additional use on water systems. New developments put strain on existing water infrastructure and encourage the need for expansion. For new developments, adding a tiered fees to property owner’s ODEQ stormwater permit could provide some funds for water infrastructure. The fee structure would be dependent upon local water availability. Overall, as the state asks for more dollars through these programs, it is important to positively frame the conversation with appropriate terminology and educational resources.

2.7.2.3 Northwest

In this part of the state, participants expressed that sports betting is becoming increasingly prevalent in Oklahoma, and that water infrastructure should benefit from the tax dollars incurred. This group acknowledged that the State and tribal nations would need to coordinate on a path forward. This would also need to be done if other gambling and/or lottery funds were to be allocated for water needs. There was some interest in the revenue incurred by fees that the Kansas program imposes; however, the implementation of additional fees on any commodity will likely be controversial. Additional fees must be enforceable and easy to measure. This potentially makes a livestock watering fee in Oklahoma difficult since groundwater metering is voluntary. Oklahoma could positively change its funding program without significant overhaul by removing or easing the cap on OWRB’s receipt of gross production tax revenues, so that the OWRB can receive more funds for planning efforts and/or project funding. Even if lifted, these funds would not be expected to significantly increase, as other state agencies are also seeking this funding source. Other suggested ideas to generate funding include placing a tax on all plastic bottles, adding a water recreation tax to all water-centric recreational activities (e.g., golf courses, waterparks, marinas, etc.); including a water tax on phone bills; and allocation of hotel/vacation rental tax to water projects or the addition of a water visitor tax. Even though these items were identified as appropriate paths forward, nothing will replace pricing water at its true cost. Funds must be prioritized for distribution and use. Some interest was voiced in partnering with the tribal nations on the expansion of their water funding and technical assistance programs. Beyond this, it was identified that funds should be used to incentivize best management practice and water reduction grants.

2.7.2.4 Southwest

Components of Kansas's funding program triggered some interest from Southwest meeting participants. Additional fees on fertilizer and other agriculture components were not favored program components due to existing fees on these items. Rather, the group thought that it was more realistic to add additional water fees to aggregate and mining products in general. Overall, participants did not express significant disinterest in either the Kansas or Colorado programs and would be open to implementing the successes of other states. At a minimum, an Oklahoma program should be modified by lifting the gross product tax cap for funds allocated to OWRB. One participant suggested that economic studies be conducted on potential programs to better understand how they would benefit Oklahoma. Overall, Southwest meeting participants see an ongoing need for pricing water at its true cost. Any funding from newly implemented programs should be distributed and prioritized by RPGs.

2.7.2.5 Southeast

Southeast meeting participants were interested in some of the same funding opportunities as other regions in Oklahoma. Some of these funding mechanisms include removing the gross product tax cap on funds allocated to OWRB, adding water fees to mining operations, and reallocating some of the existing permitting fees to water projects. Another funding idea that gained some interest was using some of Oklahoma's Constitutional Reserve (Rainy Day) fund for water projects since so many systems have needs. It was also proposed that all water systems create their own infrastructure rainy day fund by adding a blanket monthly surcharge to every water bill. This suggestion received mixed feedback due to the potential strain that this could cause to individuals on a fixed income. For this same reason, some support was received for focusing on reallocation of state tax funds rather than adding taxes and fees. It was also suggested that Oklahoma follow Arkansas by requiring all water systems to implement tiered (conservation) water rates to support conservation and water loss measures. Most participants were in support of this change. Funds for water projects could also come from water transfers. It was suggested that additional fees are put on water that is transferred one basin to another.

2.7.3 Highlights from Water Usage, Monitoring, & Oversight Study

Fred Fischer of Flatland Farms presented highlights from an October 2024 Senator Howard-hosted Interim Study on Water Usage, Monitoring and Oversight during the Northwest Round 4 Meeting. A strong case was made for programs that would eradicate invasive species as a way of reducing water use. Meeting participants expressed some interest in moving forward with his ideas.

2.7.4 Upper Red River Basin Study

This study was conducted by the US Bureau of Reclamation (USBR) with input from the Lugert-Altus Irrigation District, Mountain Park Mountain Conservancy District, and OWRB to evaluate strategies to improve water supply reliability and drought resiliency to Lugert-Altus and Tom Steed Reservoirs. Stakeholders in southwest Oklahoma have been utilizing this report as a reference document for their planning efforts since its completion in 2022. The report details its evaluation on how adaptation strategies could be implemented within existing legal and policy frameworks, and the potential effects of changes in water policy. Strategies evaluated for the reservoirs are highlighted in Appendix B, and further explored in the [full report](#) on USBR's study page. These presented adaptation strategies and the following discussion questions/topics framed discussion on this study in the Southwest Round 4 meeting.

- What are the next steps to secure water supply in this region?
- What policies should OCWP recommend?
- Additional Water Rights
- Voluntary Dry Year Lease or Purchase Agreements

- Redetermination of Aquifer Maximum Annual Yield (sustainable use versus mining)

Overall, regional participants expressed that the strategies identified to manage water in southwest Oklahoma should have statewide or at least consensus from neighboring regions. Statewide responsible stewardship of water resources will help the region maintain reservoir yields. Sedimentation, invasive species removal, and reservoir management received some participant interest and should be considered when looking toward a sustainable water future for the region. Addressing sedimentation issues will be difficult due to the identified barriers of dredging costs and historical site considerations. One participant noted that local reservoirs are losing less volume to sedimentation than predicted at the time of their design and construction. As discussed in the preceding section, there is statewide interest in invasive species removal for water conservation.

2.7.5 Nonconsumptive Use

To lay the groundwork for a discussion on nonconsumptive use (including instream flow, or ISF), the OCWP team presented information from the Interim Study: Defining Instream Flow or Basin Study held in October 2022. ISF was defined in both the 2012 OCWP Executive Report and the Upper Illinois River Pilot Study. Participants identified that while different, both definitions seemed to be sufficient. Oklahoma currently has a few legal existing mechanisms for establishing these flows; however, in previous rounds of regional meetings, stakeholders expressed opinions that the current legal framework is insufficient for long term protection of these flows. Due to this, nonconsumptive use was selected as a policy discussion topic for the Southeast Round 4 meeting.

The discussion was framed by the four core approaches identified in the Upper Illinois River Pilot Study: administrative approaches, stream basin selection and prioritization, study criteria and assessment methodologies, and stakeholder involvement and structure. The OCWP Team presented components of these core elements to facilitate meeting discussion in conjunction with the following questions.

Discussion feedback is captured below.

- Would you support increased (state) investment in voluntary mechanisms and monitoring and adaptive management?
- How would we implement a regulatory approach? (ex, permit conditions, minimum flows)
- How important is it to understand the economic impacts of implementing a regulatory restriction?
- How important is it to understand how much water / flow is needed?

State investment in voluntary nonconsumptive use measures, such as conservation efforts or existing water rights, were supported as a positive step towards more formally establishing ISF. Additionally, voluntary monitoring efforts throughout the region should also be considered. However, even with some interest, many participants expressed that they do not believe voluntary measures are sufficient because there are limited incentives for users, especially those who are out of basin and/region, to conserve water and/or donate their water rights. Overall, the consensus was that voluntary mechanisms would be the first step to approaching regulatory changes.

Some interest was expressed in changing the permitting process to capture nonconsumptive uses. Suggestions included adding nonconsumptive use to the list of beneficial uses considered under water permitting, and potentially putting conditions on permits to guarantee minimum ISF. Some interest was given to reclassifying some of the local rivers, such as the Upper Kiamichi, through placing them on the Scenic Rivers List by legislative action. Further studies could be conducted to better understand the impacts of instream flow in Southeast Oklahoma. Some participants expressed that an economic study of the impacts from a regulatory ISF approach should be considered, because it could potentially be used by the State legislature as a decision-making tool. Participants generally agreed that if an economic study were to be conducted, it should be expanded to include ecological and recreational impacts. Additional support was given toward understanding, through a study, the volume flow required to maintain healthy

ecosystems and local economies. According to participants, such a study would be important to conduct, but would be meaningless if it did not result in an implementation plan.

2.7.6 Bringing Ideas Together

Throughout the regional meetings, stakeholders have communicated their issues and suggested solutions to the OCWP Team. The meetings concluded with a final discussion regarding bringing ideas together. Stakeholder issues are understood, and appropriate solutions have been discussed, but there is no existing forum or process for continuity and stakeholder collaboration to implement them. Most participants expressed support for developing a water management group between various organizations and agencies.

The OCWP Team, OWRB, or any other water entity cannot solve statewide problems without collaborative solutions, so it was suggested to create a forum geared toward promoting and incentivizing best practices for water management. Discussion questions used for facilitating this discussion are below, along with statewide feedback from meeting participants.

- Should funding be used to incentivize implementation of best management practices? Why or why not?
- Should funding be used to incentivize water use reductions? Why or why not?
- What is the right balance between providing technical assistance and direct funding for projects?
- What existing organizations or coalitions could serve as a foundation?

The use of funding to incentivize implementation of best management practices and water use reductions was supported statewide and received little opposition from participants. Many participants showed further interest by suggesting that funding be used to provide rebates to those using best management practices and water use reductions. Direct funding for a project alone is not always the answer, as some technical assistance is needed to help balance long term sustainability and immediate community needs. There are quite a few organizations (COGs, Oklahoma Municipal League, Oklahoma Rural Water Association, professional water organizations, Natural Resources Conservation Service, Farm Bureau, Oklahoma Strategic Alliance, etc.) that could help serve as a foundation for bringing a coalition of water users together to help work through multifaceted issues.

2.8 Wrap up and Next Steps

Owen thanked participants for their participation in all rounds of the regional meetings. Over the coming months, the OCWP Team will follow up on the discussion items of this meeting, explore other priority topics, present data and findings from other technical studies, and discuss recommendations to include in the OCWP. He reminded attendees to submit their infrastructure needs to him personally or through the [LPP Data Collection Form](#). The next round of regional meetings is tentatively scheduled for early 2025 and will focus on draft policy recommendations. Reach out to Owen with any questions or to discuss the OCWP.



Owen Mills | Director of Water Planning

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Facebook: [Oklahoma Comprehensive Water Plan](#)

MEETING HANDOUT



OCWP PLANNING REGION MAP

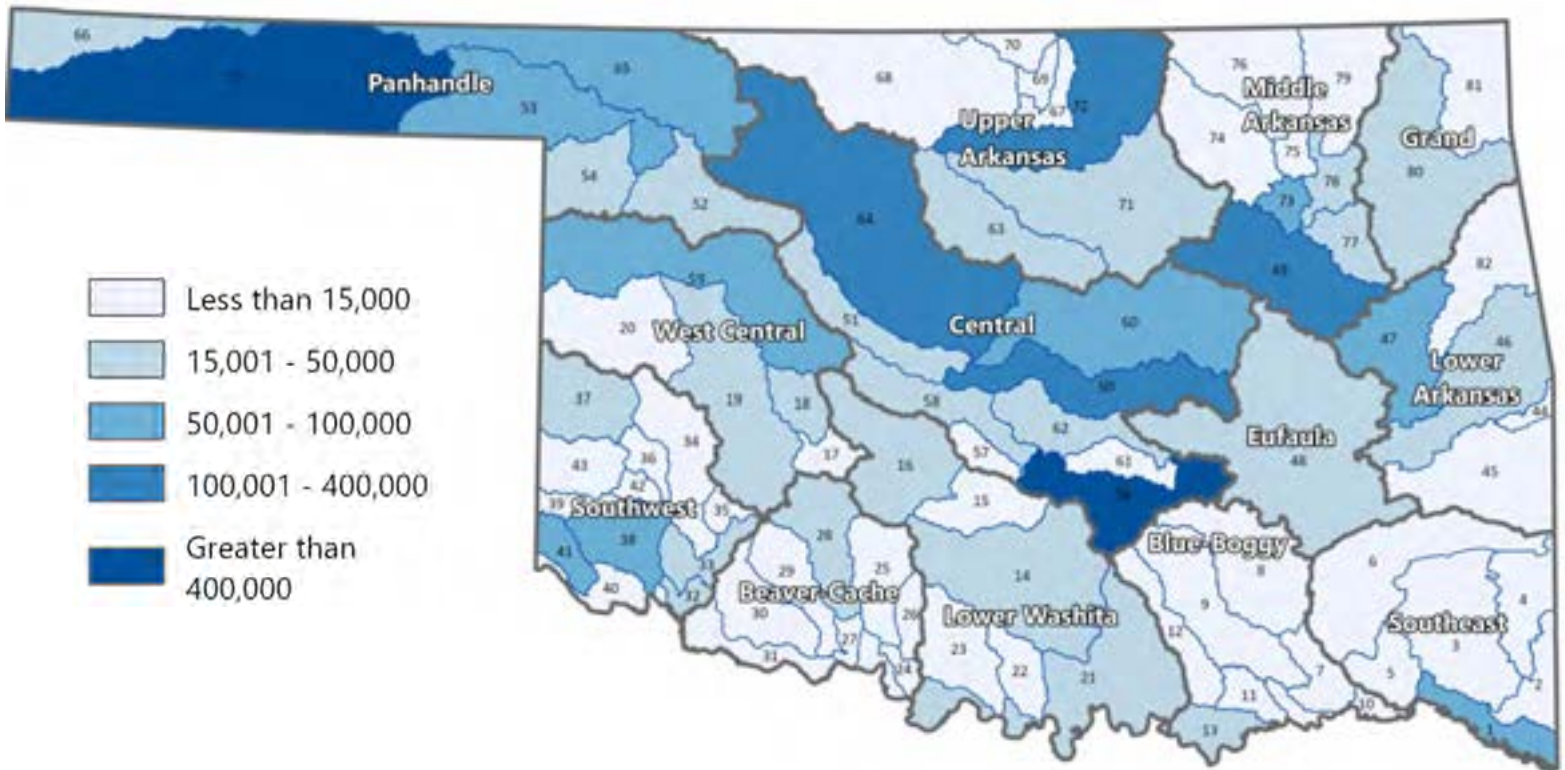


- **October 24, 1:00 – 4:00 p.m. | NE** – Rogers State University – Dr. Carolyn Taylor Center, 1701 W. Will Rogers Blvd., Claremore, OK | **Middle Arkansas, Grand, Eufaula, and Lower Arkansas OCWP Planning Regions**
- **October 25, 9:00 a.m. – Noon | Central** – Department of Public Safety Training Center, 3600 N. MLK Blvd., Oklahoma City, OK | **Upper Arkansas and Central OCWP Planning Regions**
- **October 28, 1:00 – 4:00 p.m. | NW** – High Plains Technology Center, 3921 34th St., Woodward, OK | **Panhandle OCWP Planning Region**
- **October 29, 1:00 – 4:00 p.m. | SW** – Quartz Mountain State Park Lodge, 22469 Lodge Rd., Lone Wolf, OK | **West Central, Southwest, Beaver-Cache, and Lower Washita OCWP Planning Regions**
- **October 30, 1:00 – 4:00 p.m. | SE** – Massey Building, 200 West Main Street, Durant, OK | **Blue-Boggy and Southeast OCWP Planning Regions**
- **November 5, 9:00 – 11:00 a.m. | Virtual**

WATER MANAGEMENT STRATEGY

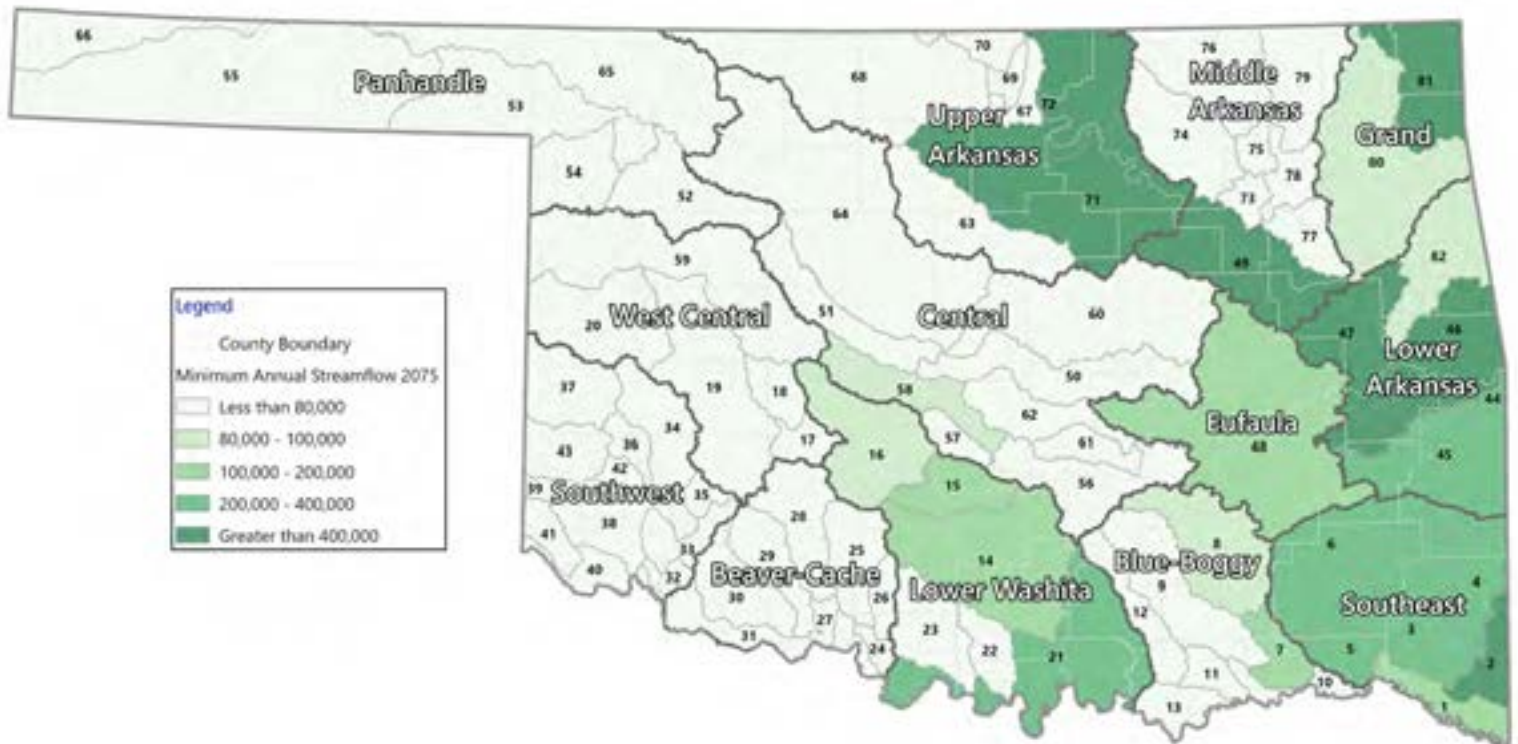
NAME	DESCRIPTION
Demand Management 	Demand management refers to the potential to reduce water demands and alleviate gaps or depletions by implementing conservation or drought management measures. It is a vitally important tool that can be implemented either temporarily or permanently to decrease demand. This strategy is specific to non-agriculture uses. Examples include water utility-driven conservation programs, industrial conservation, water loss control, and drought management measures.
Agriculture Options 	Agriculture options are water conservation and efficiency tools specifically for the irrigated cropland and livestock production sectors. Examples include irrigation system improvements, soil moisture probes, meters, electrified pumps, operational changes, growing less water intensive crops, reuse of tailwater, and using municipal recycled water for agriculture purposes.
Water Transfers 	Water transfers describe the strategy of obtaining either surface or groundwater resources from an outsourced local supplier or region and conveying the supply to where it is needed. Examples include water purchases, out-of-basin transfers, water provider collaboration, interconnections, and regionalization.
Increase Reliance on Surface Water 	Surface water is any water resource found above ground, such as a lake, river, reservoir, or stream. There are various means of increasing surface water resources, but the applicability is highly dependent upon location. Examples of increased reliance on surface water include constructing new reservoirs, conveying or allocating water from existing reservoirs, expanding existing reservoirs, treating brackish surface water to suitable standards, and diverting additional stream water.
Increase Reliance on Groundwater 	Groundwater refers to any water resource that is found underground in saturated zones. Site-specific information on the suitability of aquifers for supply should be considered. Examples of increased reliance on groundwater include drilling additional wells, treating brackish groundwater to suitable standards, and developing managed aquifer recharge and recovery wells.
Stormwater Capture and Use 	Stormwater capture and use refers to collecting and beneficially using water that does not infiltrate after a precipitation event. Large volumes can be generated in urban settings where impervious cover is typical. Most municipalities have infrastructure in place to divert stormwater to nearby bodies of water. However, this water could potentially be stored, treated, and used for potable or non-potable uses.
Reuse 	Water reuse refers to the reclamation of water from various sources and then treated and utilized again for beneficial purposes (e.g., irrigation, potable water supply, groundwater recharge, etc.). Typically, the most common source of reclaimed water is treated municipal wastewater. Examples include indirect potable reuse, non-potable reuse, direct potable reuse.

2075 Water Demand Projections (AFY)



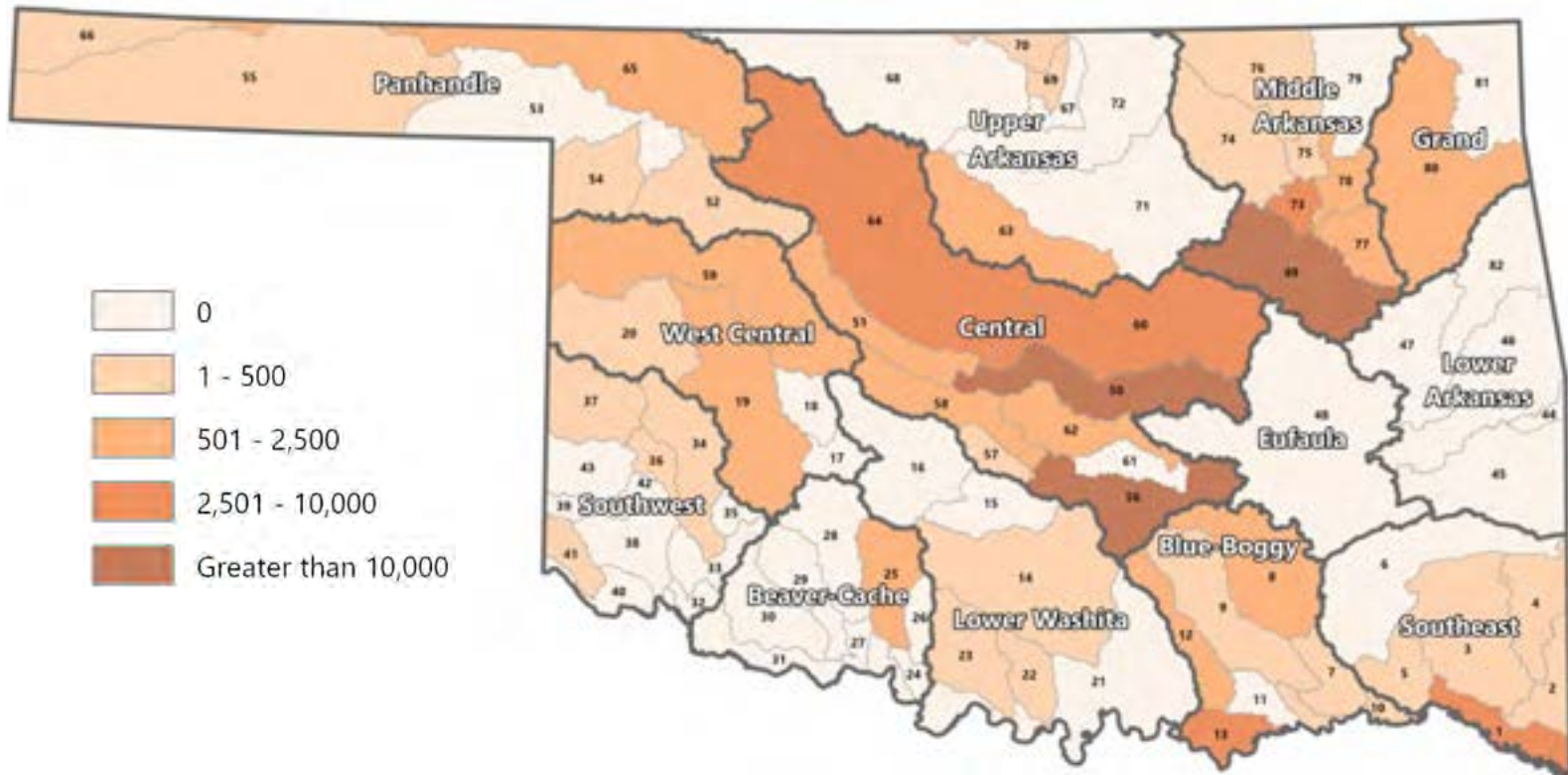
All data presented is in DRAFT form and subject to change.

Streamflow under Driest Conditions (AFY)



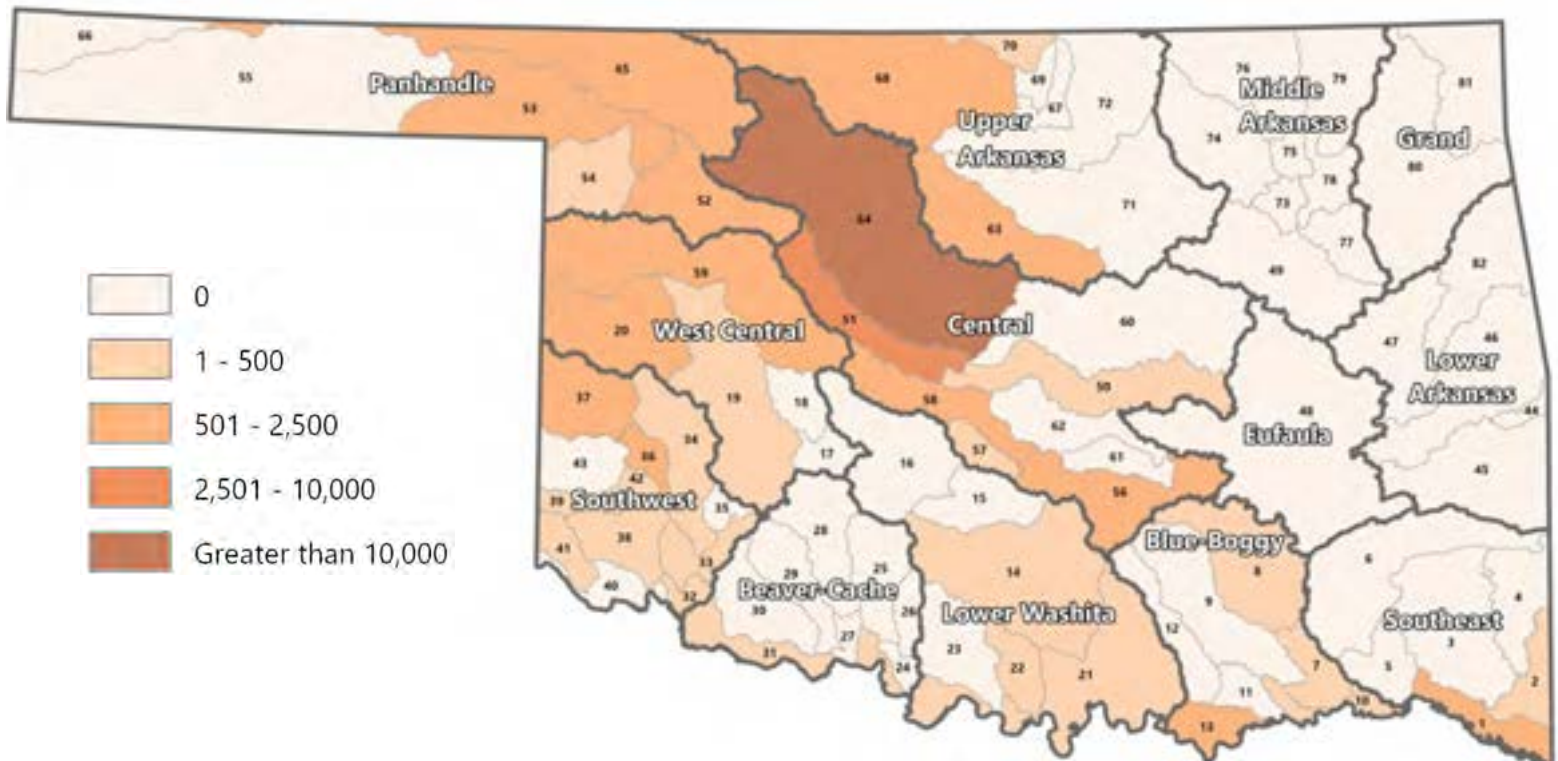
All data presented is in DRAFT form and subject to change.

Projected Surface Water Gap Magnitude (AFY) under Historical Driest Conditions for 2075 Demands



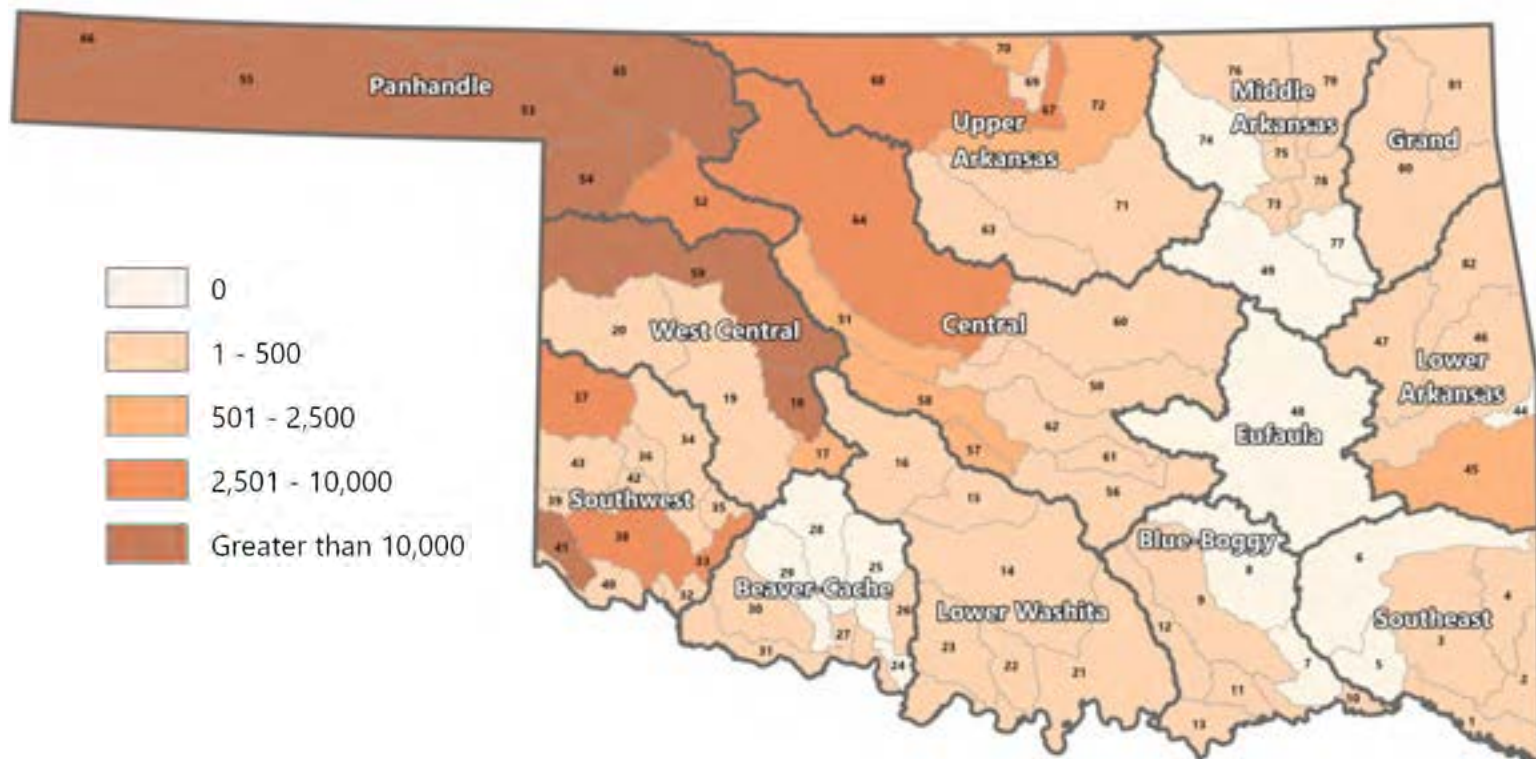
All data presented is in DRAFT form and subject to change.

Projected Alluvial Groundwater Depletion (AFY) Magnitude under Historical Driest Conditions for 2075 Demands



All data presented is in DRAFT form and subject to change.

Projected Bedrock Groundwater Depletion (AFY) in Excess of Annual Recharge for 2075 Demand



All data presented is in DRAFT form and subject to change.



Contact Owen or fill out the Local Projects and Programs (LPP) data collection form on OWRB's website.

To submit a comment or ask a question, please contact:

Owen Mills

Director of Water Planning

Oklahoma Water Resources Board
405-530-8904 Direct | 405-530-8800 Main

owen.mills@owrb.ok.gov
oklahoma.gov/owrb/water-planning

MEETING PRESENTATION

Round 4 | Presentation

2025 OCWP Regional Meetings

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Northeast	Claremore	October 24
Central	Oklahoma City	October 25
Northwest	Woodward	October 28
Southwest	Lone Wolf	October 29
Southeast	Durant	October 30
Virtual		November 5



Website: [Oklahoma.gov/OWRB/Water-Planning](https://oklahoma.gov/OWRB/Water-Planning)
Facebook: Oklahoma Comprehensive Water Plan



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01

Welcome!

Agenda

1. Welcome
2. OCWP Update and Water Management Strategy Discussion
3. Regional Planning and Management Discussion
4. Networking Break
5. Funding Discussion
 - + Local producer, Fred Fischer, presentation on importance of controlling eastern red cedar, salt cedar, and other invasive species (Northwest Meeting)
 - + Upper Red River Basin Study Discussion (Southwest Meeting)
 - + Nonconsumptive Water as a Beneficial Use Discussion (Southeast Meeting)
6. Bringing ideas together
7. Wrap up and Next Steps

Goals for the OCWP Regional Meetings

Why and how we want you to participate!



Identify local water issues
and policy needs.

Round 1: Listening sessions

Round 2: Breakout on what we heard



Identify and frame solutions
to those issues and needs.

Round 3: Present regional projections for
supply/demand/water quality

Round 4: Discuss some policy ideas and
feasibility of water
management strategies



**Chart a course toward reliable
water management** locally and
statewide.

Round 5: Review draft recommendations

....
Welcome



Federal Legislators
State Legislators
Local Government Officials
OWRB Board Members

.....
02

OCWP Update and Water Management Strategy Discussion

Supply Issues and Solutions Vary Across the State

82 BASINS
13 REGIONS

Watershed-based Planning

Multi-year process with numerous stakeholders and technical partners

Projections of supply/demand gaps are the foundation of the OCWP



....

Technical Studies Support All OCWP 2025 Focus Areas



Identify basins with projected water challenges or opportunities



Identify and **recommend** water management strategies



Identify **infrastructure investment needs** & financial solutions



Advance 2012 OCWP Policy Recommendations



Integrate Oklahoma's first statewide **Flood Plan**

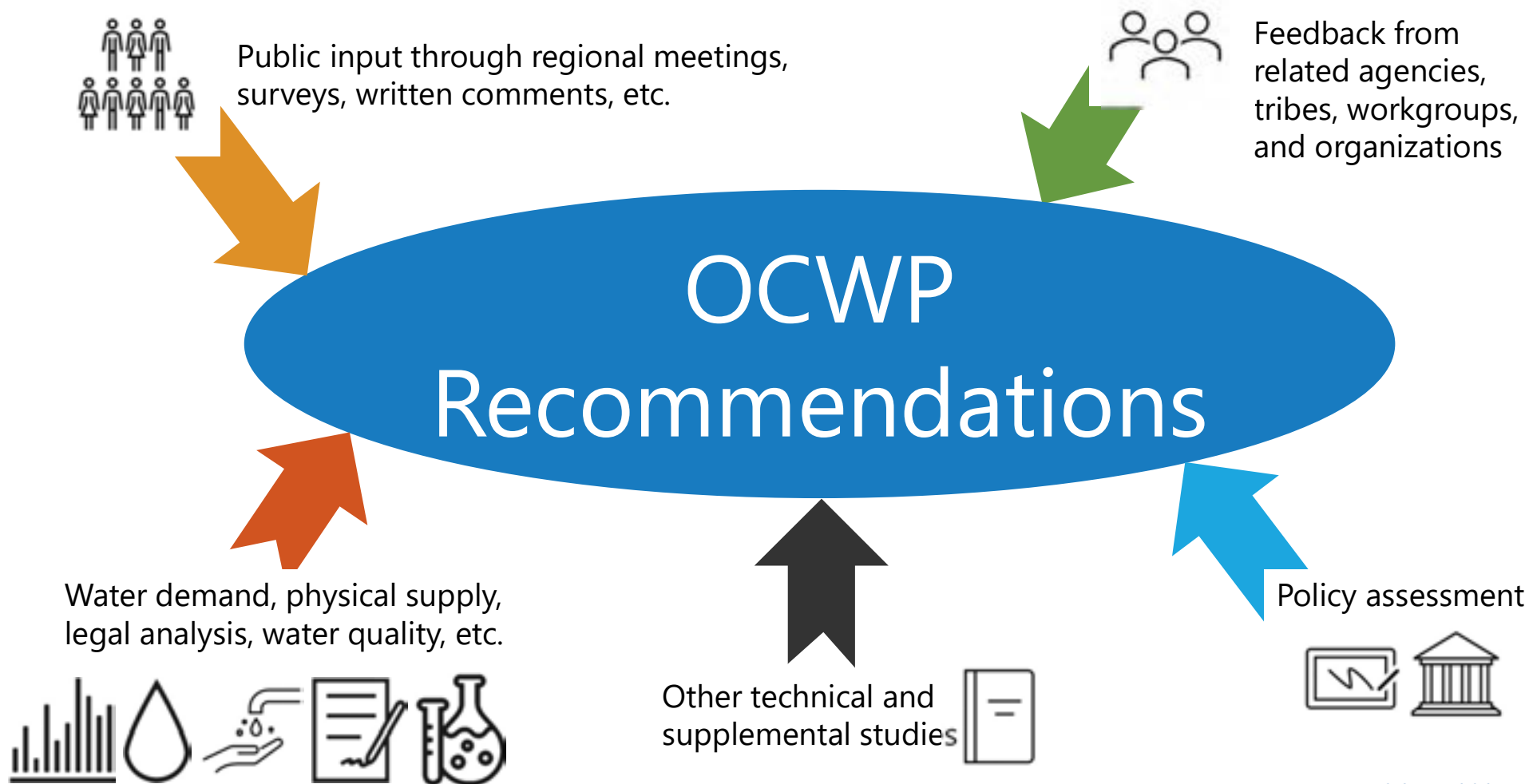


Conduct **focused engagement** throughout the process



Provide **greater access** to OCWP deliverables

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Round 1 regional meeting recap – Northeast



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Round 2 regional meeting highlights - Northeast



Infrastructure Improvements / Funding / Financing

- Increase funding to expand existing workforce, technical assistance, leak detection, and long-range planning
- Support education for operators, district board members, and managers, and staff training
- Several success stories from RWDs and communities; lack funding for water loss and aging infrastructure

Permitting / Regulations / Policy

- General support for requiring metering; if mandatory, consider state subsidies to support costs/acceptance
- Expand and modernize water quality monitoring network for surface water and groundwater
- Consider a "Regional Water Governance Committee" to review/comment on permit applications

Collaboration / Partnership / Regional Planning

- Support for developing a transparent and consistent approach to regional planning (watershed basis)
- Regionalization via infrastructure sharing is more appealing than consolidation of utilities
- Best practices to incentivize (link to grant funding, communicate success stories, share templates): effective utility management; sustainable utilities practices; conservation plans; drought mgt. plans.

Nonconsumptive Uses

- Recognize the (economic) benefits of keeping water in the streams and lakes
- Discussed changing the hearing process for contested permits
- Discussed having other agencies (like USFWS/ODWC) to review controversial permits

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Round 1 regional meeting recap – Central



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Round 2 regional meeting highlights – Central



Infrastructure Improvements / Funding / Financing

- Improve access to technical assistance
- Create permanent funding programs
- Include funding support for local planning assistance

Permitting / Regulations / Policy

- Support for metering water use, esp. in areas where groundwater / surface water is more fully allocated
- Local management and planning would require minimum standards set by the State
- Consider modifying "use it or lose it" policy to a more balanced approach, like in Oregon
- Low support for ODWC proposal to review permit apps; how would ODWC comments be addressed?
- Mixed reactions to whether and how to implement an instream flow program; consistent approach is key

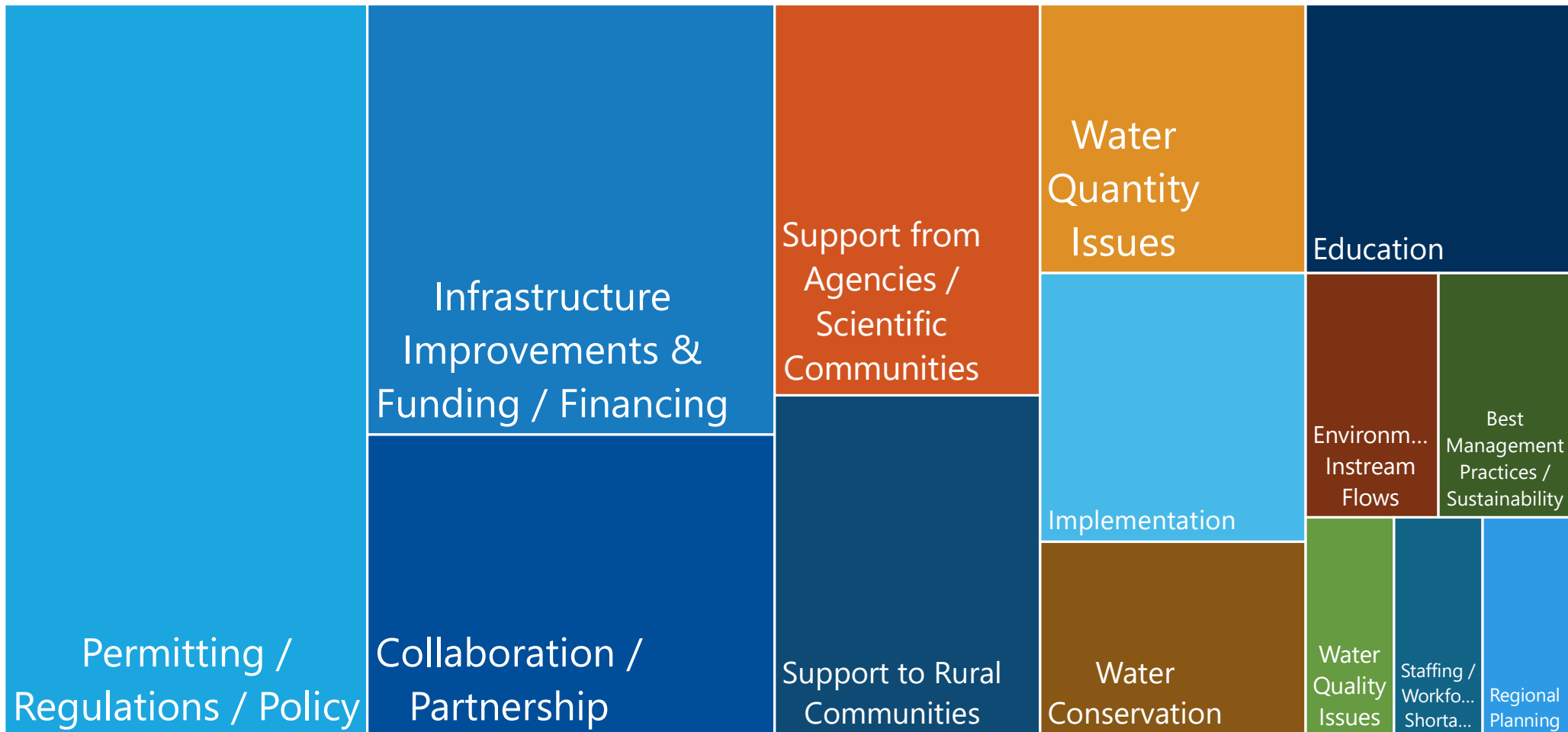
Collaboration / Partnership / Regional Planning

- Expand regional planning so all parts of the state have a regional plan; provide state funding support
- Encourage/facilitate regionalization via regional planning, coordinate reservoir operations, ASR science
- Encourage water metering, water loss prevention programs and training, conservation, reuse/recycling
- Support these best practices through a combination of funding, education, and policy mechanisms

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Round 1 regional meeting recap – Northwest



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Round 2 regional meeting highlights - Northwest

Infrastructure Improvements / Funding / Financing

- Encourage more robust system management through training and technical support
- Expand planning and technical assistance programs
- Provide permanent state funding for water and wastewater projects

Permitting / Regulations / Policy

- Improve enforcement of existing rules and use limits
- Expand water quality monitoring for surface and groundwater
- Discussed Metering, Setback buffers for wells, Local control/management of water resources

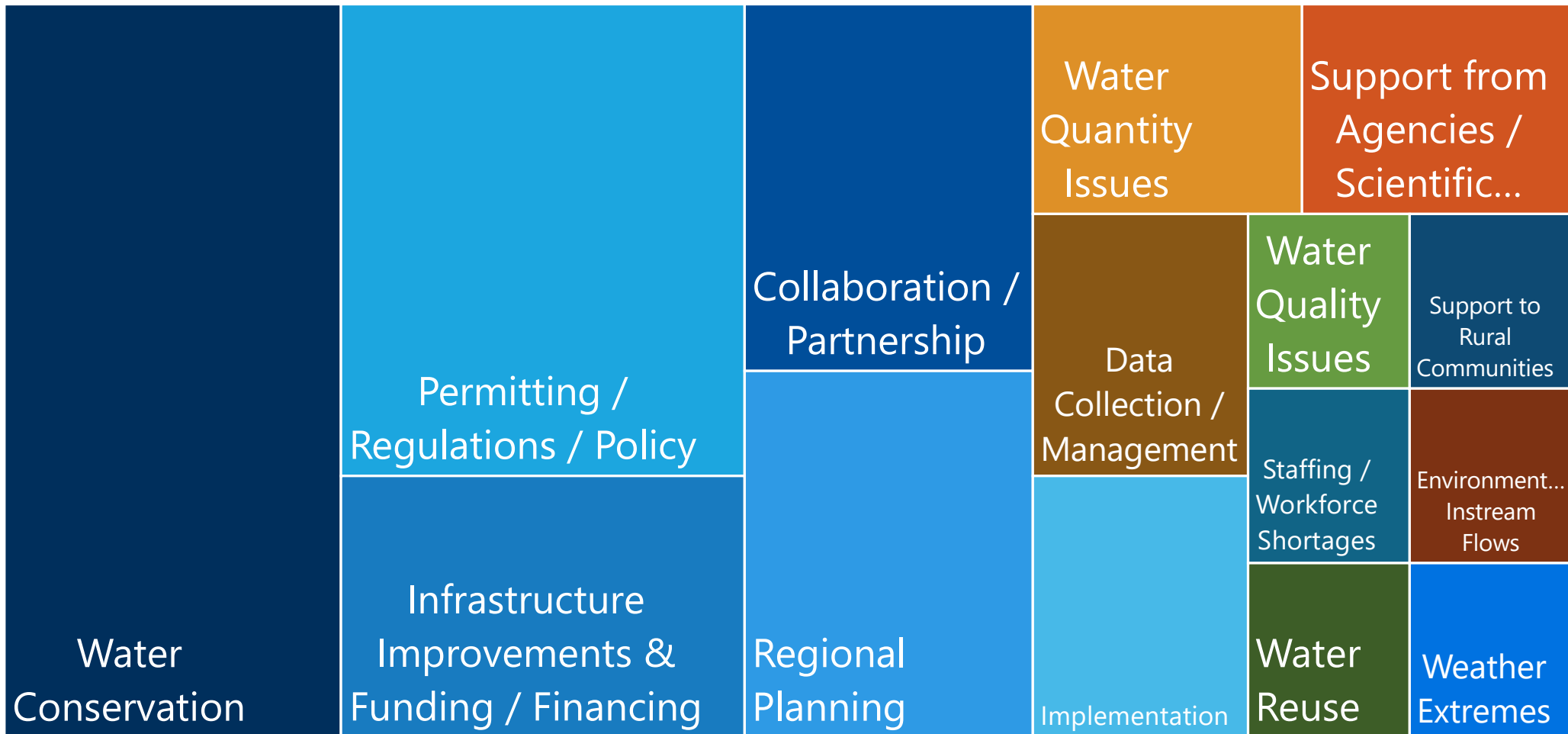
Collaboration / Partnership / Regional Planning

- Provide support for and/or incentivize regional water planning
- Identify, encourage, and/or incentivize voluntary best water management practices

10/18/2018

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Round 1 regional meeting recap – Southwest



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Round 2 regional meeting highlights - Southwest



Infrastructure Improvements / Funding / Financing

- Encourage more robust system management through training and technical support
- Expand planning and technical assistance programs
- Provide permanent state funding for water and wastewater projects

Permitting / Regulations / Policy

- Improve enforcement of existing rules and use limits
- Expand water quality monitoring for surface and groundwater
- Discussed Metering, Setback buffers for wells, Local control/management of water resources

Collaboration / Partnership / Regional Planning

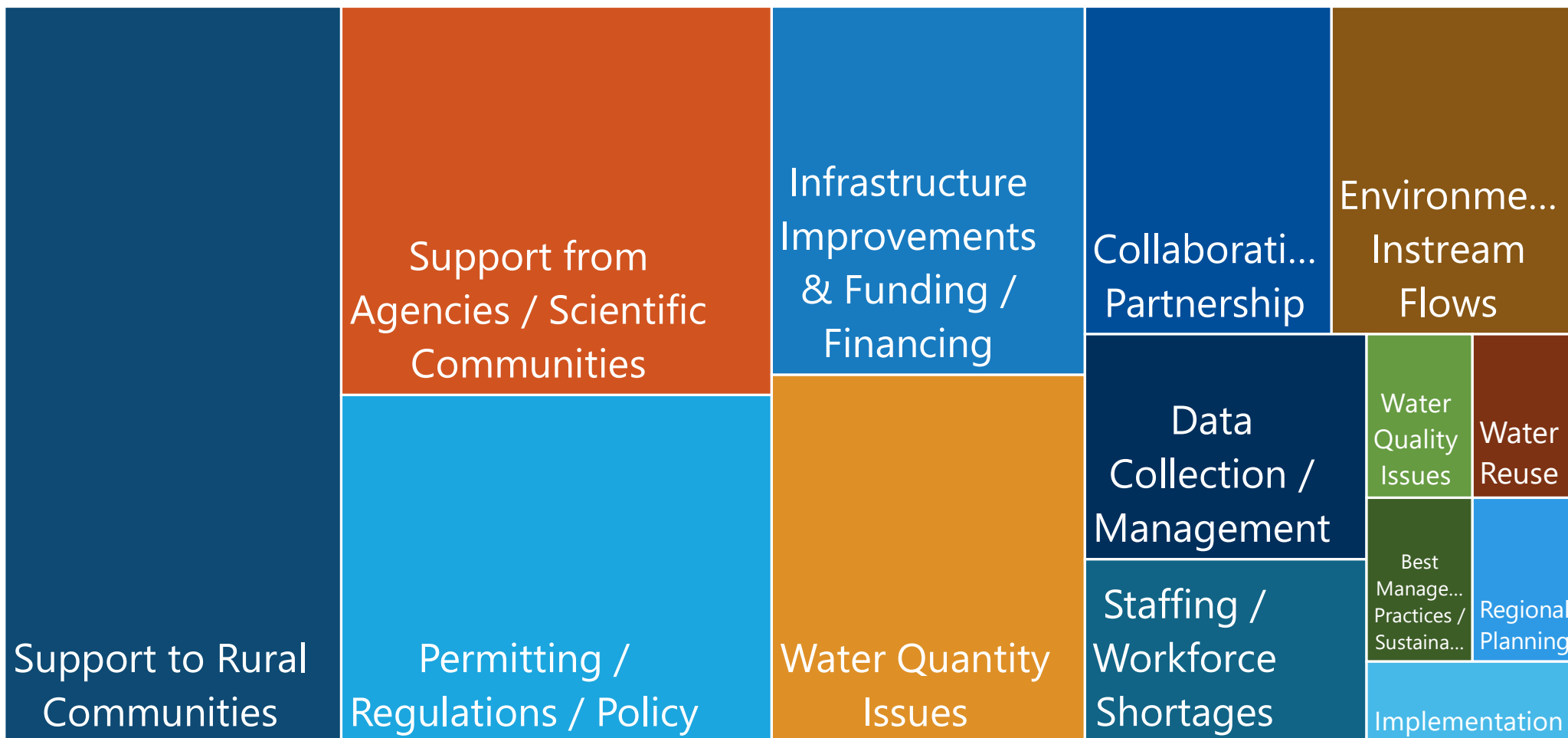
- Provide support for and/or incentivize regional water planning
- Identify, encourage, and/or incentivize voluntary best water management practices

Water Conservation

- Education on the need for and how to conserve water
- Provide funding to entities to implement conservation
- Price water to encourage conservation
- Select crops and work with producers and insurance companies to come to more sensible agreement (ex, when yields are predicted to be low, is it more sensible to conserve water then "do all you can" to produce crops?)

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Round 1 regional meeting recap – Southeast



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Round 2 regional meeting highlights - Southeast



Infrastructure Improvements / Funding / Financing

- Encourage more robust system management through training and technical support
- Expand planning and technical assistance programs
- Provide permanent state funding for water and wastewater projects

Permitting / Regulations / Policy

- Improve enforcement of existing rules and use limits
- Expand water quality monitoring for surface and groundwater
- Discussed Metering, Setback buffers for wells, Local control/management of water resources, Instream flow considerations

Collaboration / Partnership / Regional Planning

- Provide support for and/or incentivize regional water planning
- Identify, encourage, and/or incentivize voluntary best water management practices

Support to rural communities – Support from agencies / scientific community

- Provide tech support even if entity is not using corresponding program
- Education about best management practices, workforce, rates, succession planning, and more

Nonconsumptive Uses

- Recognize the (economic) benefits of keeping water in the streams and lakes
- Discussed changing the hearing process for contested permits
- Discussed having other agencies (like USFWS/ODWC) to review controversial permits

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Round 1 regional meeting recap – statewide comments



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Round 2 regional meeting highlights - Statewide

Infrastructure Improvements / Funding / Financing

- Encourage more robust system management through training and technical support
- Expand planning and technical assistance programs
- Provide permanent state funding for water and wastewater projects
- Increase funding to expand existing workforce, technical assistance, leak detection, and long-range planning
- Support education for operators, district board members, and managers

Permitting / Regulations / Policy

- Improve enforcement of existing rules and use limits
- Expand water quality monitoring for surface and groundwater
- Discussed Metering, Setback buffers for wells, Local control/management of water resources, instream flow / nonconsumptive use considerations

Collaboration / Partnership / Regional Planning

- Provide support for and/or incentivize regional water planning
- Identify, encourage, and/or incentivize voluntary best water management practices

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Meeting Water Supply Needs... Now through 2075: Water Management Strategies

Demand Management



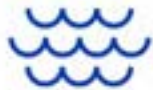
Agriculture Options



Water Transfers



Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Stormwater Capture
and Use



Reuse



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Round 3 regional meeting highlights - Northeast

Which Water Management Strategies are Most Effective?



Demand Management



Agriculture Options



Water Transfers



Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Stormwater Capture
and Use



Reuse





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Meeting Water Supply Needs... Now through 2075

Which Water Management Strategies are Most Effective?

Demand Management



Agriculture Options



Water Transfers



Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Stormwater Capture
and Use



Reuse



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Meeting Water Supply Needs... Now through 2075

Which Water Management Strategies are Most Effective?



Demand Management



Agriculture Options



Water Transfers



Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Stormwater Capture
and Use



Reuse



....

Meeting Water Supply Needs... Now through 2075

Which Water Management Strategies are Most Effective?



Demand Management



Agriculture Options



Water Transfers



Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Stormwater Capture
and Use



Reuse





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Meeting Water Supply Needs... Now through 2075

Which Water Management Strategies are Most Effective?

Demand Management



Agriculture Options



Water Transfers



Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Stormwater Capture
and Use



Reuse



....

Meeting Water Supply Needs... Now through 2075

Which Water Management Strategies are Most Effective?

Statewide Total for all Regions



.... Water Management Strategy Effectiveness Evaluation

- Assess whether there is a water supply shortage projected for 2075 by source (surface water, alluvial groundwater, bedrock groundwater)
- Assess the magnitude of the gap
 - Minor (less than 5%)
 - Can be met with demand management (less than 20%)
 - Significant needing mitigation (more than 20%)
- Score demand management and agriculture options based on gap size
- Score remaining strategies for the basins with gaps needing mitigation

....

Meeting Water Supply Needs... Now through 2075: Water Management Strategies

Demand Management



Agriculture Options



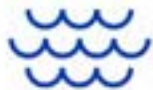
Identified as “Typically effective” when gaps do not exceed 20% of 2075 demand

Identified as “Partially effective” when gaps do exceed 20% of 2075 demand

....

Meeting Water Supply Needs... Now through 2075: Water Management Strategies

Increase Reliance on
Surface Water



Increase Reliance
on Groundwater



Identified as “Partially Effective”
when shortage is less than 20% of
2075 demand

Identified as “Less Effective” when
shortage is more than 20% of 2075
demand

If currently not a source, scored
based on legal and physical
availability

....

Meeting Water Supply Needs... Now through 2075: Water Management Strategies

For basins projected to have a 2075 shortage needing mitigation:

Are there urbanized areas with stormwater systems?

How much annual precipitation does the basin receive?

Can stormwater meet the shortage?

Depending on answers, this WMS is identified as
"Potentially effective," "Partially effective," or "Likely ineffective"

Stormwater Capture
and Use



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Meeting Water Supply Needs... Now through 2075: Water Management Strategies

For basins projected to have a 2075 shortage needing mitigation:

How much Public Supply and Self-supplied Industrial demand is projected in 2075, and how much is returned-to-sewer?

Can reuse meet the shortage?

Depending on answers, this WMS is identified as "Potentially effective," "Partially effective," or "Likely ineffective"



....

Meeting Water Supply Needs... Now through 2075: Water Management Strategies

For basins projected to have a 2075 shortage needing mitigation:

Is there a basin within 100 miles with physical and legal surface water and/or groundwater available?

How large is the projected shortage and far away is the nearest supply?

Depending on answers, this WMS is identified as "Potentially effective," "Partially effective," or "Likely ineffective"



Water Management Strategy Effectiveness Evaluation

Preliminary Results – Eufaula Region



WMS Tier 1 Category	Demand Sectors	48
Demand Management	PS, SSI, OG, Pow	Typically Effective
Agricultural Options	IR, LS	Typically Effective
Increase Reliance on In-Basin Surface Water	All	Typically Effective
Increase Reliance on In-Basin Groundwater	All	Typically Effective
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies
Reuse	PS, SSI	Can Be Met with Other Strategies
Water Transfers	All	Can Be Met with Other Strategies

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Lower Arkansas Region



WMS Tier 1 Category	Demand Sectors	44	45	46	47	82
Demand Management	PS, SSI, OG, Pow	Typically Effective	Partially Effective	Typically Effective	Typically Effective	Typically Effective
Agricultural Options	IR, LS	Typically Effective	Partially Effective	Typically Effective	Typically Effective	Typically Effective
Increase Reliance on In-Basin Surface Water	All	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Increase Reliance on In-Basin Groundwater	All	Typically Effective	Less Effective (Shortage >20%)	Typically Effective	Typically Effective	Typically Effective
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Partially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Reuse	PS, SSI	Can Be Met with Other Strategies	Potentially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Water Transfers	All	Can Be Met with Other Strategies	Typically Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize.

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Middle Arkansas Region



WMS Tier 1 Category	Demand Sectors	49	73	74	75	76	77	78	79
Demand Management	PS, SSI, OG, Pow	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Agricultural Options	IR, LS	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Increase Reliance on In-Basin Surface Water	All	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Increase Reliance on In-Basin Groundwater	All	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Reuse	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Water Transfers	All	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Grand Region



WMS Tier 1 Category	Demand Sectors	80	81
Demand Management	PS, SSI, OG, Pow	Typically Effective	Typically Effective
Agricultural Options	IR, LS	Typically Effective	Typically Effective
Increase Reliance on In-Basin Surface Water	All	Partially Effective (Shortage <20%)	Typically Effective
Increase Reliance on In-Basin Groundwater	All	Typically Effective	Typically Effective
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Reuse	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Water Transfers	All	Can Be Met with Other Strategies	Can Be Met with Other Strategies

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow),
Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Central Region



WMS Tier 1 Category	Demand Sectors	50	51	56	57
Demand Management	PS, SSI, OG, Pow	Typically Effective	Partially Effective	Partially Effective	Partially Effective
Agricultural Options	IR, LS	Typically Effective	Partially Effective	Partially Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)	Typically Effective	Partially Effective (Shortage <20%)
Increase Reliance on In-Basin Groundwater	All	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Typically Effective	Potentially Effective	Potentially Effective
Reuse	PS, SSI	Can Be Met with Other Strategies	Partially Effective	Partially Effective	Partially Effective
Water Transfers	All	Can Be Met with Other Strategies	Typically Effective	Typically Effective	Typically Effective

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize it.

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Central Region



WMS Tier 1 Category	Demand Sectors	58	60	61	62	64
Demand Management	PS, SSI, OG, Pow	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Partially Effective
Agricultural Options	IR, LS	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Typically Effective	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)
Increase Reliance on In-Basin Groundwater	All	Partially Effective (Shortage <20%)	Typically Effective	Typically Effective	Typically Effective	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective
Reuse	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective
Water Transfers	All	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Upper Arkansas Region



WMS Tier 1 Category	Demand Sectors	63	67	68	69	70	71	72
Demand Management	PS, SSI, OG, Pow	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Typically Effective	Partially Effective
Agricultural Options	IR, LS	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Typically Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)	Typically Effective	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Typically Effective	Typically Effective
Increase Reliance on In-Basin Groundwater	All	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Typically Effective	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Potentially Effective	Potentially Effective	Potentially Effective	Potentially Effective	Likely Ineffective	Can Be Met with Other Strategies	Typically Effective
Reuse	PS, SSI	Typically Effective	Typically Effective	Partially Effective	Typically Effective	Likely Ineffective	Can Be Met with Other Strategies	Typically Effective
Water Transfers	All	Typically Effective	Typically Effective	Typically Effective	Potentially Effective	Potentially Effective	Can Be Met with Other Strategies	Typically Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Panhandle Region



WMS Tier 1 Category	Demand Sectors	52	53	54	55	65	66
Demand Management	PS, SSI, OG, Pow	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective
Agricultural Options	IR, LS	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Likely Ineffective	Likely Ineffective	Likely Ineffective	Likely Ineffective	Partially Effective (Shortage <20%)	Likely Ineffective
Increase Reliance on In-Basin Groundwater	All	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Likely Ineffective	Likely Ineffective	Likely Ineffective	Likely Ineffective	Likely Ineffective	Likely Ineffective
Reuse	PS, SSI	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Partially Effective	Likely Ineffective
Water Transfers	All	Typically Effective	Potentially Effective	Typically Effective	Likely Ineffective	Potentially Effective	Likely Ineffective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – West Central Region



WMS Tier 1 Category	Demand Sectors	17	18	19	20	59
Demand Management	PS, SSI, OG, Pow	Partially Effective	Partially Effective	Typically Effective	Typically Effective	Partially Effective
Agricultural Options	IR, LS	Partially Effective	Partially Effective	Typically Effective	Typically Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Less Effective (Shortage >20%)	Likely Ineffective	Less Effective (Shortage >20%)	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)
Increase Reliance on In-Basin Groundwater	All	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Likely Ineffective	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective
Reuse	PS, SSI	Partially Effective	Partially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Partially Effective
Water Transfers	All	Typically Effective	Typically Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

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All data presented today is in DRAFT form and subject to change. We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Southwest Region



WMS Tier 1 Category	Demand Sectors	32	33	34	35	36	37
Demand Management	PS, SSI, OG, Pow	Partially Effective	Partially Effective	Typically Effective	Partially Effective	Partially Effective	Partially Effective
Agricultural Options	IR, LS	Partially Effective	Partially Effective	Typically Effective	Partially Effective	Partially Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Typically Effective	Typically Effective	Less Effective (Shortage >20%)	Likely Ineffective	Likely Ineffective	Likely Ineffective
Increase Reliance on In-Basin Groundwater	All	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Likely Ineffective	Potentially Effective	Can Be Met with Other Strategies	Likely Ineffective	Likely Ineffective	Potentially Effective
Reuse	PS, SSI	Partially Effective	Partially Effective	Can Be Met with Other Strategies	Likely Ineffective	Partially Effective	Partially Effective
Water Transfers	All	Potentially Effective	Typically Effective	Can Be Met with Other Strategies	Potentially Effective	Potentially Effective	Typically Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Southwest Region



WMS Tier 1 Category	Demand Sectors	38	39	40	41	42	43
Demand Management	PS, SSI, OG, Pow	Partially Effective	Typically Effective	Typically Effective	Partially Effective	Partially Effective	Partially Effective
Agricultural Options	IR, LS	Partially Effective	Typically Effective	Typically Effective	Partially Effective	Partially Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Likely Ineffective	Typically Effective	Less Effective (Shortage >20%)	Likely Ineffective	Typically Effective	Less Effective (Shortage >20%)
Increase Reliance on In-Basin Groundwater	All	Less Effective (Shortage >20%)	Typically Effective	Typically Effective	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Potentially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Likely Ineffective	Likely Ineffective	Likely Ineffective
Reuse	PS, SSI	Partially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Partially Effective	Typically Effective	Likely Ineffective
Water Transfers	All	Typically Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective	Potentially Effective	Potentially Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

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Water Management Strategy Effectiveness Evaluation

Preliminary Results – Beaver-Cache Region



WMS Tier 1 Category	Demand Sectors	24	25	26	27	28	29	30	31
Demand Management	PS, SSI, OG, Pow	Typically Effective	Typically Effective	Partially Effective	Partially Effective	Typically Effective	Typically Effective	Partially Effective	Partially Effective
Agricultural Options	IR, LS	Typically Effective	Typically Effective	Partially Effective	Partially Effective	Typically Effective	Typically Effective	Partially Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Typically Effective	Partially Effective (Shortage <20%)	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Less Effective (Shortage >20%)
Increase Reliance on In-Basin Groundwater	All	Likely Ineffective	Typically Effective	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)	Typically Effective	Typically Effective	Less Effective (Shortage >20%)	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Likely Ineffective	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Likely Ineffective	Likely Ineffective
Reuse	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective	Typically Effective
Water Transfers	All	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective	Potentially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective	Potentially Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

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We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Lower Washita Region



WMS Tier 1 Category	Demand Sectors	14	15	16	21	22	23
Demand Management	PS, SSI, OG, Pow	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Partially Effective	Typically Effective
Agricultural Options	IR, LS	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Partially Effective	Typically Effective
Increase Reliance on In-Basin Surface Water	All	Typically Effective	Typically Effective	Less Effective (Shortage >20%)	Typically Effective	Typically Effective	Typically Effective
Increase Reliance on In-Basin Groundwater	All	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Less Effective (Shortage >20%)	Typically Effective
Stormwater Capture & Use	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective	Can Be Met with Other Strategies
Reuse	PS, SSI	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective	Can Be Met with Other Strategies
Water Transfers	All	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective	Can Be Met with Other Strategies

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

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Water Management Strategy Effectiveness Evaluation

Preliminary Results – Southeast Region

WMS Tier 1 Category	Demand Sectors	1	2	3	4	5	6
Demand Management	PS, SSI, OG, Pow	Partially Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Agricultural Options	IR, LS	Partially Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Increase Reliance on In-Basin Surface Water	All	Partially Effective (Shortage <20%)	Typically Effective	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)	Likely Ineffective	Likely Ineffective
Increase Reliance on In-Basin Groundwater	All	Less Effective (Shortage >20%)	Typically Effective	Typically Effective	Typically Effective	Typically Effective	Typically Effective
Stormwater Capture & Use	PS, SSI	Potentially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Reuse	PS, SSI	Typically Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies
Water Transfers	All	Typically Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Can Be Met with Other Strategies

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

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We will work over the coming months to refine and finalize it.

Water Management Strategy Effectiveness Evaluation

Preliminary Results – Blue-Boggy Region



WMS Tier 1 Category	Demand Sectors	7	8	9	10	11	12	13
Demand Management	PS, SSI, OG, Pow	Partially Effective	Typically Effective	Typically Effective	Partially Effective	Typically Effective	Typically Effective	Partially Effective
Agricultural Options	IR, LS	Partially Effective	Typically Effective	Typically Effective	Partially Effective	Typically Effective	Typically Effective	Partially Effective
Increase Reliance on In-Basin Surface Water	All	Less Effective (Shortage >20%)	Partially Effective (Shortage <20%)	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)	Typically Effective	Partially Effective (Shortage <20%)	Less Effective (Shortage >20%)
Increase Reliance on In-Basin Groundwater	All	Typically Effective	Typically Effective	Typically Effective	Partially Effective (Shortage <20%)	Typically Effective	Typically Effective	Less Effective (Shortage >20%)
Stormwater Capture & Use	PS, SSI	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective
Reuse	PS, SSI	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Likely Ineffective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Partially Effective
Water Transfers	All	Potentially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Potentially Effective	Can Be Met with Other Strategies	Can Be Met with Other Strategies	Typically Effective

Public Supply (PS), Crop Irrigation (IR), Thermoelectric Power (Pow), Self-supplied Industrial (SSI), Livestock (LS), and Oil and Gas (OG)

All data presented today is in DRAFT form and subject to change.
We will work over the coming months to refine and finalize it.

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03

Regional Planning and Management Discussion

Regional Planning and Management

Who

- Group of people representing a variety of interests that work together. For example, local stakeholders from all water sectors and appropriate agency representatives.

What

- Develop a regional water plan.
- Oversee implementation of priorities.
- Advise OWRB on water management policies.

Where

- Regional groups would be formed to cover the whole state.

Regional Planning and Management

How

- Utilize consistent goals and methods
- Define expectations and deliverables
- Evaluate a consistent set of strategies with flexibility to add others that are locally specific
- Provide directly comparable findings to other Regions

Regional Planning and Management – Texas Example



Texas Regional Water Planning Basics

- 16 Regional Water Planning Groups (RWPG) hosted by Texas Water Development Board
- 50-year water supply plan that is updated every 5 years
- **Goal is to “ensure that we have adequate water supplies in times of drought”**
- **20 voting members** representing a variety of interests with defined responsibilities
- RWPG Sponsor must be a political subdivision that acts as the representative of the RWPG and oversees the administration of process, including applying for funding from TWDB
- RWPG Technical Consultant(s) assist the RWPG in the development of plan. Contract with the RWPG Sponsor
- TWDB provides representative for each RWPG, **financial assistance, rules/guidelines, incorporates RWP information** into the State Water Plan

28 Guiding Principles, excerpt below

1. Provide orderly development, management, and conservation of water resources... so **sufficient water will be available at a reasonable cost to satisfy a reasonable projected use of water.**
2. Identifications of policies and actions that may be needed to meet Texas’ water supply needs
3. Consider all water management strategies determined to be potentially feasible
4. Consider opportunities for **voluntary transfers of water resources** (water banks, sales, leases, etc.)
5. Consider **balance of economic, social, aesthetic, and ecological viability**
6. Existing water rights will be protected however potential amendments of water rights may be considered and evaluated
7. Consider existing regional water planning efforts when RWP are developed

Regional Planning and Management – Nebraska Example

Nebraska Natural Resource Districts (NRDs) Basics

- 23 Natural Resource Districts established in 1972
- **Each is a local government unit**
- NRDs have **broad authority** over:
 - Erosion prevention and control
 - Flood prevention
 - Soil conservation
 - Water supply for any beneficial use
 - Development, management, utilization, conservation of SW and GW
 - Pollution control
 - Sanitation
 - Drainage improvements
 - Wildlife management
 - Recreation
 - Forestry and range management
- NRDs can and do implement different rules to fit differing conditions

NRDs Authority

- Include all natural resources
- **Can implement rules to restrict groundwater use to prevent overharvesting**
- Required to prevent overharvesting of groundwater in areas where groundwater and surface water are hydrologically connected
- In some areas, NRDs have been able to prevent overharvesting by education and assistance to irrigators; in other areas, the groundwater table is declining
- They **set their own tax levies**
- Some have special bonding authority

Regional Planning and Management – Colorado Example

Colorado Regional Water Planning Basics

**8 major river basins + Metro “basin” =
9 Basin Roundtables with CWCB funding support**



- Municipal, environmental, agricultural, recreational, and industrial interests
- Forum to discuss water issues and find collaborative solutions and projects to meet current and future water needs across all water use sectors.
- Roundtables recommend Water Supply Reserve Fund grants to CWCB and endorse projects for CWCB Colorado Water Plan grants

Basin Implementation Plans inform the State Water Plan

- **CWCB Water Supply Reserve Fund** helps Basin Roundtables identify and address local water supply needs and implement projects and programs that meet the water-related goals of each Basin (studies, infrastructure, conservation, watershed health).
- Basin Roundtables each develop a **Basin Implementation Plan** every 7-10 years
 - Projects list to meet local water needs
 - Feed project needs into State Water Plan
- **Interbasin Compact Committee** facilitates interbasin policy and statewide recommendations
 - 27 members = 2 appointees from each Basin Roundtable + 9 Legislature/Governor appointees
 - Statewide strategies for meeting potential water gaps, creating planning scenarios for the State Water Plan Technical Updates, and negotiated guidance on future interbasin transfers

....

Regional Planning and Management Discussion Questions

What types of planning responsibilities should a group have?

What minimum requirements are reasonable to place on these regional plans?

Should regions be organized using the 13 OCWP Regions, or should a different regional grouping be considered?

What self-governance roles do you envision for the regional group, if any?

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04

Networking Break

.....
05

Funding Discussion

Funding

What

- Provide permanent funding for water and wastewater projects and programs

Why

- Support a variety of needs that have been identified including items like technical assistance, operational assistance, capital project design and construction, incentivize various best management practices, etc.

....

Funding – Oklahoma (existing)

- \$1.2 million state appropriation for REAP grants (typical)
 - In 2024 session, a one-time additional \$4 million was appropriated
 - *Each COG gets approximately \$3 million for REAP but it includes more than just water projects*
- Receives approximately \$2.9 million from gross production tax allocated water planning and technical studies (sunsets in approximately three years)
- Note, SRF program is self funded (no appropriations)

Funding – Colorado Example

- In May 2018, a U.S. Supreme Court ruling allowed all states to legalize sports betting.
- Colorado voters legalized sports gambling in 2019 via ballot (Proposition DD)
- Provides for a 10% tax on casinos' proceeds from sports betting.
- FY23 tax proceeds were \$27M, of which ~93% goes to CWCB to fund water projects.
- Revenue covers state admin/regulation of sports gambling, addiction programs, rest to CWCB for water projects.
- Max \$29M/year per original ballot initiative and Colorado's "taxpayer bill of rights" that caps taxes in various ways.
- Revenues are pushing the \$29M/year limit already – Proposition JJ on November 2024 ballot would let state keep excess (rather than return it to casinos).
- Campaign for 2024 ballot Prop JJ is funded @ \$490K, \$280K of which is from Environmental Defense Action Fund – and there's no organized opposition to the proposition.



Funding – Kansas Example

- In 1989, the Legislature established the State Water Plan Fund for the purpose of implementing the State Water Plan.
- By statute, \$6.0 million annually from the State General Fund and \$2.0 million annually from the Economic Development Initiatives Fund to the State Water Plan Fund, but amount varies based on Legislature approval.
- Other revenue is generated from fees on:
 - Water fees (\$0.03 per 1,000 gallons)
 - Pesticide registration fees (\$1.40 per ton)
 - Fertilizer registration fees (\$100 per registration)
 - Pollution fines and penalties
 - Sand royalty fees (\$0.15 per ton)
 - Clean drinking water fees (\$0.03 per 1,000 gallons)

Approximate Revenue

2019	\$16 Million
2020	\$17 Million
2021	\$20 Million
2022	\$19 Million
2023	\$20 Million
2024	\$56 Million *

....

Funding Discussion Questions

Which elements (if any) of the Colorado or Kansas programs would work well here? Why?

What ideas do you have for generating new funding for water needs?

What are the biggest barriers to developing a new funding program?

How should the use of any new funding programs be prioritized?

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NW

Local producer, Fred Fischer, presentation on importance of controlling eastern red cedar, salt cedar, and other invasive species

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SW

Upper Red River Basin Study Discussion

2025 OCWP

.... Upper Red River Basin Study

- Completed in 2022 by US Bureau of Reclamation (USBR), Lugert-Altus Irrigation District (ID), Mountain Park Master Conservancy District (MPMCD), and OWRB
- Evaluated strategies that improve water supply reliability and drought resiliency of two USBR reservoirs in southwest Oklahoma: Lugert-Altus Reservoir (Basins 36 and 37) and Tom Steed Reservoir (Basins 34 and 35)
- Explored how adaptation strategies identified in the URRBS could be implemented within existing legal and policy frameworks or whether changes in water law or policy may be warranted
- Full report available on USBR Water Smart Completed Basin Study Page: <https://www.usbr.gov/watersmart/bsp/completed.html>

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Adaptation Strategies to Improve Water Supply Reliability - **Lugert-Altus Reservoir**

1. **Clarification of existing stream water rights** – clarify whether a valid claim for existing water rights to the top of the conservation pool
2. **Protection of existing stream water rights – regulatory protection** – adopt regulatory interference thresholds that protect Lugert-Altus Reservoir from junior stream water permits
3. **Protection of existing stream water rights – non-regulatory protection** – lease or convert M&I right to an irrigation right
4. **Additional stream water rights for Lugert-Altus ID** – apply for water rights to all unappropriated water in the North Fork Red River Aquifer, could be non-consumptive but protect consumptive rights
5. **Conjunctive management – dry-year lease or purchase agreements** – purchase existing senior water rights and/or enter into dry-year leases with groundwater permit holders
6. **Conjunctive management – conservation-oriented maximum annual yield determination** – implement a conservation-oriented MAY for North Fork Red River and Elk City aquifers, adopt lower EPS for future groundwater permits
7. **Reclassification of AGW to stream water** – reclassify AGW and manage in accordance with surface water prior appropriation laws
8. **Cable Mountain Reservoir** – construct a new reservoir downstream of Lugert-Altus Reservoir
9. **Water conservation** – variety of District and on-farm measures to improve the delivery, control, measurement, and application of water

....

Adaptation Strategies to Improve Water Supply Reliability – **Tom Steed Reservoir**

1. **Clarification of existing stream water rights** – clarify permit volume, beneficial uses, and priority date
2. **Protection of existing stream water rights – regulatory protection** – adopt regulatory interference thresholds that protect Tom Steed Reservoir from junior stream water permits
3. **Protection of existing stream water rights – non-regulatory protection** – purchase existing stream water senior water rights and/or enter dry-year lease agreements
4. **Additional stream water rights for MPMCD** – apply for water rights to all unappropriated water in Elk Creek and West Otter-Glen Creek for non-consumptive uses
5. **Conjunctive management – dry-year lease or purchase agreements** – purchase existing senior water rights and/or enter into dry-year leases with groundwater permit holders
6. **Conjunctive management – conservation-oriented maximum annual yield determination** – implement a conservation-oriented MAY for North Fork Red River and Elk City aquifers, adopt lower EPS for future groundwater permits
7. **Reclassification of AGW to stream water** – reclassify AGW and manage in accordance with surface water prior appropriation laws
8. **Environmental Quality Beneficial Use** – re-evaluate water needs at Hackberry Flat WMA and M&I needs and, depending on findings, reallocate any unused water

....

Adaptation Strategies to Improve Water Supply Reliability – **Tom Steed Reservoir**

- 9. Expansion of Bretch Diversion and Canal** – increase capacity to convey additional flows from Elk Creek
- 10. Develop Supplemental Groundwater Supplies** – pump from well fields on project and non-project lands to customers
- 11. Water conservation** – estimated 42% demand reduction during drought periods

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Favorable and **Neutral** Adaptation Strategies to Improve Water Supply Reliability

Lugert-Altus Reservoir

1. Clarification of existing stream water rights
2. Protection of existing stream water rights – regulatory protection
3. Protection of existing stream water rights – non-regulatory protection
4. Additional stream water rights for Lugert-Altus ID
5. Conjunctive management – dry-year lease or purchase agreements
6. Conjunctive management – conservation-oriented maximum annual yield determination
7. Reclassification of AGW to stream water
8. Cable Mountain Reservoir
9. Water conservation

Tom Steed Reservoir

1. Clarification of existing stream water rights
2. Protection of existing stream water rights – regulatory protection
3. Protection of existing stream water rights – non-regulatory protection
4. Additional stream water rights for MPMCD
5. Conjunctive management – dry-year lease or purchase agreements
6. Conjunctive management – conservation-oriented maximum annual yield determination
7. Reclassification of AGW to stream water
8. Environmental quality beneficial use
9. Expand Bretch diversion and canal
10. Development of supplemental groundwater supplies
11. Water conservation

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Upper Red River Basin Study Discussion

What are the next steps to secure water supply in this region?

What policies should OCWP recommend?

Additional water rights

Voluntary Dry Year
Lease or Purchase
Agreements

Redetermination of
Aquifer Maximum
Annual Yield
(sustainable use
versus mining)

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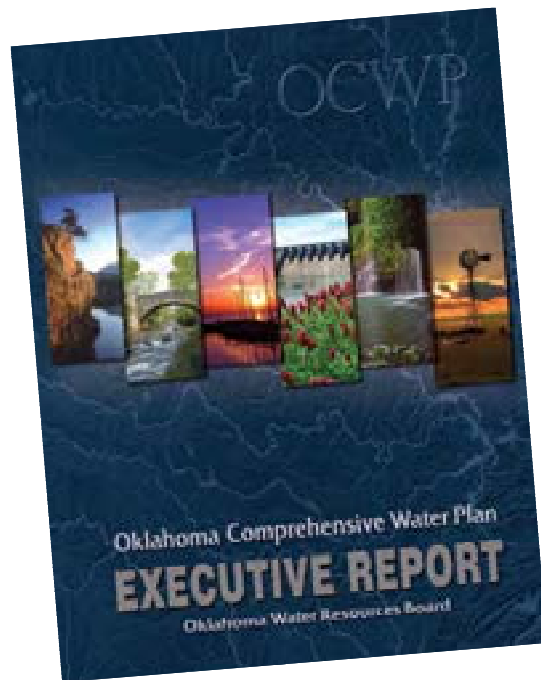


SE

Nonconsumptive Use Discussion

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Defining nonconsumptive uses (NCU), aka instream flow (ISF)



2012 OCWP EXECUTIVE REPORT

"Flows necessary to provide for a healthy ecosystem and support water-related recreation (such as fishing, hunting, swimming, and boating) as well as tourism."

UPPER ILLINOIS ISF PILOT STUDY

"ISFs are the amount of water flowing in a stream at all times, necessary to sustain instream resource values at an **acceptable level**. Instream resources include fisheries, wildlife, water quality, recreation, aesthetics, and the ecological processes that support these resources."

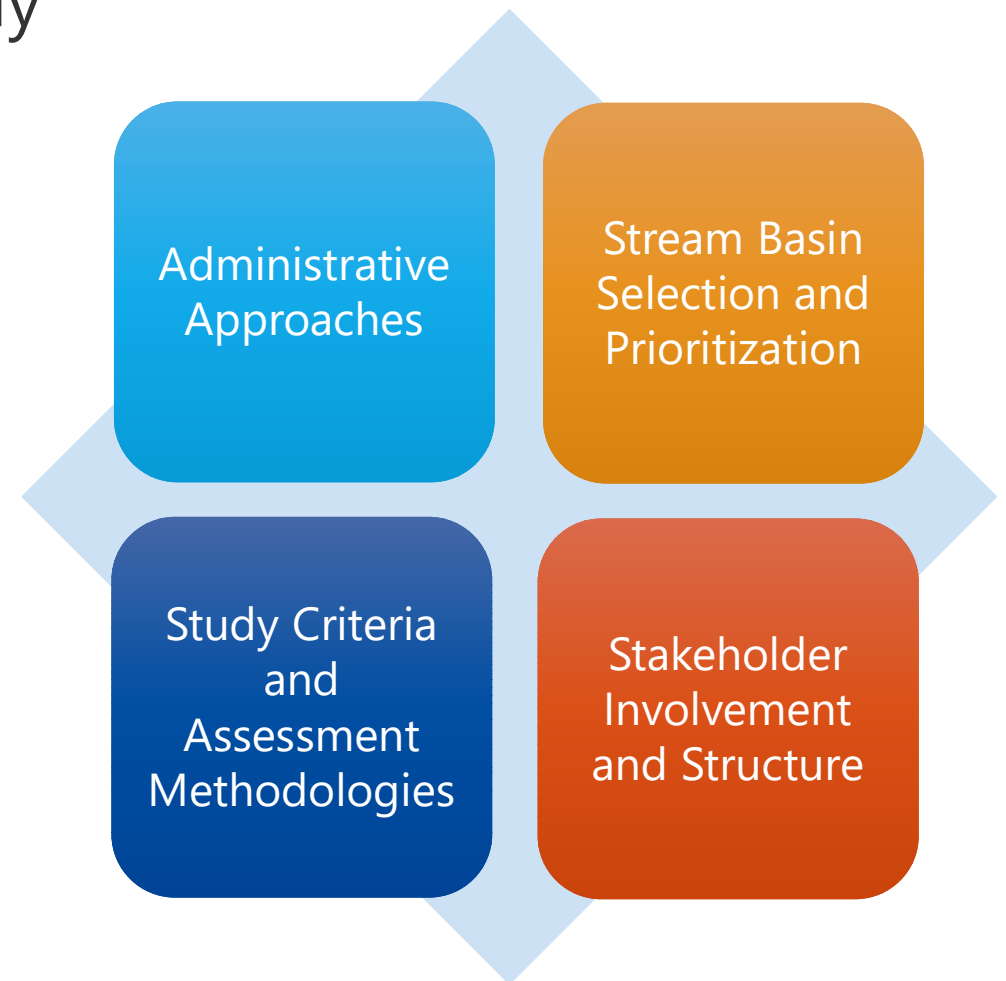
Existing Legal Mechanisms in Oklahoma

- OWRB Domestic Use Permitting Policy reserves flow for domestic use throughout the basin (6 a.f./160 acres), use max. allowable quantity by default
- Nonconsumptive use permits on reservoirs storage (hydroelectric power, navigation, recreation fish wildlife, other)
- Permit limit prohibiting diversions of water from Barren Fork Creek and tributaries in Adair and Cherokee Counties when flows drop below 50 cfs (permits issued after July 1, 2003)
- Appropriation from Scenic Rivers requires consideration of addl. factors (e.g. nonconsumptive needs and water quality), if available
- Settlement Agreement B basins satisfying conferral trigger
- Reservoir Releases- designated to maintain downstream conditions
- Interstate River Compacts require guarantee of minimum flow coming into and exiting the state for downstream state

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Upper Illinois River Pilot Study

Core Elements Considered
by ISF Advisory Group —
where, what, how, by whom



Potential Tools

- Voluntary conversion/donation of existing right
- Term leases, leasing programs
- Minimum desirable streamflow targets
- Water Reserve/Water Bank/Water Trust
- Permanent acquisition by state or others
- NCU Permit or permit condition
- Education and awareness campaigns
- Water conservation programs
- Water source switch or point of diversion changes
- Targeted conservation infrastructure investment (leak reduction, etc.)

....

Considerations for Consistent, Understandable Science

Considerations to establish targets

- Flow/water use trends monitoring and forecasting
- Desktop vs. comprehensive methods
- Balancing consistency, basin-to-basin, while flexible to accommodate localized variation
- Complexity of local issues
- Economic analysis evaluation
- Funding availability

..... Considerations for Basin Advisory Group Composition

- Degree of authority, roles, responsibilities
- Consensus-based recommendations
- Diversity of consumptive and non-consumptive stream users, representing local basin interests:
 - Agricultural
 - Commercial fishing
 - Cultural and tribal interests
 - Environmental interests
 - Industrial water users
 - Municipalities
 - Energy production and generation
 - Public interest groups
 - Recreational
 - River authorities/water districts

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Potential Path Forward

- State initiative to develop voluntary mechanisms that could support flows in particular basins, including water efficiency and infrastructure
- Focus any efforts on Scenic Rivers and others with eco/rec/economic significance identified by OWRB/ODWC for multi-year monitoring
- In those basins, monitor water use and flow trends in lieu of intensive, habitat driven analysis
- In high growth/hot spot areas, conduct economic impact studies of consumptive and non-consumptive uses and ecological studies
- Any stakeholder advisory groups- represent diverse interests within the basin; input into goals, regional planning, conservation strategies, incentive packages, etc.
- Public Awareness Campaigns - water conservation, stream values
- Funding for studies, stream instrumentation, policy investigations, reporting

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Nonconsumptive Uses Discussion

Would you support increased (state) investment in voluntary mechanisms and monitoring and adaptive management?

How would we implement a regulatory approach? (ex, permit conditions, minimum flows)

Near-term actions

How important is it to understand the economic impacts of implementing a regulatory restriction?

How important is it to understand how much water / flow is needed?

Long-term actions

.....
06

Bringing ideas together

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How do we...

- Provide technical assistance?
- Provide operational assistance?
- Provide management assistance?
- Develop and provide educational resources (materials and/or training)?
- Provide incentives (funding or other) to implement best management practices?
- Facilitate knowledge sharing between water stakeholders?
- Use the collective power of water stakeholders?

....

Gather a group that is interested in smart water management

CRITERIA set to encourage improving, incentivizing, and implementing smart water management such as:

- Drought preparedness
- Water quality enhancement
- Innovation
- Effective utility management
- Efficiency
- Conservation
- Alternative water supplies

Provide **RESOURCES** that allow people to increase level which ultimately supports the overall goal of smart water management. A few examples:

- Provide funding to support public water provider in developing drought preparedness plan.
- Provide funding to producers (through conservation districts) to install meters on wells.
- Provide technical assistance to support water efficiency

Provide **BENEFITS** that entice people and their organizations to participate and increase in level. Benefits (like criteria) may vary between sectors. A few examples:

- Plaque or certificate recognizing participation level
- Access to grants or cost sharing programs; state cost sharing percentage increases at higher participation level
- Access to tax incentives
- Simplified/expedited permitting (or other) process

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Discussion questions

Should funding be used to incentivize implementation of best management practices?
Why or why not?

Should funding be used to incentivize water use reductions?
Why or why not?

What is the right balance between providing technical assistance and direct funding for projects?

What existing organizations or coalitions could serve as a foundation?

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07

Wrap up and next steps

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Future regional meetings



Discuss recommendations to
include in the OCWP



Review data and findings
from technical studies and
other scenarios



Follow up on today's
conversations

Questions? Comments? Get Involved!



OKLAHOMA
Water Resources Board



US Army Corps
of Engineers



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Facebook: Oklahoma Comprehensive Water Plan



Provide comments on
Round 4 Meeting