

Local Input Meeting Report



#17

Sulphur, Oklahoma

Murray County Expo Center

Hilliard Hall

July 17, 2007

Project Description

The Water Research Institute, at Oklahoma State University, is working under contract with the Oklahoma Water Resources Board to update Oklahoma's Comprehensive Water Plan. The Institute has designed an innovative process that combines citizens' ideas with the assistance of water experts in formulating policy recommendations. This process seeks to rely on the citizens' values for guidance in making tough choices about management of our State's water resources.

The first phase of this process consisted of 42 Local Input Meetings held throughout the State beginning in April 2007, at Beaver and ending on Nov. 15, 2007, at Idabel. The purpose of the meetings was to gather citizens' ideas, questions, suggestions and concerns about Oklahoma's water resources. This report is a comprehensive list of the comments received at this meeting.

In addition to the Local Input Meetings the public participation process consists of four other components. During the second phase, beginning in 2008, the Institute will conduct 11 regional meetings where selected participants will review the comments, consolidate similar issues, and prioritize them. Planning workshop, where participants will work to development management alternatives, is scheduled to begin in 2009. The Oklahoma Academy for State Goals will hold a special Town Hall meeting, in the spring of 2010, where citizens will develop consensus recommendations. These recommendations will be forwarded to the Oklahoma Water Resources Board for consideration/inclusion in a draft updated Comprehensive Water Plan. In the final phase the Institute will again conduct 11 regional meetings. At these meetings, the Institute will receive feedback and implementation suggestions on the draft Water Plan. Comments received at these meetings will be forwarded to the Water Board who will finalize the Plan and submit it to the legislature and the governor.

For more information visit the Institute's website at <http://okwaterplan.info>, email them at waterplan@okstate.edu, or by phone at 405.744.9994. You may also contact the Oklahoma Water Resources Board at www.owrb.ok.gov or 405.530.8800.



Meeting Agenda

Time	Topic	Speaker
6:34 pm	Welcome	Wes Lee, Educator Murray County Cooperative Extension Service
6:36 pm	Purpose of Meeting and Introduction of Staff	Mike Langston, Assistant Director Water Research Institute
6:43 pm	Water Challenges in Oklahoma	Duane Smith, Executive Director Oklahoma Water Resources Board
7:23 pm	Comments from the public	Public Participants
8:50 pm	Meeting adjourned	

Attendees

Water Research Institute Staff

Mike Langston, Assistant Director
Jeri Fleming, Communications Manager
Alison Stone, Administration Specialist

Oklahoma Water Resources Board Staff

Duane Smith, Executive Director
Dave Dillon, Director of Water Planning

Oklahoma Cooperative Extension Service Staff

Wes Lee, Murray County Extension Educator
Debbie Sharp, Murray County Extension Educator

Public Participants

106 citizens

Comments

One hundred twenty comments were received from the meeting participants. Comments were submitted both orally and by comment card. The comments are organized alphabetically by topic. Each comment is preceded by a unique identification number that will remain with the comment throughout the process. *Additional comments were submitted online to the website and are not included below; however, there is a separate report that lists all comments received through the website, by fax, mail and phone.*

Water Management

Agencies

- **Su34** The Noble Foundation has too much political power. They have stopped lakes from being built before and they spoke against it in the Murray County meeting. They should have no say!
- *Jurisdiction*
 - **Su6** Groundwater quality – There needs to be communication between environmental agencies about where polluted water is located. The EPA will not post the water as being unsafe and the OWRB does not have authority to do so and this needs to be addressed.
 - **Su31** I would like the OWRB's primary area to be water protection and not water sales.
 - **Su44** The Water Board needs authority to do surface stream pump inspections.

Conjunctive Management

- **Su5** I am concerned that my rights as a domestic groundwater user not be changed or intermingled with surface water. We need to also make sure we have enough water to take care of our cattle.
- **Su47** Groundwater withdrawal needs to be managed because it affects surface water and other groundwater users.
- **Su61a** It is my hope that the new plan will recognize the interaction between groundwater and surface water.
- **Su71** As a rancher/farmer, I do not want groundwater rights intermingled with surface water rights so that my right to drill wells for cows and irrigation (as is restricted in Colorado) is preserved.
- **Su90** Ground and surface water must be tied together.
- *Legislation*
 - **Su72** Both science and reason tell us that there is no disconnect between groundwater and surface water which flows from the ground. Therefore, the plan must recognize and incorporate this fact.
 - **Su100b** The conception of conjunctive use should be a part of any water use and sale also. The definitions of waste and conjunctive use should be defined by the legislature for the best benefit of all of the people in Oklahoma and the future of the state.
 - **Su114** Sustainable Management/Conjunctive management: For many years, Oklahoma has managed surface waters and groundwaters as totally separate entities. Groundwater has been permitted on a mining concept that theoretically allows for complete depletion of an aquifer in 20 years. In 2003, the Oklahoma Legislature passed Senate Bill 288 that recognized groundwater and surface water as integral parts of the same hydrologic systems. S.B. 288 further required that permitting of the Arbuckle-Simpson be managed so that springs and streams are sustained for future generations. The comprehensive water plan should consider applying this sustainable management concept to other aquifers in Oklahoma.

Conservation

- **Su8** The fact that we have water running down the streets (from lawn watering) when lakes and aquifers are drying up should be looked at. We should have more conservation measures in place that are enforceable during times of drought.

- **Su60** It is my hope that the next statewide plan will move Oklahoma from a model of utilization to a model of water conservation.
- **Su91** Conservation of our water should be mandated to protect future generations.
- **Su93** Conservation measures should be in place and enforceable to regulate water use in times of drought.
- **Su117** Our aquifer covers 2.3 million acres. Wonderful pristine water. Less than 1% usage. The aquifers should not be compromised.
- *Education*
 - **Su77** Education - not just for children but adults and young adults. Begin by expanding the "conservation essay contest." Add more contests. Give away adult things like a boat, stays at lakes, etc.
 - **Su78** Education - Identify institutions that will lead - universities, companies, etc. Help institutions lead by example.
 - **Su79** Education - Talk about water in gallons NOT acre-feet.
- *Sustainability*
 - **Su51** We need to manage water resources in Oklahoma based upon an equitable, sustainable basis.
 - **Su76** The oil and gas model for mining aquifers should be abandoned and replaced with the principle of sustainable yield.
 - **Su94** The plan should be based upon the principle of sustainable use of both surface and groundwater resources. Water is not a mineral to be mined and depleted.
 - **Su97** The plan might include both legislative and financial elements. Some existing practices might not be sustainable uses. State assistance in science, education, and finance to assist transition to sustainable practices would be helpful.
 - **Su98** The plan must guard against a "gold rush" mentality toward water and water rights. It should enable sustainable economic growth for the citizens of the State, not enrich water speculators.
- *Technology*
 - **Su80** Conservation - Identify water saving products for homeowners and institutions.
 - **Su81** Conservation - Change ways of raising crops, going to the bathroom, brushing teeth.

Economic Impacts

- *Development*
 - **Su83** Business Development- Change the Chamber of Commerce and legislature's attitude by identifying businesses that support our State's water goals.
- *Recreation*
 - **Su69** I would like to see, in addition to the comments made tonight, a study from the water plan to consider recreation water use as a major factor as well. Tourism is the #1 revenue for Murray County. If the springs and lakes dry up, the towns will also. We need the water plan to study revenues that tourism from water recreation brings to our State.

Health

- *Ecological*
 - **Su30** I would like to see measures to protect the wildlife supported by streams and rivers, in the plan.
 - **Su62** I hope the next water plan will provide monitoring and data collection on all waterways to ensure enough water is available to keep the natural environment and community of wildlife healthy.
 - **Su65** Flow also goes hand in hand [with] stream water quality.
 - **Su74** Preserving stream flows, in quantity as well as quality, should be one of the highest ranking priorities, based on reason. Oklahoma's creeks and rivers are vital to our collective way of life.

Infrastructure

- **Su55** I am concerned that the State will not help to identify places where lakes or storage reservoirs should be built for rural areas.
- *Funding*
 - **Su22a** The NRCS watershed dams have been very worthwhile and we should pursue getting more federal money to maintain and add additional flood control dams.
 - **Su112** Unique Surface Reservoir Sites Zoning: There are three major aspects to reliable water supply-storage, treatment, and distribution. Storage is essentially limited to underground reservoirs (aquifers) or to surface reservoirs (lakes). There are very few Oklahoma sites remaining that are hydrologically, geologically and topographically suitable for major surface reservoirs. As development encroaches on these sites, it becomes increasingly difficult and expensive to construct the additional surface reservoirs that will surely be needed in the future. The state of Oklahoma needs to consider some type of water easement and payment system that will preserve the most promising sites for reservoirs that may not be built for 50 to 100 years.
 - **Su116** Revolving Fund for Building Reservoirs: The OWRB Financial Assistance Program began with a appropriation of \$25 million in seed money in 1983. Since that time, through the OWRB's five loan and grant programs, about \$1.65 billion in financing has been provided for water and sewer projects in Oklahoma through low interest loans and grants. It is suggested that a similar consideration be provided in the OCWP to provide seed money for the construction of reservoirs at the remainder of Oklahoma's potential sites. A priority of construction sites should be listed in the OCWP based on areas of need versus areas of projected water shortage. Since the time span between the approval of reservoir construction and a completed water supply is measured in decades, this will be a long-term investment. However, at those sites identified in the OCWP as areas of need, the demand for water will be evident at the time of completion of the reservoirs, and the seed money may be financed by the sale of water.
- *Maintenance*
 - **Su20** A lot of the area of Lake Texoma is filling in, and we need to do something to improve the holding capacity such as removing the sediment.
- *Needs*
 - **Su11** There appear to be no plans for new lakes in the State and with all the water that is currently running out of our State, we should be capturing more of that water by building more lakes throughout the State.

- **Su49** With current technology, we probably need some impoundments, but we need to carefully consider any future impoundments on streams because they are expensive, temporary, damage stream ecosystems, and address temporary floods by permanently flooding significant acreages.
- **Su57** I support increased capture of water.
- **Su59** I support the construction of more upstream dams.
- **Su70** I own a large piece of property in Springer, OK. I currently cannot buy a water meter for a single home or, as I have planned, a housing development. The main 6" line is a mile away and the cost of replacing this line is expensive. A well is a possibility but that is also hit or miss. What can I do to build my dream home for my family?
- **Su82** Preservation- We must have more reservoirs, not just the conservation types, but real reservoirs. We should return to a plan of completing a reservoir a year for another 60 years.
- **Su101** The plan should recognize the water needed by rural water systems and municipalities when expansion occurs. Determine how will our water supply and usage change in times of drought? What areas will receive the greatest impact and how will their needs be met?
- **Su113** The potential for increasing aquifer recharge should be investigated as part of a comprehensive water plan. The limitation on the use of water from the Arbuckle-Simpson Aquifer is a direct function of the amount of rainfall that falls on the aquifer recharge area. Past studies have estimated that of the approximately 40 inches of average annual rainfall in the area, less than five inches actually recharge the aquifer. This recharge rate translates into about 82 million gallons per day in the 360 square miles eastern or Hinton Anticline region. Increasing the recharge rate by one inch per year would increase the amount of water available by 16 million gpd for spring flow and/or pumping from wells. Aquifers offer many advantages as water storage reservoirs. Evaporation losses are low, potential for contamination is relatively low, and it is not necessary to own the surface area. In the case of the Arbuckle-Simpson, a series of 5 to 50-acre flood control structures offer the potential for enhanced recharge if these were specially designed to leak their contents into the aquifer between rainfall events.

Planning

- **Su2** The time frame for the water plan is too long. This should have been done years ago. If we need additional funding, the legislature should appropriate it. If we had done this earlier, Texas would not be trying to take our water now. We need to decide what we are going to do with our water. We need to protect the water in the state of Okla. We have to have this plan move forward as fast as possible and the money needs to be found to do that. We need to stop Ft. Worth from coming in and taking our water.
 - **Su111** The plan should follow the lead of our neighboring states that have developed good water law and completed scientific studies. Accomplish this by the retention of eminently qualified hydrologists, water rights attorneys and other experts necessary to analyze and protect our most valuable resource. We demand that these experts include some from outside the state of Oklahoma; thereby, eliminating the political side of the study and keeping it scientific.
- *Interstate Cooperation*
 - **Su109** The plan should recognize that the Red River Compact defines prior water commitments. It also defines apportioned quantity and is monitoring water quality.
 - **Su110** The plan should recognize that Louisiana and Arkansas are monitoring both quantity and quality of water, especially salt content as they use the Red River water for

irrigation and as a source of drinking water. Both states are positioned to sue if their water is adversely affected.

- *Priorities*

- **Su13** The plan should prioritize residential use first. For example, the mining operations that are coming into this area are not procuring water rights prior to beginning mining and the water board should not allow them permits after they have begun the mining operations. When the mining operation came in, there was concern that the mining operation's wells would drop the water level and they have. This has limited the available groundwater and because there are no plans for a rural water system here, I fear there will not be sufficient water for the area.
- **Su25** The environment should be weighted higher than industry regarding water use.
- **Su35** Domestic groundwater use for households should be given highest priority.
- **Su48** We should prioritize water uses so legitimate future uses are not precluded by past decisions or previous claims.
- **Su95** A "best practices" approach to balancing competing demands for water should be employed. It would rely on the best available science. It would include study of already existing state water plans to discover what practices work well and what do not. It would recognize the particular realities of Oklahoma and adapt "best practices" to our realities.
- **Su96** As far as possible, the plan should attempt to balance the water needs of cities, towns, and farms and ranches, so that existing and future uses do not degrade or diminish the supply of water to others.

- *Regional Differences*

- **Su3** Eastern and western Oklahoma are not the same and the water plan should take this into consideration.
- **Su92** The plan should take into consideration the economic and cultural differences in the various parts of the State.

- *Research*

- **Su29** Science and not dollars should determine how our water plan is written.
- **Su73** The Statewide water plan must be based on sound science-the best available- and reason.
- **Su75** We must recognize that there is much science we don't yet know about our aquifers, so we should continue studying them.
- **Su103** The plan should determine how much water Oklahoma has. This should include, but not be limited to, current scientific studies of all aquifers. The streams should have gauges in both the slow and rapid moving water collecting enough data so as to qualify as a scientific study. Oklahoma lakes should be studied with particular attention to the economics of tourism, addressing the needs for both fish and the fishermen.
- **Su104** The plan should determine how much water Oklahomans are presently using. The calculations should recognize that many rural Oklahomans must haul water for drinking and cooking.

- *Revision*

- **Su105** The plan should determine how much water Oklahoma needs to meet the requirements of future generations for the next 100 years. Regular updates should be mandated. Water should be available to meet the needs of Oklahoma homes, agriculture, industry, recreation, tourism, and wildlife.

Policy/Regulations

- *Enforcement*
 - **Su24** There should be a policy in place to punish bad actors.
 - **Su33** Fines should be severe for water polluters and for those who violate water regulations.
- *State Regulations*
 - **Su15** I'm concerned about cross connection between any wastewater effluent lines and irrigation wells. There should be manual disconnects between the well and effluent line to prevent contamination of groundwater.
 - **Su42** I have found throughout the last year that definitions and terms used in water permitting such as "beneficial use" and "interface with downstream users" are subjective. They need to be qualitative and quantitative. Beneficial use needs to be addressed from a conservation mode. I spent last summer and fall battling Martin Marietta and DEQ with a million gallon sewer dump in my creek. There are no controls in place with DEQ and the Water Board doesn't have the authority or monies to do necessary monitoring.
- *Permits*
 - **Su37** The plan should require water permits be obtained before mining permits are issued.
 - **Su38** Residential usage for rural property owners should be a number one priority if the rural property owners rely solely on water wells located upon their properties.
 - **Su45** Allocation of stream water needs to be based on a seasonal application and a percentage of the base stream flow so there would be water for everyone.
 - **Su52** It should be mandatory for entities to implement conservation and optimization practices, prior to applying for new permits.
 - **Su64b** There should be a reduction of all permits during drought or seasonal variations.
 - **Su66** Decrease the amount of water permitted in permits from acre-feet to inches.
 - **Su67** A study should be done on all springs and creeks before permits are issued.
 - **Su102** The plan should monitor for 10 years both rapid-flow and slow-movement in all streams before using permits to remove water from any location, especially those that may have impoundments to capture water for transfer.
 - **Su115** Graduated Water Permit: There are four types of groundwater permits issued by the OWRB, including regular, temporary, special, and provisional temporary. The maximum annual yield of a groundwater basin is determined based on the overlying surface area being fully permitted. Since this is rarely the case, there should be a rule change that would allow the OWRB to issue two permits: (1) a regular permit based on the maximum annual yield, and (2) a temporary permit for an amount of withdrawal governed by the percentage of the basin for which regular permits have been issued. The temporary permit will be reviewed annually and the rate of withdrawal reduced accordingly as the percent of the basin obtaining regular groundwater permits increases. The purpose of the proposed rule change is to allow water users with temporary permits a grace period, after the maximum annual yield has been determined, to make alternate water supply arrangements such as purchasing or leasing additional land,

forming a water district, connecting to another water source, or constructing a surface reservoir.

- *Taxes*
 - **Su84** If we are going to have businesses that deplete our resources, then make them pay. Why should we always be cheap and easy?
 - **Su85** The mining industry is an industry that should pay a depletion tax that benefits the general population of Oklahoma.
 - **Su86** If it is inevitable that our air will be dirtied, our water taken, and our land devoured, then a monetary benefit should be returned to the people of Oklahoma by way of taxes.
- *Water Rights*
 - **Su63** Oklahoma needs a comprehensive water plan based on new water law that views water as a State-owned resource and not as a property right of individual property owners.
 - **Su106** The private property right to personal, responsible use of water for the livelihood of the family should be protected.
- *State Statutes*
 - **Su7** The present policy of a 20-year depletion of our aquifers should be eliminated.
 - **Su9** We should prohibit mining of any aquifer in the State and we should limit water withdrawal from those aquifers to the amount of recharge each year.
 - **Su14** Ada takes their water out of the Byrds Mill spring but when the level in the stream dropped residents protested, and Ada had to drill wells that they must use if the level of the spring drops. The legislature should pass a law that states you can pump all the groundwater you want so long as you don't affect the groundwater under neighboring lands.
 - **Su28** The Arbuckle-Simpson aquifer should be considered a State treasure and not an asset to be wasted.
 - **Su39** The 1973-drafted groundwater law has had its intended effect, but with population increases and enlightenment about groundwater aquifers, it is time to change the law to balance uses. Also, to protect our aquifers, mining law must be made subservient to protection from pollution and waste by usage.
 - **Su53** New technologies and methods for conservation are available. Some of these are precluded from use due to State law. Those laws need revision.
 - **Su64a** Stream water flow for down-stream users ([should be] defined or have a better definition of flow).
 - **Su89** Eliminate the archaic, planned 20-year depletion of our aquifers.

Regionalization

- *Funding*
 - **Su56** We need funding for capturing water, drilling wells, and connecting to other water districts to form a loop of water that can be used if a source dries up in one area. Then one area could borrow from another.

Sales and Transfers

- *Compensation*
 - **Su12** If people are coming in and selling water off their property by drilling a well, it should monetarily benefit all the counties that overlie the aquifer.
 - **Su32** Large water mining should have to pay for their taking of water if not used on the land they have leased.
 - **Su108** Provide for appropriate economic compensation to donor basins when a water transfer is made between basins (Refer to Texas Senate Bill 1)
- *Control*
 - **Su27** The people in the State should have control in keeping the water in the State and in their area.
- *Interstate*
 - **Su36** If anyone is going to sell water to Texas or OKC, come visit me. In a 5 mile area, only 2 families have good water. One lady has filtered pond water for 40 years. These two families constantly worry about how much water we have for the future. I have to be considerate of my neighbor who shares our good water. (The other families have to filter pond water or filter salty water.) Maybe these people who want to sell water don't have to worry now but what about their great-grandchildren when their water can't be replaced?
 - **Su99** One of the most fundamental errors in our approach to water in our country and states is that we confuse wants with needs. In short, we waste and woefully conserve, if at all, the most scarce and vital resource on the planet, water. The federal law is clear, the sale of water is interstate commerce, and thus, is within the jurisdiction of the interstate commerce clause of the US Constitution. This results in the fact that unless the Federal Government says so, Oklahoma cannot prohibit the sale of water to another state no matter what our legislature says. There are other huge problems of ownership questioning whether the state of Oklahoma owns even a fraction of the surface water it claims it owns but that will not be addressed here. Oklahoma can; however, legally place conditions on the use of the water it gives, that's correct-gives, to permittees and in fact has done so by giving the OWRB the power to deny a water permit request if the water user would be wasting the water. The definition of waste provides a very broad latitude legally and politically.
 - **Su100a** It is entirely legally feasible to place stipulations on the sale or use of water that will in effect force conservation measures before the water is sold. Let us say for example that Dallas-Fort Worth wants to buy Oklahoma water, and we say well all other things being ok, when you prove that your per capita water usage is within a certain range and is held there for a reasonable number of years and so forth, and that other reasonable conservation measures are enacted, so that we know that you will need the water for growth, rather than want it for waste due to lack of conservation measures by your citizens, then we will commence negotiations for the potential sale of water. The same measures would probably have to apply to Oklahoma citizens to pass legal muster but that would help us rather than harm us.
- *Intrastate*
 - **Su58** I support controlled distribution of water.
 - **Su68** The State needs to be split up in regions or areas. Each area needs to design solutions for itself and not transport our water long distances. In order for water to recycle, it needs to stay in its original areas.
 - **Su87** The State should plan and facilitate movement of water where it is found to where it is needed through pipeline easements and financing.

- **Su88** The State should be divided into regional basins which should be somewhat autonomous. Water should not be sent out of a regional basin unless strict criteria are met. Each basin should be responsible for their own water use.
- **Su107** The plan should require responsible water usage in the recipient water basin before issuing permits that would transfer water from one basin to another.

Water Rights

- **Su4** We must protect our domestic users. Land was recently sold near Davis that is mainly rock and the concern is that they are purchasing the land for the water rights.
- **Su21** Water bottling corporations are becoming larger and worth more money. We need to be prepared to protect ourselves from them coming into the State and buying control of our water.
 - *Permitted Water Rights*
 - **Su1** We are concerned about the water rights granted to the gravel plants and whether the amount of water they are using is being monitored.

Water Treatment

- *Artificial*
 - **Su16** OKC should look at using some more advanced technologies for water refining (such as reverse osmosis, desalinization, and electro dialysis reversal). OKC is hesitant to use those methods because of the cost and they think they can get water from the Arbuckle-Simpson aquifer at little or no cost. Promoters, such as T. Boone Pickens aren't interested in these methods for treating water that runs right by the city because they won't make any money from them.

Watershed Management

- **Su19** I suggest restricting removal of vegetation along creeks and rivers. The banks need to be kept covered with something like Bermuda grass to help keep the banks from eroding. There has been a tremendous increase in siltation of the Washita River and the river has widened. Landowners should not be allowed to remove trees along the river bank as this is causing loss of cover and increasing the siltation. The landowners have pushed the trees into the river and these are now stacking up against bridges and are causing bridge damage.
- **Su22b** We should keep the banks vegetated to control erosion.

Water Sources

Both Groundwater and Surface Water

- *Both Groundwater and Surface Water*
 - **Su26** Quality and quantity are important and a plan should consider this first.

Groundwater

- *Quantity*
 - **Su23** I have a well that is 65 ft deep at my home and I think the mining operations across the road are depleting my groundwater. I used to have 15 - 18 feet of water in my well and now have 39 inches.

Surface Water

- *Quantity*
 - **Su50** Adequate stream flows leaving Oklahoma are also necessary to maintain estuarine ecosystems in the Gulf of Mexico and serve downstream users in other places.

Water Uses

Ecological Use

- *Habitat*
 - **Su41** All spring-fed rivers, streams, and creeks have to have minimum flow standards set. Last summer, Mill Creek was dried up by Martin Marietta Mining. The spring was putting out 1100 gal/min. So, they took it all. I have a permit that did me no good because there was no water available. It killed all the small mouth bass in Mill Creek. How can we let this happen?
 - **Su46** It is important that we maintain adequate (similar to natural) stream flows to conserve our native wildlife, fish and invertebrate (crawfish, mussels, insect, etc.) which are dependent on this resource.
 - **Su54** Stream ecosystems need to be conserved, along with their in-stream flows, and ecosystem services (recreation, water quality, cattle watering...)
 - **Su61b** It is my hope that the new plan will establish minimum stream flow standards.

Mining Use

- **Su18** Areas of a mining quarry should be used as holding ponds and that water used for quarry operations rather than taking water out of our rivers and streams.
- **Su43** On site storage is a must for mining operations. But the storage should maintain water, not leak because it is cracked and fissured.

Storage Use

- **Su10** We need to capture, keep and distribute the water we have within our State.
- **Su17** I suggest using surface water to recharge the Arbuckle-Simpson Aquifer by building dams and levies to guide water to sink holes.

ADDENDUM

Category Descriptions

- **Water Management**

- Agencies – Includes, but is not limited to, federal, state, and local agencies. Also includes rural water districts, jurisdictional issues, and additional funding needs by individual agencies
 - Federal – Comments regarding federal agencies that are not necessarily related to a law or regulation
 - Funding – Additional federal, state, or local funding opportunities for various projects
 - Jurisdiction – Limiting, expanding, or consolidating agency jurisdiction
 - Local – Includes cities, conservation districts, and other locally led authorities
 - Rural Water Districts – Suggestions that would affect rural water districts
 - State – Comments regarding State agencies
- Conjunctive Use/Management – Consideration of the interaction between ground and surface water
 - Legislation – Changes in Oklahoma law to recognize/not recognize the interaction of ground and surface water
 - Research – Identification of additional research needs concerning conjunctive use
- Conservation – Decreasing use and preservation of Oklahoma’s water resources
 - Education – Conservation education and educational resources
 - Incentives – State or local incentives to encourage water conservation
 - Research – Directed at water conservation measures
 - Sustainability – The continuous long-term availability of water resources
 - Technology – Equipment or other innovations intended to help conserve water
- Economic Impacts – The effects water has on the State’s economy
 - Development – Increased housing, industry, tourism, or other types of development requiring water resources
 - Population Change – The effect population change has on local and State economies
 - Recreation & Tourism – The impact recreation and tourism have on the State’s economy as well as the effect water management has on recreation and tourism
 - Regulations – The effect both federal and State regulation has on water districts
 - Sales – Concerns regarding the effect the sale of water will have on the State’s or basin of origin’s economy
- Health – The effect water quality and water quantity have on both human health and the environment
 - Ecological – The environmental impacts of water quality and water quantity
 - Health – The health effects resulting from a lack of available good quality potable water
- Infrastructure – Includes, but is not limited to, drinking water and waste water treatment facilities, pipelines, dams and other associated structures
 - Needs – New infrastructure needs
 - Maintenance – Maintenance of existing infrastructure

- Funding – Additional, continued or increased State or federal funding opportunities
- Planning – Comments regarding the planning process for the Oklahoma Comprehensive Water Plan
 - Interstate Cooperation – Working with surrounding states to avoid conflicts regarding water flowing into and out of Oklahoma
 - Priorities – The prioritization of water usage during times of shortage to avoid later conflicts
 - Public Participation Process – Comments regarding issues with the public participation process
 - Regional Difference – Recognizing water availability, uses, and rainfall variations across the State
 - Research – Identification of possible research needs during the planning process
 - Revision – The need for updating the plan more frequently than once every 10 years or so
- Policy/Regulations – Comments regarding various State and federal statutes (laws) and regulations (rules)
 - Adjudication – Court involvement in the management of Oklahoma’s water resources
 - Enforcement – Enforcement of current laws and regulations by the appropriate agency
 - Federal Regulations – Comments about federal laws and regulations
 - Incentives – Federal and State incentive programs to promote compliance with laws and regulations
 - State Regulations – Comments about State regulations or rules
 - Permits – Comments about the permitting process
 - Water Rights – Comments about regulations concerning water rights
 - Taxes – The levying of taxes to collect money for various reasons
 - State Statutes – Comments regarding Oklahoma’s water law
- Regionalization – the consolidation of water treatment facilities or other infrastructure by municipal and/or rural water districts
 - Funding – Federal or State funds available to help facilitate regionalization
 - Incentives – To help encourage regionalization of water treatment facilities
- Sales & Transfers – The artificial movement of water either in-state (intrastate) or out-of-state (interstate)
 - Compensation – Who should be compensated, how should they be compensated, and how much should they be compensated if water is sold or transferred
 - Control – Concerns about who would control the water and land if water is sold or transferred
 - Interstate – Out-of-state water sale or transfer
 - Intrastate – In-state water sale or transfer
- Water Rights – Who has the right to control or use ground or surface water
 - Private Property Rights – Rights to groundwater on private property
 - Permitted Water Rights – Both surface and groundwater permitted water rights
 - Native American Rights – Tribal claims to both surface and groundwater

- Water Security – Natural and man-made threats affecting water supplies
 - Disasters – Natural or man-made disasters affecting either water infrastructure or supply
 - Terrorism – Terrorist attack on water infrastructure or supply
- Water Treatment – Includes both natural and man-made water treatment suggestions
 - Artificial – Technologies for treating both drinking and waste water
 - Natural – Ecological (environmental) ways of treating both drinking, and waste water i.e. wetlands
- Watershed Management – The management of land, including development that affects water quality and water quantity
- **Water Uses**
 - Agriculture Use – The way water is used in the agriculture industry
 - Biofuels Growth – Suggestions and concerns regarding the increased growth of crops for biofuels
 - Commercial Use – The use of water by commercial enterprises such as small businesses, etc.
 - Conservation Use – Suggestions and concerns regarding various ways to use water in a way that will conserve it
 - Reuse – The reuse of various water supplies such as treated wastewater, gray water, and storm water run-off
 - Ecological Use – Maintaining sufficient water levels to ensure the health of wildlife and ecosystems e.g. in-stream flows
 - Habitat – Water uses to protect wildlife habitat
 - Research – Identification of additional research needs regarding the ecological use of water
 - Hydropower Use – The use of dams to produce electricity
 - Industrial Use – The use of water by factories, power plants and other industrial uses
 - Biofuels Processing – The use of water in processing biofuels in the State
 - Mining Use – The use of water in the mining industry
 - Oil & Gas Use – The use of water by the oil and gas industry
 - Private Domestic Use – Household water that is not supplied by a municipality or rural water district and includes both ground and surface water
 - Wells – The use of private domestic wells
 - Public Domestic Use – Household water that is supplied by a municipality or rural water district
 - Municipality – Household water supplied by a town or city
 - Rural Water District – Household water supplied by a Rural Water District
 - Recreational Use – The use of water for recreation and to promote tourism
 - Aesthetics – Concerns about the aesthetic beauty of Oklahoma’s water resources
 - Boating – The use of water for water recreation such as boating
 - Fishing – The use of water for fishing in the State’s water resources
 - Golf Courses – The use of water in maintaining the State’s golf courses
 - Storage – The storage of water in reservoirs, or in aquifers either naturally or artificially; may also include other storage methods such as cisterns
 - Transportation Use – The use of water to maintain Oklahoma’s navigation channels, i.e. McClellan-Kerr Navigation System

- **Water Sources**

- *Both* Ground and Surface Water – Comments referring to *both* surface and groundwater concerns
 - Quantity – The quantity of *both* surface and groundwater
 - Quality – The quality of *both* surface and groundwater
 - Both – *Both* the quality and quantity of surface and groundwater
- Climate – The effect climate has on water sources including global warming and rain
- Groundwater – Concerns about the State’s groundwater
 - Quantity – The quantity of groundwater
 - Quality – The quality of groundwater
 - Both – *Both* the quality and quantity groundwater
- Recycled Water – Non-traditional sources of water
 - Waste Water – Treated waste water as a water source
 - Gray Water – Gray water (water that comes usually from washing machines, showers, bathtubs, etc.) as a water source
- Surface Water – Concerns about the State’s surface water
 - Quantity – The quantity of surface water
 - Quality – The quality of surface water
 - Both – *Both* the quality and quantity of surface water