

COMMENT SUMMARY AND RESPONSES

PROPOSED AMENDMENTS TO CHAPTER 45, OKLAHOMA’S WATER QUALITY STANDARDS

REVISIONS TO GROUNDWATER QUALITY STANDARDS

OWRB BOARD HEARING JANUARY 17, 2017

Public Comments Received
List of Written Public Comments
1. Blackshare Environmental Solutions
2. Citizens for the Protection of the Arbuckle Simpson Aquifer (CPASA)
3. Conservation Coalition of Oklahoma (CCO)
4. Oklahoma Aggregates Association
5. Oklahoma Department of Environmental Quality (ODEQ)
6. Oklahoma Farm Bureau
7. Oklahomans for Responsible Water Policy (ORWP)
List of Verbal Comments from Board Hearing, January 17, 2017
8. Saba Tahmasebi, Oklahoma Department of Environmental Quality (ODEQ)
9. Bud Ground, Environmental Federation of Oklahoma
10. Derek Hardberger, EOG Resources
11. Derek Blackshare, EOG Resources
12. Marla Peak, Oklahoma Farm Bureau
13. Brian Meyer, Burns & McDonnell

Comment Number	Comment	Response
Blackshare Environmental Solutions		
1.1	<p>We believe the application of “all groundwaters” under 785:45-7-4(b) imposes unintended restrictions on activities covered by certain existing rules and regulations and contradicts the purpose of those rules and regulations – namely SB 597 rules. Recharge basins under SB 597 should be excluded.</p>	<p>The proposed definition of “<i>artificial aquifer recharge</i>” specifically excludes activities authorized pursuant to 82 O.S. § 1020.2(G), which is the implementing statute for SB 597, from the numeric criteria in the proposed rule at 785:45-7-4(c).</p> <p>The proposed groundwater quality standards were developed over a year-long period in cooperation with the ASR Workgroup. The ASR Workgroup members represent diverse interest and have a variety of expertise. In order to ensure that various activities/programs implemented by our sister agencies remain consistent and in acknowledgement that some commentors expressed a concern that unintended restrictions may occur through the application of the proposed narrative criteria set forth in OAC § 785:45-7-4(b), OWRB staff recommends moving the proposed narrative criteria set forth in OAC § 785:45-7-4(b)(1) through (7) to OAC § 785:45-7-4(c). This recommended change is intended to clarify that the proposed criteria only apply to the artificial aquifer recharge and or aquifer storage and recovery activities defined in the proposed rule.</p>

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		<p>Moving the proposed narrative to OAC § 785:45-7-4(c) would result in the existing narrative criteria remaining applicable to “all groundwaters” except those groundwaters specifically referenced in OAC § 785:45-7-4(c) - artificial aquifer recharge and or aquifer storage and recovery activities.</p> <p>The proposed groundwater quality standards revision does not change any agency’s regulatory responsibility or jurisdiction. OWRB staff values the input and concerns of sister environmental agencies and works with all agencies on various water quality standards issues. The Oklahoma Department of Mines was included in the development of the proposed groundwater quality standards and has not approached OWRB staff with any concerns.</p>
1.2	We do not believe the agency has considered the economic impact of the proposed rule.	Consistent with the requirements of the Administrative Procedures Act, OWRB staff prepared a Rule Impact Statement reviewing the potential impacts of the proposed rule. The Rule Impact Statement includes the subjects of economic impact and cost associated with the

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		<p>proposed rule.</p> <p>OWRB staff solicited input from sister environmental agencies numerous times, both in ASR Workgroup meetings and via email, on all aspects of the Rule Impact Statement, including economic concerns. OWRB staff did not receive any information regarding any economic impact related to the proposed rule. Additionally, at the public stakeholder meetings (October 7, 2016 & November 3, 2016) staff solicited information from the public regarding the proposed rules and all subjects included in the Rule Impact Statement and did not receive any information.</p> <p>In the absence of specific information from sister environmental agencies and/or stakeholders, OWRB staff evaluated the Rule Impact Statement subjects in a broad, but responsive manner.</p> <p>A key objective of the proposed revision is to create in the groundwater quality standards a foundation which will allow the ODEQ to promulgate rules relating to the permitting and operation of aquifer storage and recovery activities. Anytime a wholly new activity is included within state regulations some economic</p>

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		<p>impact is expected; however, ODEQ has stated that they expect to absorb any additional cost associated with prospective aquifer storage and recovery activities. Additionally, it is anticipated that any entity interested in voluntarily utilizing the avenue created by the proposed rule revision, and pursuing aquifer storage and recovery activities, will incur new costs since the activities involved would have previously been prohibited. In other words, all costs associated with such activities will be new costs since the activities could not be authorized absent this proposed rulemaking.</p>
1.3	<p>The language of the proposed rule and supported by OWRB staff comments seeks to include impoundments within the scope of the proposed rule.</p>	<p>The proposed rule does not include any changes to the Scope, Applicability and Purpose (785:45-7-1) of Oklahoma’s groundwater quality standards, which have been in place since the mid 1990s. 785:45-7-1(a) states, “<i>The provisions of this subchapter apply only to fresh groundwaters.</i>”</p> <p>The term impoundment is very broad and encompasses a diversity of structures used to retain/store water or other materials. Impoundment structures range from all of Oklahoma’s lakes to waste retention basins. OWRB staff has clarified that there is no regulatory mechanism between impoundments</p>

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		<p>such as lakes (defined, 785:45-1-2) or farm ponds, which have a natural hydrologic connection to surficial groundwater, and the current or proposed revised groundwater quality standards.</p> <p>Although the recommended revised language contains a few minor changes to existing language in order to accommodate the proposed substantive changes, the criteria to be recommended by staff (see response to comment number 1.1) are only applicable to artificial aquifer recharge and aquifer storage and recovery activities.</p>
1.4	<p>This proposed inclusion conflicts with the definition of “point source” in Chapter 45. Impoundments, including those regulated by SB 597, are not point sources and this should be clarified in the text of the point source definition and the scope of the proposed amendments.</p>	<p>Groundwater quality standards apply to the ambient fresh groundwater, not to a particular engineered surface structure. Revisions to the definition of point source are not germane to this proposed rule. One function of the Clean Water Act is to address the discharge of pollutants, consistent with surface water quality standards, from point sources into surface waterbodies. The Clean Water Act does not apply to groundwater and does not govern Oklahoma's Groundwater Quality Standards.</p>
	<p>Citizens for the Protection of the Arbuckle Simpson Aquifer (CPASA)</p>	

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2.1	On behalf of the Citizens for the Protection of the Arbuckle Simpson Aquifer (“CPASA”), I provide these formal written comments on the Oklahoma Water Resources Board’s (the “OWRB’s”) proposed 2017 rule changes. Please make these written comments a part of the OWRB’s record. We look forward to attending the OWRB’s hearing on January 17, 2017 for the purpose of providing oral comments on the proposed rule changes.	Comment noted. These comments are included as part of the record. We value CPASA’s participation in the WQS rulemaking process.
2.2	CPASA’s written comments are limited to the proposed changes to OAC 785 chapter 45. Overall, CPASA supports the proposed revisions to chapter 45; however, as articulated more fully below, CPASA provides some comments, concerns, and suggestions. We have addressed our comments in the order that the OWRB has proposed its changes, and we have not ordered or prioritized our comments on the proposed 2017 rule changes.	Comment noted.
2.3	The Arbuckle Simpson area is one of unique beauty in Oklahoma and has supplied the water needs of the inhabitants of this area for hundreds of years. The objective of CPASA is to continue that legacy. We hope that you receive these comments with CPASA’s perspective in mind. As you know, CPASA is dedicated to the protection and sustainable management of the water resources in south-central Oklahoma, particularly the springs and streams emanating from the Arbuckle-Simpson Aquifer, for the benefit of present and future generations. Because of the interconnected nature of surface and ground water, CPASA encourages continuing investigation and monitoring of hydrologic systems in the area. This information is critical to effectively and efficiently manage the resource to meet drinking water, environmental,	Comment noted.

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	<p>economic and recreational goals. As water demands increase, and/or climate fluctuations reduce supplies, sustainable management requires conservation, innovation, and investment in additional water storage. CPASA supports investigating the feasibility of innovative and proven management techniques such as enhanced and/or artificial recharge, water reuse, water recycling, and surface impoundments.</p>	
<p>2.4</p>	<p>CPASA respectfully submits the following comments:</p> <p>PROPOSED RULE ADDITION 785-45-7-2 (d) (1)</p> <p>The OWRB proposes to add specific protection for special source groundwaters. CPASA applauds this precaution, as certain groundwater basins deserve additional scrutiny of actions that could jeopardize either water quality or water quantity. The current proposed rules do not specify those groundwater basins which the OWRB considers to be special source groundwaters. CPASA respectfully requests the OWRB include an appendix to its rules a list of all special source groundwaters.</p>	<p>The proposed rule defines special source groundwaters and delineates the location of special source groundwaters in relation to specific geographic areas (e.g. source water protection areas) and locations likely to influence the water quality of an overlying surface waterbody, such as Scenic Rivers. Identifying entire groundwater basins as special source groundwaters is beyond the scope of this proposed rule revision. However, future actions may include identification of additional special source groundwaters, as necessary.</p>
<p>2.5</p>	<p>PROPOSED RULE ADDITION 785:45-7-4(b)(5) TOXICITY</p> <p>CPASA strongly supports the OWRB’s proposal to protect groundwaters from toxic substances that detrimentally harm human, plant, animal, or aquatic life.</p>	<p>Comment noted.</p>
<p>2.6</p>	<p>PROPOSED RULE INQUIRY/ADDITION 785:45-7-4(c)(1)</p> <p>CPASA applauds the OWRB for adopting by reference the maximum contaminant levels specified in certain sections of the Code of Federal Regulations. For ease of reference, CPASA</p>	<p>OWRB staff appreciates that including an appendix with all of the maximum contaminant levels would provide ease of reference; however, to facilitate future regulatory updates</p>

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	recommends the OWRB include a table of the maximum contaminant levels in an appendix.	and clarity of application date staff finds it is best to not include a table.
2.7	In all, CPASA welcomes the changes proposed by the OWRB. Indeed, CPASA encourages the OWRB to promulgate similar rules for all surface waterbodies and groundwater basins instead of limiting the rules to aquifer storage and enhanced recovery.	Comment noted.
Conservation Coalition of Oklahoma		
3.1	The Conservation Coalition of Oklahoma (CCO) submits the following comments to the Oklahoma Water Resources Board (OWRB) proposed revisions to chapter 45 of its regulations dealing with water quality standards. The CCO generally supports the proposed revisions regarding aquifer storage and recovery activities and artificial aquifer recharge. Indeed, the CCO encourages the OWRB to adopt similar provisions for all water resources – both surface and groundwater.	Comment noted. Thank you for your participation in the water quality standards rulemaking process.
3.2	The CCO applauds the OWRB for setting forth clear and concise antidegradation policies for aquifer storage and recharge. Moreover, the CCO agrees that certain groundwater basins deserve additional scrutiny when engaging in activities, such as aquifer storage and recharge that have the potential to affect water quality.	Comment noted. Thank you, the work and cooperation conducted through the Aquifer Storage and Recovery (ASR) Workgroup provided a forum to develop groundwater quality standards that provide functionality for activities, such as ASR and groundwater beneficial use protection.
3.3	The OOC recommends, however, that the OWRB identify those groundwater basins meeting the classification of “special source groundwaters” and include such a list in an appendix.	The proposed rule defines special source groundwaters and delineates the location of special source groundwaters in relation to specific geographic areas (e.g. source water

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		protection areas) and locations likely to influence the water quality of an overlying surface waterbody, such as Scenic Rivers. Identifying entire groundwater basins as special source groundwaters is beyond the scope of this proposed rule revision. However, future actions may include identification of additional special source groundwaters, as necessary.
Oklahoma Aggregates Association		
4.1	OKAA supports the comments made at today’s Public Hearing of Bud Ground and Derek Blackshare regarding the proposed Groundwater Rules.	Comment noted. Thank you for your participation in the water quality standards rulemaking process.
Oklahoma Department of Environmental Quality		
5.1	<p>This letter is to show support for OWRB’s 2016-2017 water quality standards revision of OAC 785:45-7. These standards pave the way for DEQ’s prospective rulemaking for aquifer storage and recovery (ASR).</p> <p>As our state is preparing to mitigate the impacts of future droughts, it is important for us to develop administrative tools that promote the diversification of our water resources, including ASR, when appropriate.</p> <p>DEQ commends the OWRB staff for developing proposed regulations that are protective of our groundwater resources and at the same time, enable DEQ to proceed with the groundwork for its ASR rules.</p>	Comment noted. Thank you and ODEQ staff for leadership of the ASR Workgroup and cooperation with OWRB staff throughout the rule development process.
Oklahoma Farm Bureau		
6.1	Oklahoma Farm Bureau appreciates the opportunity to comment	Comment noted. OWRB staff appreciates the

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	<p>on the Chapter 45 proposed groundwater quality standards. We submit these comments on behalf of our membership. A statewide general farm organization with more than 90,000 member families, OKFB is the voice of agriculture in Oklahoma. OKFB represents farmers and ranchers with operations of all sizes who grow and raise a wide variety of crops and livestock. OKFB members hold hundreds of groundwater permits. This rulemaking directly affects them.</p>	<p>participation of the Oklahoma Farm Bureau in the water quality standards rulemaking process.</p>
<p>6.2</p>	<p>OKFB members' policy position has long supported aquifer storage and recovery in Oklahoma. The recent multi-year drought cost farmers, ranchers and rural communities an estimated \$2 billion. Many communities experienced emergencies as they ran out of water or their water source was threatened. After the drought, Oklahoma experienced record flooding. In 2015, some 65 million acre-feet of water left Oklahoma from the Arkansas and Red Rivers, with only a small percentage captured for use or reuse by Oklahomans.</p> <p>We have an abundance of water in Oklahoma; we just don't always have it where we need it and when we need it. We want a prosperous future for all Oklahomans, where communities have plentiful water now and in the future, and agriculture has the opportunity to develop and grow. In agriculture, we are very aware of the need to produce food and fiber for the world. The United Nations projects the world population to reach 9.7 billion people by 2050. As most of our agricultural production is exported, Oklahoma's farmers and ranchers are proud to feed our state and the world. Agriculture provides a \$40 billion economic impact to</p>	<p>Comment noted.</p>

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	<p>Oklahoma’s economy.</p> <p>Oklahomans are fortunate we haven’t experienced water wars, like in the states of California and Texas. There, public water supply and agricultural water have been battling each other, along with the challenges of record drought, infrastructure, environmental and endangered species tribulations. OKFB envisions an Oklahoma where public water suppliers and agricultural water users support each other, and where urban and rural communities appreciate the contributions of the other to our state’s thriving economy.</p>	
6.3	<p>The Chapter 45 proposed groundwater quality standards will be the foundation to an aquifer storage and recovery program for Oklahoma. ASR is not a new concept as it is used in several other states. ASR was acknowledged and promoted in the Oklahoma Comprehensive Water Plan. Aspects of ASR fit into several categories of OCWP priorities and recommendations, including but not limited to: Water Conservation, Efficiency, Recycling and Reuse; Water Supply Reliability; and Water Supply Augmentation.</p> <p>The OCWP acknowledged an agriculture artificial recharge program in the highly karstic Blaine aquifer in southwest Oklahoma, where water is not suitable for drinking due to natural conditions. The Blaine aquifer recharge program began in 1968, constructed by the Southwest Soil and Water Conservation District. Much later, the project became one of thirteen (13) demonstration projects implemented by the Bureau of Reclamation and local sponsors in cooperation with the Environmental Protection Agency and the United States Geological Survey under</p>	<p>OWRB staff appreciates the institutional knowledge and perspective provided by the Oklahoma Farm Bureau. Continued conversations regarding ASR projects applicable to agriculture operations and lessons learned from the Blaine Gypsum Groundwater Demonstration Project will be helpful. We look forward to working together as future ASR implementation rules are developed.</p>

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	<p>the “High Plains States Groundwater Demonstration Act” of 1983. The demonstration project began operation in June 1993 and was considered completed in October 1997.</p> <p>The Blaine Gypsum Groundwater Demonstration Project used gravity-flow recharge wells to augment groundwater supplies in an aquifer heavily pumped for irrigation. Crops grown included cotton, winter wheat, alfalfa and other row crops.</p> <p>The project demonstrated that artificial recharge using gravity-flow wells in the Blaine aquifer was economically feasible, with a benefit-to-cost ratio of four to one. Operation and maintenance costs were very low, largely because water treatment was not required.</p> <p>The Blaine project is quite different from the site-specific aquifer storage and recovery plans envisioned in SB 1219, adopted by the 2016 legislature. One, in the Blaine, because it was not a drinking water source, treating water to drinking water quality standards to recharge the aquifer was not required. (Although it was noted the fresh recharge water often improved groundwater quality.) Two, the irrigators using the recharge water did not seek additional permits to use “recovered” water but operated under their existing permits. Three, water was recovered into the Blaine by gravity-flow recharge wells, not forcible injection.</p>	
6.4	Having communicated with various state agencies that developed the proposed rules, it’s clear the agencies have a certain type of ASR project in mind: a project that would capture and treat excess	At times the ASR Workgroup has generally discussed different ASR project types as part of scoping and natural workgroup progress.

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	<p>water or water from municipal or industrial discharges. The water would be treated to drinking water quality standards prior to forceful injection. The Oklahoma Department of Environmental Quality would work with the water permit applicant to ensure their ASR plan meets water quality standards. The multifaceted details of an ASR plan will be developed and administered by ODEQ. The plan will require specifications on things such as siting, easements or land purchases, physical equipment requirements, appropriate water quality monitoring protocols, actual plans, and etc. ODEQ will be the implementation agency of ASR. OWRB simply issues the groundwater permit after all of the work has been done.</p>	<p>However, there is no intention to limit ASR projects in Oklahoma to a particular type or engineering approach. A variety of project types may be pursued as Oklahoma seeks to balance the combined goals of water quality protection and reliable water supply.</p>
6.5	<p>As ASR implementation rules are being drafted, we want to bring attention to the statutory jurisdiction of the Oklahoma Department of Agriculture, Food and Forestry. ODAFF has authority over point source discharges and nonpoint source runoff from agricultural crop production, agricultural services, livestock production, silviculture, feed yards, livestock markets and animal waste; stormwater discharges; and groundwater protection for activities subject to their jurisdictional areas of environmental responsibility. Agricultural irrigation does not require water that meets drinking water standards, so that issue causes us some concern about compliance and costs. However, we do not want to degrade our aquifers. OKFB supports ASR, but also supports environmental jurisdiction for agricultural activities administered under ODAFF.</p>	<p>Comment noted. This proposed rule does not address agency jurisdictional responsibility and in no way alters existing agency jurisdictional responsibilities as prescribe in Oklahoma statues. Moreover, it is expected that any future ASR implementation rules will be consistent with agency jurisdictional responsibilities as prescribed in statute.</p>
6.6	<p>An agricultural ASR project will undoubtedly differ from a municipal ASR project. Potential pollutants will differ as well. Different types of agricultural ASR projects will differ from each other. Sparsely</p>	<p>OWRB staff agrees that there may be a variety of ASR projects in the future. It is expected that ASR implementation rules will provide for the</p>

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	<p>populated rural watersheds are very different from urban watersheds. Cropped watersheds will differ from grassland watersheds. An ASR for the karst Blaine aquifer would likely not be appropriate for the Ogallala aquifer. The source of the recharge water will be key to the required treatment.</p>	<p>consideration and evaluation of individual projects.</p>
6.7	<p>Many policy and technical questions will arise as implementation rules are developed. We will be as active in this process as the agencies will allow. Too often, agencies have closed “technical” workgroups, like the workgroup that brought forward these proposed rules. At the very least, we believe non-agency persons should be allowed to observe such meetings. We understand agency technical meetings may not be subject to the state’s open meeting act, however, open meetings would allow stakeholders to acquire the same education and background as agency personnel. It would facilitate stakeholder buy-in.</p> <p>The development of ASR for agricultural use is important for agriculture’s future in our state. We urge that it be pursued within the next five years, and not decades from now.</p>	<p>OWRB staff welcomes stakeholder participation and will continue to be inclusive and transparent in all phases of the rulemaking process. We will also work to provide additional information and opportunities for participation, as necessary.</p>
Oklahomans for Responsible Water Policy		
7.1	<p>We applaud the ASR Working Group and the OWRB for developing these amendments. We, however, strongly object to any exclusionary language, as suggested during the Public Comments section at the January 2017 OWRB meeting, that exempts a class of individuals, organizations or industries from these rules. “Holding ponds” and “impoundments”, if they meet the definitions for surface waters included in the rules, must be subject to the rules in order to achieve the goals and purposes for</p>	<p>Comment noted. The proposed rules are intended to create new criteria that are applicable to AR & ASR activities. The proposed rule does not make any changes related to “holding ponds” or “impoundments.” See Response to Comment 1.1. Thank you for your participation in the water quality standards rulemaking process.</p>

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	which those rules exist.	
	Saba Tahmassebi, ODEQ	
8.1	<p>I am the agency chief engineer for DEQ. And it is a pleasure to address the Board. Thank you for the opportunity. This whole ASR business started a year a half ago, two years ago, when JD Strong, Ms. Cunningham's predecessor and I happened to be in a long car ride to Tulsa. We tried to resolve the world's problems as we were listening to very, very loud Pink Floyd music. We thought ok, with this drought what are we going to do . . . how are we going to address the mitigating impacts of the draught? And we came up with some very good ideas. One of the ideas was to have a, ah, develop a tool to help folks who want to regionalize their water resources, that they can effectively use this tool to find out what the neighbors are doing what the groundwater parameters are. Ms. Cunningham herself was part of that work group. And that work is completed. And ah, you talk to somebody talk about Northwest. Just a couple of weeks ago I presented that final product to the Northwest Water Action Plan. This is Brent (Brinks?) Keesler's Group. And it was very well received and they will be using it and we are very proud of that.</p>	Comment noted.
8.2	<p>The other things that we are doing are very aggressively pursuing water reuse in Oklahoma. Among other things, we decided to form a work group, which was really an expert work group to address ASR in Oklahoma. Monty had in his presentation, who the members were, and they really are the cream of the crop, both in-state and nationally. We all got together and wanted to come up</p>	<p>Comment noted. Thank you and ODEQ staff for leadership of the ASR Workgroup and cooperation with OWRB staff throughout the rule development process.</p>

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	<p>with ideas as to how we were going to do ASR. One thing we decided was that the water rights issue needs to be addressed. And then the Water Board, they had the Senate Bill 1219 passed which paved the way for addressing the water rights issue.</p>	
8.3	<p>The second obstacle was the ground water standards, which for the most part precluded any ASR in Oklahoma in drinking water. Well, to conclude . . . we think this a great rule. We all worked on it very hard. Monty is a very tough negotiator. We made sure that groundwater was protected the same way it is now for when you don't do ASR. Consider the fact that an ASR project is a project that is that takes . . . oh, time is up.</p>	<p>Thank you for the ODEQ support of this rule. OWRB staff valued the agency cooperation while developing this proposed rule and the effective process of working with the ASR Workgroup. OWRB staff's recommendation referenced in the Response to Comment No. 1.1. is intended to ensure that groundwater is protected, in regards to criteria, the same way it is currently protected when AR and or ASR activities are not involved.</p>
	<p>Bud Ground, Environmental Federation of Oklahoma</p>	
9.1	<p>EFO is an organization that represents industry across the state, all industry . . . from paper mills, power plants, oil and gas, refineries.</p>	<p>Comment noted.</p>
9.2	<p>I was involved in the entire process. I even helped the passage of the Senate Bill 1219 last session. EFO believes this is a very good . . . the intention of this process is very good. Ah, but, what we really watch for is unintended consequences. And I do believe through my participation that some of this was changed. I think it is much better, but we still have to . . . the more eyes should get on it, the more you see of these potential unintended consequences. Because the intent is great. The interpretation sometimes is</p>	<p>OWRB staff values the thoughtful comments provided by EFO in the public stakeholder meetings and the participation of EFO in the rulemaking process. Staff did revise the proposed groundwater quality standards based on comments made during the public stakeholder meetings.</p> <p>The proposed groundwater quality standards</p>

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	<p>varying between people. And the application as we are talking about can be different from what was originally intended. So we really need to watch that. Um, the implementation by these other agencies we will be involved with as well to make sure that this carries through.</p>	<p>were developed over a year-long period in cooperation with the ASR Workgroup. The ASR Workgroup members represent diverse interest and have a variety of expertise, which served to fully vet the proposed rule, reach broad consensus regarding the rule intention and applicability, and minimize the risk of unintended consequences. If unintended consequences do arise, it is anticipated that a future rulemaking could address the issues at that time.</p> <p>The ASR Workgroup is still in place and currently turning its attention to address ASR implementation activities. The ASR Workgroup will continue to be a forum for open discussion and collaborative work between Oklahoma's environmental agencies and various stakeholders. OWRB staff finds that questions related to implementation approaches for the proposal rule will be best addressed in ASR implementation provisions, which will developed in a transparent participatory process through the ASR Workgroup, not in the groundwater quality standards.</p>
9.3	<p>But there are a lot of questions on it and I know that you will listen and hear these today. But we, we need to make sure, as, as I have tried to through this whole thing that this does only apply to intentional aquifer storage and recovery. Not unintended through</p>	<p>Questions and concerns regarding intentional aquifer storage and recovery versus unintended recharge were discussed at the public stakeholder meetings on (October 7, 2016 &</p>

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	<p>something like a storm water ah, holding pond. I brought up a farm pond during the ah, during the ah, meetings and there were many people that just, you know, they just thought that was crazy. But, this . . . that is an unintended consequence. An intentional aquifer storage and recharge. An intentional conduit to . . . a . . . an aquifer; not an unintended. So that is something that we as industry want to make sure because we have many of our industries use different types of storage ponds, different types of holding ponds, different types of treatment facilities that as we go through this wouldn't want make sure that does not impact in any way our current status of what we have on, ah, regulations and legislation currently.</p>	<p>November 3, 2016). In response to this discussion, OWRB staff explicitly stated in the “<i>Aquifer Storage and Recovery</i>” definition that “... <i>ASR activities also shall not include groundwater recharge or augmentation through a natural connection with a farm pond or other impoundment otherwise authorized by law.</i>”</p> <p>The proposed rule states that criteria found at 785:45-7-4(c) only apply to ASR and artificial aquifer recharge activities. In addition, OWRB staff’s recommendation referenced in the Response to Comment No. 1.1. and 8.3 are intended to ensure that this GWQS revised criteria applies to intentional aquifer storage and recovery</p>
Derek Hardberger, EOG Resources		
10.1	<p>First, I want to thank ya'll for allowing us, myself, and Derrick Blackshear, the Derrick Squared, to speak today and thank you for the committee who developed this rule, for this service. It's a . . . it's a good intention, like Bud says. A lot of what he says, I echo.</p>	<p>Comment noted.</p>
10.2	<p>But to put a little bit of a finer point on it, a lot of what was talked about today was expressed in terms of criteria and standards, which to me and to the folks I work with means, clean water act and protections of the waters and that sort of thing.</p>	<p>Consistent with Oklahoma statute’s OWRB originally promulgated the Groundwater Quality Standards for the management and protection of groundwater quality in the 1990s (785:45-7). These rules utilize the terms “<i>criteria</i>” and “<i>standard</i>” in a manner germane to groundwater quality rules in Oklahoma. The use of the terms</p>

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	<p>And in the rules, are a little bit vague in terms of what it covers. And one of the examples that Monty brought up was impoundments.</p>	<p><i>“criteria”</i> and <i>“standard”</i> does not imply any Clean Water Act context in Oklahoma’s Groundwater Quality Standards.</p> <p>Both the existing groundwater quality standards and the proposed revisions to the groundwater quality standards include clear direction regarding applicability. For example, definitions of ASR and artificial aquifer recharge clearly define these activities which allows for particular criteria to apply to these activities. Additionally, other components to the standards such as, the Scope, Applicability, and Purpose (785:45-7-1) and the Beneficial Use Designations (785:45-7-3(2)) work to structure the standards so their application is clear and functional.</p> <p>See response to comment 1.3 and 9.3 regarding impoundments.</p>

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10.3	<p>And, when Bud talks about unintended consequences, I think one of the unintended consequences here to put a finer point on it, is a concept of point source. Point source is defined in your rules, in Chapter 45, the very chapter that is being amended. It, without going into it, it is defined as discrete conveyance. Our position is that an impoundment is not, in fact, it has been litigated across the country, as it stands right now, that is not a point source. So, I think that the idea of regulating ASR, I think it is a good idea but in terms of what the scope should be regulated, I think there should be a finer point on it, and should be specifically recognize that impoundments are not a point source and that could be corrected in the rules, the definitions and in the text of actual 45 7-4. That's it.</p>	<p>See response to comment 1.4.</p>
Derek Blackshear, EOG Resources		
11.1	<p>Good morning Madame Chairman, Board members. I am your second Derrick of the Derrick Squared. First of all, we would like to represent EOG and say that we support the rule. And believe the rule and intent of the rule is a good rule and further, firmly support groundwater protection standards.</p>	<p>Comment noted. Thank you for your support of this proposed rule and support for groundwater standards.</p>
11.2	<p>Some of the unintended consequences that Bud mentioned is some of our concerns . . . that are brought up specifically on the narrative criteria that Mr. Porter referenced. We'd believe that they impose additional restrictions on activities that are some of the unintended consequences. And specifically, they contradict what is referred to often as the state Senate Bills 597 or the 82, Oklahoma Statute 1020.2 rule which has to do with stream and groundwater augmentation. And would simply request clarification</p>	<p>See response to comments 1.1 and 9.2. Moreover, OWRB staff's recommendation referenced in the Response to Comment Nos. 1.1, 8.3, and 9.3 are intended to address concerns of unintended consequences specifically related to application of the proposed narrative criteria.</p>

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	in the rule that the . . . that conflict be resolved.	
11.3	A related consequence is on the economic impact, if that does effect ground water augmentation through the mining operations which effects a lot of industry within the state, there is an economic impact related to that. So we simply ask that would be considered.	See response to comment 1.2.
11.4	Some of the proposed changes, that could accomplish Mr. Hardberger's or Mr. Ground's comments would satisfy and take of these comments. We appreciate your favorable consideration. Thank you.	Comment noted.
	Marla Peak, Oklahoma Farm Bureau	
12.1	Good morning. I'm Marla Peak with the Farm Bureau. Appreciate being here. We have more than 90 thousand member families, at with all different kinds of crops and livestock operations with all different sizes. Our members hold thousands of groundwater permits. This is a big issue to us. We have long supported ASR. As you well know we talked about the drought earlier. That drought, we estimate, cost rural communities and agriculture 2 billion dollars over multiple years. And then when we had rain, 65 million acre feet left Oklahoma through the Arkansas and the Red Rivers. So we need something like this to augment our water. Farmers and Ranchers think about and feeding and clothing the world. And the one's that I know of are very proud of that. We are looking at a population of 9.7 billion people by 2050. That is a lot of people to feed. We are fortunate that we have not had water wars like they have in Texas, California. Pitting municipal and agriculture against each other. They also have issues like infrastructure and environmental and endangered species issues	Comment noted.

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	which we haven't seen here yet, thankfully.	
12.2	<p>We think these proposed rules are a good foundation to get started on this. The Oklahoma Comprehensive Water Plan acknowledges this; there is a special paper on it. ASR fits into several of the priority issues and recommendations from the Oklahoma Comprehensive Water Plan. The Blaine aquifer was mentioned earlier. The Blaine is not like anything else in the state. It is non-potable water. Water was not injected into the Blaine. It was gravity . . . you use water . . . to me that is a passive way to put water into the aquifer. It did not have to meet water quality standards because it was non-potable. I understand that is our only . . . considered to be our only non-potable aquifer in this state.</p>	See response to comment 6.3.
12.3	<p>After visiting with the various state agencies, its . . . it's been mentioned how this thing is going to work. And we are very concerned about what is this going to actually to look like. And think you have seen that it is anticipated that there will be a permit and a process permit through DEQ.</p> <p>We question the statutory jurisdiction that agriculture has a lot of authority over this which has not been anticipated. We want to make sure that agriculture stays in the forefront of this. We want to see a project in five years not decades from now. And we'd like to at least observe the technical work groups.</p>	See response to comments 6.4, 6.5, and 6.7.
	Brian Meyer, Burns & McDonnell	
13.1	I will keep this really short, because I would end up repeating a lot of what's already been said. What I really want to emphasis is that I really applaud the state and the agencies for taking the action to	Comment noted. OWRB staff appreciates the experience and expertise you have provided as part of the ASR Workgroup.

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	<p>develop a tool to support water supply sustainability and drought resiliency in a time when it is really needed. And I think these steps, even though they are early steps, they are critical steps, and I applaud the state. Thank you.</p>	